Consultation Skills Training and Practice: A Mixed-Methods Exploration of Perspectives from Junior Doctors, their Patients and other Clinicians.

Michelle Dianna Fromage

A Thesis submitted for the Degree of Doctor of Philosophy

University of East Anglia

The Norwich Medical School

Norwich

June 2013

Abstract

Background

Efficient and effective doctor-patient consultations have been extensively linked to many positive patient outcomes.

Aims

This project addressed the following research questions: Are junior doctors using effective consultation skills with their patients in the clinical setting and what do their patients think? How confident are junior doctors in their ability to perform effective consultations? What factors influence the teaching, learning and subsequent practice of consultation skills for junior doctors and other clinicians?

Research Methods

This mixed-methods project encompassed 3 interlinked studies.

- Study 1 used a parallel questionnaire to investigate junior (Foundation) doctors' and patients' assessments of a shared consultation. In addition, two self-efficacy scales (before and after consultation) were completed by the doctors.
- Study 2 explored the perspectives of junior doctors in more depth via semi-structured interviews.
- Study 3 used an online questionnaire to elicit the perspectives of more experienced clinicians.

Results

Patients scored doctors significantly higher than doctors scored themselves on the consultation skills questionnaire, and male junior doctors scored themselves significantly higher than females. Doctors' self-efficacy was high: male doctors scored higher than females and those in their last training rotation scored the highest. Interview data suggested that self-efficacy was affected by the junior doctors' perception of their 'role' within the clinical context and their medical knowledge. Consultation skills training and practice were affected by the doctors' inherent personality traits and aspects of the learning/clinical context to produce incremental progression of learning. Experienced clinicians reported similar factors as influencing their training, practice and self-efficacy.

Conclusions

In this project, effective consultation skills were used confidently by junior doctors and experienced positively by their patients. Many variables about the clinical context, the doctors and their patients interplayed to affect the way that consultation skills were learnt and subsequently practiced by both junior and more senior clinicians.

Table of Contents

List of Tables

List of Figures

List of Appendices

Dedication

I would like to dedicate this thesis to:

My precious family and friends, they have shared every step of this journey with me. They have been by my side through the ups and downs and I am certain that all my experiences were felt by each and every one of them.

My gorgeous husband Nyge, he has been an amazing source of love, pride and support throughout this epic journey.

My two boys, Jacob and Nathanael, they have both made me proud and have grown into handsome, grounded teenagers during my PhD experience.

I love and thank you all so very, very much.

Acknowledgements

This PhD project was carried out through the Norwich Medical School at the University of East Anglia and funded by a full-time research studentship.

I would like to say a huge thank-you to Dr Alexia Papageorgiou who was my primary supervisor. I am very grateful for her unwavering commitment to both myself and the project. She was a true inspiration and constant source of academic and emotional support.

My sincere thanks go to Dr Susan Miles who joined as my secondary supervisor when the PhD project was already up and running. I very much appreciate the time, patience and attention to detail that she always offered so willingly.

I would also like to offer thanks to Emeritus Professor Sam Leinster, Dr Gill Price and Dr Charlotte Salter for their time, encouragement and support as members of my PhD supervisory panel. The statistical support offered by Dr Gill Price and the advice given by Dr Charlotte Salter on qualitative research methods were invaluable to this project.

I would also like to thank Dr Peter Harrison of the James Paget University Hospital, Dr Nicola Holtom and Dr Tom Roques of the Norfolk and Norwich Hospital who all acted as my local collaborators at the research sites.

I offer my grateful thanks to Dr Melanie Keane for her advice and assistance in the planning of data collection and the piloting stages of the project.

I would like to extend my appreciation to Mary Webdale who gave me permission to spend many hours in the pre-operative assessment clinic at the Norfolk and Norwich University Hospital. Also to the nurses and administration staff at the clinic who were all welcoming and supportive during my time spent there and especially Michelle Knights and Hayley Nichols who assisted with the recruitment of patients at the clinic.

I offer my appreciation to all of the Foundation doctors who took part in this project and gave their time and commitment to filling out questionnaires and offering interviews. A special thank-you to all the patients of the pre-operative assessment clinic who completed my questionnaires and were often good company during the many hours spent there.

I would like to finally extend my gratitude to Christina Mason who very kindly offered to proof-read my thesis and did so with such positivity and precision.

Chapter 1: Introduction and Background

1.1 Introduction

The overall aim of this project was to explore the training and practice of consultation skills of Foundation doctors and other clinicians. The project encompassed 3 interlinked studies which made use of different methodologies to explore various perspectives of consultation skills training and working practice. Study 1 used quantitative methods (a hard copy questionnaire) to elicit both Foundation doctors' and patients' assessment of the consultation skills performed between doctors and their patients presenting in an actual secondary care setting. Study 2 used qualitative methods (semi-structured one-to-one interviews) to explore the perspectives of Foundation doctors on their undergraduate training in consultation skills and their subsequent use of that training in their everyday practice. Finally, Study 3 made use of an online questionnaire to elicit the perspectives of other more senior clinicians on their own consultation skills training and practice.

1.2 Background

Criticisms concerned with medical education and the content of UK medical schools' curricula have been made from as early as 1863 (DOH, 2003). These eventually paved the way for changes in the structure of undergraduate and postgraduate medical training. A major criticism was the overload of scientific knowledge that students were subjected to, which left little time for clinical skills to be learnt and practised by students and in turn meant that they were very often not prepared for their work as graduate doctors. It was not until 1993 that major changes were made to medical school curricula in the UK with the publication by the General Medical Council (GMC) of 'Tomorrow's doctors' (GMC, 1993) which advocated a reduction in factual overload and the creation of a core curriculum. The GMC set out a range of learning outcomes to be met by all medical schools. Later versions of policy documents by the GMC were published and built on the experience of the reforms in medical education (GMC, 2003, 2009). As part of this, medical schools were encouraged to adapt their curricula to include teaching that promoted patient-centred care and evidence-based practice, to produce students that are competent and can practice efficiently and effectively. The introduction of consultation skills training was a key part of the curriculum changes and as a result this training has gained credibility within clinical training and practice. Doctor-patient consultations are a fundamental part of clinical practice. The exchange of information between clinicians and patients is a key component of accurate

diagnosis and treatment of ill health. In spite of this, poor communication is cited consistently as a factor in patient complaints (Kurtz et al., 2005).

A review of the literature concerned with consultation skills training and the use of such skills in clinical practice was conducted. This suggested that the benefits of effective doctor-patient consultations are numerous. Effective consultation skills have been extensively linked to many positive patient outcomes, including satisfaction, decreased symptoms and improvement in psychological and functional status (Kelly, 2007). Furthermore, it has been found that doctors who are skilful and competent communicators identified their patients' concerns more easily, which promoted effective management of their health concerns (Cegala and Lenzmeier Broz, 2002).

However, the literature review revealed little research on whether junior doctors conduct effective consultations with patients in the early years of practice, and what factors within their training and practice contexts impact upon their ability to do so. This suggested a need to further investigate junior doctors' consultation skills training and practice.

1.3 Research Questions and Study Design

In order to explore consultation skills training and practice, the following research questions were identified:

- Are junior doctors using effective consultation skills with their patients in the clinical setting and what do their patients think?
- How confident are junior doctors in their ability to perform effective consultations?
- What factors influence the teaching, learning and subsequent practice of consultation skills for junior doctors and other clinicians?

It was decided that the best way of answering these research questions was through three interlinked research studies. Study 1 aimed to attain a current picture of whether junior doctors were using effective consultation skills with their patients by specifically asking them and their patients to assess shared consultations via questionnaires with parallel content. Additionally, the level of self-efficacy (one's own confidence in the ability to perform a specific task) among the doctors was explored by asking the doctors to plot their perceived levels of confidence (in their ability to communicate effectively) on a scale both before and after their consultations with their patients. In order to address the investigation of the factors that were influential about the training and practice of consultation skills, in Study 2 junior doctors were interviewed in a one-

to-one setting about their experience of their own training and practice using a semi-structured interview format. Finally, Study 3, an online questionnaire, addressed the perspective of other clinicians from both primary and secondary care settings, at various stages of their career. This was in order to identify factors that impacted upon their training and practice of consultation skills to complement and add further context to the first two studies with junior doctors.

The three studies aimed to address the research questions by exploring a set of specific aims:

- According to themselves and their patients, are Foundation doctors using consultation skills in an efficient and effective way in the hospital setting? (Study 1)
- How do Foundation doctors rate their self-efficacy both before and after consultations with their patients? (Study 1)
- What factors influence the training and practice of Foundation doctors' consultation skills? (Study 2)
- What are the wider perspectives of qualified clinicians about consultation skills training and practice? (Study 3)

1.4 Funding

Studentship funding for this project was received from the University of East Anglia, Norwich.

1.5 Structure of Thesis

This thesis begins here with Chapter 1 which offered a brief project-wide introduction. Chapter 2 will follow to provide a literature review and state the research questions to be addressed in this thesis. Chapter 3 will offer a project-wide description concerned with the methodology chosen for exploring the research questions, including a rationale for those decisions. Chapters 4, 5 and 6 will describe the findings of Studies 1, 2 and 3 respectively, each including a brief introduction, details of the methods used, description of the results and discussion of the study. Finally, in Chapter 7, a project-wide, over-arching discussion will be presented which will connect the findings from the three studies and situate them within the current literature on consultation skills training and practice.

Chapter 2: Literature Review

2.1 Introduction

The literature review examines why consultation skills training and the use of these skills in working practice needs exploration. Many aspects of both the training and practice environments impact upon consultation skills performance and need to be investigated. Recent research provides evidence that consultation skills training is effective in both medical education and clinical practice, and highlights factors that influence the teaching and learning of such skills, which affect the subsequent use of taught skills within the clinical environment. This chapter will describe how the research questions addressed in this thesis were derived from an examination of the current literature and perceived gaps in that literature.

The conceptualisation of the project and how that drove the literature searching strategies will be outlined including the steps taken during the literature search and review. A brief historical and political background of medical education will be presented in order to contextualise the project and provide an overview of the evolution of both undergraduate and postgraduate medical education and in particular the introduction of consultation skills teaching. Relevant research will be described and reviewed in terms of its relevance to the project as a whole, that is, the exploration consultation skills training and practice. Finally the research questions that have emerged from the review will be stated.

Preliminary examination of the literature indicated benefits to both patients and doctors of good consultation skills. For example, a large UK observational study in general practice suggested that patients were less satisfied, less enabled, may suffer greater symptom burden and had higher rates of referral if they had not received a patient-centred consultation (Little et al., 2001). General Practitioners' consultation behaviour, including empathy, reassurance and support, patient centred questioning, friendliness, explanations, positive reinforcement, humour and psychosocial talk, have all been linked to positive patient outcomes (Beck et al., 2002). Doctors who matched their patient's vocabulary produced positive comments from patients (Williams and Ogden, 2004).

The benefits of effective doctor-patient consultations were not restricted to the patient. For instance, doctors had higher job satisfaction when using a patient-centred style with good communication skills and they experienced less frustration in their daily work (Levinson et al., 1997). Moreover, doctors' anxiety and stress levels were raised

through the lack of perceived confidence and competence to communicate effectively with their patients (Lloyd et al., 2000).

2.2 Search Strategy

The following sections will address the ambiguity of terminology discovered within the preliminary search of the literature. Next, it will explain the strategies used to create the search terms that were utilised to conduct the literature searches and then will outline the inclusion and exclusion criteria that were implemented to select relevant literature.

2.2.1 Communication versus consultation

Across the literature it was evident that the words ‘communication’ and ‘consultation’ were applied extensively but did not consistently refer to the same concept. The word ‘communication’ was used across a very wide spectrum of disciplines and was often describing a very complex concept that included various aspects of ‘communication’ such as presentation, appearance and clarity of the message that is communicated. Whilst all of these elements of communication were important considerations, they were peripheral to this particular investigation. Originally, during the literature search both words were utilised in order to ensure that all papers that might be relevant were accessed. But, in light of the original results, a decision was made to focus the search more upon consultation skills as opposed to communication skills. The reason for this choice was because many studies that were related to communication during medical encounters and the skills involved referred to the concept as ‘consultation’. As this was the main focus of this investigation ‘consultation’ was utilised in the key searches for relevant literature. Also, the ‘consultation’ is that which is described in the Calgary/Cambridge model, which is widely used in both teaching and assessing consultations skills in medical schools across the UK and abroad (Silverman, 2009). Silverman (2009) expressed the idea that the word ‘communication’ in medicine might be better being replaced by terms such as, the ‘medical interview’ or the ‘clinical method’. He suggested this would encapsulate both the content and process of doctor-patient encounters as well as integrating the traditional idea of the medical history taking within effective consultations.

The word chosen to use in the conducting of this literature review and to define the concept that is to be studied within this project is ‘consultation’. This term will be predominantly used in this project to describe what is meant by a doctor-patient encounter held within a clinical environment, except where studies reviewed chose alternative terminology.

Consultation- *n*-

1. The act or procedure of (consulting).

2. A conference or discussion or seeking of advice, especially from doctors or lawyers (Collins, 2009).

2.2.2 Terms used for defining Foundation doctors

During the very early stages of reading the current literature on undergraduate and postgraduate medical education, it was discovered that the terminology used to describe doctors who had graduated from medical school and had begun their postgraduate doctor training was varied. Generic terms were often used, such as 'trainee doctor' and 'junior doctor'. In the UK, junior doctors were originally referred to as Pre-Registration House Officers (PRHO) in their first year and then Senior House Officers (SHO) in their second. More recently, due to the changes in their training, these doctors are defined as Foundation Year 1 and 2 doctors (FY1 or F1 and FY2 or F2). In the United States of America and other countries trainee doctors were called residents and in some documents those doctors who were in their first year of residency were referred to as interns. For this reason, the literature searches included all of these terms to ensure that all relevant research was identified. Throughout the literature review the doctors will be referred to using the terms introduced here, according to nomenclature used within each reported article. The more generic terms such as junior doctor, trainee doctor, newly qualified and graduate doctor will be used throughout the discussion to mean a doctor who has graduated from medical school and is in the process of postgraduate training. The reason for this was to reduce repetition within the review.

2.2.3 Rationale for other search terms used

The term 'medical education' was used to describe the type of education that universities offer students during medical school and was the overarching theme of this project. Consultation skills 'training' was used to describe that which took place within medical schools to teach the attitudes and skills required to become an effective communicator. As such the term 'training' was used to capture that specific type of teaching that was carried out within most medical schools as part of the more general medical education.

Whilst research did exist to link effective consultation skills with positive clinical outcomes for patients, this was beyond the focus of this project which aimed to explore

the more interpersonal outcomes for patients (their assessment of their doctors' consultation skills). Similarly, whilst the effectiveness of doctors' consultation skills could be assessed in many ways, it was the patients' and doctors' views that were of priority in this project.

2.2.4 Establishing appropriate concepts

This project was conceptualised in general terms as an investigation of the ***consultation skills*** training and practice of ***Foundation doctors***. The performance levels of such skills were to be assessed in the ***hospital*** environment by real ***patients***. The concepts: ***consultation skills, Foundation doctors***, ***hospital*** and ***patients*** were used separately as initial key search terms to search the Medline (Ovid) database. They were then used in combinations via the 'OR' and 'AND' functions. Any alternative and relevant subject headings that were found in the Medline (OVID) database index (by selectively exploding suggested headings) were utilised to develop an exhaustive list of key terms (Table 1). This was used to guide subsequent, more refined searches.

Communication	**Foundation Doctors**	**Training**	**Healthcare setting**	**Patients view**
	Combine using **OR** then **AND**		Combine using **OR** then **AND**	
- Communication skills - Consultation skills - Interpersonal communication - Physician-patients relations - Medical interview - Doctor-patient communication	- Junior doctors - Foundation doctors - Train* doctors - Resident - Intern - Pre/senior Registration House Officer - Medical graduate - Graduate doctor	- Medical School - Medical Education - Curriculum - Medical students	- General practice - Secondary Care - Hospital	- Patient satisfaction - Patient perception - Patient assessment - Patient feedback

Table 1: Terms used in initial searches to create list of possible search terms

Even though the search terms used were appropriately identifying relevant literature, they were still eliciting many hits and producing results that were not closely related to the research questions of the project. This was partly due to the abstract nature of the subject being investigated and the expansive regular use of the words ‘communication’ and ‘consultation’ within common language. Even the terms ‘doctor-patient’ when entered with subject heading searches would throw up many interpretations such as: interpersonal communication, counselling. This was best illustrated by the amount of subject headings that were listed for the Van Dalen reference (Van Dalen et al., 2002) which compared two universities’ consultation skills training curricula. As such, it was relevant to the area of interest of this project. There were 19 subject headings listed for this paper. That is, the article was indexed under each of these terms, meaning that it would appear in searches that contained any one of the terms to produce high numbers of citations that covered concepts peripheral to the initial search terms.

For this reason, it was decided to re-focus the literature search with a very basic language enquiry ‘assessing the communication skills of junior doctors’, with the aim of narrowing down the breadth of subjects included in the search. In addition, the databases EMBASE, Psych Info and Applied Social Sciences Index and Abstracts (ASSIA) were searched separately to ensure that no articles were missed through differing indexing practices between the databases. From the results of this enquiry and the initial list of key terms (as reported in Table 1), those terms which produced the most relevant results were chosen for inclusion in various search combinations to ensure coverage of the literature available as shown in Table 2.

Steps	Terms used
1	Consultation skills
2	Communication skills
3	Train* doctor
4	Junior doctor
5	PRHO
6	Foundation doctor
7	Resident
8	Intern
9	1 OR 2
10	3 OR 4 OR 5 OR 6 OR 7 OR 8
11	9 AND 10

Table 2: Final terms chosen to use in literature searching

The filters applied during these database searches were:

- Abstract - Used to ensure that terms were a key part of the article.
- Publication after 1990 - Used to capture research that was carried out just preceding medical education curricula following the publication of 'Tomorrow's Doctors in 1993, and research conducted up to the present.
- English language only.

Finally, the papers were examined, and subsequently included or excluded using the following criteria.

2.2.5 Inclusion criteria

- Research articles, published in peer-reviewed journals, primarily evaluating consultation skills learning/assessment methods and practice in primary or secondary care settings.
- Articles relating to undergraduate medical education in consultation skills.

2.2.6 Exclusion criteria

- Studies based in settings that were not directly related to human health, for example, studies set in schools (non-medical) and/or veterinary practice.
- Articles that exceeded the scope of the dyadic encounter (one doctor, one patient interaction). Those which focussed on interpreters and/or parents involved in the consultation (triadic interactions). It was deemed that these were very distinct consultations that were outside the scope of this project and would not be included in the data collection.
- Articles not specifically relating to communication skills learning and/or assessment and/or practice.
- Articles not specific to medical students, junior doctors or medical staff; i.e. generic programmes.

Articles were initially scrutinised by title, then abstract and finally by the full reading of the paper. References collected through previous research interests and supervisors were also consulted, as were the reference lists of the relevant articles to ensure an adequate review of the literature that pertained to the research questions posed in this study.

This section has explained the literature search strategy and how material was selected for inclusion in the final review. The following sections will present and review that literature with the objective of providing the evidence available on medical curricula changes, the teaching and learning of consultation skills, how and when that translated into practice and finally what factors influenced the training and practice of consultation skills.

2.3 Background

This section will introduce the overarching themes that are relevant for the exploration of consultation skills training in medical education and the subsequent practice of such skills in the clinical setting. Published policy documents and recent developments

related to medical education and clinical practice will be outlined in an attempt to create the political and cultural context for the subsequent review of the literature in the field of consultation skills training and practice.

2.3.1 Medical education

Medical schools exist across the world and they each differ in terms of their recruitment criteria, curriculum content, structure and length of course. Nobuo et al. (2011) reviewed 35 medical schools across 12 countries of the world. Whilst the authors discovered huge diversity across and within countries they offered a useful categorisation of the general approach implemented within groups of countries. They identified 3 overarching types of medical school and then grouped the countries that were perceived to predominantly adopt that type of medical education.

- Type 1: Entry criteria-Only school leavers aged 18-19 who studied for between 5 and 7 years via a curriculum based on pre-medical science, basic medical science and finally clinical science. Existed in Germany, the Netherlands, Belgium, Spain, Scotland, Malaysia and Japan.
- Type 2: Entry criteria-Only college graduates aged 22-24 who studied for 4 years via a curriculum based on basic medical science for two years and clinical medicine for 2 years but with most schools integrating these more recently. Existed in USA and Canada.
- Type 3: A mixture of Type 1 and 2: Entry criteria-school leavers and/or college graduates who studied for between 4 and 6 years via a curriculum based on teaching pre-medical science, basic medical science and finally clinical science. But with many schools now adopted a more integrated curriculum. Existed in Austria, England, Ireland, Korea and Singapore.

Despite the categorisation, the authors noted that for all schools there was evidence that new teaching methods were increasingly being implemented to promote clinical training. The use of problem-based learning approaches and the integration of teaching medical science with clinical training including consultation skills was evident in many medical schools (Nobuo et al., 2011) including those across the UK. Due to the pragmatic and time constrained nature of this project, the main focus will be on medical education and its developments in the UK. However, where it is deemed relevant and useful some of the research from other countries will be included in the review.

2.3.2 Patient-centred medicine

'Patient-centred medicine' was first introduced by Balint (1957) and drawn from the paradigm of holism which suggested that people should be seen as individuals and as whole, bio-psychosocial beings. This was in contrast to 'disease-centred medicine' that had thus far been the dominant idea where the focus had been on the bio-medical nature of the disease (Lewin et al., 2001). Patient-centred care is now heavily advocated by the General Medical Council in all of their publications (GMC, 1993, 2003, 2009). In particular, the 1993 version of 'Tomorrow's Doctors' advocated for new curricula to engage students in a way that encouraged them to accept that they needed to combine both scientific knowledge and humanitarian approaches in order to be compassionate and concerned doctors.

Doctor-patient communication is part of patient-centred care and is taught in all UK medical schools. This has been an attempt to shift medicine from the paternalistic style of consultation or doctor-centred where the doctor organised the process of the consultation with the priority of reaching a diagnosis by the use of specific and mostly closed questions. Some argue that communicating in a doctor-centred way may be perceived as patient-centred if the patient prefers to be approached in a paternalistic way (Skelton, 2005). However, most advocates would suggest that patient-centred consultations should allow the patient more time in which to explore their health problems and feel more able to present their problems within a physical, psychological and social context. This type of information exchange is designed to then allow the doctor to consider diagnosis within the same framework, as opposed to just the physical diagnosis that was ever-present in the doctor-centred consultations.

The concept 'patient-centred care' is used widely in both medical research and practice but some suggest that it is 'poorly understood' (Stewart, 2001). Various definitions of patient-centred care exist in the literature. One early example was offered by Stewart et al. (1995), who described it in terms of 6 interlinked components which were; exploring both the disease and illness perspective, understanding the whole person, finding common ground regarding management, incorporating prevention and health promotion, enhancing the doctor-patient relationship and being 'realistic' about personal limitations and issues such as time and resources. Researchers have sought to investigate what elements of patient-centred care are preferred by patients.

Little et al. (2001) conducted a pre and post-consultation questionnaire study in three primary care establishments to explore what real patients wanted in terms of patient-centred care. The results demonstrated that 'communication' was the main preference

of patients which included listening, exploration of concerns, doctor-patient relationship and clear explanation. This factor, along with partnership and health promotion accounted for 91% of the variance in the results of the questionnaires. In an editorial (Stewart, 2001) suggested that the preferences of patients highlighted in this study corroborated with the conceptual framework that was created by Stewart et al. in 1995 (described above) and viewed this as offering some emerging evidence of an international consensus on the definition of patient-centred care. Both Little et al. (2001) and Stewart (2001) were also in agreement that the best way to measure 'patient-centredness' was not by asking the experts but by asking the patients themselves to make assessments on their clinician's performance.

Mead and Bower (2000) offered another detailed definition which highlighted five dimensions that 'patient-centred' encompassed, such as; the bio-psychosocial perspective, patient as person, sharing power and responsibility, the therapeutic alliance and the doctor as person (In Lewin et al., 2009).

In a review of interventions used to promote a patient-centred approach, Lewin et al. (2009) found that, across seventeen studies, there was much variance in the definitions that had been posed to describe the concept of patient-centred care. In contrast to the idea of an international consensus, they suggested that 'patient-centred care' was differentially viewed and defined across many studies with some studies referring to it as an important outcome measure. Conversely, for other studies, it was defined as more of a means to improving specific behaviours rather than an end product (Lewin et al., 2009).

2.3.3 The undergraduate medical education reform

The UK medical education reform was introduced in light of research that demonstrated that many undergraduate medical students were poorly prepared for the challenges of their first year in practice in the role of Pre-Registration House Officer (PRHO) (Goodfellow and Claydon, 2001). Research suggested that inadequacies were evident in both knowledge and competencies (Lempp et al., 2005). Stress levels for PRHOs were high and related to excessive responsibilities with poor support systems, sleep deprivation and communication problems (DOH, 2003a, Paice et al., 2002b)

Traditional medical school curricula relied upon didactic teaching which was lecture-based and predominantly divided into clinical and pre-clinical years. Some of the explanations offered for the poor preparation of medical students on starting their first year of practice were that traditional medical schools overloaded students with excessive scientific information that was not appropriate to their level of experience

(GMC, 1993). Reformers criticised traditional methods and suggested that students were perhaps spoon-fed in a way that stifled creative thinking (Williams and Lau, 2004).

In 1993, the General Medical Council (GMC) produced the first version of the document 'Tomorrow's Doctor's'. It was viewed as a key driver in the way that medical schools taught their students by identifying a core curriculum, integrating medical theory and practice and introducing early patient contact. 'Tomorrow's Doctor's' was designed to set out curricula requirements that all UK medical schools were expected to deliver and the standards that students needed to reach before graduation. The GMC called for medical schools to adopt a common *core curriculum* which should allow for a third of the available time to be spent on *Special Study Modules* which would better foster the learning of critical thinking, intellectual skills and develop a more appropriate skills base. 'Tomorrow's Doctors' specified the knowledge, skills and attributes that were required in order to better prepare medical students for the role of PRHO. The overarching change was one that moved away from the traditional model of medical education and instead moved towards more integration of basic and clinical sciences designed to encourage problem solving, critical thinking and life-long learning. This included the provision of consultation skills training and increased community based education (GMC, 1993).

In 2003, 'Tomorrow's Doctors' was updated to include further outcomes and standards for medical schools to deliver and students to achieve. Included was the objective of raising awareness for medical students about clinical realities and the suggestion was made that preparedness could be better achieved through the availability of increased opportunities for students to shadow junior doctors (GMC, 2003). In response to new practices in postgraduate medical education and in a bid to ensure that undergraduate outcomes mapped onto those set out for postgraduate training, an updated version of 'Tomorrow's Doctors' was published in 2009. In an attempt to achieve consistency, this version took into account existing standards set out in the GMC's core guidance; 'Good Medical Practice', 'The New Doctor' and guidelines used in Scotland and Europe. This updated version specifically stated that students should be able to demonstrate all of the recommended outcomes to be "properly prepared for clinical practice and the Foundation Programme" (GMC, 2009). This third version also attempted to address concerns about the level of students' scientific knowledge and included outcomes related to clinical skills, partnership with patients and colleagues, commitment to improving health care and providing leadership (GMC, 2009).

2.3.4 The postgraduate medical education reform

In 2000, The Department of Health published a plan which identified the need for an increase in general practitioners (GPs) and consultants to better deal with evolving patient demands. Alongside this, the National Health Service (NHS) plan responded to perceived problems with the postgraduate training, in particular the Senior House Officer (SHO) grade that had been criticised for the lack of: common curricula; defined educational objectives; distinction between service needs and training; and defined career pathways (DOH, 2000).

In 1997, the GMC published a document entitled 'The New Doctor' which was more concerned with postgraduate doctor training. The document outlined the core competencies that a doctor should possess at the point of full registration. The emphasis was upon patient engagement and partnership. From 2003, postgraduate medical education began to shift into reform. The introduction of the 'European Working Time Directive' (DOH, 2003a) called for less working hours, more flexibility in training programmes and more pastoral care provided by trained doctors. Following initial proposals from the Department of Health (DOH, 2003b), the policy document 'Modernising Medical Careers: the Next Steps...' (DOH, 2004) was published which laid out the practical requirements that would be required to implement a new Foundation Programme across postgraduate deaneries and trusts. The Foundation Programme Committee of the Academy of Medical Royal Colleges, in cooperation with Modernising Medical Careers in the Department of Health (2004) set the new agenda which stipulated that all graduates were now required to complete a two year Foundation Programme, which included consultation skills training, before applying to any speciality training. Pilots of the programme took place in South Yorkshire. The two year Foundation Programme was to replace the current system of PRHO and SHO and was designed to be quality assured, streamlined, trainee-centred and competency based (Beard et al., 2005).

The Foundation Programme Curriculum was produced by the Academy of Medical Royal Colleges and began in 2005. It was designed to have a common curriculum with generic content where trainee doctors rotated through at least three specialities each year. The objective was for the new curriculum to cater for the broad range of competencies that were required to practice within modern clinical practice. Work-based formal assessments were put in place to ensure progression and improvement of consultation skills, team working skills, leadership and acute care (Brennan et al., 2010). The aim was to ensure that trainee doctors experienced a broader range of practice in their first two years than their predecessors who had followed the PRHO

route. In addition, learning portfolios became a key part of the new curriculum designed for doctors to gather evidence of their experience and to take an active role in their life-long learning by recording and reflecting upon their own practice.

2.3.5 Transition and preparedness: Before and after reform

As previously discussed, undergraduate medical education was reformed in light of the research evidence that demonstrated that graduates who went on to the next stage of their training to become PRHOs were ill prepared for the demands of the role. Paice et al. (2002) reported that the transition from a final-year medical student to a PRHO was followed by a number of important changes such as being at the bottom of the medical hierarchy, being ordered around, being very close to the human tragedies of disease and death, having little time and support for reflection and getting little recognition of their understandable distress. According to Paice et al. (2002b), the result of this transition was disillusioned and depressed young doctors who learn to respond to stress 'by increasing personal detachment, even to the point of dehumanising patients'. This coping strategy is learned early and unlearned with difficulty (Cox, 2006).

Williams et al. (2001) explored 'transition' and focussed on the doctor-patient relationship and how the real experience of this during the period of PRHO differed from the expectations that were held previously as medical students. Qualitative interviews were conducted with 24 newly qualified doctors within 4-6 weeks of starting their first job. The authors also re-interviewed those PRHOs who had experienced both general practice and district hospital placements. The authors took note of the differences in experience between the two settings. Consultation skills were discussed by the participants during the interviews in relation to the doctor-patient interactions and the management of the patient-centred attitudes (Williams et al., 2001).

The most relevant finding in this study was that whilst the PRHOs had received consultation skills training which they were able to use and improve during their general practice placements they found it much more difficult to do so once they were in their hospital rotations. Some PRHOs cited that their time constraints and tiredness affected their consultation style with patients and others expressed that the use of effective consultation skills might be viewed as working too slowly by senior doctors. Findings from this study suggest that young doctors might even begin to change their very idea of what constitutes 'a good doctor' from these very early experiences of the work environment. They shifted from the belief that to be a good doctor is to "be caring and considerate towards patients" to realising that "if you can't have a proper conversation with somebody at least you can make sure that they're treated properly". The authors

concluded that if young doctors are unable to perform the level of consultation skills that they are taught in medical school then it may be the case that complaints about doctor-patient consultations will continue (Williams et al., 2001).

Brennan et al. (2010) evaluated the new Foundation programme which was introduced for all newly graduated doctors from 2005. They explored the programme's impact upon the experiences of junior doctors and in particular their 'fitness to practice'. The authors explored the experience of a cohort of junior doctors drawn across 5 hospital sites who were in their first year of clinical practice. The study focussed on the 'transition' and 'preparedness' elements of their experience. Data was collected qualitatively by the use of semi-structured interviews conducted at two-time points and audio diary recordings (Brennan et al., 2010).

The data from this study revealed that there was much evidence of the junior doctors still feeling unprepared and finding transition stressful despite the reforms that had taken place in their undergraduate education. However, by the second round of interviews which were conducted 3-4 months before the end of the Foundation year, there appeared to be an increase in the number of graduates who expressed feelings associated with being 'well prepared' and experiencing a 'good transition'. The authors concluded that early exposure to patients and acting up to junior doctor (taking on the role of junior doctor and the associated responsibilities) during medical school produced Foundation doctors who felt better prepared for the experience of practising as a doctor in the clinical setting.

Cave et al. (2007) also explored newly qualified doctors 'preparedness' to practice. They examined results of surveys that were sent to all newly qualified doctors in the UK within 9 months of their graduation. The aim of the surveys was to investigate whether the curriculum changes were making a difference to those who were learning under a revised curriculum. Cave et al. (2007) examined and compared survey results from 2001/2002 with those from 2003 and 2005 surveys. In 2005, over four thousand graduates completed the surveys and 59% of them agreed or strongly agreed to a statement '*my experience at medical school has prepared me well for the jobs I have undertaken so far'.* This demonstrated a rise from 2000/2001 where only 36.3% had agreed or strongly agreed with the same statement and in 2003 when this figure was 50.3% (Cave et al., 2007). This data did suggest that preparedness had increased due to the changes implemented as part of the new curriculum. However, the authors warned that medical schools in the UK changed their courses at different times between 1998 and 2006 so not all respondents would have actually experienced the new curricula. Respondents will have had varying experiences of curricula including

those who had followed the traditional style curriculum, those who would have been studying during the transition from that to the new curricula and those who had studied solely from a new style of curricula.

The undergraduate and postgraduate curriculum changes as previously discussed were a bid to change medical training in order to better prepare the students for the modern clinical environment and its pressures. The objective was to attempt to reduce the stress of transition from student to practising doctor by giving increased opportunity to experience more of the realities of being a junior doctor.

This section introduced the concept of patient-centred medicine and has outlined the current context of undergraduate and postgraduate medical education and has included a brief discussion on the transition and preparation of students between the two stages.

2.4 Curriculum Changes

The next section will offer an overview of the evolving methods of delivering medical curricula across medical schools that emerged in response to the cultural shifts of medical education. Clarification of some of the key terms found in the literature will be offered.

2.4.1 Teaching methods

As previously discussed, the GMC policies sought to address the balance between the traditional model of medical training and the more contemporary ideas within medical education and the changing clinical environment. Their recommendations were aimed at producing doctors who were more prepared and ‘fit for purpose’. Policy documents consistently recommended that medical schools shifted from the traditional methods of teaching medicine and explicitly suggested that factual knowledge should be reduced to a level more appropriate to the students’ stage of medical education. ‘Tomorrow’s Doctors’ recognised that the focus on passive acquisition of factual knowledge was thought to have a negative impact on the ability to think critically and work independently (GMC, 1993). The rationale was to provide students with new ways of acquiring knowledge and skills in a constantly developing context with the aim of providing the tools that fostered life-long learning and the ability to direct that learning. This was implemented by the recommendation that students chose up to 30% of their course of which up to 10% could be outside of medical subjects which would offer more opportunities for students to develop critical thinking skills (GMC, 1993, 2003, 2009).

Whilst, “learner-centred and problem-oriented approaches” (GMC, 1993: p11) were already being introduced by the time that the GMC published ‘Tomorrow’s Doctors’ it was instrumental in the drive for more widespread use of such methods in medical schools (at the expense of didactic teaching) as it fitted well with the recommendations they were making regarding providing students with the skills for problem solving independent and critical thinking. ‘Problem-based learning’ was one such method that was increasingly adopted by medical schools.

Problem-based learning

Problem-based learning (PBL) was formally introduced in many UK medical schools from 1995. It is an approach that has been variously described in the literature but in this context, it means students working collaboratively in a group, facilitated by a clinical or non-clinical tutor to solve clinical scenarios. Scenarios of patients are provided for which students are required to work together on researching the medical problem that the scenario has presented and subsequently present their learning to others in the group. The main objective of PBL learning in medical training is to engender self-directed learning skills within medical students. Other suggested advantages of PBL have included early integration of knowledge and application and the acquisition of self-motivation to learn. There was some evidence in the literature of the positive benefits of PBL. Watmough et al. (2012) elicited student views of the PBL approach and found that it did encourage a deep approach to learning as opposed to surface learning, as well as improving skills such as the development of critical thinking and organisation of independent learning.

Critics of the medical education reform and more specifically the move towards the PBL approach suggested that there was little evidence to support such a reform and that PBL piloting in, what they describe as exclusive institutions, was not enough. In addition, they suggested that the fact that facilitators were not always clinicians with medical knowledge deprived students of contact with inspirational teachers (Williams and Lau, 2004).

In a review of studies that investigated the benefits of PBL compared to traditional medical training, Colliver (2000) concluded that there was a paucity of evidence to suggest that student performance and knowledge was superior when they had followed a PBL curriculum and that any differences were small and not always in favour of PBL. Later, Schmidt et al. (2012) reanalysed 104 studies that had compared a specific medical school with a PBL curriculum (Maastricht University) with other schools offering different instructional curricula. After controlling for various selection biases

that they thought to be problematic in the reviewed studies, the authors presented evidence of medium-sized positive effects of PBL in terms of the students levels of medical knowledge and reasoning skills used in diagnosis.

Concentrated and longitudinal

The terms 'concentrated' and 'longitudinal' have been described as approaches adopted in the delivery of medical curricula generally and more specifically consultation skills teaching (Van Dalen et al., 2002; Papageorgiou et al. 2011). Longitudinal teaching referred to consultation skills teaching that was delivered over time, although there was no definitive amount of time stated that would deem a course to be defined as 'longitudinal'. Some universities embedded their teaching across the entire length of the undergraduate medical curriculum while other more traditional schools would carry out consultation skills teaching either just in the pre-clinical years and/or clinical years of medical training. In this case, both could be defined as longitudinal teaching but might constitute very different curricula arrangements and have different effects upon skills. 'Concentrated' or 'block' teaching (also referred to as 'block clerkships') have been used to describe teaching that is delivered in the form of a fixed block of time. Again, there was a lack of clarity in the literature about exactly when and how teaching curricula can be termed as a 'block'.

Integrated

The word 'integrated' has been used in various studies to describe and imply the combining of teaching clinical skills (e.g. venepuncture) alongside other clinical skills such as consultation skills. This was promoted during the reform as a means of moving away from the more traditional ideas of teaching biomedical science in isolation of patient contact and other related clinical skills. Longitudinal, integrated curricula have been discussed in relation to their effect upon students' experience with patients, performance level and retention of consultation skills (Hauer et al., 2012; Papageorgiou et al., 2011; Van Dalen et al., 2002).

Silverman (2009) took the debate about integration further and suggested that integration of teaching consultation skills with practical, clinical skills is not enough and much more integration at both theoretical and practical levels needed to take place if the profile and credibility of consultation skills training is to be raised. He called for more integration of the traditional history taking and new models of consultation skills training, as well as an increased integration of teaching and assessment. Silverman (2009) described the 'formal' curriculum as that which was explicitly taught in medical

school and the ‘informal’ as the more implicit learning that takes place in the clinical setting and again advocated that they too needed to be more integrated in order to maximize competency. As such ‘integration’ can also mean the extent to which the teaching in medical school is ‘integrated’ or merged with the teaching that takes place within the clinical setting, such that the two are conducted at the same time (Silverman, 2009).

In a qualitative study aimed at recording third year medical students’ experiences with patients, their activities and the roles that they served in the workplace during their medical training were explored. Additionally, comparisons were made between the accounts of students that had studied longitudinally with those who had completed block learning. The authors concluded that only those students who had followed the longitudinal, integrated curricula consistently described more opportunities to play the doctor role. Such students also reported that they felt much more integrated into the care systems, which improved relationships with both superiors and patients which in turn enhanced their confidence (Hauer et al., 2012).

This section has outlined some of the more specific curriculum developments of medical education and defined the evolving terminology that has emerged from the literature review.

2.5 The Introduction and Teaching of Consultation Skills

In recognising that deficiencies in the consultation skills of doctors led to complaints and misunderstandings, the GMC specifically identified consultation skills as a curriculum theme designed “to encourage development of skills to benefit both the doctor-patient interaction and communication with colleagues” (GMC, 1993: p17). This and later editions of ‘Tomorrow’s Doctors’ publications (1993, 2003, 2009) set out standards and recommendations to be met by medical schools which emphasized the importance of consultation skills training. The reduction of the teaching of scientific knowledge was recommended to make room for teaching and improving medical students’ interpersonal skills, with the aim of training students to be empathic and relate better to their patients.

As discussed in previous sections, the traditional medical curriculum was very much guided by a biomedical perspective with teaching being focussed on organic disease and diagnosis. Traditionally, the only training that related to the doctor-patient interaction was that of ‘complete history taking’. This took a very rigid approach with the doctor taking control of the consultation and asking relevant, direct and closed

questions of the patient. The idea of a ‘patient-centred’ approach to consultations was not only advocated by the GMC in the first publication of its ‘Tomorrow’s Doctors’ but was also re-enforced by the growing evidence that clinical communication can affect patient outcomes independently of the ‘technical’ processes of treatment and diagnosis (Utting et al., 2000).

An increasing amount of research evidence suggested that consultation skills training, in the undergraduate medical curriculum, improved medical students’ consultation skills in relationship building, organisation and time management, patient assessment, negotiation and shared decision-making (Yedidia et al., 2003). It is now well established that consultation skills can in fact be learnt through effective teaching (Kurtz et al., 2005; Maguire and Pitchceathly, 2002). Research concerned with curriculum design suggested that experiential learning is effective in teaching learners to change their consultation behaviour (Kurtz et al., 2005) as is reinforcement of those learnt skills (Craig, 1992). But, the timing, and methods of consultation skills teaching programmes have been found to affect their success (Kramer et al., 2004).

Whilst consultation skills training has been found to be successful and effective in improving patient outcomes it might still be viewed as a peripheral priority by medical students and the clinicians that they meet. Medical students may hold the view that clinical consultation teaching is an ‘optional extra, not central to their learning’ (Silverman, 2009: p363) prior to graduation. This, in part, might be down to the design and delivery of the consultation skills curriculum which varied widely across institutions (Silverman, 2009). Pfeiffer et al. (1998) found that the consultation skills of medical students decreased towards the end of medical school and the ‘medical culture’ that sometimes failed to prioritise consultation skills, is offered as an explanation for this decline.

Postgraduate curricula too have increasingly emphasised the necessity to develop knowledge, skills and attitudes through the inclusion of consultation skills training. However, it seems that very little time is in fact spent on consultation skills teaching (Rotthoff et al., 2011). Royal Colleges have included communication skills competence as a key area in both their entry examination and as part of the curricula for specialist training (Hasman et al., 2006). Similarly, government initiatives in the last ten years have focused on providing consultation skills training for consultants who could in turn channel these skills down (e.g. a top down approach) to junior colleagues (Brennan et al., 2010).

Existing evidence suggested that equipping young doctors with the appropriate skills to conduct effective, efficient and accurate medical consultations results in doctors with patient-centred attitudes (Silverman, 2009; Watmough et al., 2006a). This growing evidence base has led to the view that consultation skills training is required in order to train new doctors in the interpersonal skills that are required to conduct effective, patient-centred consultations where the patient perspective is prioritised and the psychosocial nature of the disease is considered when reaching diagnosis and treatment decisions.

The section has briefly outlined the rationale and the related aims of the introduction of consultation skills training onto the curriculum of undergraduate and postgraduate medical education and some evidence in support of its inclusion.

2.5.1 Consultation skills curriculum development

Whilst the GMC recommended the shift to patient-centred consultations and the teaching of consultation skills in all medical schools there was not a universally agreed curriculum to follow. This led to medical schools in the UK, North America and Canada devising their own programmes resulting in a diverse range of courses teaching a variety of consultation skills but without the guidance of a core curriculum. In 2008, the UK Council for Clinical Communication Teaching in Undergraduate Medical Education developed a consensus statement designed to achieve consistency in the teaching of consultation skills across UK medical schools. The statement was set within four governing principles; reflective practice, professionalism, ethical and legal principles, and evidence-based practice that were viewed as fundamental to all areas of medicine including communication. The statement then presents six specific domains of clinical communication:

- Respect for others
- Theory and evidence of communication skills
- Tasks of the interview
- Specific issues
- Media
- Communicating beyond the patient

The consensus statement was presented in a diagrammatic form (Appendix 1) with the view to it being facilitative for all medical schools in the development, modification and integration of their curricula in line with other medical schools and current research (Von Fragstein et al., 2008).

Similarly, the Kalamazoo I and II reports (Duffy et al., 2004) were the result of an international collaboration of communication skills experts whose aim was to create some consensus on the content of consultation skills curricula. The reports developed lists of essential components to be included in any consultation skills training programme as outlined below (In Kelly, 2007).

- Building the relationship
- Opening the discussion
- Gathering information
- Understanding the patient's perspective
- Sharing information
- Reaching agreement on problems and plans
- Providing closure

Through these documents it is intended that there is increased international and national consensus on what essential elements of medical consultations should be taught during medical education at both undergraduate and postgraduate level (Makoul, 2001; Duffy et al., 2004; Von Fragstein et al., 2008).

2.5.2 Models utilised to analyse consultations and consultation skills

Since the 1970s, even before those involved in teaching consultation skills recognised the need for a consensus in what should be taught, there have been a variety of frameworks developed to analyse and describe what constitutes an effective doctor-patient encounter. The following sections offer a brief historical outline of how some of these methods have been developed and subsequently used to analyse consultations and teach the appropriate skills.

Byrne and Long

Byrne and Long (1979) a GP and a Psychologist, recorded thousands of consultations from 100 doctors in the UK and New Zealand and compiled a list of six stages that were covered during the consultations. The six stages were: the doctor establishes a relationship with the patient; the doctor attempts to discover why the patient attended; history and possible examination occurs; the doctor, in consultation with the patient, considers the condition; treatment or further investigations are discussed; and the doctor brings the consultation to a close (Byrne et al., 1976).

Stott and Davis

Stott and Davis (1979) in their paper 'The exceptional potential in each primary care consultation' described a simple model of 4 tasks that can take place in any consultation. The tasks were categorised as; management of presenting problems, modification of help seeking behaviour, management of continuing problems, and opportunistic health promotion. The authors suggested that these areas needed to be explored during every patient consultation (Stott and Davis, 1979).

Pendleton

Pendleton (1984) was a social psychologist who worked with GP trainers and pioneered the use of video-recording for analysing consultations. He identified and prioritised specific areas of the consultation that involved patients' thoughts. Pendleton advocated the idea of establishing and maintaining a positive relationship with patients and his model contained new tasks for the doctor that included exploring the effects of the illness on the patient by identifying patients' anxieties, expectations and ideas. Their model also identified that a doctor needed to consider not only the presenting complaint but also, other problems, such as any continuing problems and risk factors. There was much more emphasis on the doctor and patient working together to choose an action, shared understanding and responsibility in health management (Pendleton et al., 1984).

Video recordings and analysis of peer consultations now forms part of the standard registrar training and is a requirement for the Fellow of the Royal College of General Practitioners (FRCGP) assessment and the Member of the Royal College of General Practitioners (MRCGP) examination (Pendleton et al., 1984). It is also a standard for quality assurance of effective teaching in higher medical education

Neighbour

Neighbour (1987) in his book 'The inner consultation; How to develop an effective and intuitive consulting style' described the doctor as having two heads within any consultation with a patient. One was the 'organiser' who organised the consultation in terms of time and pace and made decisions about what questions to ask, whether to examine, took notes and negotiated and planned the patients' management. The second was the 'responder' whose role was to be attentive, empathic, to listen, think, process and create and pose ideas with the patient.

Neighbour (1987) believed that a skilled doctor needs to be able to successfully balance both the doctor-centred and the patient-centred roles. In doing so, the doctor was required to carry out the five stages of consultations identified as; connecting, summarising, handing over, safety netting, housekeeping (Neighbour, 1987).

Hospital Clerking Model

The classic hospital clerking model was designed to be used by clinicians in the hospital setting. The model was intended as a guide to conducting comprehensive and systematic consultations. The specific stages of the approach were; History of present complaint, Past medical history, Medication, Family history, Social history, Direct questions, Examination, Investigation, and Diagnosis. The objective of the consultation according to this model was to achieve an accurate diagnosis by concentrating on the disease of the patient. The model was used in hospitals and general practice to train medical students to take a patient's history and was renamed 'the inductive method'. In general practice the model was adapted to allow the doctor to focus on different aspects of the consultation which were less disease-oriented and more patient-centred. The modified method was designed to incorporate more attention on the patient and their illness/problem (Fraser, 1999).

The Calgary/Cambridge Model

The Calgary/Cambridge model has its origins in the University of Calgary, Canada and the University of Cambridge, UK. 'Interviewing the patient' and 'Explanation and planning' were the early versions that were developed as teaching guides (Kurtz and Riccardi, 1979). They were used at the University of Calgary's medical school for 18 years as part of the undergraduate consultation skills curriculum. The observation guides were developed through exploration of consultation skills literature and the identification of core skills that contributed to effective medical consultations. They were designed to provide a list of individual consultation skills that were placed within a structured framework that followed the general flow of a clinical consultation.

The key aim of the model was to combine the biomedical (disease) perspective with the patient (illness) perspective. The more recent versions of the Calgary/Cambridge Guides (Appendix 2) are very comprehensive and attempt to integrate the medical interview with the more traditional history taking which describes the content of the interview. The current framework combines both 'content' (what is asked) and 'process' (how it is asked) of a medical interview. These two elements of a consultation, along

with perceptual skills (understanding the doctor-patient relationship have been identified as important to patient outcomes (Kurtz et al., 2005).

The objective of the guides was to help doctors to achieve the five main tasks during their consultations with patients. Within each of the tasks there are a number of core evidence-based skills that a doctor has to implement in order to successfully achieve the given task. An abridged version of the tasks and skills is shown below:

- Initiating the session.

  Skills required; Listens attentively, negotiates agenda

- Gathering Information.

  Skills required; Encourages patient to tell the story, facilitates patient responses

- Building relationship/facilitating patients' involvement.

  Skills required; Uses empathy to communicate understanding, provides support

- Explanation and planning.

  Skills required; Assesses patient's starting point, organises explanation

- Closing the session.

  Skills required; Contracts with patient re-next steps, safety nets

In total, there are 71 specific skills included in the model making it a comprehensive and all-encompassing approach to medical consultation. The Calgary/Cambridge Observation Guides have been utilised for the design of consultation skills curricula, assessment of skills performance and to facilitate self and peer feedback. The guides are used throughout the world and have been translated into Dutch, French, Norwegian and Spanish. They are one of the most used consultation guide in North America and are currently used in over 60 per cent of UK medical schools (Silverman, 2009) and were found to be the highest quality guidelines available to curriculum developers (Veldhuijzen et al., 2007).

This section has offered a historical view of the incremental development of models used in the analysis of the doctor-patient encounter. The more recent models were described further to include how and when they were utilised as consultation skills teaching and assessment tools.

2.6 Approaches used for Teaching Consultation Skills

Consultation skills training curricula have been adopted across most medical schools in the UK following the GMC publication of 'Tomorrow's Doctors' (GMC, 1993). Whilst individual schools were seen to initially develop their own curricula, as previously discussed there was a growing consensus on *what* should be taught. However, the question of *how* those skills should be taught remained. The following section will provide an overview of the ways in which most medical schools carried out their consultation skills teaching.

Simulated teaching

Simulated learning environments were introduced in medical education in the 1960's as a means of appraising student performance and its popularity has grown in the teaching of medical students, nurses and allied health professionals. Simulation makes use of standardised patients who are either actors or real patients that are trained to present an illness (artificial or real) in a standardised way (Watson et al., 2012).

Simulated learning has been reported as having numerous educational benefits including the safe practising of clinical skills, being learner-centred as well as assisting in the development of consultation skills. Simulated teaching has been classed as experiential and designed to build competence of skills through practice. Most consultation skills training within medical schools in the UK adopted this method of teaching which was usually supplemented by some didactic teaching in the form of lectures used to impart knowledge of theoretical concepts involved in communication and to outline the relevant research base. In effect, the students learned through doing consultations with simulated patients in the presence of their colleagues who were asked to provide constructive feedback. The importance of feedback was identified by Carroll and Monroe in 1979 (In Aper et al., 2012). But, the utility of feedback has received both positive and negative reports. It has been found to be very useful for students in identifying weaknesses in specific consultation skills (Malhotra et al., 2009). Conversely, peer feedback has been criticized in relation to the large qualitative variance among the comments offered to the performing student. Moreover, students that received mainly positive feedback were found to display worsening performances when they were re-tested (Aper et al., 2012).

The use of simulated patients has been found to be useful in teaching both technical skills and consultation skills. However, there were concerns that teaching through simulation did not reflect the real life clinical teaching. It was recognised that whilst

teaching isolated competencies was valuable, real life clinical practice called for students to display a range of competencies simultaneously (Watson et al., 2012). Students' views of the use of simulated patients have also been investigated. They reported that what they learned about consulting with a patient was 'ritualistic behaviour' and they questioned the extent to which simulation can teach them to relate to real patients in the clinical setting (Malhotra et al., 2009). Paskins and Peile (2010) drew attention to the complexity of simulation teaching and its potential to impact upon students' confidence and fear (In Aper et al., 2012).

Papageorgiou et al. (2011) explored students' views across all five years of their consultation skills curriculum. In this study an integrated, longitudinal consultation skills programme that primarily used simulated patients and role-play followed by constructive feedback was evaluated. Cross-sectional student feedback questionnaires were analysed and provided evidence of the acceptability and efficacy of an integrated, longitudinal curriculum. Results suggested that tutor facilitation was rated as the most favourable element of the training. This was followed by the content of the teaching then practice and feedback. In the free text questions, students from all years listed: how to structure a consultation, importance of patient-centredness and aspects of professionalism as important aspects that they had learned during the sessions (Papageorgiou et al., 2011).

Some medical schools made use of video-recordings of consultations with simulated patients in order to subsequently replay and use as a tool for analysis and feedback on students' skills but these methods too were not without criticism. For example, Nilsen and Baerheim (2005) explored the use of video recorded consultations in the teaching of consultation skills and discovered that students were apprehensive and fearful of exposing incompetence of skills to their peers and felt a sense of vulnerability.

The video recording of consultations is used extensively in the consultation skills training of medical students and clinicians. The self-observation of consultations by students is said to have greater impact on communication behaviour than peer observation and feedback. The use of video recordings of patient encounters has been deemed as the 'gold standard' in the teaching consultation skills to medical students. In their review, Hammond et al. (2012) found that 67 studies, across 14 countries, explored the use and effectiveness of video recording and subsequent review of the recordings in the teaching of medical students. Whilst the studies employed varying outcome measures to assess effectiveness, the majority discovered that the use of video recorded consultations, review and feedback had positive effects on student learning of skills; and were found to be more effective than just practice alone. Video

captured performance was also found to develop students' self-assessment and reflection skills.

This section presented a brief overview of the use of simulated teaching in delivering consultation skills curricula.

2.7 Learning Consultation Skills

As previously discussed medical education reform has recommended medical schools to add consultation skills teaching to their curricula and across UK universities this is now in place. However, the effectiveness of teaching and transferring such complex skills is dependent upon the success of the learner in retaining knowledge and then eventually implementing that knowledge in appropriate ways.

2.7.1 Learning theory

A variety of learning theories have been discussed in the literature with regard to how students learn consultation skills. The following section will briefly describe the main theories that are discussed in the literature on learning within medical education and more specifically the learning of consultation skills.

Self-directed

Kaufman's (2003) self-directed learning theory assumed that an individual used innate motivations to assess their own learning needs and seek out appropriate learning opportunities with or without the help of others. The theory fitted with how humans develop psychologically through being provided with increasing opportunities to take responsibility. The growing responsibility then develops individuals' direction in the seeking of new experiences to eventually create self-directing attitudes to learning. Self-directed learning allowed the learner to understand problems, find solutions, and seek out relevant resources at their own pace. This strategy has been adopted in some areas of medical education (In Al-Wahaibi et al., 2009).

Experiential

Kolb's (1984) experiential model of learning depicted learning as a cycle (Figure1). The cycle encompassed a repeated series of four continuous stages which a learner moved through whilst learning was taking place. According to Kolb (1984) the learner moved from (concrete) Experience to Reflection (reflective observation) to (abstract) Conceptualisation and then Action (experimentation) with the necessity of each stage

being given adequate attention by the learner. In effect, the learner used personal experience (experience) to reflect upon and gain deeper understanding (reflection).

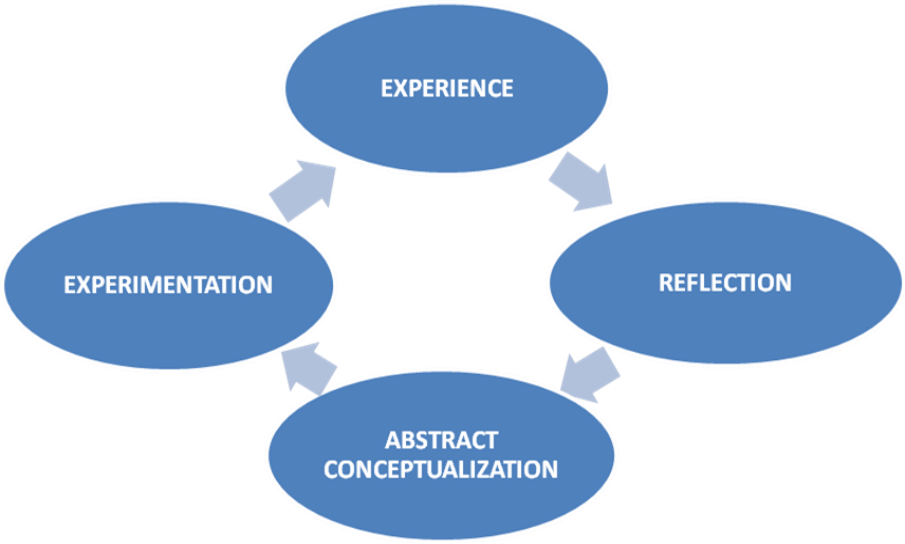


Figure1: Kolb's experiential learning cycle

Through reflection the learner was able to form general theories (conceptualisation) about the experience and use this to develop workable strategies to modify the next experience of a similar event (action). Individuals differed in their learning styles according to their aptitudes within each stage of the learning process. Due to the cyclic nature of the learning process Kolb suggested that any weaknesses within the stages need to be addressed in order to reach the desired outcome (In Leung et al., 2009).

Knowles (1980) suggested that adult learners were motivated to learn that which is relevant to their current situation, level of knowledge and application. In other words, learners need to learn relevant material at an appropriate level and be able to apply their learning to the real world. The theory suggested that learners were more motivated by a problem-based approach as opposed to a subject-based approach. The problem-based learning also needed to be practical, built on previous experience, learner-directed, participatory, promote equality with teachers and evaluated through self and peer assessment in order to maximise the motivation of the learner (In Al-Wahaibi et al., 2009).

Al-Wahaibi et al. (2009) described in detail the application of learning theories to consultation skills teaching for general practitioners in Oman. A variety of factors were said to impact upon the outcome of the learning cycle proposed (Knowles, 1980). The

authors concluded that learners' personality, work experience and knowledge level were potential elements of influence as well as the personality and teaching ability of the tutor. They warned that experiential learning of consultation skills can be intimidating and threatening so the role of the tutor is vital in creating the appropriate environment to encourage 'collaboration and not competition' (Al-Wahaibi et al., 2009: p124).

Leung et al. (2009) advocated that Kolb's experiential cycle models 'the natural and logical sequence of experiencing, teaching and learning interviewing skills' (Leung et al., 2009: p558). The authors made an attempt to find commonalities across learning and education theories with a view to designing a consultation skills remediation curriculum for newly qualified doctors in Canada. According to the authors, Kolb's (1984) learning theory overlapped many of the existing educational theories. They highlighted similarities across Kolb's (1984) theory and that of both Knowles' (1984) education theory and Bandura's (1994) theory of self-efficacy. The authors advocated that combining them was effective with teaching adults who have accumulated a lot of experience that is subsequently used in their learning of new skills. This all-encompassing experiential approach was deemed to be flexible, challenging and suitable to be implemented in the designing of a curriculum to support the remediation of learners' communication skills (Leung et al., 2009).

Learning in the clinical workplace

A theoretical framework of learning in the clinical environment is offered by Teunissen et al. (2007). They recognised the fundamental role of the learners' participation in work-related activities in influencing their personal learning. They proposed that processes involved in how new knowledge is learnt include the interpretation and the construction of meaning. They identified that both contextual factors and external views influence the process of the learners' experience.

Eraut and Hirsh (2007) made the distinction between knowledge and learning, and postulated that 'knowledge' was a state and 'learning' was a process that could only be measured by exploring an individual's 'knowledge'. They described the learning process as one that can move from the explicit, procedural to automatic processes where knowledge has gone through 'routinisation'. They suggested that routine learning when associated with proficiency led to increased competence and quality. But they warned that routines associated with coping (a mechanism to handle workload) might increase productivity but quality would decrease.

Eraut and Hirsh (2007) made some useful distinctions between formal and informal learning and found that much learning in the workplace takes place through informal processes and 'implicit' learning where the learner is not aware of the learning that is taking place. The importance of building 'cultural knowledge' of a workplace was highlighted in their work with early and mid-career professionals, where again, there was evidence that this knowledge is largely acquired informally, on the spot through achieving success with appropriately challenging work. Taking part in this type of work led to the increasing confidence and competence in growing professionals, which in turn led to the learner proactively seeking further learning. Confidence was found to be a salient factor in workplace learning which was built through handling challenging tasks and their role successfully, with appropriate support and supervision.

Eraut (2009) proposed that learning in the workplace was influenced by both individual learners themselves and the contextual factors within which they operated. He concluded that on-the-job learning was experienced differently by each learner, dependent upon a whole range of variables. For example, he described how concepts such as time available, situational understanding, appropriate support, feedback and observation of others were all influential in building and reinforcing life-long learning of an early/mid-career professional. For many learners, most learning took place in the presence of other people or by more directly involving others.

This section has offered a brief explanation of the theoretical underpinnings of relevant learning theories which have been cited in the literature in relation to medical education both in the classroom and within clinical practice.

2.8 Influences on Learning

As discussed in the last section, learning is a process and as such can be affected by many influences both during training and the subsequent practise of skills learnt during training. The following section intends to introduce some of those influences in relation to training and performance in the work place and, in particular, the clinical setting. The concept of self-efficacy is explored due to its prevalence in the literature concerned with both the learning and practice of consultation skills and the nature of its effect on subsequent performance.

2.8.1 Self-efficacy

Self-efficacy was originally developed by Bandura (1977, 1986) as a social cognitive theory which proposed that there was a triadic interplay between behaviour, cognition

and the environment which produced human action. Early definitions included that of Wood and Bandura (1989: p408):

> "Self-efficacy refers to beliefs in one's capabilities to mobilize the motivation, cognitive resources and courses of action needed to meet given situational demands"

Since then self-efficacy has been used as a theory across many disciplines and various alternative definitions have evolved. One such definition was that offered by Gist and Mitchell (1992: p183):

> "A person's estimate of his capacity to orchestrate performance on a specific task"

In effect, self-efficacy can be defined as one's own confidence in their ability to perform a specific task. It could be described as a type of evaluative judgement made by an individual in relation to performance of a particular capability (Silver et al., 1991cited in Gist and Mitchell, 1992). Medical education research often includes the exploration of self-efficacy in relation to how students learn and the subsequent effects on their motivation and emotions (Aper et al., 2012).

Self-efficacy and learning

Gist and Mitchell (1992) discussed self-efficacy and describe how it has been associated with learning, achievement, predicting and improving work related performance. Individual levels of self-efficacy were described as dynamic and changeable according to the acquisition of information and experience that impact upon beliefs and motivation. Four types of experience were identified and described as being influential in the development and variability of self-efficacy; enactive mastery (personal attainments), vicarious experience (modelling), verbal persuasion and physiological arousal (e.g. anxiety). An individuals' cognitive appraisal was described as the integration of these experiences to determine self-efficacy which in turn influenced thought patterns, emotional reactions, choices, goals, persistence and performance

In an exploration of the interpretation of performance feedback, Silver et al. (1991) suggested that training could improve levels of self-efficacy. When cognitive and behavioural modelling were used during the training, self-efficacy was enhanced with a subsequent increase in observed performance. Self-efficacy is often associated with self-regulation and motivation. Moreover, self-efficacy influenced the interpretation of

feedback and affective reactions to task performance which in turn impacted upon future attempts of the task (In Gist and Mitchell, 1992).

Self-efficacy and competence

The accuracy with which an individual assesses their self-efficacy for a given task is influenced by the individuals' experience with that task. As experience grows, less analysis of the task is needed and the individuals' resources to perform the task are less necessitated so short cuts are made in the evaluation. In effect, past performance is used as a major predictor of efficacy. Personal characteristics and the stability of the task are known to affect efficacy judgements. If personal characteristics have changed or are in the process of changing then judgements of self-efficacy are less accurate. Equally, if the task involves characteristics that change then self-efficacy becomes less stable. Other factors that can impact upon self-efficacy are the environment within which the task is taking place and includes elements such as noise, distractions and the perceived risk attached to the task. Finally, the emotional arousal of an individual can influence their ability to judge their own efficacy in performing a task which includes physical well-being, personality and mood. For example, increased anxiety and stress can lower efficacy judgements (Gist and Mitchell, 1992).

2.8.2 Self-efficacy and the learning and practice of consultation skills

Competence is attained through the development of the required knowledge and skills related to a specific task. However, in order to gain competence there has to be a motivational belief about one's personal capability. Qualified doctors working in the hospital setting improved their self-efficacy on specific consultation tasks following training (Gulbrandsen et al., 2009). Similarly, training has been shown to improve self-efficacy for specific communication tasks and the ability to accurately evaluate that competence (Ammentorp et al., 2007).

Liddell and Davidson (2004) investigated the relationship between students' attitudes to consultation skills, their confidence and their academic results. They found that students performed better on those skills that they valued personally and the authors concluded that this may be influenced by a motivation to master such skills. However, they also discovered that confidence in performing a skill was not related to the objective assessment of that performance.

Teunissen et al. (2007) explored specialists' perspectives of trainee doctors' workplace learning across six Dutch medical centres. They recognised that self-efficacy and confidence might have fundamental effects upon the learning activities that the trainees

take part in, how they take part as well as what they gain from that learning experience (Teunissen et al., 2007). Watmough et al. (2006a) found that educational supervisors felt that consultation skills training had developed higher levels of confidence in PRHOs, which assisted them in coping with the challenging transition from student to doctor.

This section has introduced and briefly explored the concept of self-efficacy and the impact it has upon learning and competence, both generally and more specifically related to the acquisition of consultation skills.

2.9 Issues with Teaching and Learning Consultation Skills

In the literature on consultation skills teaching in medical education there were a variety of concerns and questions raised about how best to develop and maintain an effective consultation skills curriculum. This is not surprising given that its inclusion was a relatively recent event and that current teachers of consultation skills have not experienced such training as part of their own development. The following section will introduce some of those issues.

Silverman (2009) offered a comprehensive outline of some of the issues that needed to be addressed in order to improve the quality, impact and reputation of consultation skills teaching. He advocated the integration of consultation skills training with practical skills and suggested that consultation skills should be not be taught as a separate course or as a one-off event within medical schools. He also expressed concerns about consultation skills teachers both in terms of their professional backgrounds and their training in such complex teaching. This concern was shared by Al-Wahabi et al. (2009) who postulated that it might be a mistake to assume that medical teachers have the required competence to teach communication skills.

Silverman (2009) posed the idea that there might not be a balance of speciality clinicians and/or surgeons who teach consultation skills. Instead they are mainly taught by general practitioners and psychiatrists, whereas ‘doctors in white coats’ are over-represented within the more biomedical and practical teaching. He also expressed the important impact of the ‘hidden curriculum’ upon student learning. That is, the influence of who and what students might observe during their clinical placements and whether that was at odds with their learning. The culture of the clinical environment can facilitate or impinge on the way in which doctors consult with their patients. Related to this, there is the issue of the contention between the history taking model that still exists in hospital medicine and the models, such as the Calgary/Cambridge model, that are

currently taught in medical schools. Some authors also noted the challenges of teaching consultation skills to students who come from a variety of cultural backgrounds and ethnicity (Manning et al., 2010).

Skelton (2005) questioned the value of creating and teaching a comprehensive list of skills in consultation skills training. He claimed that such teaching was of a low-challenge to students and minimised the complex interaction between doctor and patient. He expressed that research conducted in this area was too focussed on finding a cause-effect relationship between training and skill levels perhaps driven by the scientific nature of medicine in general. Skelton (2005) advocated the exploration of more global teaching and assessment which he perceived as being more of an art than a science. He questioned whether attitudes of students and doctors should be developed as a priority, in order to create the motivation for subsequent development of beliefs about wanting to be a good doctor with effective consultation skills.

The environment and context within which consultation skills are learnt and practised can encompass unlimited variables that might be influential. It would be impossible to discuss every possible factor that will have differential effects upon the way in which the skills are both taught and learnt. For this reason, attention will be paid in the following sections to a selection of those variables that were deemed to be the most influential upon teaching and learning of consultation skills.

2.9.1 The clinical environment

The clinical environment was a dominant feature in many investigations in the literature regarding how students and Foundation doctors learned how to conduct effective consultations. The influence of the clinical environment on learning will be introduced in this section but further discussed in relation to its influence on consultation skills practice in later sections. The clinical environment, in the literature, was termed as the hidden or informal curriculum. Its' impact upon attitudes and behaviours has been explored extensively and highlighted many challenges for medical education. Foundation doctors who graduate from new medical schools practice in a variety of working environments and the teaching they received may be undermined by new pressures and what they observe in practice (Kurtz, 2002).

In their review of the literature concerned with the education and training of Pre-Registration House Officers, Hasman et al. (2006) claimed that the clinical environment facilitates the learning of six processes, those being; loss of idealism, adoption of ritualised professional identity, emotional neutralism, change of ethical integrity, acceptance of hierarchy and the learning of less formal aspects of what it means to be

a doctor. There was evidence that the culture of medicine has been associated with the non-expression of emotions. Moreover, discussions about emotions, especially concerned with dying patients were rare in the clinical setting (Redinbaugh et al., 2003) which might offer further evidence of the concept of 'emotional neutralism' that was described by Hasman et al. (2006).

Role models

The influence of role models on medical students and newly-qualified doctors' attitudes and behaviour were key themes in the literature on doctor-patient consultations. Other health professionals, peers and senior medical colleagues were all cited as being part of the hidden curriculum that students and Foundation doctors observed on a day-to-day basis in the workplace. Not all experienced doctors are good role models for students and trainees and they cannot be depended upon to teach professional values, attitudes and behaviours by example (Silverman, 2009). Hasman et al. (2006) explained that trainee doctors might adopt similar behaviours to that which they observe in practice, which has the ability to perpetuate a system that may not facilitate patient partnership or patient-centred practice.

Senior health professionals were surveyed on their perception of good medical practice. They took the trainee doctors' deficiencies in technical skills more seriously than weaknesses in their manner, attitude and communication. Many were found to take a less serious view of such deficiencies, despite the fact that many more complaints were concerned with consultation skills as opposed to technical skills. The authors concluded that such skills were not seen by senior professionals in the same critical light as those more clinical skills (Hutchinson et al., 1999).

This section has considered the issues and debates that were apparent in the literature on teaching and learning consultation skills. Some of the discussions about tutors, students, the clinical environment and role models were introduced briefly.

2.10 Assessing Consultation Skills

Consultation skills are a complex set of aptitudes that include attitudes which are not easy to quantify and therefore are difficult to assess. There are also numerous factors about the patients (simulated or real) and the examiners that need to be considered in any assessment of this complex interaction. Consultation skills are not only taught using a variety of methods but they are also assessed in different ways across institutions (Kelly, 2007). This was echoed by Aspegren (1999) who conducted a review of articles related to teaching and learning consultation skills. With a view to

grading the quality of the articles, the author discovered that at least ten methods of assessing consultation skills were used across the various studies.

2.10.1 Assessment during medical school

Silverman (2009) suggested that more medical schools needed to include consultation skills as part of their summative assessment of students in order to ensure that the importance of such skills is conveyed to students throughout their undergraduate years.

The Objective Structured Clinical Examination (OSCE) has been used as both formative and summative assessment in medical education for over twenty five years. OSCEs are generally regarded as a standardised, reliable and valid means of evaluation (Kelly 2007). The intention is for the examinations to be both objective and standardised. This is achieved by the use of standardised, simulated patients, structured checklists and trained examiners who reside on stations that are as identical as possible in testing the same set of knowledge and skills (Harasym et al., 2008). Many medical schools use the OSCE to assess clinical knowledge and skills.

Kelly (2007) reported that many medical schools chose relevant assessment tools according to the principles of the knowledge model which was developed by Miller (1990). The model defined different levels of knowledge and is usually presented as a pyramid with levels of knowledge starting at the bottom with Level 1 and moving towards the top of the pyramid to Level 4.

- Level 1 which denotes that facts are ‘known’ by an individual
- Level 2 knowledge is reached when someone ‘knows how’ to implement that knowledge
- Level 3 is described as when a person can ‘show how’ they are able to use their knowledge and finally
- Level 4 is the point at which a person actively takes part in ‘doing’ the task with the use of the new knowledge (In Kelly, 2007)

Kelly discussed Miller’s (1990) pyramid in relation to the testing of consultation skills and concludes that the OSCE assesses skills at Level 3 of the pyramid, where behaviour is tested as opposed to cognition. As such, Kelly concluded that the OSCE is an excellent fit for an assessment that is designed to examine consultation skills, which includes attitude, behaviour and insight. That said, the assessment of consultation skills via OSCEs is not without criticism. OSCEs were recognised as an expensive

means of testing consultation skills due to the huge resource of simulated patients and assessors required for their implementation. In addition, there have been some queries about whether the OSCE is sensitive enough in its detection of low performance levels of consultation skills (Newble, 2004). Although, Hodges et al. (1996) found that the difficulty of the station was important in discriminating between student scores (In Kelly, 2007).

Furthermore, Harasym et al. (2008) examined the effect of different examiners on the evaluation of students' consultation skills and found large differences in scores due to the stringency/leniency of the examiners. Other reported issues include; differential performance according to the specifics of the station, the number of examiners required to reach reliability and the most suitable length of the stations to achieve validity and reliability of student scores (Aspegren, 1999).

The optimum method of assessing consultation skills is deemed to be to test performance *in vivo* via video recordings of real patients, or hidden patients in real consultations. This type of assessment would be consistent with Level 4 of Miller's (1990) pyramid where an individual is actively doing the task that has been taught (performance *in vivo).* However, these options for assessment are only usually available in postgraduate medical education and are rare in undergraduate curricula, and they create ethical difficulties in health care settings, such as patient confidentiality (Kelly, 2007).

The use of video recordings of simulated and real consultations are not only present in teaching consultation skills but are also used in both formative assessments as a learning tool and summative assessments to examine achieved learning objectives.

2.10.2 Assessment during clinical practice

The literature review found that consultation skills have been assessed through a variety of methods during the early years of clinical practice. However, most of the assessment methods were designed to assess more global clinical skills that were performed during patient interactions as opposed to consultation skills. These included mostly structured observation techniques, for example, the mini-Clinical Examination Exercises (Mini-CEX) and Direct Observation of Procedural Skills (DOPS). There have been criticisms of observational assessment of competence in terms of their reliability to predict actual behaviour (minus the presence of the observer) and the lack of the inclusion of patient feedback in the instruments (Hasman et al., 2006)

Consultation skills research that has been conducted in the clinical environment has adopted a variety of methods used to assess competence. For example, Van Dalen et al. (2002) made use of OSCEs to compare medical students' consultation skills from 2 universities. Additionally, patients' ratings are increasingly used to assess performance of doctors' communication (Leckie et al., 2006; Little et al., 2001). Other means of assessment include observation (Lloyd et al., 2000; Mohammed at al., 2006; Gude et al., 2007) and/or audio and video recordings of real consultations (Lienard et al., 2010). However, assessment of skills via live performance is not without methodological issues. Difficulties can occur in the assessment of skills via observation. When watching a live performance, an observer will focus attention on a whole host of areas during an observation. There might be issues with differentiating whether or not a particular skill or behaviour was present in a live performance. Even the same observer might record different things that happened during a live performance, dependant on where they focus their attention and when. This manifests in a difficulty of standardisation of the observational data obtained from viewing a live performance. These issues can occur even when the performance is recorded for subsequent analysis. Check-lists and rating scales are sometimes used during observations of live performances, which can help to standardize ratings, but it is suggested these can be reductionist in terms of representing that which occurred during the whole period of observation.

Interviews and focus groups designed to explore perceived levels of consultation skills performance have been conducted with junior doctors themselves and more senior doctors (Watmough et al., 2006a). Postal, on-line and real time questionnaires have also been used with a variety of clinicians to gather opinions about consultation skills levels (Linklater, 2010). The large majority of the assessments of clinicians' consultation skills were described as self-report, that is that the doctor assesses their own consultation skills.

This section presented the means by which consultation skills are measured both within medical school, and the clinical environment, as well as how researchers have sought to assess the consultation skills of participants.

2.11 Patient Perspectives of Doctors' Consultation Skills

Patient perspectives of the effectiveness of health care have been afforded greater importance in recent years. Patients are increasingly asked to take part in both research and evaluation of the services that they receive. Population surveys carried out in Australia, Canada, Germany, New Zealand, the UK and America reveal that

patients are not always involved in treatment choices, or given preventive and self-management advice. Patients in the UK are less likely to receive advice on disease prevention and lifestyle modification than those from other countries (Hasman et al., 2006).

The Healthcare Commission coordinated national surveys of patients' experience of general practice in 1998 and subsequently implemented annual surveys for acute inpatients from 2001. Results are used to drive national objectives and developments through monitoring quality and performance of service providers (Black and Jenkinson, 2009). In a review of studies that explored the effect of patient feedback on doctors' consultation skills, Reinders et al. (2011) found that 80% of the studies had demonstrated improved educational outcomes for doctors following feedback from patients.

In England, the National Health Service survey results continually suggest that there are shortfalls between what patients expect and that which they receive from their health care providers (Hasman et al., 2006). Patients who perceive that they have not received a patient-centred consultation are less satisfied, less enabled and may suffer greater burden from their symptoms and have higher rates of referral to other health professionals (Little et al., 2001).

National and local surveys in secondary care show that patients are not satisfied with the communication process between themselves and health care professionals and recommendations for further training of health care professionals on communication skills have been suggested (Hasman et al., 2006). National statistics on written complaints to the NHS in England demonstrate that 22.2% of complaints are concerned with attitude to and communication with patients (NHS, 2011).

Patient satisfaction with their doctors' interpersonal skills has also been associated with a variety of characteristics about the patient such as attitude, expectations and perceived health condition. For example, patients who had a lower education level were more dissatisfied with their involvement and the information that they had received during consultations (Hawken, 2005). Similarly, Little et al. (2001) discovered that patients who are vulnerable either socioeconomically or because they are particularly unwell had a very strong preference for a patient-centred consultation style.

Leckie et al. (2006) identified that some of the tools used to elicit patients' perspectives in research used ambiguous terminology. For example, they used the word 'friendly' in their study which explored patients' preferences of doctors' communication behaviours. 'Friendly' was differentially interpreted between the researchers and patients. The

authors sought to address this weakness by requesting patients to qualitatively express the meaning that they ascribed to this and other elements (about the doctor's communication behaviour) contained on a questionnaire and subsequently incorporating their responses into a new instrument that they deemed would be more accurate in eliciting patient preferences for specific consultation behaviour. They concluded that patients' interpretation of specific consultation behaviours needs to be considered in order that patients are evaluating that which the researcher intends for them to evaluate (Leckie at al., 2006).

Patient satisfaction with their clinicians' consultation skills has often been studied in relation to a set of general behaviours that are considered to be part of effective communication skills and preferred by patients. For example, Leckie et al. (2006) described and categorised these behaviours into 4 broad components. They defined them as being technical, affective, high controlling doctor and low controlling doctor behaviours. The authors concluded that gathering information about patient preferences was useful in developing recommendations for doctors to consider in adapting their own behaviours to improve patient satisfaction and quality of care. Existing evidence suggested that patients preferred a doctor who provided relevant information and one that was low-controlling allowing them to contribute to the interaction.

Reinders et al. (2011) conducted a systematic review to analyse the effect of feedback from real patients on clinicians' consultation skills and found that only fifteen studies explored patient feedback and its' subsequent effect upon consultation behaviour of clinicians. The rigour of methods and quality of the studies included was variable and the authors offered several explanations for this, including the ambiguity of defining 'consultation skills', the lack of consistency in valid, reliable instruments used to elicit patient assessments and the lack of clear outcome measures concerned with the level of evaluation. The authors also noted that patient assessments might be subject to bias in that they are reluctant to report poor experiences and be critical of their clinicians who were responsible for their care due to the unequal balance of power between them and their clinicians.

Campbell et al. (2007) used an assessment tool that was designed to collect both doctors' and patients' perceptions of consultation skills used in a shared consultation. They recruited a mixture of family doctors and specialists who each completed their version of the questionnaires following consultations with between two and twenty five of their patients. These patients also completed the parallel version of the questionnaire following the same consultation. The results demonstrated that both the

doctors and their patients recorded high scores across all nineteen items of the questionnaire. However, patient ratings were higher than doctors. The results were also used to offer evidence that the instrument was feasible, reliable and valid.

Campbell et al.'s (2007) finding that patients rated the doctors' performance as higher than the doctors themselves was consistent with other studies that have compared both clinician and patients' evaluations of performance (Violato et al., 2003) and might be an indication of the unequal power balance between doctors and patients (Reinders et al., 2011). Moreover, there were suggestions that doctors might not accurately assess their own skills (Regehr and Eva, 2006). In a review of research that made use of self-assessments of doctors' abilities, only 35% of the included studies showed a positive correlation with the objective assessments of the same abilities (Cave et al., 2007).

This section has signposted some developments in the endeavour to incorporate patient feedback into the evaluation of clinicians' consultation skills. It has covered some of the challenges of doing so and the issues with patient and doctors' differential evaluations.

2.12 Consultation Skills Training and Student Performance

Cohorts of medical students have been used to explore the impact of consultation skills curricula on consultation skills acquisition and practice (Yedidia et al., 2003; Van Dalen et al., 2002; Papageorgiou et al., 2011). Yedidia et al. (2003) evaluated an intervention of a comprehensive consultation skills curriculum, introduced in the third year of 3 different medical schools in America. The authors used an earlier cohort of students who had not been exposed to the training as their pre-test group. Both groups' consultation skills were assessed using OSCEs designed to test specific patient care tasks that the authors had identified as having an impact upon patient outcomes. Ten OSCE stations were developed through consultation with faculty members and close attention was paid to the standardising of training and level of emotion displayed by the simulated patients used in the study. A global scoring was also built into the design of the OSCE stations. Results suggested that the cohort exposed to the consultation skills training were rated significantly higher by standardized patients on the five key patient care tasks as well as the global assessments (Yedidia et al., 2003).

The three schools chosen for the study had different approaches to consultation skills teaching prior to the initiative that was evaluated during this study. However, the authors suggested that the commonalities of the intensive consultation skills curricula

were influential upon the improvement of the students' consultation skills. The authors recognised that the intervention across all schools was consistent, in that it made use of an effective model of teaching, dedicated time, consensus of core skills, integration of skills into varying clinical contexts, effective guidance and feedback to students and pacing and feedback individually designed for students (Yedidia et al., 2003). These components were instrumental for the effective teaching and learning of consultation skills.

Whilst Yeddia et al. (2003) argued that it was the commonalities between the curricula that influenced the improvement in consultation skills, the different approaches used to teaching prior to the intervention was a weakness to the study. This was partially addressed by the authors who adopted a pre-test post-test design which ensured that the improvements were measured in relation to baseline levels of the student's communication skills. However, the characteristics of the previous experience of consultation skills training would have had an impact upon the levels of improvement reported. The apparent impact of the intervention in this study is confounded by many factors associated with the previous learning of the students. Across the 3 schools, the level of integration with clinical practice as well as the scheduling and length of time spent on the teaching were different. All of these variables have been shown to affect the learning and subsequent performance of consultation skills. Prior experience and the learning environment would have impacted upon the attitudes and motivations of students to learn and perform effectively and therefore affecting the OSCE scores achieved following the intervention. In effect, the differences found between the performance scores between the schools was confounded and therefore making the reported effectiveness of the intervention ambiguous.

Van Dalen et al. (2002) compared cohorts of fourth and sixth year students from two Dutch medical schools (Maastricht and Leiden) who offered a six year medical curriculum divided into four years pre-clinical and two years clinical teaching. Van Dalen et al. (2002) made a distinction between a longitudinal (that which is taught continuously over a certain amount of years of medical school) and a concentrated curriculum (that which is taught in blocks of time at certain points during medical school). The two schools implemented different approaches and different scheduling of their consultation skills training. Maastricht offered a problem-based, integrated curriculum during the four pre-clinical years which included consultation skills taught longitudinally. In contrast, Leiden offered a more traditional training with consultation skills being taught in concentrated blocks of teaching.

The author's aim was to evaluate the effect of the two consultation skills curricula upon the performance of consultation skills of the students using OSCEs with standardised patients at two time points. The findings revealed that both the fourth and sixth year students who were trained at Maastricht scored better on the communication skills measure than the Leiden students. This was offered as evidence that a longitudinal, problem-based, integrated communication skills training was superior to the traditional type curriculum. However, improvements were found in communication skills performance levels between years 4 and 6 of the Leiden students who had followed a traditional curriculum but included some concentrated communication skills training in the clinical years. In light of this, the authors recommended the continuation of consultation skills training during the clinical years of medical school (Van Dalen et al., 2002).

Whilst the Yedidia et al. (2003) and Van Dalen et al (2002) studies were conducted in different countries, investigating quite different educational interventions of consultation skills curricula and even used different types of assessors in their performance measures, similar conclusions were drawn from their findings. Both Yedidia et al. (2003) and Van Dalen et al. (2002) claimed that the longitudinal, integrated teaching of consultation skills impacted positively upon performance levels of students. These findings and recommendations are consistent with other studies in this area. An integrated, experiential consultation skills curriculum taught longitudinally across all of the years of medical training was what produced higher performance levels of effective consultation skills among medical students (Papageorgiou et al., 2011; Hauer et al., 2012).

In contrast, Utting et al. (2000) attempted to measure the impact of consultation skills training on Year 3 students at the University of Manchester medical school. They compared the consultation skills performance of students who had not received any training (before curriculum changes) to those who had experienced training (after curriculum change). The two cohorts of Year 3 students were subjected to different versions of 'basic training'. One group were taught by using a very traditional framework to taking a medical history and were taught to use appropriate, diagnostic questioning to elicit the nature of patient symptoms. The other group received communication skills teaching in small groups and role-play with standardized patients in order to develop their interview skills. At the assessment point all participants were asked to take a history from a standardized patient that was video-recorded and then analysed by two independent observers. There was no difference in the assessments of the cohorts or any measurable improvement in the consultation process 10 weeks

after the training, which suggested that there was no effect of the different types of training (Utting et al., 2000).

The results of Utting et al (2000) demonstrated that different educational outcomes can be achieved following an intervention which may not be a direct result of that intervention. For example, in Utting et al.'s (2000) study there may not have been any measurable effects of the consultation skills intervention due to the fact that 10 weeks was too short a time span for any improvements to be measurable. An alternative explanation might be that the consultation skills 'basic training' was taught differentially to the students depending on which medical school they attended. This might be described as 'naturalistic variation' which encompasses numerous variables that can affect the students' learning including the underlying ethos of the medical school, the tutors and the schools entry requirements.

Given the fact that medical schools vary extensively in their general medical education ethos (as described in 2.3.1) and the way in which that ethos is ever-changing across and within medical schools, it would be misleading to conclude that consultation skills training/an intervention had directly led to the measurable difference in skills acquisition. In most educational research the objective is usually more exploratory, seeking to gain knowledge about a particular situation/phenomenon; as opposed to finding cause-effect relationships for explanation of effects within context-rich studies that include high numbers of influencing factors that could never all be accounted for. For example, a study designed to look at the educational value of a curricula change might interview students about their 'lived experience' of that change to evaluate its effectiveness. Such a study design would not be able to take into account or control for all of the factors that might impact upon that experience, such as the tutors, students' personality, gender, age, educational background, teaching environment etc.

The study of Hastings et al. (2006) sought to explore the more qualitative nature of consultation skills performance via direct observation of senior students (N=1116) in consultations with real patients in a general practice placement. The teaching intervention in this study was an 8 week clinical methods course undertaken by students in years 3 or 4 of medical school. Consultation skills performance was assessed using the Leicester Assessment Package (LAP). The LAP contained five categories of consultation competence and 35 component competencies. The study teased out strengths and weaknesses of students' consultation skills by exploring whether and how frequently key areas of a competence were observed by assessors. The assessors in this study were also requested to offer the students verbal and written feedback which included suggested strategies for improvement. The authors presented

some interesting ideas about how strengths and weaknesses of students can be identified and monitored as well as how feedback can be more individually tailored to individual learners by offering them 'strategies for improvement' (Hastings et al., 2006).

Whilst this study offered some insightful descriptions of learners' use/non-use of taught consultation skills, there is a lack of baseline data to assist in demonstrating that the 8-week training course was improving students' performance. As identified by the authors, observation as a methodology in medical education is a useful but very impractical means of assessing key skills of students due to the resources required in terms of patients, assessors and time. The other weakness in Hastings and colleagues' (2006) study was the lack of the patient perspectives on their consultation experience. Given that the study made use of real consultations, patients were available and their opinions would have added value to the results of this study.

This section has provided a discussion of some of the studies that have explored the levels of consultation skills performance in medical students which have implemented various means of capturing the performance of students in consultations.

2.13 Consultation Skills and Junior Doctors' Performance

The review of the literature indicated that there was much research that sought to evaluate the effects of the new consultation skills curricula on the subsequent performance of training doctors who were now consulting in their everyday clinical practice.

In 2000, Liverpool University began an evaluation project 'The Liverpool Medical Curriculum Evaluation Project' in order to track the effects of their change in curriculum which took place in 1996. Part of that project included one study which explored the impact of the reformed medical education curriculum on the preparedness to practice of PRHOs (graduates in their first year of practice following medical school). They were placed across 5 Liverpool hospital settings. The authors made use of qualitative methods in the form of focus groups in their data collection (Watmough et al., 2006b).

For the focus groups, the authors recruited from the first cohort of PRHOs who had experienced the new undergraduate medical curriculum. In line with the GMC's recommendations, part of Liverpool University's reform of its curriculum included the introduction of consultation skills training during years 1 and 2 and assessment of such skills throughout the medical undergraduate course. A total of 5 focus groups were conducted, designed to explore their perspectives of whether the new curriculum had

helped them to feel ‘prepared’ as PRHOs. The authors noted that pre-selected topics related to the role of a PRHO (according to the GMC) were used as the content and were covered during the focus groups. However, those topics were not explicitly cited in the article. During the focus groups, all PRHO described themselves as ‘good communicators’ and expressed the benefit of consultation skills training received during their undergraduate training. They confirmed that they used techniques learned during consultation skills classes when interacting with patients and described how this had given them confidence in managing difficult situations. Consultation skills classes were also cited as being beneficial in taking ‘good’ histories from patients. Some grievances were expressed by the PRHOs including that they felt like ‘guinea pigs’ and were ‘over appraised’, due to being the first cohort to undergo the new curriculum, but overall they reported feeling prepared for their roles as PRHOs (Watmough et al., 2006b).

Gude et al. (2009) dealt more directly with consultation skills training and its impact upon real consultations following the transition from medical student to junior doctor. The study recruited from 4 Norwegian medical schools which all offered specific communication skills training, despite differences in the design of the curricula. Students were recruited prior to graduation to be video recorded in consultation with a standardized patient. The videos were then observed and assessed by trained markers using the Arizona Communication Interview Rating Scale (ACIR). The ACIR is a self-report instrument containing 14 items concerned with consultation skills performance, for example, open questioning and eye contact. This same procedure was repeated at the end of internships (18 months later) in order to track any changes/improvement. At both times the participants completed a self-report questionnaire concerned with their own consultation skills.

The measure (ACIR) used to assess the consultation skills performance in this study was divided into ‘general social skills’ and ‘specific social skills’. Previous studies had dichotomised the two sets of skills (Aspegren et al., 2005) and argued that these skills could be separated due to the fact that they accurately described two different types of social skill. In effect, ‘general’ (e.g. eye contact and avoiding repetition) was defined as those social skills that students have naturally and developed spontaneously through medical school. The ‘specific’ communication skills were defined as those more professional skills such as: organisation, open questioning and summing up. It had been previously claimed that this ‘specific’ professional skill set could only be achieved through professional and repetitive training in a supported environment, as opposed to being spontaneously learnt (Aspegren at al., 2005). The results in Gude et al.’s (2009) study brought these views into contention. They found that both types of social skills

improved during the internship which suggested evidence that specific, professional skills can in fact be spontaneously learnt. However, the level of general social skills was much higher at both the end of medical school assessment and eighteen months later at the end of internship, than the level of professional, specific social skills.

Results showed that for females, there was an overall improvement of both types of social skills, ‘general’ and ‘specific’, between graduation and the end of the internships. However, upon further analysis the authors found that this gender difference could be mediated by how the participants perceived their workplace as a learning environment and their perceived levels of stress (Gude et al., 2009).

The results in this study demonstrated that the levels of consultation skills achieved at the end of medical school did not explain or contribute to the levels achieved by the end of hospital training. The authors noted that the correlation of scores on the ACIR measure at the end of medical school and the end of the internship were low. Therefore, this was suggestive of the contribution of other factors such as the internship conditions. The authors concluded that it might be the case that the interns knew ‘what to do’ during consultations when they finished their medical school training but the increased exposure to patients during the internship years meant that they learned ‘how to do’ consultations by the end of their internship training.

This conclusion might offer further evidence of the gap that was consistently highlighted in the literature between that which is taught within the classroom of medical schools (what to do) and that which is practised in the real clinical environment (how to do). The GMC (1993) advocated for students to be competent in the integration of scientific knowledge and humaneness and the marrying of theory and practice.

The literature review revealed that this may not have been addressed in practice. A point was made in the discussion of simulated learning where mastering competencies individually might not equate to real clinical life where competencies have to be displayed simultaneously. Or that the ritualistic learning from simulated consultations (what to do) compared to the learning involved in real life consultations (how to do). The consultation skills that students learnt during their undergraduate education were sometimes deemed to be impractical to use within the clinical environment and even viewed negatively by senior colleagues (Brown, 2012).

If it is the case that the more professional, specific consultation skills can be improved spontaneously then this may have both positive and negative implications for trainee doctors who are exposed to role models who may have different ideas about the importance of consultation skills training and the way that they are practised. Perhaps

more importantly, there may be many lost opportunities for work-based learning and teaching of consultation skills for training doctors. It might be the case that neither senior nor junior doctors are aware of the value of such spontaneous learning but it could be that they are able to hone their consultation skills by spending more time observing other more senior doctors during their clinical practice.

In another study related to the 'The Liverpool Medical Curriculum Evaluation Project', Watmough et al. (2006a) compared two groups of newly qualified doctors who had different experiences of consultation skills curricula at the University of Liverpool. One group were the last cohort to be taught at medical school using the 'traditional' lecture based method prior to the GMC reform of medical education (GMC, 2009). This group was compared with the first cohort to be taught by the 'integrated, problem-based curriculum' which included specific consultation skills training. A mixed methodology was used in this study which included questionnaires designed to encompass the key skills listed in 'The New Doctor' (GMC, 1997) and distributed to both the doctors and their educational supervisors. The level of competence perceived by both the doctors and supervisors was elicited. As part of this study, educational supervisors were invited for interviews designed to explore how prepared they thought that the PRHOs were and their opinion of communication skills ability. Four focus groups were conducted with the graduates from the traditional curriculum and five with the graduates of the new, reformed curriculum.

Educational supervisors expressed during the interviews that the PBL cohort performed much more effectively in communicating with patients than the graduates of the more traditional curriculum, who had received no formal training. There were only two interviewees who did not notice any difference in communication skills between the two groups of graduates. The majority of supervisors concluded that teaching consultation skills at university results in the production of more competent communicators. However, in their self-report of consultation skills competence there was no difference found between the traditional and new curriculum graduates (Watmough et al., 2006a).

During the focus groups it was apparent that the perception of consultation skills training and its importance in practice was quite different between the two groups. The 'traditional cohort' attributed their good consultation skills as something that came 'naturally' to all doctors despite their lack of any formal training. They were sceptical about the values of such training in the undergraduate curriculum and expressed that skills such as breaking bad news could not be taught or practised as a student and any such training could not be regarded as adequate preparation. In contrast, the PBL cohort attributed their competence to their consultation skills training and, whilst some

of them stated that there were too many classes, they generally valued and used their training during their consultations as PRHOs (Watmough et al., 2006a).

In this study, the added value was the inclusion of the perspectives of educational supervisors, especially given that clinicians may not be accurate in their self-assessment of skills. As such, the lack of difference found in the self-report from the 2 groups of PRHOs could have little to do with differences in their training. A potential weakness to the study might be that the deviant cases were not explored. It might have been interesting to explore why the 'couple' of supervisors felt differently or if there was anything different about them that may have effected how they commented.

Whilst some of the studies highlighted in the preceding sections did elicit the students' and graduate doctors' opinion of their consultation skills training/intervention experience, the focus was more upon the performance levels at various time points following the training/intervention. Lempp et al. (2005) claimed that there was a degree of incongruence between how students experienced their training and the intentions of curriculum planners. The perspectives of those who had experienced the emerging methods of teaching consultation skills was lacking in the literature.

Malhotra et al. (2009) partially addressed these issues with a qualitative exploration of specific aspects of consultation skills training and discussed how and if that was translated into effective consultations in practice. In recognising the lack of the 'learners' voice' at international conferences on communication skills, they produced an article which followed a 90 minute symposium conducted at the European Association of Communication in Healthcare (EACH) conference in 2008 which was designed to provide the learner perspective of consultation skills training and subsequent practice. They presented perspectives from the UK, US and Norway. Participants were drawn together to present their experiences of consultation skills training and real life application of such training in the clinical workplace. The paper offered qualitative evidence of the learners' experience and attempted to draw out the ambiguities between the learning and performance of consultation skills at university and those implemented during real consultations with real patients in the clinical environment (Malhotra et al., 2009). The learners' perspectives were grouped into four areas that the authors deemed as fundamental to the exploration of consultation skills training and practice. The categories outlined were: using simulated patients, learning in the clinical setting, barriers to utilizing consultation skills, and future directions.

The students and junior doctors (Malhotra et al., 2009 - the authors) sought to address the gap that existed between the formal training of consultation skills in the classroom

and that which they were able to practice within their clinical practice with real patients. The areas identified as being the most crucial to minimising the chasm between consultations skills that are learnt and those which are subsequently practiced were:

- The integration of consultation skills and clinical skills teaching with a mixture of simulated learning in the medical school and exposure to real clinical situations in hospital placements with opportunities to practice what was learnt in the simulated environment.
- A multidisciplinary approach, it was suggested that more teaching which emphasised the multidisciplinary approach that was ever present in health-care settings would be useful.
- Technology; suggestions were made about the effect of computers and their impact upon the practice of consultation skills.

Differences between the way consultation skills were learnt and performed in the classroom and during assessment with those that were demonstrated in the real world were highlighted. A strength of this paper was that the participants were drawn from both medical students and recently qualified junior doctors from different countries which offered a rare insight of the transition from student to doctor and how and when consultation skills training translated into practice during this transitional period. A weakness of this paper was that the data was drawn from only 7 participants. That said, the findings were heavily supported by some of the literature already available on the experience of students which the authors cite effectively (Malhotra et al., 2009).

This section has reviewed some of the investigations of the effects of consultation skills training on the performance of newly qualified doctors with both real and simulated patients. It also offered the unique perspective of learners who were subject to various methods of consultation skills training and practiced them in a variety of settings.

2.14 Influences on Performance of Consultation Skills

There are an exhaustive amount of variables that might impact upon physicians' ability and competence while conducting effective consultations with their patients. This section will attempt to consider the evidence available for some of the key variables that are cited in the literature on consultation skills performance. This will include a focus on the clinical environment and the medical hierarchy as well as elements about the doctor and the patient that might impact consultation skills performance.

2.14.1 The clinical environment revisited

The clinical practice environment and its' influence upon doctor-patient relationships was explored in the literature. Transfer of consultation skills training was deemed as challenging for graduates who might not have received sufficient supervision whilst embedding their skill into practice (Heaven et al., 2006). Doctors in their first year of postgraduate training reported some difficulties in their relationships with seniors and supervisors. They reported that access to the support of seniors was difficult and some experienced public humiliation and unreasonable demands from their senior colleagues (Paice et al., 2002a). Trainee doctors often reported feeling subordinate within the medical culture. They felt inferior and/or insecure within the changing environments while they moved from department to department with constantly changing personnel (Forssell, 2007).

The environmental differences between primary and secondary settings were noted. General practice settings offered a facilitative environment in which PRHOs were able to both use and improve their consultation skills. However, they found it challenging to transfer those skills to the hospital setting and were not able to communicate with patients in the manner in which they would have preferred and found themselves taking charge of the consultation to ensure that important information was obtained (Williams et al. 2001). In another study that explored graduate doctors' consultation skills, Gude et al. (2009) found that the level of improvement in skills was predicted by the participants working in a small local hospital and those that did so demonstrated significantly higher levels of communication skills at the end of their postgraduate training than those who had worked in larger hospitals. More details on why this might be will follow in the discussion about 'time' in the clinical environment.

As previously discussed, the concept of doctors 'disconnecting' from their emotions in the clinical setting has been highlighted in the literature. This was also discussed by Williams et al. (2001) who explored perspectives of PRHOs through qualitative interviews. The study was designed to investigate how real doctor-patient relationships differed from their undergraduate expectations. Differences of reality compared to expectations expressed by the participants were concerned with emotional 'blunting', the shortage of time, changing ideas about what is a 'good' doctor and redefining their professional relationship with patients. The authors concluded that this demonstrates that the PRHOs in their study might be developing in the opposite direction to that which is intended. In effect, they were developing attitudes that allowed them to manage their own and their patients' emotions by 'disconnecting' from them rather than

developing those that were essential to creating genuine care and concern for their patients (Williams et al., 2001).

Time

The clinical environment is characterised by numerous pressures upon clinicians in terms of their busy workloads and therefore their experience of time constraints. As previously discussed, the time a clinician can take during a consultation is variable according to the medical environment within which they worked. Time constraints impacted upon what was covered during a consultation with a patient, as well as how it was covered (Little at al., 2001). It was well documented that the secondary care setting might be perceived as somewhat busier and more time constrained than the general practice setting (Williams et al. 2001). It is also noted that the availability of time during ward rounds is extremely limited (Lienard et al, 2010).

Newly qualified doctors have repeatedly reported that the time constraints imposed during the early days of their practice impact upon their personal stress levels in many ways (Williams et al., 2001; Malhotra et al., 2009; Little et al., 2001). They also reported the differences between conducting consultations as a student in the classroom and their consultations with real patients in the clinical setting. The availability of time impacted upon junior doctors' ability to conduct the structured, patient-centred consultations that their training has promoted. Sometimes newly qualified doctors might be viewed by other doctors as working too slowly when they do attempt to maintain a patient-centred relationship. The alternative view that time spent with patients is valuable might need to be better promoted within the primary and secondary clinical settings (Williams et al. 2001).

Time available to access personal support was also presented as a challenge for new doctors. They claimed that there was little time for them to address and discuss their emotional needs related to the increasing demands of the job (Paice et al., 2002b). In Sweden, Foundation doctors often complained about the lack of time that was available to them to facilitate reflection on their practice. For this reason, Balint (2000) groups were developed and became compulsory in one of the hospitals there. They were designed to offer groups of Foundation doctors an arena within which to discuss their experience, including misunderstandings and mistakes. The aim of the groups was to develop the doctors' consciousness of the processes and problems that they faced during communication with others (Forssell, 2007).

2.14.2 Doctor variables

Doctor-patient consultations and, more specifically, the doctors' ability to use effective consultation skills can be influenced by many characteristics related to the doctor. It would not be possible to introduce an exhaustive list of such influences but a selection of the key ideas found in the literature will follow. For example, Paice et al. (2002b) reported that when doctors in their first year of training reported stressful incidents, their choice of incident from their own experience was related to the doctors' personal characteristics. In other words, the doctors who were most stressed were those that reported incidents that were about themselves or their perceived responsibilities. The authors concluded that a new doctor's response to the demands of clinical practice was more likely to be related to the doctor's personality or psychological nature (Paice et al., 2002b).

Gender

Research into consultation behaviours during doctor-patient interactions both in medical schools and beyond have explored whether the gender of the doctor made a difference to the level of communication skills performed. For example, female residents out-performed males in communication skills OSCE stations (Yudkowsky et al., 2006). Gender differences have been discussed in relation to patient-centred attitudes, type of conversation and questions, and length of consultations. Female clinicians have been associated with performing more patient-centred consultations, engaging in more psychosocial talk with their patients and conducting longer consultations (Roter and Hall, 2002). Female doctors had received higher ratings on Campbell's consultation skills measure designed to elicit both doctor and patient perspectives (Campbell et al., 2007). However, conflicting evidence suggested that there was no difference between the genders in relation to consultation skills (Hawken, 2005).

Development of professional identity

Trainee doctors have been said to be at a vulnerable stage following graduation from medical school. The stresses and issues faced through the transition from student to practising doctor were well documented in the literature and discussed previously in this chapter. Forssell (2007) described Foundation doctors as both developing and modifying their identity as they progressed through their training and termed this transition as 'seeking a professional identity'. This notion is echoed by Paice et al., (2002a) who recognised that doctors were learning to take professional responsibility

during their early years and perhaps were not being provided with the appropriate support and supervision.

Stress and workload

The level of stress experienced by newly graduated doctors was consistently recognised within the literature. Numerous causes of doctors' stress levels were discussed, a selection of which has been covered previously in this section. For instance, many aspects of the clinical environment such as time, attitudes of seniors, transient working patterns and the management of emotions have been linked with the stress levels of doctors. Brennan et al. (2010) conducted interviews with newly qualified doctors who reported high levels of stress in the transition from student to training doctor despite all of the new reforms implemented to decrease the stress of this transition. Increased responsibility in terms of being more involved with their patients' lives was reported as a cause of anxiety about their clinical competence.

2.14.3 Patient variables that impact on consultations

As previously discussed the dynamics of doctor-patient consultations were affected by numerous variables including characteristics of the patients themselves.

Vulnerability

In a study designed to identify the educational needs of Foundation doctors and the care of dying patients, Linklater (2010) found that communication and lack of senior support were key issues to be addressed. Any doctor-patient consultations concerned with death and looking after dying patients were rarely discussed among senior clinicians who represent role models for more junior doctors. This behaviour sometimes resulted in lack of support available for the emotional needs of training doctors who might then begin to doubt their ability and feel that it is not permissible to seek the appropriate support. Observing such behaviour sometimes led to subsequent unsupportive behaviour in future years of practice. It could be argued that there is a sharper focus on patient-centred attitudes and effective communication when it comes to end of life care where the more traditional biomedical perspective of diagnosis and treatment is less of a priority (Linklater, 2010).

Patients who were vulnerable through their socio-economic status or their level of anxiety or illness were found to have very strong preferences for their doctors' patient-centred communication. On the other hand, breast cancer patients were more concerned with the technical knowledge of their clinician and respected their doctors'

status. The poorer the patient's health, the lower their satisfaction was with their doctors' communication skills (Hawken, 2005).

Gender

Patient gender has been associated with their reciprocal consultation skills behaviour within same sex interactions. Female patients who were consulted by female doctors tended to match the consultation behaviours that are characteristic of female doctors. That is, they make more positive statements, talk more and discuss more psychosocial information. Moreover, consultations that were female gender concordant lasted longer and were characterised by a more equal contribution of doctor-patient dialogue (Roter and Hall, 2002).

Bonney et al. (2009) explored gender concordance in general practice registrars. That is, whether or not the gender of the doctor in relation to that of the patient made a difference to the consultation. An association was made between the levels of the patients' trust in the doctors with whom they were consulting. Patients were more likely to be dissatisfied with relationships if their doctor was seen as being less accessible (which included being the opposite gender) and therefore less able to manage medical problems.

Age

Patients trust in trainee clinicians has been related to patients' age. The older the patient, the less trust they reported in the trainee clinician. Moreover, patients over the age of forty reported more negative attitudes towards their general practitioners (Bonney et al., 2009). Research mainly conducted in secondary care settings also suggested that older patients may not prefer a patient-centred approach to their consultations with doctors (Little et al., 2001).

This section has presented a discussion of the key influences that might impact upon a doctor-patient consultation to affect the performance of doctors' effective consultation skills. Background variables associated with the context within which a consultation takes place are explored as well as those concerned with the characteristics of both the doctor and the patient.

2.15 Conclusion

The growing interest in consultation skills in medical education became apparent through the literature review but there was evidence that its importance is still not

recognised by many within medical education and clinical practice. The review demonstrated that there is now extensive agreement that consultation skills can be taught to medical students and that teaching is effective in improving consultation skills performance. The literature review showed that evaluations of teaching methods are usually carried out within universities as part of evaluation processes and very few studies elicited the retrospective views of learners on common practices and specific aspects of their consultation skills training. This literature review exposed the need to consider the impact of the learning context of students and doctors in the analysis of the training and practice of consultation skills. That context might include aspects of teaching methods, teachers and role models. In addition, the influences of training doctors' confidence, personality, gender and age all emerged as important factors in the learning and practice of consultation skills as well as the characteristics of patients that can also impact upon the real life performance of such skills.

The literature review evidenced the benefits of effective consultation for patients' satisfaction, recovery and well-being. It also gave weight to the value of patients as assessors of doctors' performance in consultations, as well as the importance of their feedback. The literature review revealed that much of the research concerned with consultation skills training and its impact on skills development was carried out within universities on students at the undergraduate level, not all of whom had experienced the recently reformed curricula. Equally, the review highlighted that studies involving graduate doctors who were following the new Foundation programme were rare and even fewer explored their consultation skills performance. The literature review indicated the need to investigate whether trainee doctors conduct effective consultations with their patients in the early years of their practice, what factors within their training and practice contexts impact upon them using their consultation skills in an effective way.

2.16 Research Questions

The overarching research questions that emerged from the literature were:

Are junior doctors using effective consultation skills with their patients in the clinical setting and what do their patients think? How confident are junior doctors in their ability to perform effective consultations? What factors influence the teaching, learning and subsequent practice of consultation skills for junior doctors and other clinicians?

These research questions were addressed by exploring the answers to a set of sub-questions:

According to themselves and their patients, are Foundation doctors using consultation skills in an efficient and effective way in the hospital setting?

How do Foundation doctors rate their self-efficacy both before and after consultations with their patients?

What factors influence the training and practice of Foundation doctors' consultation skills?

What are the perspectives of qualified clinicians about consultation skills training and practice?

A project wide methodology was chosen to address the over-arching research questions which will be described in Chapter 3. Three interlinked studies were designed to address the sub-questions and will be detailed in Chapters 4, 5 and 6 which will include study-specific methods, findings and discussions. Finally, Chapter 7 will offer an over-arching discussion about the project as a whole.

Chapter 3: Overall Project Methodology

3.1 Introduction

The aim of this chapter is to describe the over-arching philosophical assumptions and methodology that was used to address the research questions posed in this project. It will include a brief summary of the project and an overview and critique of quantitative, qualitative and mixed-methods research. This is followed by the justification for choosing mixed-methods design and the specific model that was used.

My first degree was in Psychosocial Science which explored human behaviour from a psychosocial perspective. The interdisciplinary nature of that degree was why I was drawn to this area of study. I believe that human behaviour cannot be analysed without a focus upon the context within which the behaviour takes place. Human action is never isolated within an individual but is entwined within a cultural, historical and social context which needs to be considered in terms of its impact upon action.

Following university, I was employed as a research assistant and was involved in exploring students' feedback on their consultation skills training during medical school. This employment sparked my interest in medical education and more specifically consultation skills teaching and how that teaching was experienced by students. Consequently, once a relevant studentship became available I applied and was successful in gaining the funding to explore the consultation skills of junior doctors. I felt that this was an ideal opportunity to draw together my academic and employment experiences.

3.2 Project Design

The overarching research questions of the project were:

- Are junior doctors using effective consultation skills with their patients in the clinical setting and what do their patients think?
- How confident are junior doctors in their ability to perform effective consultations?
- What factors influence the teaching, learning and subsequent practice of consultation skills for junior doctors and other clinicians?

It was decided that the best way of answering these research questions was through three interlinked research studies. Study 1 aimed to attain a current picture of whether

junior doctors were using effective consultation skills with their patients by specifically asking them and their patients to assess shared consultations via questionnaires with parallel content. Additionally, the level of self-efficacy (one's own confidence in the ability to perform a specific task) among the doctors was explored through the doctors plotting their perceived levels of confidence (in their ability to communicate effectively) on a scale both before and after their consultations with their patients. In order to address the investigation of the factors that were influential in the training and practice of consultation skills, in Study 2 junior doctors were interviewed in a one-to-one setting about their experience of their own training and practice using a semi-structured interview format. Finally, Study 3, an online questionnaire, addressed the perspective of other clinicians at various stages of their career from both primary and secondary care settings about factors that impacted upon their training and practice of consultation skills to complement and add further context to the first two studies with junior doctors.

The three studies aimed to address the research questions by exploring a set of specific aims:

- According to themselves and their patients, are Foundation doctors using consultation skills in an efficient and effective way in the hospital setting? (Study 1)
- How do Foundation doctors rate their self-efficacy both before and after consultations with their patients? (Study 1)
- What factors influence the training and practice of Foundation doctors' consultation skills? (Study 2)
- What are the wider perspectives of qualified clinicians about consultation skills training and practice? (Study 3)

3.2.1 Exploratory versus verifying research

The literature review suggested that since the reform of medical education in the 1990's (GMC, 2009) there has been very little evidence of research concerned with measuring specific outcomes of undergraduate medical training on postgraduate practice. For example, there was limited research that explored consultation skills training and the way that that training was used in subsequent practice by Foundation doctors and whether they used their consultation skills in an effective and efficient way. Few studies explored actual competence in specific consultation skills. Patient

perspectives were rarely included and, where they were included, it was usually to elicit their general assessment and satisfaction with services that they had received. This project attempted to provide evidence to address the gap in the literature by exploring the above research aims. As there were no existing theoretical approaches which attempted to answer the research questions above an exploratory method was employed (Phillips and Pugh, 2010) to shed some light on what happens to medical students' consultation skills once they leave undergraduate training and begin practice as Foundation doctors.

Within the education literature generally and more specifically in medical education, there has been a call for more evolving or synthesis of methods to investigate areas that are challenging and not suited to more stringent methods (Lynch et al, 2000). It has also been suggested that medical education research is positioned on the edge of social science and so researchers in the field should be encouraged to produce richer more complex outcomes that 'permit debate, build consensus and advance understanding of concepts' (Gill and Griffin, 2009: p935).

3.3 Philosophical Assumptions

A philosophical assumption or 'worldview' can be described as a broad category that can contain many specific philosophies. A particular 'worldview' encompasses a set of attitudes or beliefs about knowledge. There are various facets to a 'worldview' which influence the way in which reality is seen, understood and researched. 'Ontology' describes how reality is seen in the world around us and refers to the study of the nature of reality (Creswell and Clarke, 2011).

Paradigms of enquiry are worldviews that produce distinctive ontological realities and they can be described as viewing positions. Different paradigms create different viewing positions from which to see the world, which in turn leads to unique ways of explaining how we know what we know (epistemology) and how we assess what is valuable (axiology). In addition, a specific stance of viewing reality affects the way in which we conduct research (methodology) and how we gauge the use of language in research (rhetorical). Each theorist will frame the issues around a phenomenon in different ways. They will see different things and therefore have alternate lines of enquiry that will require specific answers to questions that will need particular methods in order to find the answers (Creswell and Clarke, 2011). There are diverse descriptions of paradigms identified in the literature that are described as 'typical' worldviews and usually produce quite contradictory positions (Sandelowski, 2000).

The relevant philosophical assumptions that drove this enquiry of consultation skills training and practice are introduced and briefly discussed in the following sections.

3.3.1 Positivism

The positivist ontological stance purports that new knowledge is produced by empirical observations and scientific measurement that are designed to be free from any type of bias. The presumption is that phenomena can be investigated in a controlled manner to establish and quantify patterns that can be deemed as 'hard' facts or scientific law. Human behaviour and subjective experience is understood by systematic enquiry and objective measuring. The positivist approach is committed to exploring and understanding a body of facts and principles that explain the world without any regard to the influence of context (Creswell, 2007). For example, laboratory experiments and psychometric testing take the positivist approach to enquiry.

In order to achieve the reliable and scientific evidence that the positivist approach relies upon, there is a need to make use of quantitative research methods that enable phenomena to be measured in this systematic, objective way. Investigations need to be strategically controlled to generate clear and valid answers to research questions. Methods such as experiments and closed question surveys are ways in which quantitative research is carried out to test ideas on a representative sample in order to arrive at conclusions that are based on evidence. These conclusions are then utilised to reasonably claim that the evidence that is uncovered reflects the position of the population from which the sample was drawn (Creswell and Clarke, 2011).

Critique

The positivist approach has been criticized for a number of reasons. The most salient argument is that it investigates phenomena independent of context and when viewing the world, it is impossible to separate it from the historical and social context within which it is lived. Lived experience is complex; human beings and their behaviour are subjective and so to measure them in objective and systematic ways is an inadequate means of generating knowledge. Human beings have intricate meaning systems, and so cultural understanding is necessary before any in-depth conclusions can be drawn about their behaviour. From this viewpoint, the positivist stance becomes superficial and minimalistic in nature (Saks and Allsop, 2007). Quantitative data collection methods, such as experiments and questionnaires are criticised as investigating that which fits a set of pre-conceived ideas of a theory to be tested or even those of the researcher. These pre-conceived ideas become part of the measuring tools and as

such they are subsequently imposed upon any data that is collected through these means (Saks and Allsop, 2007).

3.3.2 Interpretivism

The interpretivist ontological stance was developed through the continuing criticisms of the positivist approach, or scientific enquiry, and its flaws. From the interpretivist viewpoint, reality is constructed by the individual who associates meaning to their experiences. The paradigm embraces the importance of human subjectivity in investigating the social world. The exploration of the meanings that humans attach to phenomena is the focus of interest for interpretivist researchers. Lived experience and an individual's interpretation of their own reality are imperative in the understanding of the social world. Such concepts are explored through qualitative research methods that rely upon gaining an individual's view on particular phenomena that they have experienced. By utilising methods such as interviews, investigators can reveal knowledge of social processes through the assumption that words reflect what people are thinking (Creswell, 2008).

Qualitative research does not aim to uncover universal truths and suggests that if individuals construct their own reality then there are multiple realities attached to the same phenomena (Saks and Allsop, 2007). However, the aim is to build theory from people's accounts of experience of the social world in order to gain some level of understanding of the way in which particular phenomena are experienced by individuals. Through the realities that people construct as individuals, an in-depth knowledge of thoughts and feelings can be elicited to provide richness of description. The interpretivist approach purports that individuals attach multiple meanings to the way that they think and behave, and only when this is considered during the research of subjective experience can knowledge about the social world be valuable (Saks and Allsop, 2007).

Critique

Whilst the interpretive paradigm has developed momentum in recent years there are some who criticize its principles. The key issues are related to the researcher bias that can exist when studies are carried out on human beings, by human beings that can produce multiple, separate constructions of reality. This is not to mention the dynamic processes at work within the social relationship of the researcher and the participant. In addition, some critics purport that the findings uncovered through qualitative means are isolated in nature so do not contribute to generating further work and therefore fail to

advance disciplines. Another concern is that due to the complexities involved in conducting and writing up of such studies, they are difficult to replicate (Saks and Allsop, 2007).

3.3.3 Ethnography as a considered method of enquiry

Ethnography is traditionally used to describe a broad category of qualitative research designs that are often used in social and health sciences, including organisational and educational research. It has been suggested that ethnography is an appropriate method to employ when studying a group/culture of people when there is little known about them and thus no theories to build from (Saks and Allsop, 2013). Goodson and Vassar (2011) advocated the use of ethnography in healthcare research and postulated that it was suitable in exploring the many variables that exist within a clinical environment, including the dynamics of clinician and patient relationships. Barry (2002) conducted a complex, multi-methods exploration of doctor-patient consultations and discovered that there are multiple realities within the same setting and the same consultation. The doctor and patient differing accounts of the events illustrated that what was perceived and described by one party may be very different to the version offered by the other.

Ethnographic methods have also been implemented in the field of medical education for many years and include classic studies that have been influential in more recent research adopting such methods. For example Becker et al. (1961) and Atkinson (1975) who adopted ethnographic methods to explore students' learning and teaching during medical school.

Hospital settings could be described as a context that is governed by a set of specific cultural practices, which interplay to influence the clinicians in practice and patients through complex processes that are difficult capture and explore. Research with Foundation doctors practicing in the clinical setting is also scarce. For these reasons, ethnographical methods were considered for Study 2, the qualitative stage of this project.

Research methods such as ethnographic interviews, analysis of cultural artefacts, participant and non-participant observation are all associated with ethnography. Observational methods allow for varying degrees of researcher involvement in the fieldwork stage of a project. For example, in non-participant observation, the researcher observes as an 'outsider' and records what is happening; whereas in participant observation, the observer participates fully in the social world of the culture/group under study. Observation usually occurs in a naturalistic context where

social processes are explored to reveal patterns or associations which can be interpreted to identify real-life factors that are at work in a given environment. Data are collected through the use of written/recorded field notes and/or checklists, which the ethnographer then explores and interprets in an attempt to make sense of the social world and social processes that have been experienced during the fieldwork.

Critique

Ethnography is recognised as a resource heavy research method as it requires the researcher to spend many hours observing the culture of interest and equally as many hours again transcribing, analysing and interpreting extensive observational data. This investment of time is increased if the chosen method is one of a participatory nature because the researcher then has to build trusting relationships with group members in order to integrate themselves into a culture that they do not usually belong. In ethnography, the role of the researcher is paramount as they become the instrument of data collection. This has many implications, both in terms of the cultural differences that may exist between the researcher and the researched, as well as the intensity and the unknown nature of what might unfold during the field work. Another limitation of ethnography is the lack of generalisability of the research findings which have usually emerged from a small sample of people (Liamputtong and Ezzy, 2005). Due to these limitations, ethnography was not considered to be a viable method to implement in such a time and resource limited project.

3.4 Pragmatism and Contextualism

An early definition of pragmatism came from James (1907/1948: p161) who wrote,

> "The truth of an idea is not a stagnant property inherent in it. Truth *happens* to an idea. It *becomes* true, is *made* true by events." (In Fox, 2006)

The key premise of *pragmatism* is that all knowledge inquiry is practical and evaluated in relation to whether it works in relation to a specific interest or goal. In some sense, *pragmatism* suggests that all inquiry is practical and interested in evaluating the features of the situations in which people find themselves and people's ability to think about external things and their understanding of them is gained through experience. As opposed to the purely positivist and/or relativist perspective, *pragmatism* suggests that methods and knowledge should be judged according to how well they serve specific interests and not how well they follow the rules of a particular methodological stance. The *pragmatist* position is such that methodologies are not in competition with each other, because each serves a different purpose (Fox, 2006).

Pragmatism promotes pluralism and therefore rejects the notion that there exists one single truth but instead values a variety of perspectives and forms of knowledge. Human interests are placed as key to productive enquiry and are valued as creating the criteria against which knowledge can be evaluated as useful. For this reason, *pragmatism* places people's everyday experiences as a fundamental part of seeking knowledge. The pragmatist researcher views knowledge as a tool that mediates the relationship between humans and their physical and social world where theory and practice are not separate spheres; rather, theories are tools and can be seen as ways of finding our way in the world. *Pragmatism* has been advocated as a useful philosophical stance to adopt in the field of Health Psychology (Cornish and Gillespie, 2009).

A later definition of *pragmatism* came from Fox (2006: p10):

> "In pragmatism, ideas are 'selected' (to be retained as true or valid) if they lead to successful action, just as in natural selection traits are selected (to be retained by the species) if they lead to reproductive success"

Contextualism is a world view based on philosophical *pragmatism*, and has been described by Fox (2008: p55) in the following way:

> "A philosophical worldview in which any event is interpreted as an ongoing act inseparable from its current and historical context and in which a radically functional approach to truth and meaning is adopted. The root metaphor of contextualism is the *act-in-context*, and the truth criterion of contextualism is *successful working* or *effective action"*

For the *contextualist*, inquiry does not require or seek to verify the existence of absolute truths or assumptions of human behaviour. In *pragmatism* and *contextualism*, the truth lies in the function or utility of truths and not in how well they are said to mirror reality. For the *contextualist*, the meaning of a phenomenon is defined by its practical consequences and its truth is defined by how those consequences reflect successful action. In effect, ideas do not exist 'out there' waiting to be discovered but instead are viewed as tools that people have developed to cope with the situations (contexts) within which they find themselves (Fox, 2008).

Contextualists recognise that humans operate within contexts but have the ability to reflect on their contexts and broaden the view of their contexts in order to engage and enter other contexts. *Contextualism* works on the premise that to acknowledge the role

background information or contexts play in how people acquire knowledge and learn about the world does not lose objectivity (Cornish and Gillespie, 2009).

3.5 Contextualism and this Exploration

In seeking new knowledge, in this project concerned with consultation skills training and practice, there was a need to accept that the researcher who was central to the investigation already had a significant amount of background knowledge which served to set the context within which this enquiry took place. Further external contextual factors influenced the enquiry; for example, the cultural and historical setting of the investigation of the phenomena of interest. It was decided that 'context' as described here was an important concept to be recognised and considered in the overarching viewpoint taken by the researcher in this project. For that reason, the overarching worldview taken by the researcher in this enquiry of consultation skills training and practice was *pragmatism*. More specifically, the philosophical ideas of *contextualism* (as described earlier) were considered to be relevant and appropriate. This standpoint fitted logically with the exploration of Foundation doctors' experience of consultation skills training and practice. Whilst they operate as individual learners and doctors, the way in which they operate as communicators is influenced and bound by the context of their training and working environment, in this case their undergraduate medical education and the clinical settings within which they practice.

3.6 Pragmatism and Mixed-methods

In the past, most research methods chosen by social scientists have been firmly driven by their ontological viewpoints which usually belonged to the qualitative, inductive means of inquiry or the deductive, quantitative means of acquiring knowledge about a phenomenon. More recently, with the rise of research methods that attempted to make use of both types of enquiry, there was much debate around how it was possible to link an ontological stance that existed on a well-known dichotomy of ideas with research questions and methods that called for the mixing of the two opposing types of methods. The use of mixed-methods designs by researchers increased, but sometimes resulted in less explicit rationales for their choice of methods. For example, explicit connections with philosophical paradigms were often missing and deemed more difficult to articulate when writing up mixed-methods research. Whilst mixed-methods research was beginning to be seen as the third paradigm along with qualitative and quantitative, critics suggested that this type of research was chosen through the need to keep up with what was felt to be popular at the time as opposed to being chosen through a strong belief system.

Pragmatism seemed to offer a solution to researchers who did not firmly sit in the quantitative or qualitative camp and who did not agree with the notion of there being 'one truth' or 'multiple truths' in the real world that could singularly describe the nature of reality. Pragmatism has been viewed as both a general belief system and a specific justification for combining qualitative and quantitative methods as such it was deemed a suitable stance from which to construct this mixed-methods exploration.

3.7 Mixed-methods

Mixed-methods research has in some cases become known as 'the third paradigm' (next to quantitative and qualitative) in recent years through the publishing of books and papers that advocate its usefulness as a research paradigm (Creswell and Clarke, 2011). Mixed-methods as a methodology, involves the mixing of both quantitative and qualitative data collection methods in order to research complex phenomena. Studies adopting a mixed-methods design are described as being able to reduce the limitations of both qualitative and quantitative whilst bringing together the strengths of the two. There is still much debate about exactly what constitutes 'mixed-methods research' and which are the most effective ways of combining two research paradigms to achieve credible results (Creswell and Clarke, 2011). The infinite ways of using and describing mixed-methods in the literature demonstrated the complex issue of defining 'mixed-methods' in a concise and consistent way.

3.7.1 Definitions of mixed-methods

Despite the growth in popularity and credibility of mixed-methods through the publication of a handbook in 2003 (Tashakkori and Teddlie, 2003) and a journal in 2007 (Mertens and Freshwater, 2007) much debate around the issue of defining 'mixed-methods' still exists (Mendlinger and Cwikel, 2008). For the purpose of this chapter a selection of those available definitions are discussed. (Tashakkori and Creswell, 2007a: p4) described mixed-methods as:

> "Research in which the investigator collects and analyses data, integrates the findings and draws inferences using both qualitative and quantitative approaches or methods in a single study or programme of inquiry…"

The authors described their definition as 'deliberately inclusive'. However, it seems to lack clarity. It suggested that the findings from a study are integrated and that qualitative and quantitative approaches are only implemented at the point of drawing inferences from the data. A more comprehensive description was offered by (Greene, 2007: p42):

> "The planned and intentional incorporation of multiple mental models - with their diverse constituent methodological stances, epistemological understandings, disciplinary perspectives, and habits of mind and experience - into the same inquiry space for purposes of generatively engaging with difference toward better understanding of the phenomena being studied"

Whilst this definition appeared to read as a more overarching statement as opposed to a specific description of a methodology, it does describe more efficiently the usefulness of the approach in studying human phenomena from different viewpoints to discover multiple truths. The broad nature of the definition allowed for a researcher to become more focused upon the description of the way in which mixed methodology will be utilized within a particular study. According to this perspective, the description of the process and sequence with which the mixed-methods approach was implemented could be specific to the phenomena being explored as opposed being constrained by the starting point of a narrow definition. For this reason, the definition posed by Greene (2007) was taken as the foundation for the building of the research design in this project.

3.7.2 Key ideas of mixed-methods

Similar to the unclear nature of defining 'mixed-methods research', the literature review revealed a whole host of suggestions and explanations that attempted to describe and categorise the key features of this type of methodology. There were various attempts to explain the way in which mixed-methods could be combined within a study and at what stage of the research process they were combined. 'Typologies' have been extensively developed in the literature as a means of classifying research designs and thus identifying various processes that can be followed when carrying out mixed-methods research (Tashakkori and Creswell, 2007b). As this literature concerned with conducting 'mixed-methods research' has expanded, so too has the diversity and range of such classifications/typologies. Creswell and Clarke (2011) provide details of 15 such classifications drawn from various authors and disciplines of which the 'Mixed-methods Sequential Explanatory Design' was chosen for this study and will be discussed further in the following section (Creswell and Clarke, 2011).

3.8 The Why and How of Mixed-methods

In this project, adopting a mixed-methods approach provided a means of collecting both quantitative and qualitative data on the training and practice of consultation skills and more specifically to explore the research questions posed for this project. The

specific model that was chosen to meet both the quantitative and qualitative aims of this study was the 'Mixed-methods Sequential Explanatory Design' (Creswell and Clarke, 2011). This type of design is sequential so that each stage is conducted in a sequence. For this project, there were 3 stages: quantitative data collection (Study 1) followed by qualitative interviews (Study 2) and then more quantitative data collection (Study 3). The premise was that the quantitative data were collected (using an existing questionnaire) and analysed in the initial stage of the project and the second phase was when the qualitative data were collected. The qualitative data (Study 2) was collected with a view to assisting in the explanation or elaboration of the results obtained from the quantitative stage (Study 1). In addition the interview schedule and the preliminary analysis of Study 2 data were used to develop an online questionnaire to widen the exploration to more senior doctors (Study 3).

In Study 1, measurement of the effective use of consultation skills during doctor-patient interactions as perceived by both parties was carried out by the quantitative instruments (questionnaires with parallel content). The comprehensive nature of the questionnaire, coupled with the confidence scales, allowed for exploration of some of the factors that might have had an influence upon the effective use of consultation skills. For example, it contained items to gather information on both doctor and patient, regarding variables that might be relevant to the consultation experience, such as university of training, gender and age. In addition, the ability to gain a score from the parallel questionnaires, allowed for the sample of doctors to be purposefully selected for semi-structured interviews (Study 2).

The interviews in Study 2 were designed to further explore the doctors' views about their consultation skills training and how it was used in practice and what factors might influence their performance. Also, any doctors who had participated in Study 1 were offered an overview of their data during the interviews, linking the quantitative and qualitative data collection for those participants. Qualitative interviews were selected because they would enable deeper understanding about what contributes to the effectiveness of Foundation doctors' consultation skills. The conducting of face-to-face interviews with Foundation doctors attempted to capture their multiple subjective experiences of consultation skills training and practice. As the medical profession is entwined with people's lived experiences of either being a patient or working as a doctor, then using a method that is sensitive to these constructs served to enhance the results of the initial investigation (O'Cathain et al., 2007).The interview schedule used in Study 2 and preliminary analysis of the findings were used to develop a

questionnaire that was used to widen the exploration of consultation skills training and practice (Study 3).

A mixed-methods approach was well suited to investigating the area of consultation skills training and practice. It was a suitable approach for the project that required both quantitative and qualitative data collection methods to ascertain whether doctors were using consultation skills effectively, what factors might impact upon their training and practice of such skills and then to widen the exploration to more senior doctors.

The questionnaire part of the study, the confidence scales and the subsequent analysis of the results would provide a general understanding of how the Foundation doctors evaluated their consultation skills performance and their perceived self-efficacy in doing so (Study 1). Then, the qualitative stage of the study, along with the analysis was a means of delving in greater depth into the quantitative results by exploring the doctor participants' perceptions and increasing understanding in this area (Study 2). Finally, the exploration of Study 2 was widened by the use of an online questionnaire for more senior doctors to offer their perspectives (Study 3). Further details of the specific quantitative and qualitative methodologies adopted in these studies are discussed in Chapters 4, 5 and 6 respectively.

Chapter 4: Study 1

4.1 Introduction

Upon exploration of the literature, there was little evidence of how well Foundation doctors were consulting with their patients during the first and second years of Foundation training. Much research that did explore consultation skills seemed to take place in the primary care setting with experienced doctors (Little et al., 2001,) within medical schools (Van Dalen et al., 2002, Yedidia et al., 2003) or was conducted before the postgraduate medical education reform took place (Williams et al., 2001). This study aimed to add to the knowledge-base by using a secondary care setting to explore Foundation doctors' consultation skills performance. The study was designed to address the following research questions.

4.2 Research Questions

The research questions posed for Study 1 were:

- According to themselves and their patients, are Foundation doctors using consultation skills in an efficient and effective way in the hospital setting?
- How do Foundation doctors rate their self-efficacy both before and after consultations with their patients?

4.3 Information Gathering

The decision was made to collect data for Study 1 via questionnaires with parallel content suitable for both Foundation doctors and patients to assess the same elements of a shared consultation experience. Additionally, a confidence scale was used for the doctors to record their levels of self-efficacy. Self-efficacy, as described in Chapter 2, is an evaluation of one's own ability to perform a task. In this case, the Foundation doctors were asked to evaluate their own ability to use their consultation skills effectively with their patients prior to consultation taking place. A second scale was distributed for the Foundation doctors to retrospectively indicate their levels of self-efficacy after having used their consultation skills with their patients.

This quantitative stage (Study 1) of this project will be fully described in the following sections including details of the questionnaire instrument, the rationale for its choice and information about its development and previous use. All procedures used for collecting quantitative data through the questionnaires will be explained, along with documenting and justification of any changes that took place during the project

timeline. Inputting, auditing and data analysis will be outlined here but discussed further in the results section.

4.4 The Questionnaire Instrument

4.4.1 Choosing the instrument

The optimum method of assessing consultation skills would have been to assess performance *in vivo* via video recordings of real patients in real consultations but these opportunities are rare in undergraduate medical education (Kelly, 2007). Patient confidentiality could pose ethical difficulties in gaining permission to observe/record private doctor-patient consultations in healthcare settings and the practicalities of this method are very complex (e.g. setting up video-cameras in busy ward settings). Currently, the means of assessing medical students' clinical competence in many medical schools is by the Objective Structured Clinical Examination (OSCE). This is an assessment that makes use of simulated patients and is designed to measure aspects of clinical competence including both practical abilities and consultation skills competencies. It is recognised as a test of behaviour as opposed to cognition and is therefore suitable for the testing of students' ability to use the learnt skills within a consultation with a standardised patient (Newble, 2004).

However, OSCEs are an expensive means of testing consultation skills due to the huge resource of simulated patients and assessors required for their implementation. Thus, whilst, the use of video and/or OSCEs would have been useful for this investigation they were impractical methods to choose for a time and resource limited pragmatic study. In addition, the hospital environment was far too busy for such an intervention to take place, especially as Foundation doctors have tight work schedules and work on a rota system which makes it difficult to catch them at a particular point in time in the same location.

The method chosen to assess the consultation skills of Foundation doctors in this study was patient ratings used as a measure of performance of skills *in vivo* by making use of questionnaires. Whilst there were some available instruments that measured general patient satisfaction with consultations (Meakin and Weinman, 2002) they did not elicit the doctors' perspectives. However, some of the questionnaires that were designed to access both patient and doctors' perspectives on performance of consultation skills were deemed to be either too long for use in this study or they were designed to measure more global constructs, for example patient-centredness (Cegala et al., 1998), (Stewart, 2006).

Other instruments existed that had been used in the teaching and assessment of consultation skills and discussed in the literature review. For example, there was the Leicester Assessment Package (LAP) which contained 5 categories of competencies and a total of 35 competencies to assess. In addition, the Arizona Communication Interview Rating Scale (ACIR) was another observation tool that has been used and adapted extensively in the assessment of consultation skills. It was deemed that both of these tools were more suited to a project that made use of observational methodology as they were designed to be checklists of communication behaviours that a doctor displayed during a consultation with a patient. Study 1 was designed to elicit the self-assessment of doctor's skills and the assessment of their patients. Whilst patients could have used the checklists, following their consultations with the doctors, it was decided that some of the lists were too long and the competencies contained on the checklists were either too abstract and/or complex for patients to accurately recognise. The most suitable questionnaire identified for the purpose of this study was one by Campbell et al. (2007); this will be described, in further detail, as part of the following sections.

As described earlier, self-efficacy (confidence) was also explored as part of Study 1 due to the links between confidence and performance that were discovered in the literature and outlined in the Literature Review chapter. This was done by way of a scale designed to measure confidence both before and after a consultation and will be described later in section 4.5.4

4.4.2 The development of Campbell et al.'s (2007) instrument

In light of litigation cases and suboptimal patient outcomes, a group of professionals from regulatory authorities, universities and colleges in Canada began to outline a strategy for the assessment and improvement of consultation skills. Campbell et al. (2007) subsequently developed and tested a parallel questionnaire that aimed to capture both doctor and patient perspectives in relation to the content and process elements of the consultation. The instrument was constructed by drawing upon other existing measures and piloted on a small sample of physicians and their patients. Then, being modified in line with feedback from these participants, the instrument was further developed and psychometrically assessed for feasibility, reliability and validity.

4.4.3 Description of Campbell et al.'s matched-pair instrument

Campbell et al.'s (2007) matched-pair instrument was a questionnaire with parallel content suitable for collecting both doctor and patient ratings of consultation skills used

during a shared consultation. The questionnaire was formatted to fit on a single A4 page and designed to take doctors 2 minutes to complete and patients 3-5 minutes. The instructions to participants (for example, participants were asked to mark the box that best applied to them) were placed at the top of the page, followed by some demographic questions concerned with gender, reason for visit and how many times the doctor had seen the patient (or the patient had seen the doctor).

The parallel questionnaires contained 19 statements each and were designed to capture the content of the consultation (what was communicated) and included statements related to explanations and treatment options. Statements related to the process of the consultation (how it was communicated) were also included, for example, greeting the patient and listening. The 19 items contained on each version (doctor and patient) of the questionnaire were statements for which the participants (doctor or patient) had to rate their level of agreement.

The level of agreement for each of the 19 statements was measured on a 5 point Likert (1932) scale. The response options were numbered from 1 - 5 and clearly defined as follows: 1 - Strongly Disagree, 2 - Disagree, 3 - Neutral, 4 - Agree, 5 - Strongly Agree and then an option labelled U/A - Unable to Assess. The statements were located to the left of the page with the answer choices set out in a table structure down the right hand side of the page.

It was considered that an odd number of alternatives provided the participants with a neutral option, whereas an even number of options would have forced participants to rate in one or other direction (Jackson, 2003). In this case a 6th option (outside of the rating scale) was provided by the instrument developers, in order to make it accessible to a wide range of medical environments by giving the choice of both a neutral midpoint and an ‘unable to assess’ (U/A) option.

4.4.4 Campbell et al.’s (2007) evaluation of the instrument

During the psychometric assessment of the instrument, it was administered to 1845 doctor-patient pairs to collect information on consultation skills of family doctors and specialists across Canada (Campbell et al., 2007). The authors used the data elicited during this study to inform their psychometric testing of the instrument. One limitation to note in Campbell et al.’s study (2007) was that the patients were recruited by the administrative staff of the participating doctors. Thus, recruitment may have been biased with the office staff choosing those patients who were better known to them or more compliant or even happier with their care (Campbell et al., 2007).

Reliability and Validity

Campbell et al. (2007) tested how reproducible (reliability) the data elicited from the instrument was by using Cronbach's alpha (with pairwise deletion) to test for internal consistency of reliabilities for both doctor (0.70) and patient ratings (0.69). The authors concluded these high alpha scores were evidence for internal consistency reliability for both instruments.

Validity was explored through factor analysis (using the principal components analysis method), correlation and linear regression. When the principal components analysis was performed on the doctor and patient data separately it demonstrated that two factors emerged which related to the content and process of communication. Process of communication accounted for over 50% of the variance in both the doctor and patient data and content accounted for 7% and 8% respectively. In addition, when the patient and doctor items (19 +19 = 38 items) were combined, the resulting two factor solution related to doctor and patient items, and accounted for 69% of the variance (Campbell et al., 2007). This offered some evidence that the instrument measured what it was designed to measure: both process and content of the doctor-patient interaction and 2 independent views (from doctor and patient) of the same consultation.

4.4.5 Evaluation and rationale for the use of Campbell et al.'s (2007) instrument

The key advantage of using a questionnaire as a method of collecting data is that it has the potential to reach a large sample of participants in a relatively short length of time. A decision was made to attempt to elicit both doctors and patient assessment of the same consultation experience. By using a questionnaire that had this ability meant that time was saved by not having to collect data separately from a higher number of consultations.

The findings of Campbell et al.'s (2007) psychometric evaluation offered some indication of the reliability of the parallel instrument as a measure of consultation skills assessment. To address the research questions posed for Study 1, there was a need to collect parallel data on consultation skills performance from a sample of Foundation doctors and their patients in a hospital setting making this instrument an appropriate choice. The instrument fitted well with assessing consultation skills performance because it measured both the doctor and patient's perspective of a shared experience. In addition, both the content and process elements of the consultation were elicited, which fits with the comprehensive Calgary/Cambridge model that is used to teach consultation skills at medical schools worldwide (Kurtz et al., 2005).

Furthermore, following discussions with consultation skills tutors at the University of East Anglia (UEA), it was deemed that the statements contained in the instrument were closely related to the key skills that are taught and assessed in both their own and many other medical schools. The short length of time (2 minutes for doctors and 3-5 minutes for patients) that the questionnaire took to complete also fitted with the busy secondary care setting within which Study 1 was to be conducted. The authors of the questionnaire suggested in their article that it could be further tested with different samples of health professionals such a junior doctors (Campbell et al., 2007), making Study 1 a valuable extension of the authors original work. As noted previously, the parallel content of the questionnaires was advantageous in terms of time saving. Simultaneous data collection from doctors and patients saved time compared to collecting both sets on separate occasions. This was also an advantage in terms of the amount of data that could be collected on the same day, ensuring that time was always spent efficiently in a time and resource limited project. For these reasons Campbell et al.'s (2007) instrument was the obvious choice for this investigation.

Face validity: Literacy and understanding

Self-report questionnaires can present challenges in terms of the literacy levels of potential participants. In the case of the doctors it was logical to presume that their written and spoken language would be more than sufficient to understand the content of the questionnaire due to the level of education required to do their job.

In order to check the face validity of the questionnaire for use in Study 1 with the patient sample, the questionnaire was reviewed by lay members of the public. The aim was to counteract any difficulties in reading and understanding of the questionnaire content. As such, the questionnaires were reviewed by members of the local Public and Patient Involvement in Research (PPIRes) group; their comments were taken into consideration when adjusting the questionnaire for use in this study. Also, the researcher was present when patients were completing the questionnaires so there was every opportunity for questions or clarification at the time of completion. In addition, the researcher offered to read out the questionnaire to the patient if required.

Content validity

The contents of the questionnaire (items) needed to be suitable to measure what they purported to measure which in this case was consultation skills. Whilst the questionnaire had been previously validated, it was necessary to ensure that it matched with the specific purposes of Study 1. As such, the questionnaires were reviewed by members of the supervisory panel, which consisted of 2 consultation skills

experts, 1 clinician who was also an expert in medical education and a medical statistician. In addition the instrument was shown to two newly-qualified doctors who had received consultation skills training. All reviewers were in agreement that the questionnaire content was suitable in investigating consultation skills of Foundation doctors.

Self-report data

It was considered that some patients might be likely to display social desirability (choosing the options that might be more desirable to society as a whole) and choose higher levels of agreement to the items concerned with their consultation experience. In previous research (Campbell et al., 2007) it was found that patients, in general, tended to rate their doctors' skills higher than the doctors rated their own. This might be partially explained by the patients erroneously concluding that the doctor has an impact upon their health outcomes or maybe that the results would be somehow fed back to the doctors themselves.

In this study, there was an attempt to counteract any possible effect of a social desirability bias amongst the patients by emphasizing on the participant information sheet provided to all patients that the questionnaire would be anonymous. In addition, the fact that the questionnaires were distributed by the researcher in this study, rather than the doctor, gave the opportunity to re-iterate this anonymity face-to-face during the recruitment of patients, as well as providing some distance between the patient and the doctor being rated.

Of course the difference between the patients and doctors scores could also be explained by the doctors under-rating their own performance. Campbell et al. (2007) had found that the doctors rated their own skills lower than the patients. Consequently, there was no real concern that the doctors would demonstrate too much social desirability.

4.5 Questionnaire Modifications for use in Study 1

The original versions of the parallel instruments were designed and used by Campbell et al. (2007) with both family doctors and specialists. The authors suggested in their paper that their questionnaire could be modified to suit a variety of healthcare contexts. The changes that were made to the instrument to meet the specific needs of Study 1 are outlined in the following sections.

4.5.1 Appearance

The Study 1 questionnaires (doctor and patient versions) were adapted from the previously described (Campbell et al., 2007) instrument. The layout of the questionnaire was altered to make it easier for the participant to complete (Appendix 3). For example, the font was increased to point 14, which is recommended for ease of reading. The adapted version resulted in a two-page format. The instruction bars at the front of the questionnaire were given a coloured background, for highlighting and thus encouraging the participant to read thoroughly. This also aided in differentiating the patient and doctor versions of the questionnaire for the researcher by making the instruction bars different colours for each, as the content was very similar in appearance; especially in large piles of the same instruments. The doctor versions of the questionnaires had the before and after self-efficacy measures stapled to the front and back, respectively, of the questionnaire. All questionnaires were then coded in order to ensure that doctor-patient data were kept parallel. For example Doctor 1 = D1 so the first questionnaire given to a doctor was coded D1P1 and the patient questionnaire coded D1P1, the next patient D1P2 and so on. The next doctor recruited would have questionnaires coded with D2P1, D2P2, etc.

4.5.2 Structure and order of questions

The instructions for the completion of the questionnaire were kept the same regarding both the content and position as in Campbell et al.'s (2007) original. Instructions were placed at the beginning of the instrument. They were clear and simple with a specific instruction about when to mark the 'unable to assess' option. On both the doctor and patient version of the questionnaire the demographic items followed the instructions. These demographic questions were kept at the beginning of the survey, on the front sheet in order to ensure that the participants, in particular the patients, were able to begin with easily answerable, non-threatening questions about themselves. The demographic questions were revised and the number of questions increased slightly to suit the specifics of the project. Due to this and the previously mentioned enlarging of the text, the demographic questions were contained on the first page of what became a two page questionnaire.

The doctor version of the questionnaire contained a space to fill in the hospital and ward where the consultation had taken place. This was followed by 8 questions concerned with; gender, age, university where they had undertaken their undergraduate medical training, Foundation year, further consultation skills training, reason for visit, duration of training at hospital and how often they had seen this patient

previously. Patient questionnaires contained a space to fill in the name of the doctor that they had seen. This was followed by 5 demographic questions concerned with gender, age, reason for visit, length of stay and how many times the participant had seen this doctor.

For use in Study 1, all of the 19 statements on each version of the questionnaire (doctor and patient) were kept the same as Campbell et al.'s (2007) original instrument. The statements were maintained as a means of ensuring the suitability of the instrument to a range of locations within the hospital sites chosen for Study 1. In addition, all items were deemed as relevant and useful in addressing the research questions posed in Study 1. They were originally designed to represent the specific skills expected during an effective and efficient consultation according to the content and process model of Calgary/Cambridge model (Kurtz et al., 2005). The response options for each of the statements were also kept the same (5-point Likert scale). The statements and responses were kept in the same table format as Campbell et al.'s (2007) original version aside from some formatting revisions that were required due to enlarging the font.

4.5.3 Feedback from reviewers

The questionnaire was reviewed by 2 consultation skills lecturers, a professor in medical education and a medical statistician. They were chosen because they formed part of the supervisory panel associated with this project and had relevant expertise in consultation skills training and practice, and questionnaire design. In addition, lay members (N=2) of the local Public and Patient Involvement in Research (PPIRes) group also reviewed both the doctor and the patients' questionnaires (Appendix 4). Their comments were that the subject was an interesting one and their feedback on the design of the questionnaire was positive. Their main observations were concerned with the spacing of the questions and the font size. Their recommendations were incorporated into the development of the final instrument.

4.5.4 Self-efficacy measure

Self-efficacy of the Foundation doctors was measured during Study1 via a scale designed for the Foundation doctors to record their confidence levels both before and after the consultation with a recruited patient. The first one carried the instruction 'Please complete BEFORE clerking your patient' and was stapled at the front of the questionnaire. The question on this measure read 'How confident do I feel about my ability to communicate effectively with my patient?'. The scale ran along a straight line

numbered from 0 to 10. The beginning of the line (on the left hand side) was labelled as ‘not very confident’ and the end of the line (right hand side) was labelled as ‘very confident’. The same measure was attached to the back of the questionnaire with the instructions changed to ‘Please complete AFTER clerking your patient’ and the question changed to ‘How confident do I feel that I communicated effectively with my patient?’ offering the same 0 to 10 scale (Appendix 5).

4.5.5 Pilot

It was difficult to pilot the questionnaire on the Foundation doctors as the population was already relatively small and to pilot the questionnaire with potential participants might have further reduced the sample size, as these pilot participants would then not be able to take part in the main study. So, meetings were arranged in August 2010 (prior to any data collection) with two doctors who had just completed their two year Foundation training; this was the training which the potential participants would be undergoing during their recruitment into Study 1. Their feedback was that the questionnaire was easily understandable and, in their opinion, it was capable of providing a realistic evaluation on the performance of Foundation doctors’ consultation skills, during a shared doctor-patient encounter. In terms of content, they agreed that whilst comprehensive in nature, all items needed to be included in order to ensure that it could be utilized across as many locations as possible across the hospital sites. They agreed and understood that the presence of the box marked ‘unable to assess’ (UA) could and would often be used when and if any item was not applicable to any particular consultation.

During the piloting discussions, the doctors’ main concern about the questionnaire was the logistics of its distribution to and completion by Foundation doctors. They thought that there would be very little available time during working hours for Foundation doctors to complete the questionnaire. In addition, they were concerned that there were very few locations within the hospital where Foundation doctors carried out full and comprehensive consultations that would suit that which was being investigated by the instrument.

The doctors were invited to offer any insight into where recruitment strategies might be improved to accommodate the logistics of busy hospitals and Foundation doctors’ working patterns. The doctors both explained that ward rounds could often entail having to fit in large numbers of patients in a short space of time, so there would be no way that questionnaires would get filled in. Especially as separate consent would need to be taken from each patient before they took part. Their suggestion to counteract this

was to attempt to collect data in the pre-operative assessment unit at the NNUH where they had experienced more time allowed in conducting consultations, and such consultations were better suited to the instrument and the needs of the study.

4.6 Context

The initial aim in Study 1 was to collect data from Foundation doctors, and their patients, employed at two local hospitals in the East Anglian region, specifically, the Norfolk and Norwich University Hospital Trust, Norwich (NNUH) and the James Paget University Hospital Trust, Great Yarmouth (JPUH). These hospitals were chosen because the Foundation doctors employed there came from varying medical schools (including the Norwich Medical School, UEA) and the majority, if not all, of them would have experienced some training in consultation skills. Across both hospitals approximately 75 1st year Foundation doctors and 58 2nd year doctors were employed each year and allocated to various wards and areas of the hospitals. Initial plans were to recruit Foundation doctors from as many of the different wards as possible.

4.6.1 Ethical approval

Ethical approval was sought from the Norfolk NHS Research Ethics Committee (NREC) and approval was granted in February 2010 (Appendix 6).

Research and Development (R&D) approval and access letters were required at both hospital sites in order that data-collection could take place by a non-member of NHS staff. Research and Development approval was granted by the East Norfolk and Waveney Research Committee for the NNUH site in May 2010. The Research and Development Department of the James Paget University Hospital Trust also approved the study in May 2010.

Once the project was ethically approved, the researcher applied for a research passport which was administered through the UEA, the NNUH and the JPUH and included an enhanced criminal records disclosure. This led to access letters being received and renewed as and when appropriate. These access letters were issued by the hospitals, and provided the researcher with permission to be there to conduct the research, and could be shown to anyone querying their presence. Letters of access were provided at both sites and later extended as the study progressed (Appendix 7 and 8).

A minor amendment (Appendix 9) to extend the recruitment stage was approved in January 2012 (Committee changed name to NRES Committee East of England, Norfolk).

4.6.2 Summary

These sections have described the original instrument developed by Campbell et al. (2007) that was adapted for use in Study 1, including details of how reliability and validity were explored by the original authors. The rationale for its use in Study 1 was provided followed by details of the modifications that were made to the original versions. The review and piloting of the questionnaire by consultation skills and medical education experts, members of the public and recent Foundation doctors was discussed. Finally, the research sites were introduced and details of the ethical and R&D approvals gained for Study 1 were outlined. In the following section, the sampling and procedure of carrying out Study 1 will be covered along with the explanation of challenges encountered, potential biases and the strategies used to counteract these. An outline of the data analysis frame will also be provided in preparation for the presentation of the results from Study 1.

4.7 Sample

4.7.1 Participants

Definition of population

The Foundation doctors based at the two sites were from the East Anglian Foundation School who followed a 2 year Foundation training curriculum. The doctors were rotated 3 times a year across more than 1 hospital site. Due to the nature of the rotation system, this meant that at some point during the 2 years of their training, a large majority of the Foundation doctors would be based at one or both of the sites chosen for Study 1 so were potential participants.

Recruitment was originally planned to take place at both sites, outside of any emergency situation but in a mixture of in and out patient departments. Any in-patients would only be approached once they were established on the ward with admission procedures complete. This was in order to ensure that the research did not interfere with any patient care.

Foundation Doctor Participants

In order to address the established research questions there was a need to locate a sample of practising Foundation doctors who were based at one of the two hospitals. Initially, all the Foundation doctors based at the hospitals, at the time of data collection, were contacted.

Inclusion Criteria

The inclusion criteria for this study evolved somewhat as challenges with recruitment occurred. In order to address the research questions posed in Study 1, the following inclusion criteria were applied. The decisions were made in light of extremely low response rates and availability of suitable Foundation doctors.

- Medical graduates who had graduated from any university medical school.
- Medical graduates who were recruited into the Foundation Training Programme.
- Medical graduates who began either their first (F1) or second (F2) year of training in August 2010 for the 2010/11 academic year through the East Anglian Foundation School.
- Foundation doctors based at the Norfolk and Norwich University Hospital (NNUH) and the James Paget University Hospital (JPUH) during the period of data collection.

Patient Participants

The patient sample was governed by the presence of a previously recruited Foundation doctor or a new doctor who was prepared to consent on the days of data collection. The questionnaire was parallel so therefore needed to be completed by each member of a pair, in the form of one doctor and one of that doctor's patients.

In order to best address the research questions the following inclusion criteria were applied when choosing patients from the available list.

- Patients that were about to have, or had just had, a consultation with a Foundation doctor.
- Those who were over 18 years old and fluent in English and able to read, understand and respond to the survey questions.

- Only those in-patients that were deemed, by the wards' nursing staff, to be physically and cognitively stable.

Number of participants

Unfortunately, there was no available data from the validated questionnaire on the spread of scores among doctors and patients on which to base power calculations. However, this study was designed to be descriptive rather than analytical and should provide such data for future research using the questionnaire.

Thus, it was decided that every effort would be made to continue to recruit as many Foundation doctors as time allowed, even if patient numbers per doctor were small. Recruitment continued for 18 months, which was the maximum time available in order to complete this study.

Representativeness of samples

The sample needed to represent Foundation doctors who were practicing in hospitals and seeing patients in order for the design of the study to be effective in answering the research questions. The patient sample also needed to represent the patients that were seen by Foundation doctors during their training. Attempts were made to collect the demographical details of the cohorts of the Foundation doctors who were available as participants. The East Anglian Foundation School were contacted to request specific details about age and gender of the available cohorts of Foundation doctors and their response confirmed that no such records of demographic data existed.

Originally all Foundation doctors scheduled to be placed at the 2 hospital sites (at any one time) were invited to participate (N=90 per 4 month rotation). As recruitment efforts continued it became apparent that interest was low due to various factors including the many pressures on the doctors' time and that most wards were logistically too complicated to collect data and/or the Foundation doctors did not perform the detailed consultations required to fit with the questionnaire and the research questions. Consequently, recruitment was focused on one ward, namely the Pre-operative Assessment Clinic at the Norfolk and Norwich University Hospital (NNUH).

All Foundation doctors who worked shifts on that clinic were contacted and most of the participants were eventually drawn from this population (N=24). This ended up being quite a small selection of the whole population of available Foundation doctors across the two hospitals. This may have led to the sample not being representative of the

whole population of Foundation doctors and may have increased the potential for selection bias.

The Foundation doctors' patients could only be recruited once a list of the days patients was made available to the researcher by the administration staff. It was agreed that the nursing staff (who saw the patients prior to the Foundation doctor) would notify the researcher of any patients who they deemed not to be well enough to be approached and recruited into the study. Again, the patient sample was small (N=106) and therefore unlikely to be representative of the whole population. In order to reduce any potential selection bias in the patient sample, it was the researcher and not the doctor who chose from the list which patients would be approached using the inclusion criteria above.

4.7.2 Sampling strategy

Early recruitment experience showed that the number of Foundation doctors available for recruitment was very low. Moreover, the unsuitability of many of the wards drastically reduced the sample of doctors who reached the inclusion criteria and were available for recruitment.

The only practical strategy of sampling the participants for this study was opportunistic. It was realised at an early stage of recruitment that the pool of potential participants was one that was difficult to access through both work schedules and the logistics of the hospital sites (see following sections for explanation).The most productive way of recruitment and retention of Foundation doctors was to approach them face-to-face at appropriate times within suitable locations.

Appropriateness of wards

As discussed previously, some of the wards where the Foundation doctors worked were unsuitable for any data collection. There were many reasons for this, which were related to the Foundation doctors' schedules and transient nature of their duties. Additionally, it was discovered that some wards were closed to any visitors except close family. This was discovered during early stages of data collection when the researcher arranged to meet an already consented doctor and was not able to gain access.

Foundation doctors' workload

Foundation doctors had extremely busy schedules and it soon became clear that many were quite stressed. It was apparent that even the logistics of physically carrying the

study questionnaires around was an issue, due to the need of the doctors to use their hands as a major part of their work. They were constantly dashing from one place to another and many documents were misplaced and never returned. One Foundation doctor used a locker but then would have to go there before patient recruitment could begin. This led to the realisation that questionnaires would have to be distributed by the researcher, and the completed questionnaires needed to be personally collected at the end of any data collection sessions in order for it to be successfully recorded and kept safe.

4.7.3 The challenges of recruiting Foundation doctors and their patients

In 2009, a local collaborator was appointed at each one of the hospital sites. They were named on the Research and Development permission forms as part of gaining access to the NHS sites. They were a source of information and advice that was required about the specifics of the hospital sites. During initial meetings, with each of the collaborators at their respective hospitals, information was provided about the availability of potential lists of Foundation doctors and their work rotas. However, by May 2010 the lists had not become available despite many requests. Consequently, arrangements were made via both collaborators and their administration teams for the researcher and primary supervisor to attend the hospital sites to make presentations to Foundation doctors. The presentation was designed to introduce the project and stimulate interest.

Initial contact with the first cohort of Foundation doctors was made in June 2010 by way of a presentation during a mandatory training session that took place at each hospital. A brief explanation of the project was presented and Invitation letters (Appendix 10) and Participant Information Sheets were distributed. A sign-up sheet was available for interested Foundation doctors to complete with their contact details. The sign-up sheet produced very few names at both sites. All Foundation doctors that did leave their details were contacted by e-mail with an invitation to take part. Three of these doctors did meet the researcher and sign consent forms but only one of them was able to subsequently take part in data collection.

By June 2010 a distribution list of Foundation doctors was still not available and the local collaborator/administrators were re-contacted via e-mail. Finally, in September 2010, a meeting was arranged for the researcher to collect a hard copy of a list of Foundation doctors placed at the NNUH at that time. The list contained the Foundation doctors' work email addresses, but no information about their current department/ward.

By October 2010, e-mail invitations and participant information sheets were sent out to all Foundation doctors who were based at the NNUH.

At the James Paget University Hospital, the researcher was eventually given the advice that any information that was sent to the Foundation doctors needed to go via an administration office and so in September 2010, it was confirmed that the invitation letter and participant information sheets had been distributed by e-mail to all Foundation doctors who were based at the JPUH at that time.

The accessibility to any contact lists for the Foundation doctors was very problematic. Even when a list was finally provided by the NNUH it would very soon change as the Foundation doctors rotated to different areas of the hospital and/or a different hospital. This meant that the complex process of accessing the Foundation doctors and making initial contact had to be repeated at each of the 3 rotations during each year.

The recruitment of patients also proved difficult. The first phase of data collection took place at the JPUH, mainly because that is where the first recruited Foundation doctors were located. On initial data collection days on the Emergency Admissions and Discharge Unit (EADU) at that site, patients were clerked as and when they were ready to be admitted to hospital. Because of this their availability was very spread out in terms of time and there could be hours between them. Some patients were in pain and/or distressed so they were not in any condition to be approached for recruitment. Additionally recruitment was frequently impractical due to the patients having to stay laid down or without glasses to enable them to complete questionnaires. Patients were sometimes moved before the researcher could get them to complete the questionnaire and would then be very difficult to locate. For this reason, there was only one Foundation doctor and 3 patients recruited at that particular department whose data was subsequently excluded from the analysis due to the context being markedly different from all other data. It was clear from this experience that there were many wards where patients would not have been deemed well enough to take part in Study 1.

Strategies used to overcome recruitment challenges

Following the initial challenges of both accessing contact information of Foundation doctors and recruiting them, the researcher decided that it might be a good idea to have a personal e-mail address at the NNUH. It was intended that this might improve the ability to access information about Foundation doctors and their shift patterns and eliminate the need to constantly contact administrators who were regrettably busy. This

was arranged in January 2011 and proved to be very useful as it allowed access to the hospital intranet where contact details of Foundation doctors were readily available.

Around the same time (January 2011), in an attempt to improve recruitment at the JPUH, the researcher made contact with a personal friend who was a nurse within the JPUH. During a meeting to discuss access to Foundation doctors, the researcher was introduced to the medical staffing department and offered contact details of an administrative assistant who agreed (with their seniors permission) to forward current lists of Foundation doctors' names and locations. This enabled the researcher to work out e-mail addresses for the doctors placed at the JPUH at the start of each new rotation.

Further presentations about the study were made by the researcher at both hospital sites in October 2011 in an attempt to maximize recruitment at the latter stages of data collection. As before, the study was outlined to the attending Foundation doctors who were provided with Participant Information Sheets and the opportunity for those who were interested to add their contact details to a list. At NNUH, 24 doctors added their contact details but only 5 of them responded to follow up e-mails, consented and took part in Study 1 (2 others took part in just Study 2 interviews). At the JPUH, only 4 Foundation doctors provided contact details, of which none took part in Study 1 (2 took part in Study 2 during their next rotation at NNUH).

There was an attempt to use snowballing by requesting that any participating Foundation doctors talk to their colleagues about the study and ask them to contact the researcher if they were interested in hearing more or participating. An e-mail was sent to the lead of consultation skills training at the Norwich Medical School, UEA which requested that the study introduction and participant information sheet was sent to all existing tutors in order to spark the interest of the clinical tutors, some of whom worked at each of the research sites. One of the now-qualified doctors that had taken part in the pilot stage of the study was re-contacted to request that the study was promoted among the Foundation doctors within their department.

4.8 The New Context: Pre-operative Assessment Clinic

Following the advice gained in the meetings with 2 doctors who had recently gone through the Foundation training (as discussed in the Pilot section earlier in this chapter), 1 of the doctors had suggested a location within the hospital that might be suitable for recruitment –The Pre-operative Assessment Clinic (pre-assessment) at the NNUH. The aim of the pre-assessment clinic is to make sure that patients are fit for

surgery and adequately prepared for their admission to hospital. Patients were allocated appointments at the pre-assessment clinic usually a few days before their surgical procedures. Patients who attended the clinic were general surgery patients (including Vascular, Colorectal, Upper Gastrointestinal, Breast & Endocrine, Thoracic, Oral and Maxillofacial, Plastics, Ear, Nose and Throat).

The Foundation doctors were rotated to the clinic for half-day sessions on a regular basis throughout their general surgery rotations (mean of 11 half days per 4 month rotation). This allowed for recruitment of different patients for previously recruited Foundation doctors to take place on more than one occasion, maximizing patient numbers. The Foundation doctors' role in the pre-assessment clinic was to provide patients with a clinical examination and to complete relevant drug charts. Patients were given check-ups with the nurses and sometimes the anaesthetists before finally having a consultation with the Foundation doctor (when available). Of all the patients that attended the clinic, (listed above) there were only a selection of them (attached to specific consultants) that were actually seen by the Foundation doctor. The consultation with the Foundation doctor would include the opportunity for patient medications to be recorded, physical examination to take place, and discussion about any issues that had arisen during the pre-operative checks by the medical team.

The doctor-patient consultations that were taking place at this location were quite comprehensive, that is they were deemed to be longer than those that took place on busier wards and so had the potential to offer more opportunities to assess the specific consultation skills that were contained in the questionnaire items. They also took place in an appropriate room; one which provided the Foundation doctors more physical and psychological space for completing and returning the questionnaires to the researcher. Both the location and the style of consultations were deemed by the researcher and the supervisory panel as suitable in addressing the research questions posed for Study 1. Also, the patients in the clinic were usually physically and psychologically well enough to take part in the study. On attending the clinic, the Foundation doctors were provided with a list of patients that they were due to see, which assisted in the identification (by the researcher) of patients available for recruitment.

The selection of Foundation doctors available for recruitment changed every 4 months (each rotation) providing a new (albeit small) population from which to draw. This also increased the variability of gender, age and university of graduation of the Foundation doctors which were of interest in this study.

The pre-operative assessment clinic was eventually chosen through both the advice received and because access was granted through communication with the ward sister. Whilst it was judged that other out-patient departments across the hospital might have offered appropriate settings for Study 1 to take place, there was not enough time available for the researcher to pursue the relevant contacts and gain permission to access these areas. Especially, in light of it taking over 6 months to find and access a suitable setting.

4.9 Procedure

4.9.1 Distribution, administration and scoring of the instrument

The process of distributing the questionnaires was based on the evolvement of the research questions and the sampling strategy in light of the aforementioned challenges of recruitment of Foundation doctors and their patients. The sampling methods evolved into an opportunistic sampling strategy which in turn drove the procedure by which the doctors and their patients were approached, consented and provided with questionnaires. The following sections will outline the procedures that were implemented for selection, consent and subsequent participation of the doctor and patient participants, and the procedures used to distribute and collect the questionnaires.

Foundation doctor recruitment

At the time of Study 1, the Foundation training was such that the doctors had 4 month placements in a particular hospital and within a specific area of medicine. This meant that knowledge of when each rotation began and ended was important. It was important to allow the Foundation doctors to have enough time to settle into a post before recruitment but also to ensure that there was enough time left in the placement in order to maximize the amount of shifts the Foundation doctor did on the clinic from which data could be collected from them and their patients.

Initial contact was made with the Foundation doctors who were on the rota for the pre-assessment clinic via e-mail containing the Study 1 slightly revised invitation letter (Appendix 11). The letter was revised to suit the new context of the study and the fact that Foundation doctors were now offered a choice of taking part in Study 1 and/or Study 2. The Participant Information Sheet (Appendix 12) was attached to all invitation e-mails. However, as before the response rate was extremely poor with only a few replies and most of which were requests for further information. But even those who expressed an interest (via e-mail) in taking part would rarely commit to a follow up

meeting where consent would be addressed. Consequently, the decision was made for the researcher to approach Foundation doctors (face-to-face) at the pre-assessment clinic during their shifts, which was a more successful recruitment strategy.

All doctors scheduled to work at the clinic during their 4 month rotation were still sent e-mail invitations to take part in the study and a Participant Information Sheet. A timetable of suitable days and times to visit the clinic for recruitment and data collection was developed.

On data-collection days the researcher attended the clinic and checked with reception if there was a Foundation doctor present. If there was a Foundation doctor present, the researcher waited for a convenient time (i.e. between patients) to approach the doctor face-to-face. The following steps were followed by the researcher upon approaching all doctors:

1. Introductions given including researchers name and role. Provided name of institution and position within institution.

2. Briefly outlined the study. Stated that the study was being conducted to explore Foundation doctors' perceptions of their clinical communication performance and that this requires patients views.

3. Requested whether it would be alright to leave an invitation letter, some further information and a consent form for them to read.

4. Provided indication of when the doctor could expect to be re-approached for further clarification and/or consent forms to be collected.

5. Thanked the doctor for their time whether or not they chose to take part.

Once a doctor had agreed to take part in the study (either on the same day or their next shift at the clinic) a consent form was signed (Appendix 13) and a batch of 5 coded questionnaires, with the confidence scales attached, were handed to the doctor and any further clarification offered. Questionnaires were handed to the Foundation doctors on the days of data collection once they had started their shift in the clinic. It was important that they were handed to the Foundation doctor as near to the beginning of their shift as possible in order for the doctors to be prepared and able to complete them following each patient that they shared a consultation with.

The doctors were requested to record their confidence level on the self-efficacy measure before their consultation with the patient then complete the consultation skills

questionnaire and the other self-efficacy measure immediately after they had consulted with each patient. The doctor was informed that the researcher would consent the patients in the waiting room and place mark against/highlight the name of those recruited patients on their list of scheduled patients (which was attached to the Foundation doctor's office door). This ensured that the questionnaires were only completed for those particular patients (and not all) to produce the parallel data. This ensured that doctors were not wasting their time filling out questionnaires for patients who were not participating. Once recruited and consented to the study, all future contact with Foundation doctors was made personal whether that was via e-mail or face-to-face.

Reminders

After the e-mail invitations were sent out (at the beginning of each new rotation) to Foundation doctors working in the pre-assessment unit there was a further reminder which followed two weeks later. For the Foundation doctors that were already recruited and had consented to take part, reminders of when the researcher would be present and data collection would take place were also sent.

Foundation doctors' patient recruitment

Patients who met the inclusion criteria were selected, on site, by the researcher, from a daily patient list provided by the pre-assessment clinic's administration team or the consented Foundation doctor. Not all the patients on the list would be scheduled to be seen by the doctor, so the researcher had the task of establishing which patients from the list were expected to see the participating doctor. This was done in either in consultation with clinic staff or the doctor where possible. From these patients, the researcher consulted with the most senior nurse available for their assessment of those patients' suitability to be approached by the researcher and potentially recruited. Only then, would the researcher approach patients. The following steps were followed by the researcher upon approaching all patients that were deemed to be suitable as potential participants:

1. Introductions given including researchers name and role. Provided name of institution and position within institution.

2. Briefly outlined the study. Stated that the study was being conducted to explore Foundation doctors' perceptions of their clinical communication performance and that this requires patients views.

3. Requested whether it would be alright to leave an invitation letter (Appendix 14), some further information (in the form of a Participant Information Sheet - Appendix 15) and a consent (Appendix 16) form for them to read. Informed the patient that they had the option to have the information read out to them if preferred.

4. Provided indication of when the patient could expect to be re-approached for further clarification and/or consent forms to be collected.

5. Thanked the patient for their time whether or not they chose to take part.

The patients, in all cases, were given the opportunity to ask questions about the study and then given time to decide whether or not to take part. The patient was given the maximum time available up until the time of their appointment with the Foundation doctor. Once the patient had agreed to take part, consent forms were signed and coded questionnaires were provided with a request for them to complete them immediately following their consultation with the doctor. Each patient was identified in the waiting room of the pre-assessment unit and addressed face-to-face using the term Mr or Mrs as appropriate, followed by surname. This process often led to the patient sitting with the researcher for a period of time, which assisted in building rapport with them and other patients present in the same waiting room.

A clipboard, pen and envelope were also provided to recruited patients. Completed questionnaires were requested to be handed back to the researcher on site in the envelope provided. The immediacy of the data collection after the consultation was advantageous in terms of the patients' ability to recall the consultation experience. If there was an occasion where the researcher or the patient had to leave the clinic for any reason, the patient would be asked to return the envelope to the reception desk of the clinic to be collected by the researcher at a later date.

Once a patient had consented, due to the nature of the questionnaires being parallel, the Foundation doctor was informed about the patient consultations for which he/she would need to complete questionnaires. In summary, the shared consultations between the Foundation doctor and a patient took place and then data was collected immediately afterwards (via the parallel questionnaires) from both patient and doctor simultaneously.

Response Rate

Due a range of issues previously discussed, response rates remained low. Doctors would rarely respond to e-mail invitations and reminders. An attempt was made to maximize participant numbers by administering invitations and consent forms face-to-face to the doctors on the pre-assessment unit. The researcher spent as much time as possible being present and maximizing participation. Response rates were improved by ensuring that the researcher was present to collect completed questionnaires on site from both doctors and patients. This strategy was fruitful in ensuring that any completed questionnaires were successfully collected from both patients and doctors following a shared consultation experience in a confidential, timely and accurate manner.

However, there were still difficulties in achieving higher response rates. For example, there were many times during recruitment at the pre-assessment unit that the Foundation doctors would not turn up at the clinic (due to ward responsibilities elsewhere in the hospital) and therefore recruitment of patients on those days was not possible. Sometimes the Foundation doctor would have a medical student in the consultation with them who would conduct all or part of the consultation, therefore excluding the availability of any data collection from that consultation. There were other days where the Foundation doctor would consent to take part but there were very few patients with appointments.

4.9.2 Confidentiality of collected data

Both Foundation doctor and patient participants signed consent forms and were assured (in the Participant Information Sheet) that the data collected was anonymous and would be kept confidential, and that signed consent forms would be separated from the completed questionnaires to safeguard any identification of participants. All questionnaires did not include names but just participant numbers. Patient lists that were sometimes provided to the researcher were handed back to the receptionist on the ward for safe disposal to protect any private NHS information.

Completed questionnaires that were collected from all participants by the researcher were collected and placed in an envelope marked ‘private and confidential’. The data was entered into a password protected database and all hard copies of consent forms and questionnaires were kept in a locked filing cabinet in the researcher’s locked office in line with the conditions of the Data Protection Act (1998).

4.10 Data Input and Audit

4.10.1 Data input

Once the questionnaire was finalised and ready for use, a patient and a doctor database were developed using SPSS (Version 18) in preparation for data entry. The databases were explored with the assistance of a medical statistician who was part of the supervisory panel. Feedback was provided and incorporated into the database design and data input procedures. Demographic information from both the doctor (age, gender, university and rotation) and patient (age and gender) versions of the questionnaire were set up as variables and entered as categorical data. Variables were set up to represent all 19 items on the questionnaire and numeric codes were attached to all of the response choices on each item and entered as ordinal data. For example; Strongly Agree = 5 to Strongly Disagree = 1. Missing data and the 'unable to assess' (U/A) option were treated the same and not allocated a value. The self-efficacy levels (out of a maximum of 10) rated before and after the consultation were entered as two separate variables.

Data from the questionnaires were entered into the databases as and when it was collected. Initially the data was entered into separate doctor and patient databases but they were subsequently merged to form one database (following the advice of the medical statistician) within which to store both patient and doctor data. Once all of the data was entered into the combined database, further variables were created emergent from the data. Doctors' and patients' mean scores were calculated by adding the numeric values of response choices and dividing by the number of items. Another variable was created to represent the differences in scores between the sample of Foundation doctors and patients (calculated by subtracting the doctor's mean score from the patient's mean score). Finally, the differences between the doctors' self-efficacy before and after the consultation were calculated (After - Before) and included as another variable. All additional variables were created in preparation for analysis with demographic variables.

4.10.2 Data analysis

Preliminary analysis

Meetings were held regularly with the medical statistician to monitor the database and conduct preliminary analysis. Initial exploration included calculating a total score for each Foundation doctor and patient by summing the responses to each question on the instrument. After that, basic descriptive statistics were conducted at various time

points. These included means, medians, frequencies and variance of the scores across doctors' and patients' data. Some of these statistics were used in feedback summaries for those Foundation doctors who were recruited into the interview stage (Study 2) of the project.

The exercise of preliminary analysis allowed for discussion about the amount of data that had been collected and its usefulness in answering the research question. It was also useful in obtaining an overall picture of the data on a regular basis which served to inform the subsequent interviews (Study 2). Having a general sense of what the data was suggesting assisted in the development and use of the interviews to their full potential as a means of triangulating the quantitative and qualitative data-sets. Investigating some of the demographic profile of the doctors and patients against the mean scores started to reveal how some variables might differentially affect the doctors' and/or the patients' scores on the consultation skills measure.

Final analysis

The patient and doctor responses to each of the 19 items on the instrument were correlated using the Spearman Rho correlation to explore the extent of agreement between the two participant groups on the matching items. The non-parametric test was chosen due to the patients' data not meeting the assumptions of a normal distribution. Whilst the doctor scores from the questionnaires did meet the assumptions for a normal distribution because the patients' scores did not, a decision was made to choose non-parametric tests in this part of the analysis. This was to maintain consistency within the data analysis and reporting of the results of these investigations.

The differences between the doctors and patients scores on the questionnaires were calculated by subtracting the doctors' score from the patients score. The whole sample of doctor and patient total scores were tested using the Wilcoxon-signed rank test due to the data being drawn from two related groups (taken from the doctor and patient from the same consultation).

Both patient and doctors scores were explored by the demographical variables of the doctors themselves. The differences between gender (male and female) and university (UEA and Other) of doctors were tested by using the Mann-Whitney U test. The differences in median scores between the three age ranges (of the doctors) and three rotations were tested using the Kruskal-Wallis test because it is designed to be used in the comparison of more than two groups.

Then both patient and doctors scores were explored by the demographical variables of the patients. Again gender (male and female patients) differences were tested by using the Mann-Whitney U test and the age of patients (4 age ranges) by using the Kruskal-Wallis test.

The self-efficacy measures collected from the Foundation doctors both before and after their consultations each produced data that met the assumptions of a normal distribution so all exploration of these scores and the doctors' demographic variables was done using the parametric version of statistical tests. Gender and university differences (doctor) were tested using the t-test and age and rotation differences (doctor) were tested by using the One-Way Analysis of Variance test (ANOVA).

4.10.3 Summary

This section has described all procedures that were carried out, the final recruitment of doctors and patients and included the administration and distribution of the questionnaires. The confidentiality of the collected data was outlined. Finally, the data input and analysis stages were introduced.

4.11 Results

The following sections will present an exploration of the response rate achieved during Study 1 with an outline of the populations available and the eventual recruitment figures. Demographic profiles of both Foundation doctor and patient sample will be provided. This will be followed by tables of results that are accompanied by full clarification of findings where required.

4.11.1 Response rate

Due to the unique nature of the recruitment strategy, it was deemed necessary that the researcher be present at all times during any data-collection in order to distribute the questionnaires face-to-face with doctors and patients. This strategy was very time-consuming and was very much dependent upon the presence of the researcher, the Foundation doctors and the volume of patients that were due to be seen on the ward in any given day. In addition, the good will of patients was relied upon and sometimes the logistics of the ward procedures would mean that even willing patients would not be able to take part through having to attend other hospital departments prior to consulting with the Foundation doctor.

A total of 28 doctors were originally recruited into Study 1. Twenty-four doctors from the NNUH and 4 from the JPUH signed consent forms. Three of the JPUH consented doctors did not take part in any subsequent data collection due to them not responding to follow up e-mails. The other JPUH doctor did collect a small amount of data but as the data were collected early on in the study it was drawn from a second year Foundation doctor as well as from a different site to the rest of the dataset, so a decision was made to exclude these data from any analysis. The final sample was made up of all first year Foundation doctors based at the NNUH at the time of data collection. The total number of Foundation doctors who completed and handed in questionnaires was 24. The population figures of Foundation doctors available at the NNUH and specifically at the pre-assessment clinic are illustrated in Table 3, which includes the eventual numbers that were recruited into Study 1.

	Date of Rotation ▲ Dec 2010-March 2011	**Date of Rotation** Apr 2011-July 2011	**Date of Rotation** Aug 2011-Nov 2011	**Date of Rotation** Dec 2011-March 2012	**Date of Rotation** Apr 2012-July 2012	*Totals*
F1 Drs Working at NNUH ▪	46	46	46	46	46	*230*
F1 Drs Available in Pre-op ◊	15	16	16	16	16	*79*
F1 Drs Recruited	4	9	7	3	1	*24*
% of Pre-Op F1's Recruited	*26.6%*	*56.3%*	*43.8%*	*18.8%*	*6.3%*	*30.4%*

Table 3: Population figures of available and recruited Foundation doctors

▲ Dates that the same cohort of doctors were available for recruitment

■ Number of Foundation doctors placed at the NNUH during each rotation

◊ Number of Foundation doctors out of those placed at the NNUH who had shifts at the clinic

By 25th April 2012, questionnaires had been collected from 106 patients who had experienced a shared consultation with one of the 24 first year Foundation doctors. The response rates were lower than expected but were the best that could have been achieved within the design of the study and the complexity of the context. The majority of the circumstances of non-participation/response by Foundation doctors and patients were unforeseen and beyond anyone's control. The final dataset included data taken from 106 consultations. The majority of the final sample consisted of parallel data (N=96) with a few cases where either the doctor or patient data were missing. When there was only one set of questionnaire data it was included in all analysis and comparisons with the exception of the calculation of differences between the doctor patient scores which required the data to be paired. The mean number of patients recruited per doctor was 4.63 (range 1 - 16).

4.11.2 Demographic profile of the Foundation Doctors sample

Table 4 shows that the Foundation doctor sample consisted of 24 doctors. The doctors were recruited between January 2011 and April 2012. The rotation number refers to which rotation the doctor was in when data collection took place. Thus, Rotation 1 was the first 4 months of the first year of Foundation training, Rotation 2 was months 5 to 8, and Rotation 3 was the last 4 months of the first year.

VARIABLE	NUMBER	PERCENTAGE
Gender		
Male	9	37.5
Female	15	62.5
Total	*24*	*100*
Age		
18 - 25	12	50
26 - 40	10	41.7
41 - 60	2	8.3
Total	*24*	*100*
University		
UEA	17	70.8
Other	7 (Wales, Imperial, Newcastle, UCL, Nottingham and Warwick)	29.2
Total	*24*	*100*
Rotation		
1	7	29.2
2	7	29.2
3	10	41.7
Total	*24*	*100*

Table 4: Demographic profile of the Foundation doctors

4.11.3 Patient sample characteristics

Questionnaire data was collected from the available patients who consulted with the Foundation doctors at the clinic. As previously noted, 106 questionnaires in total were completed by patients. The demographics of the patient study sample are provided in Table 5. The table shows that there were similar numbers of males and females in the sample. Sixty-seven per cent of the patients were aged over 60 and less than 7% were aged 40 or under.

VARIABLE	NUMBER	PERCENTAGE
Gender		
Males	51	48.1
Females	55	51.9
Total	*106*	*100*
Age		
18 - 25	1	0.9
26 - 40	6	5.7
41 - 59	28	26.4
60+	71	67.0
Total	*106*	*100*

Table 5: The demographic profile of the patients of the Foundation doctors

4.11.4 Scoring of the questionnaires

The parallel questionnaires were scored using a Likert scale: Strongly Disagree = 1. Disagree = 2, Neutral = 3, Agree = 4 and Strongly Agree = 5. The U/A (unable to assess) option was treated the same as any missing data and was not allocated a value. Mean scores were calculated by summing the numerical values and dividing by 5 on both the doctor's and patient's completed questionnaires. The maximum score available was 5.

4.12 Data Analysis

4.12.1 Correlation of Foundation doctors and patient scores

In order to investigate the level of agreement between doctor and patient on each item of the questionnaire, correlations were calculated for matching items (doctor and patient) between the two instruments using the non-parametric Spearman Rho correlation. The results of the correlation analysis are reported in Table 6 along with the median scores achieved for each item on the questionnaires by Foundation doctors and patients.

Questionnaire Item **Wording used on Doctor version** **Wording used on Patient version**	**Dr N**	**Median IQR**	**% U/A**	**Pt N**	**Median IQR**	**% U/A**	**Correlation** (Spearman's Rho)
1 Greeted the patient in a way that made them feel comfortable Greeted me in a way that made me feel comfortable	100	4 1	9.9	105	5 0	5.4	0.125
2 Discussed the patients reason(s) for coming today Discussed my reason(s) for coming today	100	4 1	9.9	104	5 1	6.3	0.081
3 Encouraged the patient to express his/her thoughts concerning their health problem Encouraged me to express my thoughts concerning my health problem	100	4 0	9.9	102	5 1	8.1	0.198
4 Listened carefully to what the patient had to say Listened carefully to what I had to say	99	4 1	10.8	104	5 0	6.3	0.062
5 Understood what the patient had to say Understood what I had to say	100	4 1	9.9	104	5 0	6.3	0.119
6 If a physical examination was required, explained what was done and why If a physical examination was required the doctor explained what was done and why	100	4 1	9.9	91	5 1	18.0	-0.071
7 Explained lab tests needed to explore patients problem Explained the lab tests needed (eg. blood, x-rays, etc)	39	4 1	64.9	48	5 1	56.8	0.171
8 Discussed treatment options with the patient Discussed treatment options with me	47	4 1	57.7	58	5 1	47.7	0.098
9 Gave the patient as much information as he or she wanted Gave as much information as I wanted	98	4 0	11.7	99	5 1	10.8	0.028
10 Checked with the patient to see if the treatment plan(s) was acceptable Checked to see if treatment plan(s) was acceptable to me	73	4 1	34.2	81	5 0	27.0	0.141
11 Explained medications, if any, to the patient including any side effects Explained medications, if any, including possible side effects	44	4 2	60.4	62	5 1	44.1	0.419*

12 Encouraged the patient to ask questions Encouraged me to ask questions	98	4 1	11.7	102	5 0	8.1	0.180
13 Responded to the patients questions and concerns Responded to my questions and concerns.	98	4 1	11.7	99	5 0	10.8	0.103
14 Involved the patient in decisions as much as he/she wanted Involved me in decisions as much as I wanted	76	4 0	31.5	80	5 0	27.9	-0.051
15 Discussed next steps including any follow-up plans Discussed next steps including any follow-up plans	64	4 1	42.3	78	5 1	29.7	-0.154
16 Checked to be sure the patient understood everything Checked to be sure I understood everything	98	4 0	11.7	100	5 0	9.9	0.106
17 Showed care and concern about the patient as a person Showed care and concern about me as a person	100	4 1	9.9	102	5 0	8.1	0.122
18 Spent the right amount of time with the patient Spent the right amount of time with me	100	4 1	9.9	102	5 0	8.1	0.145
19 Overall, I was satisfied with this consultation today Overall, I was satisfied with my visit by the doctor today	100	4 1	9.9	104	5 0	6.3	0.085

Key: * indicates significance at the P= < 0.05 level

Dr N- Frequency of doctor responses; Pt N – Frequency of patient responses; %U/A- Frequency of unable to assess responses; IQR- Interquartile Range

Table 6: Item by item correlations of doctor and patient scores including frequency of responses and percentages of missing values per item

All of the 19 items had similarly high median scores both from the doctors themselves and their patients. This suggests that the high medians reported came from similarly high scores and it was not that just a few items raised the average score.

The correlations between all except one of the corresponding items were very low. The exception was item number 11 (explained medications) which showed a coefficient of 0.419 which suggests a weak to moderate correlation which was highly significant at the p=< 0.005 level. This suggests that there was a higher level of agreement between doctors and patients on this particular item.

Fifteen of the items demonstrated positive correlations of values close to 0 suggesting that the two variables were not closely related. All of the correlations were in a positive direction with the exception of items 6, 14 and 15 which showed non-significant negative correlations. This suggests that had there been a relationship between the two variables it would have been one of an inverse nature, such that as one score goes up, the other comes down.

4.12.2 Missing values analysis

Table 6 also provides the numerical percentages of the missing data for each item of both the doctor's and patient's questionnaires. The same 6 items (Items : 7 - Explained lab results, 8 - discussed treatment options, 10 - checked treatment plan, 11 - explained medications, 14 - involved patient in decisions, 15 - discussed next steps) had the most missing values (either U/A selected or left blank) for both doctors and patients, with items having between 27.9 and 64.9% of values missing. The remaining items had similar percentages of missing data for both doctors and patients, generally around 10%.

4.12.3 Doctor and patient scores by doctor variables

Table 7 presents the mean scores achieved on the questionnaire across all 19 items of the consultation skills questionnaire (by doctors and patients).The N values in the table represent the number of consultations conducted. The analysis of the differences between doctors and patients was based on only the pairs of questionnaires (dyads) that were available (N = 96). The calculated differences between the two scores are also illustrated in Table 7. The doctor and patient scores are reported in relation to the doctors' demographic variables. As can be seen by Table 7, the patients' scores seemed to be consistently high, regardless of the doctors' characteristics. Overall, the patients scored the doctors significantly higher than doctors' scored themselves on the consultation skills questionnaires. All the recorded characteristics of the doctor made a difference to the way in which they scored themselves on the consultation skills questionnaires. As can be seen by the p values (marked by * in the table) the doctor characteristics; gender, age, university and rotation, all made a significant difference to the doctors' scores. In contrast the patients' scores were not significantly changed by the doctor characteristics and offers evidence that doctors' self-assessment on the consultation skills questionnaires were more affected by the doctors' demographical factors than patient scores were.

Gender: The data in Table 7 demonstrated that male doctors scored themselves significantly higher than female doctors. Whilst the patients did score the male doctors higher on the questionnaires than the females the difference was only marginal.

Age: Doctors' scores on the consultation skills instrument were significantly higher when the doctors were aged 41 to 60. The differences between the doctor and patient mean scores differed significantly by age group with a downward trend for increasing age. But again, there were no significant differences between the age groups of doctors according to the patient scores.

University of Graduation: The data in Table 7 demonstrated that consultations conducted by doctors from other universities were scored higher than those conducted by UEA doctors by their patients. However, the difference was not statistically significant. The doctors' scores suggested a similar pattern with those from 'other' universities scoring themselves significantly higher than the doctors who had graduated from the UEA.

Rotation: Foundation doctors who were on Rotation 3 of their training rated themselves significantly higher than those in Rotation 1 and 2. Whilst patients also rated these doctors the highest, the difference between Rotation 3 and the other rotations (R1 and R2) was not significant.

Doctor Characteristics	N	Individual Patient Scores Median (IQR)	P	N	Individual Doctor Scores Median (IQR)	P	N	Score Differences Between Doctor and Patient	P
GENDER									
Male	41	4.95 (IQR 0.25)	p=0.213 MW	37	4.50 (IQR 0.84)	p=<0.001* MW	35	0.23 (IQR 0.55)	p=<0.001* MW
Female	65	4.88 (IQR 0.74)		63	3.95 (IQR 0.29)		61	0.83 (IQR 0.80)	
AGE GROUP									
18-25	51	4.95 (IQR 0.54)	p=0.250 KW	48	4.03 (IQR 0.33)	p=<0.001* KW	46	0.81 (IQR 0.71)	p=0.015* KW
26-40	40	4.86 (IQR 0.80)		40	4.00 (IQR 0.34)		38	0.54 (IQR 1.04)	
41-60	12	4.94 (IQR 0.20)		12	4.76 (IQR 0.52)		12	0.20 (IQR 0.20)	
UNIVERSITY									
UEA	77	4.88 (IQR 0.73)	p=0.68 MW	75	4.00 (IQR 0.31)	p=0.001* MW	73	0.63 (IQR 0.83)	p=0.425 MW
Other	29	5.00 (IQR 0.12)		25	4.31 (IQR 0.78)		23	0.40 (IQR 1.02)	
ROTATION									
1	23	4.87 (IQR 0.73)	p=0.521 KW	22	3.97 (IQR 0.22)	p=<0.001* KW	20	0.94 (IQR 0.64)	p=0.37 KW
2	46	4.90 (IQR 0.75)		42	3.95 (IQR 0.42)		41	0.58 (IQR 0.90)	
3	37	4.95 (IQR 0.25)		36	4.37 (IQR 0.91)		35	0.31 (IQR 0.88)	
OVERALL SAMPLE	106	4.94 (IQR 0.62)		100	4.03 (IQR 0.45)		96	0.56 (IQR 0.87)	p=<0.001* WSR

Key: * indicates significance at the P= < 0.05 level

MW - Mann-Whitney U; KW - Kruskal-Wallis; IQR – Interquartile Range; WSR - Wilcoxon-Signed ranks

Table 7: Table of doctor and patient median scores with doctor variables and score differences

4.12.4 Doctor and patient scores by patient variables

The data in Table 8 presents the patient and doctor scores achieved on the consultation skills instrument, with analysis conducted according to the patient's demographic variables (age and gender). Table 8 demonstrates that the patients' own characteristics had very little effect on the way in which they scored their Foundation doctors on the consultation skills questionnaire. Nor was there any significant effect of the patients' age and gender on the Foundation doctors' self-ratings of their consultation skills.

Gender: Male patients did score their doctors marginally higher than the female patients but the difference was not statistically significant. In addition male doctors scored themselves higher following a consultation with a male patient than female but again the difference was not statistically significant.

Age: Patients who fell within the 41 to 59 age range scored their doctors higher than any of the other patient age ranges but the difference was not statistically significant. While the doctors scored themselves higher following a consultation with patients aged between 41 and 59 than any other patient age range this again was not statistically significant.

Patient Characteristics	**N**	**Individual Patient Scores Median (IQR)**	**P**	**N**	**Individual Doctor Scores Median (IQR)**	**P**
GENDER						
Male	51	4.95 (IQR 0.67)	p=0.626 MW	50	4.06 (IQR 0.49)	p=0.792 MW
Female	55	4.92 (IQR 0.73)		47	4.00 (IQR 0.46)	
AGE GROUP						
18-25	1	4.83 (Constant)	p=0.327 KW	1	4.06 (Constant)	p=0.941 KW
26-40	6	4.64 (IQR 0.86)		6	4.00 (IQR 1.14)	
41-59	28	4.90 (IQR 0.85)		23	4.10 (IQR 0.67)	
60+	71	4.70 (IQR 0.57)		67	4.00 (IQR 0.33)	

Key: MW- Mann-Whitney U; KW- Kruskal-Wallis; IQR- Interquartile Range

Table 8: Table of doctor and patient median scores by patient variables

4.12.5 Self-efficacy

Self-efficacy was measured using a 10 point scale distributed to the doctors to plot their self-perceived confidence levels both before and after their consultations with their patients. The self-efficacy scale was distributed at the same time as the consultation skills questionnaires so data here is drawn from the same sample of Foundation doctors who completed the consultation skills questionnaires reported earlier. The results of the self-efficacy measurements are reported in Table 9 which shows that among the 24 recruited doctors there were 97 of the scales completed *before* consultations with patients and 92 that were completed *following* patient consultations. The table also shows a calculation of the *difference* in self efficacy from *before* the consultation to *after.* This calculation was conducted by starting with the *after* consultation score and then subtracting the *before* measurement (After-Before).

Across the sample of Foundation doctors, the levels of self-efficacy were high both *before* (mean = 7.62, SD 0.95) and *after* (mean = 7.98, SD 0.85) their consultations with patients. The self-efficacy levels were significantly higher *after* the consultations than *before* (difference mean = 0.38, SD 0.89). Whilst there were differences between the *before* and *after* levels (self-efficacy) related to gender, age, university and rotation, the only characteristic associated with a significant difference in self-efficacy levels from *before* to *after* the patient consultations was gender of the doctor; in that female doctors rated their self-efficacy as significantly higher after the consultation, in comparison to before.

There were differences in the self-efficacy scores *before* the patient consultations according to the doctor variables, and these were significant for gender and rotation, as will be outlined below. In contrast, whilst the self-efficacy scores *after* the patient consultations also varied by the doctor variables (gender, age, university and rotation) slightly, this was not to a significant level for any variable.

Doctor Characteristics	N	Self-Efficacy Before Mean (SD)	P	N	Self-Efficacy After Mean (SD)	P	N	Score Differences between Before and After	P
GENDER									
Male	35	8.26 (SD 0.74)	p=<0.001* TT	33	8.12 (SD 0.74)	p=0.230 TT	32	-0.03 (SD 0.65)	p=<0.001* TT
Female	62	7.27 (SD 0.88)		59	7.90 (SD 0.90)		59	0.60 (SD 0.94)	
AGE GROUP									
18-25	46	7.51 (SD 1.25)	p=0.307 AN	40	8.00 (SD 0.88)	p=0.223 AN	40	0.56 (SD 0.94)	p=0.195 AN
26-40	40	7.65 (SD 0.58)		40	7.85 (SD 0.86)		40	0.20 (SD 0.91)	
41-60	11	8.00 (SD 0.45)		12	8.33 (SD 0.65)		11	0.36 (SD 0.50)	
UNIVERSITY									
UEA	73	7.64 (SD 0.76)	p=0.860 TT	70	8.00 (SD 0.83)	p=0.665 TT	69	0.35 (SD 0.83)	p=0.653 TT
Other	24	7.58 (SD 1.41)		22	7.91 (SD 0.92)		22	0.45 (SD 1.10)	
ROTATION									
1	22	7.36 (SD 1.09)	p=0.007* AN	22	7.95 (SD 0.72)	p=0.981 AN	22	0.59 (SD 1.22)	p=0.87 AN
2	41	7.43 (SD 0.88)		38	7.97 (SD 0.91)		38	0.49 (SD 0.77)	
3	34	8.03 (SD 0.83)		32	8.00 (SD 0.88)		31	0.10 (SD 0.70)	
OVERALL SAMPLE	97	7.62 (SD 0.95)		92	7.98 (SD 0.85)		91	0.38 (SD 0.89)	p=<0.001* TT

Key: * indicates significance at the P= < 0.05 level

TT- t-test; AN- One-way ANOVA; SD- Standard Deviation

Table 9: Self-efficacy before and after consultation including differences and doctor characteristics

Gender - Before and after ratings: The self-efficacy scores *before* the patient consultations were significantly higher for male doctors than females. Male doctors also scored higher than females on their self-efficacy *after* consultation, but the difference was no longer statistically significant. This is likely because the female doctors increased their ratings of self-efficacy between the two measurements.

Gender - Differences over time: The difference in self-efficacy between *before* and *after* the consultations was significantly higher (and positive) for female doctors.

Age - Before and after ratings: The Foundation doctor participants' self-efficacy was higher (highest) both *before* and *after* for the doctors who fell into the 41-60 age range but not significantly higher.

Age - Differences over time: The difference in participants' self-efficacy between *before* and *after* the consultations was highest (and positive, in that ratings had increased over time) in those doctors aged between 18 and 25 but not significant.

University - Before and after ratings: Those doctor participants who graduated from the UEA rated their self-efficacy as higher than those from other universities both *before* and *after* consultations, but the difference between the two graduating university groups was not significant.

University - Differences over time: Graduates from other universities increased their self-efficacy more over the two time periods than the UEA graduates, but again this difference was not statistically significant

Rotation - Before and after ratings: The doctor participants who were on Rotation 3 (R3) of their training scored significantly higher than R1 and R2 on the self-efficacy scale *before* the consultations with their patients. However, *after* the consultation there was no difference between the three rotations.

Rotation - Differences over time: The doctor participants who were in their third rotation (R3) showed a smaller improvement in self-efficacy rating between the *before* and *after* measurements than those participants in their first (R1) or second (R2) rotations, but this different was not significant.

4.12.6 Correlation of doctors consultation skills scores and self-efficacy scores

The data that were drawn from the Foundation doctors' consultation skills questionnaires were further explored in relation to the data which were drawn from the measures of self-efficacy. A decision was made to explore whether there was a relationship between the doctors scores on their self-assessment of their consultation skills and their perceived levels of self-efficacy. As there were two measures of self-efficacy (one *before* and one *after* the patient consultations) which could both be potentially related to the doctors' self-assessment of consultation skills, it was decided to investigate the doctors' scores in relation to each measure of self-efficacy separately. As both the doctors scores and both measures of self-efficacy met the assumptions for a normal distribution, the test that was used was the Pearson's Correlation test. Table 10 and 11 show that when using the whole sample of doctors' scores and the sample *before* consultation self-efficacy measure (N=97) the correlation coefficient was 0.319, which was significant p= 0.01 (2-tailed). A similar result was achieved when the doctors' scores were explored in relation to self-efficacy *after* consultation (N=92) the correlation coefficient was 0.275, p= 0.01 (2-tailed).

Correlations			
		Self-efficacy Before	**Doctor consultation mean score**
Self-efficacy Before	Pearson Correlation	1	.319*
	Sig. (2-tailed)		.001
	N	97	97
Doctor consultation mean score	Pearson Correlation	.319*	1
	Sig. (2-tailed)	.001	
	N	97	100
* Correlation is significant at the 0.01 level (2-tailed)			

Table 10: Correlation of Foundation doctors self-efficacy levels (*before* consultation) and mean score from the consultation skills questionnaire

Correlations			
		Self-efficacy Before	**Doctor consultation mean score**
Self-efficacy After	Pearson Correlation	1	.275*
	Sig. (2-tailed)		.008
	N	92	92
Doctor consultation mean score	Pearson Correlation	.275*	1
	Sig. (2-tailed)	.008	
	N	92	100
* Correlation is significant at the 0.01 level (2-tailed)			

Table 11: Correlation of Foundation doctors self-efficacy levels (after consultation) and mean score from the consultation skills questionnaire

4.12.7 Exploration of variables across the two measures (consultation skills and self-efficacy)

The data drawn from the consultations skills questionnaires and the self-efficacy scales were further explored in relation to the demographic variables that were recorded on the consultation skills questionnaires and were of interest in this study. Comparison of the patterns in self-assessment scores by doctors using the questionnaire, and their self-efficacy scores, revealed the following:

Gender: Male doctors scored significantly higher than females both on their self-assessment of consultations and their self-efficacy scales before consultations. Self-efficacy levels following consultations were still higher in male doctors than females but in this case it wasn't significant.

Age: Self-efficacy levels were highest in the doctors aged 41-60 both *before* and *after* patient consultations, which is a similar pattern to the doctors' self-assessment scores on the consultation skills questionnaires except in the self-efficacy measures this was not found to be statistically significantly higher than the other age ranges.

University: Self-efficacy *before* and *after* was higher for doctors who graduated from the UEA than those from other universities (not significant) yet on the self-assessment of consultation skills, those doctors from other universities scored significantly higher than the UEA.

Rotation: Self-efficacy *before* patient consultations for doctors in Rotation 3 of their training was significantly higher than the other 2 rotations and self-efficacy *after* was also the highest in Rotation 3 although not significantly. In their self-assessments it was also Rotation 3 doctors who scored significantly higher than the other rotations.

4.13 Discussion

The overall purpose of Study 1 was to ascertain if, according to themselves and their patients, Foundation doctors use consultation skills in an efficient and effective way and to identify the factors which influenced the practice of Foundation doctors' consultation skills when consulting with their patients. This was done by making use of Campbell et al.'s (2007) matched-pair questionnaires which were given to both doctors and patients to complete following a shared consultation.

Doctor and patient scores

Consistent with other studies (Campbell et al., 2007, Makoul et al., 2007) the overall assessment scores in Study 1 reported by both doctors and patients were high (4 to 5 out of a possible 5). In addition the patients scored their doctors higher than the doctors scored themselves, which also corroborates with other studies that investigate both patient and doctor perspectives (Campbell et al., 2007; Zandbelt et al., 2004). In this study the differences between the doctor and patient scores became less as the doctor's age increased. This suggested that the older the doctor the more in agreement they were with their patients on the performance of consultation skills. This finding could be due to the context within which the data was taken. The data was taken from a pre-assessment clinic within a secondary care setting. The patient sample consisted of a high number of patients (93%) who were 41 years of age or older, who gave the highest scores to the doctors overall. The differences in scores getting smaller could be due to the fact that if the doctor was older then doctor and patient were closer in age therefore having more similar perceptions of the consultation experience. However, the relatively low number of older doctors who participated, in comparison to the number of doctors in the younger age groups may make this argument less valid and further investigation would be required.

Correlation

Campbell et al. (2007) calculated correlations for matching items (doctor-patient) between the two instruments and found low correlations between all of the 19 items on the doctor and patient questionnaires, which they presented as evidence for the validity of the questionnaire. In Study 1, doctor and patient scores were correlated for each

item and these also resulted low correlations (close to 0) for 18 out of the 19 of the items, suggesting that doctors and patients scores were independent from one another. However, the result for item 11 (explained medications) suggested a moderate, significant relationship (0.419) between the patient and doctor score on this particular statement. This could be explained by the fact that it was one of the less ambiguous and more concrete statements for the doctors and patients to interpret. Patients would easily be able to identify whether the Foundation doctor had explained medications with them, as such it would be very obvious to both doctor and patient whether this activity had taken place during the consultation so this may account for the significant correlation.

The low correlation coefficients between Foundation doctors and patient scores as found in both Study 1 and in Campbell et al.'s (2007) study could be explained by the fact that there was little variation in scores. The majority of the doctors' and patients' scores fell between 4 and 5 out of a possible 5. The statistical properties of the correlation coefficient are not suited to scores (even when converted to ranks as is done for Spearman correlation coefficients) that do not vary very much from one consultation to another. A greater range of scores and fewer consultations that shared the same scores may have resulted in a larger correlation coefficient.

Doctor and patient scores by doctor variables

In Study 1, male Foundation doctors rated themselves significantly higher on the consultation skills questionnaire. Males have been found to rate their competencies higher than their female counterparts elsewhere (Blanch et al., 2008). There were no significant differences between the male and female doctors in the scores they received from patients, this was in contrast to Campbell et al. (2007) and others (Zaharias et al., 2004) who found that female doctors were rated significantly higher than males.

Foundation doctors from other universities rated themselves significantly higher on the consultation skills instrument than those from UEA. This finding was interesting given the comprehensive consultation skills curriculum at UEA. A possible explanation might be that the researcher was based at UEA; this may have affected the way in which the UEA participants responded to the items on the questionnaire. They might have been more modest about their skills given that consultation skills training at the UEA is given a high priority on the medical curriculum. Also, the lead lecturer in consultation skills at the UEA was the primary supervisor of the researcher (and was named on the Participant Information Sheets) and would have been known to most of the doctor

participants. Again, this may have led to participants not wanting to inflate their perception of their own skills base. Additionally, a lot of training may result in more insight into the many variables that could affect someone's performance (Watmough et al., 2009) and therefore lead to a more conservative evaluation of one's performance. For example experiential training using simulated patients, such as that provided at UEA, is designed to foster deep analysis of consultations, including variables that effect the consultation.

Perhaps, not surprisingly the Foundation doctors who were on the third rotation of their training rated themselves significantly higher than those from Rotation 1 and 2. Each rotation was 4 months long so those doctors in Rotation 3 had between 8 and 12 months experience whereas Rotation 1 had between 1 and 4 months and Rotation 2 between 4 and 8 months. Work experience and patient exposure would increase the Foundation doctors' clinical skills over time and in particular consultation skills where practice is key to building confidence and competence. This case was further strengthened by the fact that the patients also rated Rotation 3 doctors the highest on the consultation skills questionnaires, although this result was not significant.

Doctor and patient scores by patient variables

Patients scored doctors high on the consultation skills questionnaire which is consistent with other studies (Braend et al. 2010). Characteristics of the doctor influenced their own assessment of performance and how patients perceived them (though generally not significantly), but characteristics of the patient were less influential and could be explained by context of the pre-assessment clinic. It might be that the patient characteristics were not relevant in such a context (i.e. the patients were not children, nor psychiatric patients, nor being told that they were dying).The sample was made up of mainly older patients whose consultations were probably quite similar so the influence of gender and age was lessened. Another explanation might be that Foundation doctors did actually use the same skills to the same level for all patients, regardless of patient characteristics.

Self-efficacy

Self-efficacy scores recorded on the confidence scales were all relatively high (both before and after the consultations) indicating that doctors felt generally confident in their ability to communicate effectively with their patients. However, even with initially high levels before the consultations, the self-efficacy levels increased significantly from *before* consultation to *after*. This might be explained by the fact that the doctors were

meeting their patients for the first time and may not have known what to expect from the consultation. Afterwards they had met the patient and so were more informed in their assessment of how the consultation had gone and therefore how confident they were that they had used their skills effectively. Whilst the differences in self-efficacy *before* and *after* consultations across the sample were significant, the variability was not down to the doctors' characteristics of age, university or rotation. However, gender did make a significant difference to the self-efficacy *before* scores and the differences between self-efficacy *before* and *after*. Male doctors felt significantly more confident *before* consultations than female but it was females who showed significantly more difference in score *following* the consultations with an upward trend. The finding that males reported higher levels of confidence than females in this study is consistent with other studies (Blanch et al., 2008); this might suggest that males reported higher confidence that was stable *following* consultations with patients. In contrast, females were more modest in their self-assessment *before* meeting their patients but reported significantly higher confidence levels *after*. An explanation might be that females' confidence is more affected by patient characteristics and/or the way the consultation went.

As might be expected those Foundation doctors who were on the later Rotation 3 of their training reported significantly higher levels of confidence than those on Rotations 1 and 2, which could be explained by their increased experience of the clinical settings and patient exposure.

Doctors consultation skills scores and self-efficacy

Further analysis of the doctors' questionnaire data and the self-efficacy data revealed that there was a moderate association between their scores on the self-assessment questionnaires and both their self-efficacy before and after. This finding suggested that the consultation skills measure and the self-efficacy measure were a valid combination of instruments to collect information on the consultation skills and confidence of Foundation doctors. This case was further strengthened by other patterns that were revealed across the two measures. For example, male doctors scored higher on both consultation skills and self-efficacy measures than females, older doctors self-assessed both their skills and confidence higher than their younger counterparts and similarly Rotation 3 doctors scored highest in both skills and confidence than the less experienced doctors.

The surprising finding in the across instrument analysis was that which explored the doctors' university of graduation. In the consultation skills assessment, the doctors from

'other' universities rated themselves significantly higher than those from the UEA. Conversely, on the self-efficacy scale the UEA graduates assessed their confidence higher than the other graduates both before and after their consultation with patients (not statistically significant).This might suggest that while UEA students on the whole report more confidence than other graduates they are more critical of their own consultation skills than others. A possible explanation for this might be the way in which the skills are taught at UEA using a very comprehensive curriculum with an emphasis on specific feedback from tutors, actors and peers. Teaching models used in consultation skills training such as the Calgary/Cambridge model (Kurtz et al., 2005) encourage the students to develop analytic and perceptual skills when practicing consultation skills which could heighten their awareness of the range of variables that affect performance of skills during the doctor-patient consultation.

Strengths and limitations

The key strength of Study 1 was the involvement of Foundation doctors in research related to consultation skills. Due to the relatively recent reform of postgraduate medical education, the experiences of Foundation doctors were under-represented in the literature. In addition patient views were a key feature in this study and often cited as a valuable source of feedback for use in medical education (Wilkinson and Fontaine, 2002).

Furthermore, the use of the matched pair questionnaires allowed for the collection of both sources of assessment from one shared consultation and was extremely valid for this investigation. In particular, the timing of administering the questionnaires before an impending consultation provided a very relevant context in which to subsequently collect assessments of a real and recent consultation experience (Little et al., 2001).

The analysis of the missing values, which included the 'unable to assess' (U/A) option on the questionnaires showed that the same pattern was evident in both the doctor and patient datasets. This indicates that given the same doctor-patient consultation, both the doctors and patients were finding the same questionnaire items to be relevant to the interaction. This finding suggested that both groups of participants were paying attention when reading and answering the questions and that neither group was (on the whole) just going through the questionnaire ticking options blindly. This added validity and credibility to the results.

The items with the highest percentage of missing values in Study 1 were items 7 (explained lab tests), 11 (explained medications) and 8 (discussed treatment options), which all had > 44% missing values. Whilst the percentages missing were much higher

for all items in this study than in Campbell et al.'s (2007) study, those items associated with the highest rates missing were the same in both studies. The exception being that item 6 (explained physical examination) featured as one with the highest rate of missing values in Campbell et al.'s (2007) study but not in Study 1. The possible explanation for that was that the study contexts were different. Study 1 was conducted in a pre-operative assessment clinic where physical examinations were very often carried out as part of the consultation as opposed to the GP practice where much of Campbell et al.'s data was collected. In the pre-operative assessment clinic, a key component of all Foundation doctor and patient consultations included medications (already being taken by the patient) being recorded; so 'explanation of medications' was not required in this context which might explain the high numbers of missing values for this item. Moreover, the questions about whether the Foundation doctor discussed/explained laboratory results and the next steps in a patient's treatment plan were ones that might have been quite irrelevant in this setting. At the time of attending the pre-operative assessment clinic, before the planned operation, patient's laboratory tests and results have already been dealt with (prior to this appointment). Similarly, if an operation has been arranged the next steps for the patient's treatment have also already been discussed and arranged by someone else, prior to the pre-operative assessment visit. This might be why, for these items, there were high numbers of missing values in the patients' completed questionnaires as they were not relevant to this particular setting.

This suggested that the 'unable to assess' (U/A) option was used as it was intended in both studies, which was to enable the questionnaire to be suitable for use in a variety of healthcare settings. It provided an option for participants if any specific behaviour asked about in the questionnaire could not be assessed because it was not done as part of the consultations. This prevented the participant from having to inappropriately select one of the other options, which would have affected the subsequent scores achieved.

The necessary presence of the researcher during all data-collection could have been deemed as both a strength and limitation of Study 1. The strength was the ability to maximise participation of the limited numbers of both Foundation doctors and patients. Likewise, it provided a means of ensuring that the questionnaires were completed as recently as possible following the consultations then collected and managed appropriately.

However, recruitment and retention of Foundation doctors was very problematic in this study and resulted in some limitations. The questionnaires being handed out in person

by a sole researcher, was very time consuming and consequently limited the rate of recruitment and, thus, the sample size. The key weakness of the researcher being present during recruitment was without doubt the resource of time involved in this activity. The impact of this was two-fold; it meant that data could only be collected on the days and times that the researcher was able to be present, but also that the researcher was only able to concentrate on one Foundation doctor at any one time which in turn limited opportunities to recruit other doctors and/or investigate other appropriate study locations. Having to have the researcher on site limited the number of places Foundation doctors could be recruited from at any one time. The pre-assessment clinic at the Norfolk and Norwich University Hospital (NNUH) was eventually identified as being the best location within which to concentrate recruitment due to the limitations already identified. This decision had further issues. For example, only 16 Foundation doctors were allocated to the general medicine rotation and were allocated shifts on the pre-assessment unit (during each 4 month rotation). Out of those doctors, only 2 were on the Rota for the pre-assessment clinics on any given day. So, even if both doctors took part in the study that would be the maximum available per day. In addition to this, those doctors would have varying amounts of patients whose appointments usually took approximately 40 minutes. There were many days when the doctors would either never arrive for their shift at the pre-assessment clinic, would have a very small list of patients or would have no patients so were sent back to cover their ward duty. For these reasons recruitment of Foundation doctors was severely affected and reduced the chances of achieving a larger sample size.

Nevertheless, a response rate of just over 30% was achieved which was consistent with the 30% response rate of doctors recruited by Campbell et al. (2007), who also experienced problems with recruitment and retention during the testing of the questionnaire instrument despite their use of a survey management company. As in the reported study, time-constraints was the most common reason for non-participation in Campbell et al.'s study. Cave et al. (2007) faired a little better in their recruitment of Foundation doctors with a 43% response rate but this was through a postal questionnaire study which eliminates many barriers, (such as work schedules, access issues and patient variables) associated with the clinical context of field research.

Unlike Campbell et al.'s (2007) study, where over half of the sample were doctors working in general practice, Study 1 was conducted solely in a secondary care setting and moreover in an out-patient clinical setting where patients' appointments could last up to 3 hours. The impact of this was two-fold: the available patient numbers were often small and/or they would have been waiting a long time before they reached the

Foundation doctors' consultation time. Both of which influenced the number of patients that were recruited per doctor.

In Study 1, the patient sample was drawn from the same clinical context, which may have gone some way to reduce the problem of heterogeneity leading to a need for 20 patient assessments that Campbell et al. (2007a) stated; as such this could have potentially reduced the number of patients required to offer useful information about the variables of interest. Whilst the dataset was small it was sufficient to conduct limited analysis on the self and patient assessments of consultation skills performance and to explore some of the demographic factors that might have impacted upon the scores achieved on the parallel questionnaires. However, the small number of patient assessments received per doctor limits the use of these data as a form of reliable feedback to the Foundation doctors.

Study 1 had other limitations. Both sets of participants were self-selected volunteers so were motivated to take part in completing the questionnaires. It could have been the case that those Foundation doctors who perceived that they are effective communicators may have been more motivated to offer to take part in Study 1, with those who felt less sure of their skills not wanting to expose this through the research. The Foundation doctors were also a highly selected group of doctors which meant that so too were their patients. Had this study taken place within a different ward or during ward rounds for instance then the results may have been very different. The Foundation doctors who offered to take part in the study could have been those who already perceived their consultation skills as effective so were happy to be evaluated during the study. Alternatively, they could also have been Foundation doctors who were completely unsure of their abilities and were motivated by the prospect of receiving patient feedback. The patients in the context of the pre-assessment clinic were all there for similar reasons to each other, for a similar amount of time and seeing the doctors for the first time which may have reduced the variability in their perceptions. It might be that if the patients were more varied in age, seen as in-patients on the wards and presenting with more complex health issues then perceptions of the Foundation doctors may have shown more variability. Alternatively, this could have been viewed as a strength of the study, in terms of reducing the confounding variables associated with different contexts.

Whilst every possible effort was made to address the recruitment issues encountered during the Study 1, the sample size of Foundation doctors and patients was small and there were probably not enough patient or doctor assessments for stability or

generalisability to other populations of Foundation doctors and their patients. That said many of the findings are congruent with other studies of a similar nature.

Study 1 set out to explore the perceptions of Foundation doctors of consulting with patients once they left university and started practicing. The data collected during this study has revealed very positive perceptions of the shared experience between Foundation doctors and their patients in a secondary care setting. Additionally, confidence scales revealed high levels of confidence from all doctors both before and after consultation with their patients. These findings are very positive for medical education and clinical practice, in that they suggest that training in consultation skills is producing workplace competence, confidence and patient satisfaction in this context. The other aim of the study was to capture the factors that might impact upon performance of effective consultation skills. The results here suggest that there are various characteristics of doctors (gender, age, university at which medical school was attended, and experience in terms of rotation number) that significantly impact upon the perceived performance of consultation skills and confidence of doctors. It is clear that some of these factors have more influence than others on both doctors' and patients' assessment of skills. This has implications for both training and practice and should be noted by both medical and clinical educators.

The challenges of conducting this study have revealed that the clinical context and particularly secondary care are not easy settings within which to perform research in a complex area such as clinical communication. Even once access was negotiated, the Foundation doctor and patient samples were very difficult to recruit and this might go some way to explaining why research in this area is sparse.

Further Research

There is a need to monitor the success of Foundation doctors who have trained under the reformed medical curricula to ensure that investments made at the university level are producing the desired outcomes in clinical practice. In particular, consultation skills training can be an expensive resource that has been driven by the GMC and patient preference which may not be a priority for those existing clinicians for whom training the Foundation doctors becomes their responsibility. Patient care will always be paramount but effective consultation skills are a vital part of that and have to be given the significance that they deserve from Foundation doctors and clinical educators in the workplace. Therefore, it is important that research into consultation skills training and practice continues, but clinicians and educators need to collaborate to overcome the

barriers that exist in healthcare settings for researchers to gain access to participants to carry out their work.

A suggestion might be to carry out more collaborative research with the involvement of both medical schools and secondary care establishments. This might go some way to strengthening links and negotiating the barriers that exist for researchers in NHS settings.

Chapter 5: Study 2

5.1 Introduction

5.1.1 Project-wide research aims

The three studies in this mixed-methods project aimed to explore:

- According to themselves and their patients, are Foundation doctors using consultation skills in an efficient and effective way in the hospital setting? (Study 1)
- How do Foundation doctors rate their self-efficacy both before and after consultations with their patients? (Study 1)
- What factors influence the training and practice of Foundation doctors' consultation skills? (Study 2)
- What are the wider perspectives of qualified clinicians about consultation skills training and practice? (Study 3)

This chapter will describe and support the decisions made with regard to the data collection for Study 2. This will include details regarding the development of the interview schedule, piloting and modification. All details of the sampling strategy and inclusion criteria will be discussed including explanation of difficulties experienced and how they were partially overcome to produce the sample. Selection bias and researcher bias will be explored in relation to Study 2 and an outline of the analysis of the interviews will be offered.

5.2 Study 2 Objectives

The aim of Study 2 was to:

- Provide a deeper understanding of some of the findings that emerged from the questionnaire stage of the study (Study 1).
- Explore what factors influenced the training and practice of Foundation doctors' consultation skills.

5.3 Information Gathering

The purpose of Study 2 was to explore the Foundation doctors' personal experiences of consultation skills training and practice and to provide a deeper understanding of some of the findings that emerged from Study 1. The objectives were well suited to the

use of qualitative methods. Marshall and Rossman (2006) suggested it is important to match research objectives and purpose in designing qualitative studies. The interpretivist paradigm postulates that realities and truths are multiple and fluid in nature. According to this paradigm meaningful knowledge can be constructed by making way for and embracing personal and subjective world-views. Means of accessing the complexities of those world-views are broad and include methodologies such as observation, ethnography and interviews (Bloor and Wood, 2006).

The 'contextualist' theoretical viewpoint was taken in the overall project (discussed in Chapter 3) and is particularly useful in Study 2 due to the intention to acknowledge the ways in which individuals made meaning of their experience but with a wider lens upon the social context that shaped those meanings (Fox, 2006). This standpoint fitted logically with the exploration of Foundation doctors' experience of consultation skills training and practice. Whilst they operate as individual learners and junior doctors, the way in which they operate as communicators is influenced and bound by the context of their working environment, in this case the hospital setting.

The explorative nature of Study 2 called for a method which was suitable to investigate little understood phenomena and discover important categories of meaning (Marshall and Rossman, 2006). It was decided that the optimum way of yielding this rich information was to ask Foundation doctors, in private, in a one-to-one interview with open questions that gave space for reflection and honesty; where any emerging themes could be given appropriate attention. Interviews are deemed as a flexible means of exploring people's motivations, opinions and experiences, as such were well suited to the objectives of Study 2.

Face-to-face interviews were originally chosen as a means of following up the doctors who had taken part in the initial stages of the project. The interviews offered an opportunity to not only feedback a summary of the data that had been collected from their particular sample of patients but also to expand on what was discovered in the quantitative Study 1. However, due to the limited numbers of participants in Study 1 and the lack of variability in the scores achieved from Study 1, it was decided that interviews would be conducted with any available and willing Foundation doctors who would still have had personal experience of consultation skills training and practice. Interviews with Foundation doctors with or without data from Study 1 were deemed to meet the research objective of exploring the factors that influence Foundation doctors' consultation skills training and practice that might determine differences in performance levels. The interviews were designed to capture the Foundation doctors' subjective views of their consultation skills training.

5.3.1 Semi-structured interviews

The interviews were designed to be semi-structured. Semi-structured interviews are usually developed by posing a range of pre-conceived questions but allowing some time and space for the participant to elaborate on specific issues or offer alternative lines of thought that emerge for them during the interview (Bloor and Wood, 2006). The researcher can then follow up on such themes as and when they arise. The use of semi-structured interviews allowed the researcher some control in the interviewing process, both in terms of deciding in advance the main questions asked but also in prompting, accepting and probing any answers given (Drever, 2006). The semi-structured interviews offered a more private means of eliciting subjective views in a more conversationalist approach which was shaped by both the interview guide and the emergent themes of the interview.

5.4 Development and Evaluation of Interview Schedule

5.4.1 Content development

The initial interview schedule was produced by consulting the literature and defining themes for exploration that would assist in exploring the research objectives. Relevant literature was explored as described in the literature review (Chapter 2). Whilst research on Foundation doctors' consultation skills was scarce, there were some papers that did assist in developing the focus for the interview stage of the project. Both quantitative and qualitative works were consulted which allowed some knowledge to be gleaned about junior doctors in general and the context within which they train and practice.

Influences upon learning and teaching consultation skills, such as personality of learners, work-experience, knowledge level and tutors' level of ability were all identified by Al-Wahaibi et al. (2009) in their paper which explored learning theories in GP consultation skills training. In addition, Bonney et al. (2009), in their review of the literature of patients' attitudes, identified that trust and desire for meaningful communication were among the domains found to affect patient satisfaction. Moreover, the influencing factors of patient satisfaction with GP registrars included patient, practice and doctor characteristics (Bonney et al., 2009). It was intended that through the interviews with Foundation doctors further exploration would be possible to see how these and other such variables (some of which were elicited in Study 1) influenced the Foundation doctors in their consultations with patients.

It was intended that the patient, doctor and practice factors highlighted by Bonney et al. (2009) (some of which were elicited as part of Study 1) would be explored during the interviews with Foundation doctors to gain deeper knowledge of how these variables influenced the Foundation doctors in their consultations with patients.

Preliminary data analysis was conducted on the quantitative (Study 1) data in order to assist in the development of the interview schedule. Some of the factors of interest in this study, such as age, gender and graduating university of the doctors were included in the questionnaire stage of the study and could be examined statistically according to the scores achieved by the doctors on their own and their patients' dataset. However, it was useful to use the interviews to elaborate on such concepts and examine others that might be salient for the doctors as individuals. It was important that the content of the interview schedule was effective in reaching that level of detail. The doctors' training and practice experiences were unique and complex and the interview questions needed to be open enough to allow space and time for reflection of their perceptions of their experience of consultation skills training and practice.

5.4.2 Evolution of the interview schedule

On the basis of the literature review and Study 1, it was determined that the interview would need to cover 3 main themes in order to explore the factors that might impact upon the doctors training and practice of consultation skills. For those Foundation doctors who participated in Study 1 an overview of their data would be offered after the first theme was covered.

- Experience of consultation skills training during medical school
  (Feedback of any results from the initial stage of the study)
- Using consultation skills 'on the job'
- Consultation skills training needs now and in the future

The first drafts of the schedule included a small number of open questions about the above topics. The themes were then reviewed by a qualitative advisor (who was a member of the supervisory panel and a consultation skills lecturer). In addition, the two doctors who had just completed their Foundation training (who had reviewed Study 1 materials) reviewed the initial schedule and checked that all questions were appropriate and relevant to the research objectives from the perspective of junior doctors.

In light of feedback from the reviewers, the schedule was modified further by the researcher and the qualitative advisor and it was expanded to include sets of

subordinate questions under each theme in the form of prompts and probes. Prompts were intended to encourage the participants to answer as fully as they could. Probes were added to encourage the interviewee to expand or explain further. Drever (2006) suggested that there are two types of prompts and probes; *Prompt type 1* - used to encourage an answer and *prompt type 2* - used to ensure the interviewees say as much as they wish. *Probe type 1* which are used to expand the detail of an answer and *probe type 2* used to encourage further explanation (Drever, 2006).

As described in detail in Chapter 4, the overall project evolved in many ways including the widening of the research questions, the focus of exploration and the inclusion criteria for potential participants. Consequently, the contents of the interview schedule were changed in order to shift the focus from being slightly less on training but more on the practice of consultation skills. This version became a comprehensive interview schedule in preparation for use in the pilot interview (Appendix 19).

Interview guide for participants

An abridged version of the final interview schedule was developed to produce an Interview Guide (Appendix 18).The guide included a briefing statement, the opening question, and list of themes and prompts that were to be used during the interview. This was designed to be given to the participants, along with an appropriate consent form, prior to the commencement of the interview. The interview guide was a means of offering participants an outline of what to expect during the interview before they consented to taking part. The idea of the interview guide was to save time for the Foundation doctors who had been difficult to recruit in Study 1 through their very busy work schedules. It was thought that if the Foundation doctors had some idea of the themes to be covered it might assist in keeping the interview focussed and not take up more time than was necessary.

5.5 Pilot

The interview schedule was piloted in July 2011 with a new doctor who had finished her second year of Foundation training in the previous year. It was believed that she might offer insights not only of her experience of consultation skills training but also of her experience of performing as a doctor at one of the hospital sites that were used for recruitment in this study (Study 2) and Study 1. In addition, the (pilot) participant had graduated from the University of East Anglia (UEA). This was valuable, as it was logical to believe that some UEA graduates stay local for their Foundation jobs and thus would be participating in Study 2.

The pilot interview was recorded and transcribed by the researcher and some preliminary analysis took place, to ensure that the content of the interview schedule was producing the required information. The participant feedback on the interview was positive and the participant remarked that the interview was effective in eliciting open and honest commentary on experience of consultation skills and practice.

The pilot interview experience was discussed with the qualitative advisor, as was the preliminary analysis. At that time, a decision was made to re-order the format of the interview. For the doctors who had taken part in the initial part of the study, the feedback and the questions about their feedback were moved from the beginning of the interview to the middle. It was felt that it would be more comfortable for the participant if more gentle lines of questioning were placed at the beginning of the interview. It was thought that, to start the interview with feeding back of results would be quite a risky exercise particularly if the results were not what the participant may have expected. Moving the position of the feedback also ensured that the doctors' attitudes about consultation skills training and practice were not biased by the results that they had just received. Those doctors without any data to feed-back were still asked the same questions about performance, but hypothetically. For example, the researcher would say: "The doctors who took part in Study 1 were given a consultation skills questionnaire in order for them and their patients to assess their consultation skills performance. How do you think you would have scored on this?"

5.5.1 Interview context

Interviews were conducted within the same 2 hospital sites where Study 1 took place, those being the Norfolk and Norwich University Hospital, Norwich and the James Paget University Hospital, Great Yarmouth (for more details see Chapter 4). The participants in Study 2 were recruited from those who had also been invited to take part in Study 1 (some of whom had taken part in Study 1), so were recruited from the same context of those in Study 1.

In light of the difficulties of recruiting Foundation doctors during Study 1, most of the participants were recruited through the pre-assessment clinic at the Norfolk and Norwich Hospital which was an out-patient clinic where patients were sent in order to receive an assessment prior to general surgery. Foundation doctors were allocated shifts at the clinic as part of their general surgery rotations.

The interviews took place, very much at the convenience and availability of the doctors. In most cases, this was in a room booked at the last minute at the respective hospital sites. One interview was conducted over the telephone following a cancelled meeting

with a doctor. In light of recruitment challenges in Study 1 and 2, the increase in the participant numbers was vital to the study and out-weighed the costs of the telephone interview (for example, loss of eye-contact and non-verbal communication). One interview was conducted in a coffee shop.

5.5.2 Summary

This section has covered the theoretical standpoint and objectives of Study 2, the steps in the development of the interview schedule and the pilot stage. The following sections will focus on the way in which the sample was selected, bias and the procedures that were followed to conduct the semi-structured interviews

5.6 Sample

5.6.1 Participants

Definition of population

The population used for Study 2 was that which was used and described in Study 1 (see Section 4.7.1)

Inclusion criteria

In order to best address the qualitative objectives, the inclusion criteria remained the same as it was in Study1. As described in Section 4.7.1.

5.6.2 Sampling design

The sample for Study 2 was initially planned to be purposive and to be conducted by using the questionnaire scores achieved from Study 1 to develop categories of scores (For example: high, medium and low scores). It was hoped that participants would be interviewed from each category until there was sufficient information from enough cases to be able to draw conclusions about the validity of the results or clarify results. For example, if a Foundation doctor scored in a low category and was chosen as part of the purposive sample in the interview stage, there would be an opportunity to gather more information to validate or clarify why s/he might have scored the way that s/he did. However, the preliminary data analysis of Study 1 revealed that the scores that the Foundation doctors achieved across their own and their patients' questionnaires exhibited minimal variance. For this reason, it was difficult to construct score categories from which to select participants for interview.

Unfortunately, through the limited access to Foundation doctors, there were still only small numbers in the sample of Foundation doctors who had varying amounts of patient data from Study 1 and those that were re-contacted to possibly participate in Study 2 did not always reply, so not all of those who took part in Study 1 were still available and/or willing to take part in Study 2. In the light of this, a decision was made to recruit Foundation doctors, whether or not they had already been involved in Study 1. Whilst this subsequent sample could not be selected purposively, it was an effective means of increasing the size of the sample. The sampling strategy, as in Study 1, again evolved into one which was of a convenience/opportunistic nature.

Due to the fact that all of the Foundation doctors had taken part in formal consultation skills training and were practising on a daily basis, it was deemed that they would still offer a rich understanding of what they perceived had influenced their training and experience of consultation skills with patients. It was thought that they would offer valuable information whether or not they had been part of the original sample during Study 1.

Selection bias

The sample for Study 2 was even more difficult to recruit than Study 1 which may have been due to the transient nature of the rotation system meaning that many of the Study 1 Foundation doctors were not available to participate in Study 2. However, the sample of Foundation doctors for Study 2 consisted mostly of those who had taken part in Study 1 (N=5). These participants may therefore have been motivated by the notion of receiving the results of the first stage which included patient feedback. This may have led to them feeling more obliged to agree to take part in Study 2. The relationship between the researcher and the participant may have developed further in accordance with the number of meetings that were held as part of data-collection. Obviously, there was more exposure to both the study and the researcher if the doctor had already collected some data in Study 1.

In contrast, the participants who had not taken part in the first stage of the project were less known to the researcher. Those doctors for whom the interview was the first meeting may have felt differently during the interview in comparison to those who had met the researcher prior to the interview, which may have had an impact upon their anxiety levels and therefore disclosure. They were likely to be less familiar with the project as a whole than those who had collected patient data as part of Study 1. To some degree, this was counteracted by the detailed Participant Information Sheet that was provided to all invited Foundation doctors.

Representativeness

The final sample achieved for Study 2 was varied, in terms of the demographical variables that might impact upon the individual experiences of the Foundation doctors. Those variables included; university of graduation, gender, age and whether or not they had taken part in Study 1 (Table 7).

The sample of doctors recruited to this stage of the study was partially self-selecting but there was no way of avoiding this when the participation was voluntary. In light of the constraints experienced during recruitment of the sample of doctors participating in both Study 1 and 2, the sample here may not have been entirely representative of the population.

5.7 Procedure

5.7.1 Recruitment

Recruitment for Study 2 ran alongside Study 1 which began in October 2010 and was a far lengthier process than was expected. The first interview for Study 2 did not take place until August 2011 (10 months later) and the final one took place in June 2012 (another 10 months later) in total 20 months from the start of the project recruitment.

Therefore, most of the Foundation doctors based in the study locations had previously been contacted by the researcher during Study 1 recruitment so had already received an invitation to take part in the both studies (Appendix 10) and the Participant Information Sheet (Appendix 12) which covered both studies. A later version of the invitation letter (Appendix 11) was developed following the widening of the inclusion criteria for Study 2. Whilst the focus of the recruitment strategy was on the Foundation doctors based at the pre-assessment clinic, e-mail invitations continued to be sent to all new rotations of Foundation doctors at both hospitals (research sites). The final sample of Foundation doctors that took part in Study 2 was 8.

Enhancing response rate

Following the original presentations conducted as part of Study 1. A new presentation was made to Foundation doctors in October 2011 where the project was introduced and Participant Information Sheets were distributed. Interested doctors filled in their names and contact details on a provided recruitment sheet, and were given the option to tick a box to say that they would be happy to take part in the interview part of the project. This produced a list of 18 interested Foundation doctors. Further contact was

made to all 18 of the interested parties but only 2 ended up becoming part of the sample for Study 2.

Reminders

E-mail reminders were sent at regular intervals and Foundation doctors were also approached face-to-face if they were on shift at the pre-assessment unit.

5.7.2 Conducting of semi-structured interviews

Once a Foundation doctor had committed to taking part in an interview, follow up arrangements were communicated via personal e-mails, their hospital bleeps or mobile telephones, depending on their preference. Time was always taken at the beginning of the interview to build rapport, explain the process and ensure the doctor was comfortable and ready to start.

Consent forms were given to all participants (Appendix 17) prior to the start of the interview and alongside the interview guide. The forms were signed and dated by all participating doctors.

The mean length of the interviews was 32.93 minutes, with the shortest interview being 17.29 minutes and the longest was 49.35 minutes. The interviews were shorter than originally intended but this was very much governed by the availability of the Foundation doctors, their work schedules and how much they had to say on the subject of consultation skills training and practice.

Due to the wide inclusion criteria, the Foundation doctors were at various stages in their 2 year Foundation training. All were in their first year of training when originally recruited but 2 participants had taken part in Study 1 during their first year, but had begun their second year by the time their interviews took place. Each year of the Foundation training consisted of 3 rotations that could take place at the same or different hospitals and again the sample consisted of Foundation doctors on various rotations. Where possible these demographic details were recorded and may have impacted upon the interviews to varying degrees.

Through necessity, interviews were conducted very much at the convenience of the Foundation doctors. This was sometimes during their working day, on their day off or after their shift at the hospital so it was not always possible to interview in the ideal setting of a private office with a closed door which may have had an impact on the nature of the interviews.

5.8 Data Recording and Transcribing

Recording

The interviews were recorded using a high quality digital recorder (Philips Voice Tracer LFH0625). The digital recorder provided MP3 files that were transferred and saved onto a password protected computer in preparation for transcription.

Transcribing

Whilst the researcher had transcribed the pilot interview, it was decided that the first 5 interviews would be transcribed by a third party. This was due to the nature of this time-limited project and meant that the researcher could remain on-site recruiting whilst the interviews were being transcribed. The transcriber was recommended by the qualitative advisor (who had used her services in the past) as someone who was experienced and efficient. The first 5 interviews were sent via a safe means to the third party to be transcribed. The transcripts were returned to the researcher electronically (via a memory stick) during a face-to-face meeting. They were subsequently checked by the researcher for accuracy against the original recordings and anonymised. The

transcripts were then printed to produce hard copies that were read and re-read by the researcher to gain familiarity with the material and check for signs of data-saturation prior to conducting further interviews. An example transcript can be found in Appendix 20. Subsequently, the transcripts were imported into NVivo (Version 8) in preparation for coding. The 3 remaining interviews were transcribed by the researcher and added to the NVivo project to be coded alongside the previous scripts.

All interviews were transcribed using a ‘denaturalized’ approach which is a transcription practice that focuses on the importance of the informational content of speech. This approach is designed to attempt a verbatim depiction of speech but without the focus on the level of detail (for example, accents, involuntary vocalization, pauses and stuttering) offered by more naturalistic approaches to transcription, whilst still offering a “full and faithful transcription” (Cameron 1996: p 33, cited in Oliver et al., 2005).

This verbatim approach to the transcription of the interviews in Study 2 was suitable because the level of analysis required was more concerned with the information that participants provided about their experience and what it meant for them. The finer details (pauses and stuttering) of the shared conversation were peripheral to this exploration.

5.9 Researcher Bias

Researcher bias can occur at all stages of the research process and in particular at the analysis stages where interpretation is taking place while codes and themes are created subjectively by the researcher. Interviews are conducted within the context of an interaction between two people who bring their own beliefs, values and norms to the relationship. Dependent upon the characteristics of those individuals, the interview process will develop differently between each participant (Bloor and Wood, 2006). As such the concept of researcher bias will be considered here.

The researcher, in qualitative research can be defined as the 'instrument' of data collection as opposed to a structured questionnaire that might be used in quantitative enquiry. As such the researchers' role and impact upon the interview are important considerations (Marshall and Rossman, 2006). It is therefore imperative to be aware of what might be brought to the interaction in terms of cultural background and experience. In order to partially address this issue, I will present a short personal biography. It is an honest and open account of my own background and the relevant reflections of how the interviews went from my perspective, including any issues that I was consciously aware of during the interviews.

> "Interpretive research begins and ends with the biography and self of the researcher" (Denzin and Lincoln, 1998)

I am a white female, mature student (aged 40-50) with a family and I currently live in rural Norfolk. I grew up in a city within a working-class family and left school at 15 with five O' levels. When I moved to Norfolk 10 years ago as a married mother of two, I decided to start on the path of my second career and began by doing an access course to gain the A-level standard of education that was required to attend university. I gained a BSc (Hons) in Psychosocial Science 6 years ago and after some experience of working as a research assistant within the University of East Anglia (UEA), I decided to apply for a funded PhD studentship and begin studying in Jan 2009. I was in my 3rd year of my study when I began to conduct the semi-structured interviews.

I found recruitment for the interviews to be exasperating due to the constant challenges that had been faced during Study 1 which continued throughout Study 2. However, I knew that I needed to persevere in order to obtain sufficient data to make my thesis credible. I was so elated to have my first few interviews arranged that I am sure that any anxiety that I might have felt about conducting the interview was overshadowed by the relief of finally being able to conduct an interview with one of my original participants. However, I do remember feeling very grateful to the Foundation doctors

who did agree to be interviewed and I am certain that this came across during the interview. Mostly, when the Foundation doctors arrived at the interviews they were generally rushing between patients or other duties. I remember thinking that I had taken up their precious time and usually felt apologetic for doing so. Again I am sure that I would have taken these attitudes into the first interview situations which may have also contributed to the interviews being usually shorter than originally planned.

During the conducting of the first 5 interviews I had started to shadow the teaching of consultation skills at the Norwich Medical School at the University of East Anglia (UEA). I shadowed the teaching of undergraduate students from all years across the 5 years of the MB BS (Bachelor of Medicine and Bachelor of Surgery) programme. By the time that I conducted the final 3 interviews I had begun teaching my own groups of year 1-3 students. This may have impacted upon the way in which I posed questions. I might have phrased questions slightly differently in light of my inside knowledge of using the Calgary/Cambridge model to teach consultation skills, and the way that it was received by students. This may have affected my questioning in many ways. For example, I could have increased motivation to gather opinions on the doctors experience of consultation skills training as I had now become part of that training and culture. What the doctors were saying was now a form of course feedback that could be used to inform my own practice and that of others in the team. I was now familiar with some of the tutors and did wonder whether those doctors who had graduated from UEA may have recognized this, and could have changed the way in which they responded to my questions or kept information back.

Upon reflection, during the interviews I very much tried to behave and interact as a researcher and not a tutor. I am aware that I disclosed my teaching role to 2 of the participants. I did not make any comments when any of the tutors' names were mentioned. I remained fully aware of these issues throughout the interviewing experience. However, I actually felt that I was more engaged with the exploration of the participants' experience of consultation skills training, having had the opportunity of my own first-hand experience of teaching sessions. This allowed for my prompts to be more targeted and specific about what I was exploring and to relate more to what they were telling me.

I also recognized during interviews that I was much more relaxed when interviewing females as opposed to males. I only became aware of this after I had interviewed one of each gender. This did not seem to be reflected in content and/or duration of the interviews as they were all similar in length. Equally, upon reading the transcriptions,

there did not appear to be any notable differences in the tone or content of the interviews. It may have been just something subtle of which only I was aware.

The telephone interview was a unique experience and I felt that I may have behaved differently without the face-to-face contact of the interviewee. I felt that it was much more difficult to gauge pauses. The turn-taking nature of the interview is somewhat more difficult over the telephone. It was more difficult to know when/if the other party had understood what I had asked them. This made me feel quite uncomfortable as I felt that I had less control over the flow of the interview. I needed to listen much more carefully for when they had finished answering a question or had more to add, due to the lack of eye contact and observable body language.

The disclosure of 'self' and its impact upon qualitative analysis is also an important consideration (Harris, 2001). My interpretation of the interview data was without doubt effected by my own knowledge, experience, values and norms. Whilst, much of this will have been unconscious, I will attempt to express the aspects of my 'self' that may have influenced the way in which I coded and analysed the data that was collected through interview.

As previously mentioned, my degree was in Psychosocial Science so I have an intrinsic curiosity regarding how people think, behave and interact with one another and their environment. This may have affected the themes or labelling of themes that formed the final analysis. As an early career professional myself, I was familiar with some of the feelings that the young doctors were describing in terms of their increased responsibility and new identity as a doctor in a very different role to that of medical student. My empathy with that transitional process may have affected the way in which I interpreted what the participants were saying to me and therefore my analysis of the final dataset.

Similarly, it could be argued that, due to the way that I had had to negotiate access to the pre-assessment clinic and my regular and prolonged presence there, might have equipped me with some 'insider' knowledge. In addition, the fact that I was now an active consultation skills tutor might be construed as me becoming somewhat of an 'insider' as opposed to being completely detached from the organisation/training practices as an objective researcher. Whilst I did not utilise an ethnographic/observational methodology, there may have been some degree of 'insider' knowledge that may have driven my interpretation and analysis of the interview data. For example, I knew some of the pressures that the doctors felt in the workplace

through meeting them in the pre-assessment clinic and I also had experienced some of their anxieties of their training sessions through my personal experience of teaching.

Whilst I recognise that all of the above were possibly influential on the way in which I coded and analysed the data collected during interviews, I was constantly insightful and reflexive and managed the data and analysis with rigour and objectivity.

5.10 Data Analysis

Thematic analysis is a method of analysing qualitative data that is designed to produce a set of specific themes that represent the concepts covered in written/spoken words. This is done by finding, naming and developing themes that occur in the data. A decision was made to use 'thematic analysis' on the transcripts derived from the semi-structured interviews. Thematic analysis is not exclusively tied to a particular theoretical standpoint so its use in data analysis is flexible and was suitable for the interview data collected from a 'contextualist' viewpoint (Braun and Clarke, 2006). This type of analysis would provide a flexible means of collating and analyzing the subjective views recorded during the interviews. It offered a means of both summarising key features and richly describing the data set (Braun and Clarke, 2006). Thematic analysis also lends itself to allowing both social and psychological interpretations of key concepts that were of interest in this study, which explored the psychosocial nature of consultations skills training and practice. The interview data was subject to the phases of thematic analysis as outlined by Braun and Clarke (2006). An overview of the steps taken in this process follows here with a full description offered later in the chapter.

5.10.1 Outline of steps taken during thematic analysis

- Familiarizing with the data: Preliminary reading and re-reading was done using hard copies of the transcripts, noting down initial thoughts.
- Generating initial codes: This was achieved by systematically coding interesting findings/words across the whole data set by using the software programme NVivo (V8). Then collating the data that fits with each created code. Coding was thorough, inclusive and comprehensive with each data item being given equal attention.
- Searching for themes: Codes were summarized into potential themes and all data that was relevant to each potential theme was gathered. The themes were given appropriate names. Relevant extracts were collected for each theme that was created and collated.

- Reviewing themes: Themes were checked to see if they worked in relation to the coded extracts and the whole data set, this generated a thematic map of the analyses. Themes were then checked both against each other and against the original data.
- Defining and final naming of themes: On-going analysis was conducted to refine the specifics of each theme, in order to generate clearer definitions and names for each theme. The aim was to ensure that each theme was relevant and had encapsulated the essence of the data.

5.10.2 Preliminary analysis

Once the first five interviews were transcribed they were read and re-read by the researcher and preliminary analysis was conducted to ascertain the most salient concepts that the participants had alluded to during their interviews. There were many consistencies across the scripts and new material was only emerging from the most open of the questions posed, for example, the question about personal training needs now and in the future did elicit some differing responses for each participant. Once available and transcribed, the next three interviews were subject to the same preliminary analysis and checked for new information as a means of testing for data saturation. At this point a summary was produced and shared among the panel of supervisors who offered discussion and further suggestions for the next stage of analysis. This summary is presented under the 'preliminary findings' of this chapter (See section 5.11.3).

Separate meetings were held with the qualitative advisor (who was a member of the supervisory panel). These actions were taken as a means of validating the interpretation of the findings, reduce any early bias and to ascertain that the data was being thoroughly checked and each interview given a consistent amount of attention during analysis. Initial analysis used the interview questions as a framework to organize the data and provide a descriptive overview of all the data collected during interviews. Any key concepts that were emerging from the data were outlined in the summary and subsequently discussed with the qualitative advisor.

5.10.3 Further analysis

Using the initial descriptive analysis as a starting point, all interviews were subject to further scrutiny with the aim of moving away from using the *priori* themes and questions as headings in the preliminary analysis. The researcher began to look across questions and interviews for more abstract categories that would organize the data at a deeper

interpretive level. These categories were coded in NVivo (V8) as nodes (a term used by the software) that were named and created as discrete categories. Initial nodes were in the form of key ideas that were emerging from the data. Interviews were explored individually and data that fitted with the existing nodes were assigned to that node. Any data that did not fit with the existing nodes were assigned to new nodes that were created that better described that which was being coded. This pattern was repeated until all relevant nodes were created and all instances that were deemed to fit with these nodes were allocated accordingly. An example of the nodes that were created can be found in Appendix 21. At this point a meeting was held with the qualitative research advisor where the created nodes were explored and the planning of the next stage of analysis was discussed.

The nodes and all their allocated references were then checked further by the researcher who then began to explore any over-arching themes that were emerging from the nodes and the process of merging nodes and references into relevant themes began. Each theme was created and then named according to the references that were chosen as representative of that theme. Themes were shared with the qualitative advisor and discussed with the aim of ensuring that the researcher was rigorous during analysis and that interpretation was transparent. This process of deriving and developing *in vitro* themes was guided by both the interview data, the literature and the data collected in Study 1 (Study 1 findings were kept in mind due to some of the participants taking part in both studies). The researchers' prior knowledge of the literature through reading, reviewing and utilizing it to create the interview schedule guided the creation and naming of key themes found in the interviews. Taylor and Usher (2001) recognise the 'active' role of the researcher in identifying themes and reporting them as opposed to themes residing in the data and the researcher being 'passive' in discovering them (cited in Braun and Clarke, 2006).

5.11 Findings

5.11.1 Number of interviews and data saturation

As outlined in the above sections and throughout Chapter 4, recruitment for the both Study 1 and 2 was very challenging. The difficulties concerned with access, transiency and lack of time available which had constrained Foundation doctors during Study 1 recruitment continued throughout the recruitment phase of this study (Study 2). However, due to the simultaneous data collection and analysis of interviews it was possible to check the content of the interviews as and when they were transcribed. Transcripts from the earlier interviews revealed that many of the issues outlined by the

participants were common across the transcripts with very few new themes emerging as the interviews continued. Considering that the interviewees were varied in terms of their age, gender and their university of graduation, it was felt that monitoring the emergence of new/novel themes was a valid way of monitoring when data saturation was achieved.

The concept of 'data-saturation' lacks clarity in the literature. It was introduced in the qualitative arena by Glaser and Strauss (1967) and was described as the point at which no new additional data was discovered during qualitative methods of data collection. They claimed that data-saturation (in particular in interview studies) can be reached earlier when the content of the interviews is being pre-established by the researcher. Data saturation can be useful to indicate when the sample size of a study is adequate enough to offer sufficient coverage of the concepts under investigation.

In the case of Study 2, it was imperative to ensure that there was enough data to give credit to emerging themes that were of interest to the exploration of Foundation doctors' consultation skills and practice. However, it was equally crucial not to interview a large number of doctors without sound justification for taking up their very valuable time. For this reason, careful monitoring was exercised and it was ensured that each interview was conducted efficiently in order to both make considered use of the doctors' time but equally to make the most use of the time by eliciting accurate and useful data. Both of these matters were raised by Francis et al. (2009) as ethical issues in research. In their review of 15 papers published in a multidisciplinary journal, they found that the definition of data saturation was consistent and meant

> "that no new themes, findings, concepts or problems were evident in the data." (Francis et al., 2009)

In Study 2, data-saturation (as defined above) was partially reached by the eighth interview. The term partially is used due to the fact that new material was emerging but only from the question about personal training needs now and in the future (which was deemed as peripheral to the evolving focus of the Study 2). Data-saturation occurred earlier than expected with a low number of interviews but there were various reasons why this may have been the case. Firstly, the interviews were semi-structured by nature which meant that there were pre-set *(a priori)* themes of questioning for each interview. Some of the themes were slightly modified following each interview and new questions were added if a particular area emerged as valuable to the overall exploration. However, the overall structure and content of the interview schedule (following the modification after the pilot) remained similar throughout all interviews.

This may have also contributed to the focussed content of the interviews. The majority of the interviewee's discussion related directly to the questions being explored and therefore keeping the data focussed around the themes of interest. It was logical to conclude that more focussed discussion would lead to earlier data saturation.

Additionally, it was clear from the recruitment experience during both Study 1 and Study 2, that Foundation doctors had extremely busy schedules so their time was very valuable. Six, out of the 8 interviews were conducted during the Foundation doctors working hours. The limits of the free time available to Foundation doctors meant that the interview usually stuck very closely to the interview schedule which ensured that the relevant information was obtained. Consequently, there wasn't scope for the Foundation doctors to extend their discussions outside of the interview schedule, which might have occurred if there had been more time available. So they were not free to extend their discussions any further than was required.

5.11.2 Demographic profile of interviewees

In order to explore the factors that influence training and practice of consultation skills of Foundation doctors it was important to include doctors of both genders, those who had trained at different universities and were at varying points in their training years. For example, within the sample there were participants who were on their very first rotation of their first year of Foundation training, as well as those who had completed their first year and were in the first rotation of their second year. Whilst the interviewees had graduated from a variety of universities that differed in their approach to medical training in general and their delivery of consultation skills training in particular, there were some universals across the participants.

Table 12 shows that whilst the sample of Foundation doctors who consented to be interviewed was relatively small, the final sample contained a wide variety of doctors in terms of the variables that were of interest in Study 2. In the table, the university from which the participants had graduated were listed as 'other' and the University of East Anglia (UEA). The reason for this was two-fold; the data analysis that took place as part of Study 1 used these categories and due to the small numbers of participants who graduated from the 'other' universities it was thought that anonymity might be compromised if specific universities were reported here.

The age of the interviewees was available for the five participants who had taken part in Study 1 but not recorded for the remaining 3.The interview for D10 was conducted and recorded over the telephone due to a cancelled interview appointment. The

interview from D18 was conducted and recorded in a quiet coffee shop. All other interviews were conducted in a private room with a closed door.

Doctor ID	Year of Foundation Training	Gender	University	Study 1	Rotation	Length of interview (minutes: seconds)
D5	2	Female	UEA	Yes	1	17:29
D10	2	Male	Other	Yes	1	28:58
D18	1	Female	UEA	Yes	1	42:56
D19	1	Female	Other	Yes	1	24.34
D20	1	Male	Other	Yes	2	28.47
D25	1	Female	UEA	No	1	49:35
D30	1	Female	UEA	No	3	31:40
D31	1	Female	Other	No	3	41:42

Table 12: Demographic profile of the Foundation doctors

5.11.3 Findings from the preliminary analysis

Preliminary analysis revealed that the content of the two interviews conducted in a different context (telephone interview and the coffee-shop) was not any different to that which was elicited during the other 6 interviews. The length of the interviews also fell into the range of the other interviews so it was concluded that they should be subject to the same analysis as the rest of the interview data.

As described earlier, a thematic analysis was carried out on the interview data in stages and the following provides a descriptive summary of the preliminary analysis of the interview transcripts.

Participants' common experiences of consultation skills training

All interviewees had experienced consultation skills training of some description during their undergraduate medical training, and they were all able to describe elements of what that entailed and also their thoughts about their experience of that training. The commonalities across all 8 interviewees were that they had all experienced consultation skills training within similar sized groups of 8 -10 students. They had all

been trained via the use of role playing scenarios with actors as simulated patients, facilitated by a tutor and observed and commented upon by the rest of the group in the form of feedback. All interviewees appear to have been presented with the Calgary/Cambridge guide to inform their learning. For this reason the following analysis will focus primarily on the doctors' perceptions on that which was shared across the universities. Those elements that were different will also be described where they are deemed as relevant to the analysis.

Experience of simulated training and role-play

Foundation doctors in this sample talked about their consultation skills training very much in terms of it being developmental. All trainees began the training from their first year at medical school and most of them expressed that there was some resistance and resentment of the training at first. Some felt that they already had the skills required.

> "I don't know if I was unique I don't think I was unique in this I found as a mature student and come from a background of doing a lot of work with people sort of front line always dealing with people in the service industry I started off quite resentful of the process because it kind of you feel like it's trying to unpick something that you do well already...Because you feel like, well I can do this why have I got to do it you know, your way". D25

> "When I was doing it at the time I resented it cos I didn't enjoy I enjoyed learning the structure... I think it was probably two sessions or so per unit so it was I found although I have used it and it's good I found the experience not great". D5

For others it was more about the role-play situation feeling somewhat unrealistic and removed from a real life situation. In the main, the interviewees got used to the idea that they would have to take part in the role play in the consultation skills sessions and got benefit from doing so. As their experience of the sessions increased so did their perception of its usefulness. They became more aware of the relevance of the training as they built up their amount of patient contact during medical school.

> "At first I hated it, not anything like real life…I gradually saw the point". D30

Some interviewees talked about being able to get into role as doctor during the sessions and forget about the other students in the room.

> "That I could switch off from who else was there". D18

> “I found that I could zone out everyone else in the room”. D30

> “… I quite enjoyed (it). I do get self-conscious but actually but once I get up on the chair and I’m doing what I’m doing I get in role”. D25

> “Sometimes people felt a little awkward but I think people did see that it was useful...It meant that I think people did enter into the spirit of it which is probably the main thing”. D10

The opportunity to practice how the participants could phrase things when talking to real patients was cited as important and useful.

> “… practice phrasing things especially when you get to the more complex skills that we do, it’s really useful to say certain things out loud…That you might have practiced in your head and realise that some of them work and some of them don’t”. D25

Feelings about feedback

Comments made by participants about their experience of the feedback they received were mixed. Some disliked the evaluation of their peers and the tutors and spoke negatively about the time that was spent feeding back to others.

> “....we spent a lot of time critiquing others”. D20

> “I didn’t enjoy being evaluated by my peers or the teacher”. D5

However, a number of interviewees found the feedback very constructive from both the actors and their peers. They saw feedback as a means of exploring one’s own consultation style and mannerisms that they may not have realised that they used. Another participant expressed that feedback was only comfortable when it was given and received within a close group.

> “When it didn’t go well, I took the comments away with me”. D30

> “But the feedback that they gave you know when you don’t realise that you do things when you’re in a consultation...like umming and arhing and all that kind of thing”. D19

> “Certainly the feedback was generally very good because the actors would be told very clearly that you know, do say how you’re feeling”. D10

> "It's alright if you've got a close group. You can discuss it in the pub afterwards and have a bit of a laugh". D25

Experience of facilitators

When the participants were asked what factors impact upon the training sessions to determine whether they are perceived to be a useful/effective session most of them talked about facilitators. The quality and experience of the facilitators was talked about in terms of their profession, teaching style, confidence and their ability to manage the group. Most of the participating Foundation doctors expressed a preference for clinicians as facilitators who can input their experience from which students can then draw.

> "I think it was often dependent on the tutor....I think that when it was a clinician, when it was somebody who had you know lots of experience themselves they could give you different viewpoints and they could say *'OK you might do it this way someone else does it this way but it's not wrong'* ". D19

> "I think that tutors made a real difference. I think that if you have clinicians that are used to working with patients I think that's really helpful. I think that the comm. skills people are fantastic but they are very rigid in their structure. I think the comm. skills tutors are great but it would be nice if they had a bit more flexibility". D5

There were some negative comments about other health professionals who had run sessions, in terms of their differential experience of responsibility.

> "the times it didn't go so well were the sort of maybe health care professionals who don't have your kind of responsibility as a doctor I suppose...they have a different outlook on cos a nurse's consultation or an occupational health therapist, their consultation will be completely different to the doctor, I think". D19

Two of the interviewees appreciated the experience of educationalists/consultation skills tutors and their knowledge and implementation of theory, especially in the early years.

Those participants that did not cite the tutor as the most salient factor in the effectiveness of a session said the following:

> "I think the quality of the actors definitely they on the whole were very good". D18

"Actors were fantastic and framework and feedback…"D30

"Content and framework..." D31

Thoughts on the Calgary/Cambridge model

All, but one of the participants specifically named the Calgary/Cambridge (C/C) model as the framework that was used in their consultation skills training. The one who did not noted that whilst there seemed to be a model taught it was never credited to Calgary/Cambridge or anything else but went on to quote; 'Ideas, Concerns and Expectations (ICE)' which are aspects of the Calgary/Cambridge approach.

> "Ideas, concerns, expectations and open questions. All I remember is that. They never gave credit to anything else". D31

Of those participants who did explicitly name and remember using the Calgary/Cambridge model, most commented positively on its usefulness. They talked about it being useful as a structure and a base to build upon through experience and mentioned specific elements of the model that they remembered.

> "It (Calgary/Cambridge) structures everything. I could recite a lot of it now as it was drummed into us". D30

> "I think it's (Calgary/Cambridge) very useful...a pro of the comm skills training that we had was that we were given a structure; the presenting complaint and the past medical history, drug history, you know family history. I think that's really nice". D5

There were two participants who also recognised the usefulness of having a structure to work with but felt that it was too rigid and not how it was out in the real world with patients.

> "I don't think a lot of people do stick to that rigid structure once they get out into the open world". D5

> "I'm sure most people's methods are somewhat more fluid but you've still got, it's useful to have it in your mind to check off that you have covered things. Just the delivery is different in real life". D25

One interviewee was quite dismissive of the model and the way in which they did not use it through training.

> "I never learnt it but it was on the poster in the room... I used the word sometimes but 'blagged it'...I did OK without it...it was a structure and I knew about it". D20

Another participant recognised some resistance among other students to the Calgary/ Cambridge model but also saw that it was useful.

> "I know that there was always some resistance generally speaking in the cohort to the Calgary Cambridge model...And it was always a bit of a running joke but it definitely works". D18

Suggested changes to consultation skills training

When asked about what the doctors might change about their consultation skills training many of them expressed that they felt that they had had good training and the amount and timing of it was useful. With the exception of interviewee D10, who had only received training in the first half of their medical degree, this interviewee felt that more training in the clinical years would have been useful and felt that their skills development would have then been more effectively monitored.

> "Certainly, it was a bit odd that we didn't then have any (training) in the final two years. Because it did mean that obviously we'd had certain skills and I think developed in our own styles but there was a certain amount of nervousness when we came to finals not knowing whether those styles were what they wanted". D10

Some participants offered suggestions about the mix of clinical and non-clinical tutors and advocated for the provision of dual tutors to address the balance of experience between educationalists and clinicians.

> "Yes, dual tutors..." D5

Whilst others thought that the amount of teaching facilitated by clinician tutors should be increased.

> "I think being taught by clinicians it's something that should be majored on and smaller groups would be better..." D19

Two of the doctors expressed concern that there was a need to clarify the integration of the Calgary/Cambridge model with the classical 'history taking model' early in medical training. One doctor talked about not understanding this until Year 3. While another

expressed that it was still not clear yet as a Foundation doctor how the two concepts fit together in a hospital consultation.

> "I think one of the things that perhaps only maybe I don't even, haven't fully reconciled is the difference between the classical history taking and the structure of the history taking and then using the Calgary/Cambridge model ...So I think it being much clearer on how you integrate (history taking and the Calgary/Cambridge model)". D18

> "We had an inspirational lecture by...and that wasn't until our third year or something like it was 9 o'clock in the morning so only half of the year was probably there...It was the first real bit of input we felt we'd had from a clinician, from a clinicians point of view. He put the Calgary/Cambridge and everything else into context of how we were going to be using it. I can't explain it was kind of like wow". D25

How skills are used in practice as Foundation doctors

When the participants were asked about how and when they used their consultation skills training in their practice as Foundation doctors some of them talked about the fact that they might use them subconsciously.

> "Not actively in others but subconsciously draw on it in normal consultations". D19

> "I do use it but subconsciously, unknowingly, you start chatting and it comes back to you. I use a lot of those things because they were drilled in". D20

This same doctor stated that he consciously practised the concept of safety-netting. (A concept used in the Calgary/Cambridge model to check whether there is anything else to be dealt with during a consultation).

> "I consciously do a lot of safety-netting and always say to patients and relatives that I am available later". D20

But most of them talked about consciously drawing on their training in specific real life scenarios that involved breaking bad news, angry patients and diffusing situations.

> "...I might use a couple of techniques that were explained or demonstrated to me or I've practiced in the angry patient even the triadic consultation and also breaking bad news..." D5

> "...the kind of particular situation when you will take people on one side are probably breaking bad news, discussing things with family... In those kind of context I think I certainly use some of the things I learnt and it did come in issues like kind of using signposting and that kind of ensuring that people have time to ask questions and allowing silence. Those kind of things certainly came in very useful". D10

> "I think sometimes when you have patients where you can just see that they're holding something back or they're quite angry or they're frustrated about something and you feel like you're going round...so then you kind of stop and ask them *'so what are you really worried out'*...actually yes it's not having to stick rigidly to um a set of questions you know a classical medical history..." D18

> "I used a lot in breaking bad news, without it I would have messed up on a number of occasions…I also use it with angry patients and relatives". D19

> "...I suppose a lot of the tactical comm. skills if you like about dealing with angry patients or diffusing difficult situations…" D25

Two of the responding Foundation doctors expressed the sense of being 'prepared' for consultations with patients and attributed this to their consultation skills training at university.

> "Because of my training, I felt more confident straight away and it feels comfortable". D30

> "I found that I had to break bad news by myself early on. I was comfortable doing it, (university) prepared us well". D30

Doctors' perspectives of patient views

Of the 8 Foundation doctors that were interviewed, 5 of them had taken part in Study 1 which included them and their patients rating their consultation skills following a consultation in a pre-assessment clinic. During the interviews these participants were provided with an outline of their individual results and then asked about their thoughts on the data.

> "I have good relationship with patients. Always feel they can ask me things. I explain things well. It's a combination of comm. skills training, being a mature student and previous work". D5

> “I think they were straight forward meetings. Breaking bad news or more emotionally charged situations might be different…” D10

> “...I’m approachable”. D18

> “I feel like I have a good nature with people not just patients...I think that just comes naturally”. D19

> “Well, I didn’t act any different because of the research....In pre-op both patients were easy and I wasn’t rushed” D20.

The remaining 3 doctors who had not taken part in the quantitative part of the study were asked similar questions but in a more hypothetical way. They were asked that if they had had their skills assessed by their patients how do they think they would have been assessed?

> “I want to be someone who can do it well for somebody and give them the best experience they can have as a patient....That’s my absolute ambition always is to be calm and pleasant and nice to everybody and generally I think I am...” D25

> “People appreciate friendly and they like to be informed...It’s important to be truthful if you don’t know and put a smile on your face. Make them your only concern...I am generally a smiley, happy person”. D30

> “The majority of my patients are happy. I have never offended anyone. I’m reassuring and won’t leave things because of time. I always think, if that was a family member…” D31

Consistency across contexts

The doctors were asked to consider how consistent their consultation skills performance was across the different contexts and/or patient groups that they encountered as part of their everyday practice. Some participants felt that their skills were consistent across most situations.

> “I always try to be myself so I’m not trying to be anyone else. I am who I am, I’ve got the background that I’ve got you know I’ve got life experience that I can draw on... and I’m always going to be honest with a patient”. D5

> “So I think what I try and do with patients is to be myself and be as honest with them as I can be about what I do know and what I don’t know ...you know there’s just no point”. D18

For other participants the clinical context and elements about that context had influenced their consultation skill performance.

> “They were all kind of routine pre-op patients....I mean I haven’t had a huge amount of experience with very tricky situations so I’m not sure if I’ve just been lucky or if I’ve managed to diffuse those.....it would be a different kind of picture possibly including kind of breaking bad news ...I’m not saying I wouldn’t kind of do well whatever but it would be a different kind of scenario...it would be more emotionally challenging kind of thing for both the patients and me so either could be different”. D10

> “I think that the general core bog standard bits of consultation are general across wherever I work and my ability to communicate with patients is at a general level...I feel like I’m doing the right things when I’m in pre-op...whereas I think on the ward I do it but it’s more rushed”. D19

> “If there is less time you may be less thorough and specifically not ask questions as there is no time to answer them. It is sometimes harder if patients are of a similar age to me. They tend to have no respect and I have to communicate like he’s alongside me...” D20

The question about consistency of consultation skills across context was not directly aimed at the results of the questionnaire data, as such it was deemed as a relevant question to ask all participating doctors. Those interviewees who had not taken part in Study 1 believed that the availability of time was that which would impact upon the use of their skills.

> “Just trying to think if there is a group or sector of the population that I or medical scenario that ... I would find particularly unsettling, I can’t think of a subset if you like.... but it also depends on the pressure from watching the surgical F1’s from a distance I think there, I think their time is much more pressured”. D25

> “In emergency medicine, it (the consultation) will be more focussed but I still give time for the other side...If there’s 2 sick patients and my bleep keeps going off consultation skills might slip slightly...” D30

> “I never try to rush but am aware of the time... depends on the situation... know how to put myself across”. D31

Factors that impact on the use of effective consultation skills

An exploration of other factors that impacted on the doctors’ use of effective consultation skills was conducted by asking the doctors directly their thoughts on the matter. Some participants continued to talk about the working environment influencing the use of their consultation skills.

> “Yes, just being myself being honest obviously having background knowledge when you’re at medical school so...and also if you don’t learn the stuff at medical school that you need to know to do that in a pre-assessment clinic go off and read something you know go and find out…you don’t need to know as well as a surgeon but at least you can answer questions for the patient”. D5

> “I mean the context is, it’s obviously a pre-op clinic it’s a clinic obviously rather than being caught on the hoof kind of thing you know... there aren’t any nasty surprises... As I say there would be possibly different pressures in a different context which might mean a different, I’d take a different approach”. D10

Other participants talked more about their inherent characteristics as being most influential.

> “My training, yes I’d say my training has had a positive impact on my style of consultation...but it has to be essentially me...who comes across...in the consultation”. D18

> “So yes, you’re general kind of attitude to it, your personality, the type of patient and I know and I thought it would never happen to me but I know that when you’ve got a patient who is being really difficult that your attitude changes...” D19

> “...I’ve got so much personal experience of being my age and having had a family and having had my own disasters and all sorts of bits of grief and that I should be able to identify...”D25

> “Primarily my social skills generally... not to sound big-headed but if people are confident talking to friends and the public they should be ok. So yes general communication and social skills”. D20

Other participants brought up concepts associated with the Calgary/Cambridge model as impacting upon the effectiveness of their consultation skills.

> "Give patient the golden minute and the opportunity to finish what they're saying, it builds rapport. They feel listened to if you use their words to show that you understand them personally". D30

> "(Patients) not understanding. I always ask if there's anything else, safety netting. Gauge how they feel..." D31

Factors that impact upon confidence levels

During the quantitative part of the project (Study 1) the doctors were required to plot their level of confidence on a scale both before and after each patient. The doctors who took part in this part were fed back their results and asked for their thoughts on what might have influenced their confidence levels.

> "I think in addition you would know the patient that was coming in, what procedure they were coming in for, how familiar you felt about that procedure so the ability to know whatever the patient asks you the likelihood is that you'll be able to answer their question. You will always feel better when you've got good knowledge". D5

> "I suppose with confidence if you're out of your depth or you feel out of your depths it's going to have more effect on your confidence". D10

> "Yes well I suppose on the whole I'm going, I'm pretty confident that I'm going to be able to do the job because I've done enough pre-op clinics now to know what the job involves...so that's part of it. I suppose I ranked myself lower before than after because you never know what's going to happen... and if it has gone as expected or better then I might mark myself a bit higher afterwards so I suppose yes but I kind of and I suppose… I would always mark myself a bit lower because I think you should always be there's always room for improvement..." D18

> "Previous experience effects confidence and previous recent experience on that day. If you've had a bad day and you struggled to get bloods this will affect how you communicate...You might be in a bad mood". D20

As before, those doctors who only took part in the interview stage (Study 2) were informed about how confidence was measured in Study 1 and then were asked to

comment hypothetically on their own confidence levels and how they might be affected during consultations with patients.

> "Generally and I think I'm probably quite consistent I think but what will affect how I feel before I go into the consultation is what the medical problem I'm anticipating meeting is and...how well I feel equipped to deal with that..." D25

> "...It depends on what I'm talking about. If it was a sensitive issue, before the consultation my confidence would not be high...Knowledge of the problem, even patient groups is about knowledge, for example ethnicity and religious practices". D30

> "I'm probably too confident, an outgoing person. I find it easier if I can make someone smile. Time pressures and patient groups might affect my confidence. Older patients have a pre-requisition that older doctors have more knowledge and I'm young so can be a bit of a barrier". D31

Consultation skills training needs as Foundation Doctors

When the Foundation doctors were asked about their current training needs there was much talk about the fact that they recognised a need for on-going training and in particular more feedback.

> "Not more of them (practice sessions). They are more difficult as FY's don't know each other very well and are afraid of judging one another. Maybe smaller sessions as opposed to 12 or 14 in a group..... Maybe more appraisals, like the multi-source feedback, we only have to do one and we want to be progressing". D30

> "Training doesn't stop....you need to check habits because that's your job...mini-CEX (a Foundation programme assessment where the Foundation doctor is observed and gets feedback on a clinical encounter)… maybe more of them but might need to be modified because people don't do them properly..." D31

> "(Consultation skills) I think, I mean it's something which you probably always need some kind of feedback on at some point....Obviously, by and large my colleagues, you know myself at this stage we will have developed certain things that work for us or certain styles but I suppose we don't necessarily have someone feeding back saying actually....that might not work or you might cause offence.... More of something like that…mini-CEX". D10

> "It's going to sound very big-headed but no, I think we had great communication skills from…and as Foundation doctors that's continued having more comm. skills training so that's good as well again, although I do not enjoy the sessions". D5

> "I recently experienced a UEA type session and it was better than I expected. It was very realistic. They are more helpful now that we can relate to the scenarios. As a med student being a doctor is a long way off. I think twice a year top-ups would be useful and later on they could be more related to specialty". D20

> "I think you have to have some element of continuous training and I don't mean you know discussing the theories all over again. I just mean I don't know how you could do it, whether it would be some small group work where we each took an actor and we watched each-others consultation skills, maybe just that once each rotation...Like three times a year that would be nothing but it would just have an element of reinforcing what you know that you should know". D19

Two of the doctors were more specific about where they would like to gain more training/experience:

> "I think going over the things that you don't often do would be helpful so like breaking bad news as I haven't had to do it yet. I would probably find that I definitely it's one of those things you have to complete on your curriculum each year....And I see it and think oh god...I'm not looking forward to that when it happens and also things like psychiatric assessment you know it's quite detailed". D18

> "...Dealing with people with learning difficulties...it's such a one of those terms it's almost meaningless cos it's so broad in its scope..., it's a really hard thing to practice in comm skills...cos it could be anything couldn't it? But at least it's something you can get heads up on. These are the kind of range of difficulties some of your patients may have with communicating with you...And a little bit of focus somewhere on the course". D25

Thoughts on Objective Structured Clinical Examination (OSCE)

During the interviews there were not any specific questions that were aimed at exploring the doctors' thoughts about the way in which they were examined at medical school. However, it is interesting to note that there was still some talk of the OSCEs (assessment of clinical skills, including consultation skills using selected/simulated

patients) from some of the doctors. Participants recognised the differences between the conducting of consultations in OSCEs and real life consultations

> "It's so interesting how you come out of medical school knowing exactly what you should do and doing in your OSCEs doing the perfect consultation and then after about two weeks-worth of being a doctor that just completely goes out of the window...your structure is completely different because you've got a whole new role, you're not the medical student with an hour to take a history". D19

Other participants made comments about the OSCEs being too structured and list-like in assessing the performance of consultation skills.

> "...it gets a bit tick boxy that's partly because of the way we're examined in OSCEs...sometimes you might have people assessing you in the OSCEs who perhaps are looking for key phrases on their tick box sheet". D25

> "I found that the structure that we were provided with was so rigid that you had to follow the structure or you lose marks in your OSCE exams...I just wish that the marking structure in the OSCEs reflected the fact that not all patients need to be treated in exactly the same way...and again that was seen in the OSCE exams because if you were marked by a comm. skills tutor you always did worse than if you were marked by a clinician". D5

> "But the OSCE is so contrived people adhere so rigidly to the mark scheme...In the end of year OSCE it's still a tick sheet and it used to be that you had two assessors one for content and one for process. It's just now one marker trying to mark two different content and process. Well if your heads in the sheet you're not going to see the non-verbal stuff...You don't say the word ideas if you don't say the word concerns...if you don't use those actual words some people won't give you the points". D18

5.11.4 Findings of further analysis: Themes

The results from the deeper and more interpretive stage of the thematic analysis are presented here. Themes are named and given a brief description to ensure transparency of the interpretation. Excerpts from the interviews are used to demonstrate and discuss the existence of the emerging themes.

The impact of context (classroom and clinical) on the practice of consultation skills

The context within which a doctor-patient consultation took place was cited repeatedly as one of the factors that impacted upon the practice of consultation skills in the work-place. Whilst 'context' can mean a variety of different concepts that provide and contribute to the setting within which a consultation might take place, here it is taken to mean the physical environment within which the interaction occurred. All the doctors suggested that where they were working within the hospital setting had an impact upon their practice of consultation skills. They spoke of differences between areas of medicine at the widest level such as general medicine and acute settings.

> "…I know it's a general sort of skills in the work place but I think that if you bring in emergency or life threatening situations then you can't always guarantee that you'd come up to scratch because you've got other factors in place". D5

At the next level, participants explained the variety of hospital departments such as on the wards and in out-patient clinics within which consultations were conducted differently.

> "…well the thing is in pre-assessment, we're generally not that stressed because we're aside from the ward environment". D30

> "I think if you did it on my ward it would be the types of things that I go through with patients are completely different I'm never really taking I'm rarely taking a full history from a patient in the way that I do in pre-assessment". D18

However, the association between these physical environments and the practice of effective consultation skills by doctors is not one that is of a direct nature. Instead, it seemed that each physical space within which the doctors worked imposed particular practices or conditions upon the doctors and it was these that directly impacted upon the doctors' performance when consulting with patients. For example, acute settings and an 'emergency setting' would impose time and preparation constraints that affected the doctors' performance of consultation skills.

> "You don't always have a chance to prepare yourself as well as might want to sometimes in the kind of emergency admissions unit you might be quite focused on seeing people in a certain time schedule or something and on the wards sometimes again there would be different time schedule pressures there'll be kind of, you'll be trying to work out what different people have said to patients and things like that". D10

> "I think if you had less time you might be a bit less thorough. You might specifically not ask if they've got any questions because you know you haven't got time to answer them…" D20

In addition to the performance of consultation skills being affected by the working environment, the dynamics of the doctor-patient relationship were also altered by some aspects of the working environment. For example, working on a specific ward for any length of time would offer a very different doctor-patient relationship to working within the pre-operative assessment unit.

> "On the wards you're just doing a kind of paternalistic relationship and you're telling them what to do". D19

> "I haven't got the consistency of seeing the same patient two days in a row usually so I'm fairly clueless about half the patients and a relative will say can you tell me all about my dad or my mum"...D25

Another issue mentioned with regard to working on the wards and its impact upon consulting with patients was that generally when doing the ward rounds, the doctors were accompanied by consultants who would do most of the talking. The interviewed Foundation doctors identified that, in fact, there was very little opportunity to have comprehensive, one-to-one consultations with patients.

> "…surgery's very hierarchical and so sometimes you would just be expected to write down what other people are saying". D10

> "…the surgical and medical assessment units are really good places to get proper history and so work on the consultation skills". D18

> "…in the pre-op clinic that's exactly where I try and do my Calgary Cambridge and I start from the beginning and make a plan". D19

Whilst the clinical environment within which consultation took place clearly had an influence, it could be viewed as being at the top of a hierarchy of influencing factors. There seemed to be an array of other influencing factors for the Foundation doctors in this study which impacted more directly upon their consultation skills; such as colleagues, time pressures, perceived role of doctor, types of patient and relationships with patients. Moreover, these factors were either *facilitative* in the performance of effective consultations or *constraining* depending on the doctor, the medical situation and the doctors' personal perception of that situation.

Participants in Study 2 each differed in the way that they thought of the pre-assessment clinic and their role within it. Even the doctors who had shared the experience of working in the clinic during their participation of Study 1 seemed to have very different perspectives of their role within that clinic. This would without doubt then influence the way in which the consultations were conducted. One participant viewed the clinic as a place where they could feel prepared because they were not expected to know too much as a Foundation doctor working in there.

> "I mean the context...it's a pre-op clinic, it's a clinic rather than being caught on the hoof kind of thing you know. Generally there aren't any nasty surprises and although the patients will have a certain amount of questions some of those will have also been looked at by either nurses or consultants or their GP's…I think there's always a kind of sense in that particular clinic (pre-assessment) that you as the FY1 don't necessarily know a huge amount about the surgery so it doesn't necessarily effect your confidence because you're not expected to be an expert in that…you don't feel that kind of pressure to know everything". D10

However, for another participant the clinic was an intimidating, uncertain and time-pressured context where responsibilities called for good clinical knowledge.

> "Some patients come in and frankly they are sick to the back teeth of being in pre-assessment ...they may have to come and see me and they've done it all and so sometimes that impacts on things because they can be really annoyed that they've come to see you as well. I think in pre-assessment it's actually quite intimidating because you go in and like in the first week that you're working nobody actually tells you what you're supposed to do when you go there...and you're doing pre-op for patients for procedures that you've no idea what they really involve...it feels like quite an important job and if you don't get it right would they (patients) go to theatre, you know not fit for theatre so...It's quite a frustrating place to be it's very time pressured in you often start the clinic with ages between patients, nearly an hour and then you get to the end of clinic and you've got five people waiting...so it's pretty time pressured". D18

This sense of responsibility was shared by another participant but they did not perceive the time pressures as an issue, instead they felt that the clinic was one of the few places within the hospital that they had the time to do a structured consultation with their patients and make shared decisions.

> "…like I said with pre-op clinic I do get the time to do a more structured consultation. I think in pre-op clinic there's the other thing where as the junior

> doctor you are actually the only person who is going to see that patient before they come in for their operation...So you've got a lot more responsibility and therefore you wouldn't want to let yourself down or admit someone for an operation when they shouldn't have one...so with pre-op clinic you do all this shared decision making and you really work with the patient to make sure that they're going for this operation and it's medically appropriate and they're happy". D19

This interaction of context and other mechanisms affecting the consultation could also be considered when exploring consultation skills training practices. A similar set of contextual factors were identified by the doctors in relation to their consultation skills training experiences. Again, there were many things about the context within which learning took place that the doctors reported as differentially influential in their learning during the sessions.

> "(tutors) were absolutely key...definitely because even a sort of slightly negative group can be turned around by a good facilitator". D25

> "The scenarios have to be realistic and plausible and actors have to be good and sticking to character". D20

> "I think that tutors made a real difference. I think that if you have clinicians that are used to working with patients I think that's really helpful. I think that the comm. skills people are fantastic but they are very rigid in their structure. I think the comm. skills tutors are great but it would be nice if they had a bit more flexibility". D5

As before, the factors that impacted upon the training experience for these participants such as tutors, actors and scenarios could be divided into those that were facilitative and those which were seen as constraining.

Doctors self-reference: Perceptions of intrinsic characteristics that impacted on their consultation skills training and practice

There were many references related to the doctors' own characteristics which they felt impacted upon their general consultations skills and practice. The comments were a rich description of both intrinsic qualities and attitudes that they believed to be instrumental in their approach to communicating with their patients.

> "I feel like I have a good nature with people not just patients I feel I have a good nature with people…I think that just comes naturally to me". D19

> “Yes just being myself being honest”. D5

> “I’m more of an outgoing person than an ingoing”. D31

> “I think it’s primarily your social skills generally”. D20

The participants in Study 2 described their general attitudes as impacting upon the way in which they used their consultation skills with their patients. Their attitude towards honesty, their patients’ situations and information gathering were explicit.

> “I’m quite good at reassuring and calming the situation and just basically asking, if I see someone, they’re upset or if they go to say something and they don’t I’ll ask them. I’m not one to say I haven’t got time for this, let’s move on. Like, I’ll get it out of them basically ...” D31

> “…because I want to be someone who can do it well for somebody and give them the best experience they can have as a patient sort of thing”. D25

> “But it has to be essentially me who comes across in the consultation”. D18

Other participants cited more behavioural concepts about the way in which they communicated. These explorations could be described as ‘perceptual’ skills that relate to how the doctors felt whilst they communicated with their patients.

> “I’m honest but as I said I always feel like I have a quite good relationship with patients and I always feel that patients are able to ask me things”. D5

> “So things like that just trying to always be in their shoes I kind of brought that with me anyway but also it’s reinforced with comm. skills...Um what else changes, I’m inordinately good natured at work I never get cross”. D25

> “It’s just about being comfortable with yourself and I think that’s with experience”. D31

> “And of course you’re professional I mean you don’t talk to your patients in the way you talk to your friends”. D18

> “Having a smile on your face, making, even if you’re in an absolutely horrendous mood. Just making it seem that at that present point in time that you’re happy to see the patient and you’ve got their, or they’ve got your undivided attention rather”. D30

The interviewees in this study might have been demonstrating their developed perceptual skills when speaking of their own personal attributes that had had an

influence on their consultation skills. They appeared to discuss their own process skills when they described 'how' they communicated with their patients and demonstrated some very 'perceptual' skills when explaining how they felt during their interactions with patients. These descriptions could be mapped onto the procedural and perceptual skills that are advocated and described by Kurtz et al. (2005).

Awareness and reaction to patient characteristics, expectations and needs

The interviewees were not directly asked for their thoughts on what patients might want from a consultation, but patient characteristics were repeatedly discussed in terms of how they might impact upon the practice of consultation skills (some of which related to a previous theme about the clinical context) and were referred to by all except one doctor.

> "…I think, people always appreciate having someone that's friendly, you know that takes the time to introduce themselves properly, let them know exactly what's gonna be going on". D30

Age and gender of the patients were also cited as having an impact upon the dynamics of consultations with patients.

> "…I think sometimes, it depends if someone's got a pre-requisition of what they want about the doctor. If you're young…and they're an older lady that they want someone a bit older because they think just cos they're older they've perhaps got a bit more knowledge or know… Do you see what I mean? Not necessarily have to be further on in your training. Because they don't probably understand that. They just think that because they're older they are further on in their training so you sometimes have that bit of a barrier and having to break that down can sometimes be a bit of a problem, a bit of a challenge". D31

> "If a young lad comes in of a similar age to me, I think you speak sort of as if you were alongside them, your own peers sort of thing. Whereas an older patient still holds doctor sort of in esteem so it's easier from that perspective I think". D20

There was evidence, in the content across all interviews, of the study participants showing some sensitivity to patient needs and the modification of their consultation skills to meet those needs.

> "Yes I mean sometimes you know sometimes it does change especially if patients are really frustrated at being there and they want to get to get through it quickly and then I'll say let's just do this quickly". D18

> "Yes so it was interesting actually this patient was too tired to have such a long interview". D25

> "Chunking and checking's one I don't tend to use because I think a lot of patients find it patronising and I think if you're quite intuitive as a person you can pick up if a patient doesn't really understand what you're trying to explain to them". D5

Patient satisfaction was cited as an aim of an effective consultation and doctors talked about using it to gauge the success of the consultation. The doctors talked about their motivation to please patients, which might have been an indication that they are practising in a 'patient-centred' way.

> "I think it's to do with patient, how pleased they are. And I'm not saying that it's not. I'm not saying that it's to do with a good outcome for the patient. Whether it's a good or bad finish. What I mean is when they're pleased with your, generally how you've explained something, you can gauge by how someone is. They can still be sad but thank-you and just say *'thank-you for your time'*, you know, '*you've been very kind'"*. D31

One doctor talked about the advantage of being able to identify with a patient through her own personal experience of similar issues.

> "So I don't anticipate having a particular problem, I think because I've got I think I have an advantage going into that kind of area because I've got so much personal experience of being my age and having had a family and having had my own disasters and all sorts of bits of grief and that I should be able to identify". D25

As well as patient characteristics being cited as impacting upon the practice of consultation skills in the workplace, they were also given some attention in the discussion about self-efficacy by two of the doctors.

> "But yeah so it's just about gauging what they want and sometimes yes it might not be the most happiest consultation but I don't ever think that will affect your efficacy of what you've got out of it". D31

> "I do think there's patient factors there (in your levels of self-efficacy)"... D19

In summary, the doctors that were interviewed in Study 2 had some awareness of the effects of patient expectations in relation to both age and gender of the doctor and patient. Moreover, they were sensitive to their patients' needs and seemed to modify their consultations accordingly.

Step-by-step building from foundations to a giant leap as doctor

Many of the participants talked of not enjoying their consultation skills training at university. They offered various explanations for this, which were outlined in the preliminary analysis section. However, during the interviews for Study 2, all participants seemed to counteract their negative comments with their recognition of the usefulness of the training now that they were in their Foundation years.

Most participants in Study 2 stated that they did get used to their training sessions and found it more comfortable as they progressed through the years of university. However, there was one participant who had a different opinion which seemed to last throughout their consultation skills training at medical school.

> "It felt like, you know when you're doing it, it always felt like it was a ...bit of a waste of time, not a waste of time but a very slow journey I think when you're in there (medical school). You wanna be learning lots of facts really quickly as a student and that's not what communication skills teaching is like". D20

The rest of the participants talked about the building of skills over the years from sometimes very shaky beginnings, to the recognition of what is expected of them and subsequently to added complexity to their consultation skills base. This refinement of skills was referred to by many of the interviewed Foundation doctors who also identified that progression was on-going throughout medical school.

> "So you need some form of basis to work upon cos it's just like doing anything you need some kind of base to build upon and then you can work with it". D31

> "…we do the clinical years right from the word go, although it did feel very unnatural, I do think it is important to start it…early and to start building on a structure in our heads and things like that to follow through the 5 years". D30

> "…I think the way that it was staggered I think that learning the kind of key aspects of a consultation early on and then introducing the more difficult aspects of a consultation I think that was important and it was important that it carried on throughout medical school particularly as we were growing as students and started to see more and do more". D19

Participants talked about the continual learning of consultation skills in clinical practice and the lack of feedback, as well as alluding to the existence of less than ideal role models.

> "University was good but I don't think its a...you don't stop…I think you should never think you're comfortable, you get, you do get more comfortable with how you are and how you phrase things with experience. But I do think someone should check". D31

> "…I don't think you thinking about the way you hold a consultation will ever stop and I mean, through your training you can definitely think of certain individuals a little bit higher up that you think you could probably do with a little bit of consultation skills training actually because you seem to have forgotten what the key point of a consultation is". D30

Interviewees expressed the need for on-going training and feedback to further develop their skills as effective communicators. They felt that feedback was important for them to know how they were doing and reinforce the fact that they were in fact building up their skills base to an appropriate level.

> "You know those extra things where as actually as a new doctor what you need is someone to say this is what you're doing well and these are the communication skills you should be using". D19

> "…I think you have to have some element of continuous training and I don't mean you know discussing the theories all over again I just mean I don't know how you could do it whether it would be some small group work where we each took on an actor and we watched each other's consultation skills maybe just that once every rotation…you haven't necessarily had any kind of feed-back or on-going training". D10

One doctor expressed that the training and building of skills was in actual fact much more relevant now that the doctors were experiencing for real the scenarios that were offered to them during their training.

> "And as a medical student you don't know what situations you're going to be in yet. Being a doctor is still a long way off, and maturity (inaudible). Whereas, now we've been in these situations. Any one of us in the session last week could have said a situation that we'd been in. So I think it's probably more effective now we're working". D20

Consultation skills training as experienced by Foundation doctors, was felt to be more timely and relevant than that which they took part in during medical school.

Perceived 'role' of doctor and the impact upon self-efficacy

The 'role' of the doctor was discussed at some point during the interview by most of the interview participants. Some talked about having the ability to get into 'role' during their consultation skills training sessions and being able to switch off from the rest of the room. Other participants reflected on how they saw their 'role' as a junior doctor and the changing of their 'role' during the transition from student to doctor.

> "It's so interesting how you come out of medical school knowing exactly what you should do...doing a perfect consultation and then after about 2 weeks-worth of being a doctor that just completely goes out of the window...your structure is completely different because you've got a whole new role you're not the medical student with an hour to take a history". D19

Foundation doctors in this study also expressed the ambiguity connected to their specific roles within the hospital setting and discussed how that impacted upon their consultations with patients.

> "…on the ward job certainly though as I've gone through it there are roles that I didn't realise I had". D18

> "Sometimes I think there's always the kind of sense in that particular clinic that the you as the F1 don't necessarily know a huge amount about the surgery and so it doesn't necessarily effect your confidence because you're not expected to be an expert in that…And that's I suppose confidence enhancing in the sense that you don't feel that kind of pressure to know everything". D10

The 'role' of doctor was also talked about in relation to patients and the participants offered suggestions about how they thought patients viewed the doctor 'role'.

> "People feel that once you're a doctor you, you have to know everything, should know everything". D18

> "Yes because it used to be that doctor knows best so doctor makes the decision and it's not like that anymore and that's fine but getting from the former to the latter takes a lot of skill". D18

When the interviewees talked about self-efficacy in relation to how they consulted with their patients, they all explained that their medical knowledge would be one of the key

factors that would affect the confidence with which they consulted with their patients. All but one of them cited that their own level of medical knowledge was an influencing factor on their levels of confidence.

> "For me...I don't think it's anything to do with communication. I think for me it's about my knowledge base and so I'm working in general surgery but colorectal surgery specifically and in pre-op you can see anything from a thyroid patient to a breast patient and I don't know, if they've gone down for any reason I think it will be where I've said to a patient do you have any further questions and they'll say yes, what actually is a wide local excision of a breast lump? And I stop because I don't want to misinform them...I think for me it's a knowledge base thing that shakes my confidence". D19

Three of the participants talked about their 'role' as a doctor when asked about their self-efficacy in consultations. One doctor referenced their 'role' as doctor including their gender as the key variable to impact upon confidence levels whilst all other participants opted to talk about their medical knowledge as that which most affected their confidence in communicating well.

> "Yeah, I think if you look, if I looked a bit older that would probably help, that immediate, immediately portraying the doctor role cos that's what…the patients want to see confident or someone who's confident in their role I think. So if you already look 40 or 50, grey hair and you look wise". D20

Interestingly, this doctor (D20) said very little about what other factors might impact upon their confidence and also much less than any of the other doctors. This might be down to the fact that they were confident in their medical knowledge. During their interview, this interviewee talked about consultation skills training being frustrating and that social skills were an indicator of consultation skills ability. This might suggest that this participant relied much less on their training, which they had found frustrating but more on their intrinsic social skills. This was also evident in the way that they discussed the Calgary/Cambridge model as something on the wall of the training room and talked less about the impact of their training on their use of skills in practice and claimed that they *never* thought about it (Calgary/Cambridge) when consulting with patients. Their issue was more about how young they looked in comparison to what a patient might expect a person to look like to portray an experienced doctor.

One other participant (D18) talked a lot about their role as doctor impacting upon their confidence. However, in contrast to interviewee D20 this was alongside speaking of their medical knowledge, preparedness, gender and previous experience which all

contributed to how confident they felt in consultations. Interestingly, this participant was the only participant to say that they were in fact more confident in their role as doctor than in their personal life outside of work, but also was the only participant to express that they were not ready to call themselves a doctor.

> "Step into that role and then and people respect that so yes in that respect I would be more confident you know and in real life when people are often surprised when you say you're a doctor they kind of don't think that you could be or that you would be so probably in real life I am less". D18

> "…patients they call me by my first name there's no way I call myself doctor at the moment, you know that's for later". D18

5.12 Discussion

Study 2 was conducted to explore what factors influenced the training and practice of Foundation doctors' consultation skills. It was designed to build on the findings of Study 1 by eliciting a deeper understanding of the Foundation doctors' experience of consultation skills training and practice and their perception of influencing factors. Study 2 will be discussed here and any cross-study exploration will be discussed in Chapter 7.

The impact of context (classroom and clinical context) on the practice of consultation skills

In their discussion about the influencing factors about their training and subsequent practice of consultation skills, participants in this study spoke about feelings of vulnerability during training sessions and commented on the skills of some of their seniors. Malhotra et al. (2009) offered insights from the learner's perspective and discussed factors that impacted upon the doctor-patient relationship. They discussed how there are a set of different stressors involved between classroom and the hospital setting which have an impact on junior doctors; these included power balance changes, as well as the attitude of seniors to the patient-centred approach and the seniors' own behaviours.

Participants also discussed the impact of context on their ability to use effective consultation skills, in terms of the specific clinical environment within which they worked. The impact of the medical context on consultations was explored with medical students and junior doctors by Malhotra et al. (2009). They offered an interesting example of context and its impact upon consultation skills. They explored surgical

medicine as a working context and suggested that it could be described as very business-like. They discussed how such a context might impact upon medical students and junior doctors' use of consultation skills and suggested that they could perceive that there may be little point in being communicative.

There was some discussion in the interviews about the availability of time within the hospital setting and the prospect of seniors thinking that patient consultations with Foundation doctors took too long. Williams et al. (2001) found that Pre-Registration House Officers (PRHO) were able to improve their consultation skills with patients following training in the primary care setting but had difficulty in the transfer of skills back to the hospital setting. The reasons cited by the PRHOs included; lack of time, taking control of the consultation and the ambiguity of the doctors' role and amount of authority Williams et al., (2001). Malhotra et al. (2009) discussed similar influences to the use of effective communication skills in practice and described them as 'barriers'. Those barriers cited included time, organizational constraints, diversity of patients, responding to emotions and ineffective role models.

Doctors' self-reference: Perceptions of intrinsic characteristics that impacted on their consultation skills training and practice

A dominant theme that emerged from the interviews was the way in which the doctors used various self-references when describing what they thought impacted upon their acquisition and use of consultation skills. The interviewees seemed to be insightful and to fully recognise that their inherent characteristics were continuously entwined with their learning and everyday practice of consultation skills. They were reflective about themselves as people, their individual experience of their training, and their interactions with patients within the workplace. Some doctors were able to show evidence of reflective practice during their interviews when they gave explicit examples of consultation experiences and how they had felt during and after difficult experiences.

The participants demonstrated some complex skills of self-reflection which might allow them to be more perceptive about their consultation skills and their effect upon their patients. Aspegren et al. (2005) suggested that the higher order skills such as perceptual skills take a long time to master and are built from first building competence in the content (knowledge of bio-medical facts) and process (for example, how to give information) of a doctor-patient consultation.

The descriptions provided by the interviewees offered some evidence of the doctors being reflective in their practice of consultation skills and thinking beyond the impact of their training and previous experience. They seemed very open to talk about the more

psychological concepts that they felt they possessed and took into their everyday practice. It could be argued that these self-references were not directly elicited by the questions, but still the doctors expressed very individual and insightful opinions about what they thought they personally brought to the doctor-patient consultations that affected the performance of their skills.

Participants' numerous references to self might provide evidence that they take responsibility for their own consultation skills and practice, as well as having the ability to reflect upon them in an open and honest manner. Doctors who are self-aware and perceptive about the doctor-patient relationship are more likely to be empathetic and understanding with their patients (Kurtz et al. 2005).

Awareness of and reaction to patient characteristics, expectations and needs

Patient characteristics and their impact upon consultation skills practice was a dominant theme talked about by all interviewed doctors. These doctors appeared to be constantly considering their patients well-being and reacting according to how they thought their patients would be most comfortable. The fact that these doctors referred almost as often to patient variables having an influence on their consultation skills as their own characteristics might be some evidence of the practice of patient-centred consultations.

This might suggest that these participants were able to pick up cues and clues from their patients and act accordingly. Kurtz et al. (2005) advocated that doctors need to address the underlying concerns of patients and the impact of their symptoms on their everyday life during consultations. An effective way of achieving this is to pay careful attention to each patient's behaviour during consultations (Kurtz et al., 2005).

The descriptions the participants provided of their own behaviour in consultations with their patients could be mapped onto the essential elements of interpersonal skills that are set out in the UK consensus statement (a collaboration of shared ideas about what specific consultation skills should be taught across all medical schools) such as respecting patients, paying attention, being personally present, having an interest in ideas, values and concerns and flexibility in the use of skills (Von Fragstein et al., 2008)

Participants were also aware of patient expectations and the existence of some stereotyping of the 'doctor'. This social awareness of what their patients might perceive to be the 'ideal doctor' might be an important factor in doctor-patient consultations. It seemed that having sufficient self-awareness of their personal characteristics

compared to their patients' view may have allowed for appropriate management of this incongruence through communication.

Participants in Study 2 seemed very aware of the impact of their personal characteristics, those of their patients and those related to the clinical setting on the way in which they used their consultation skills in practice. Data from the interviews indicated that many of these variables were also influential on their perceived 'role' of doctor.

Step-by-step building from foundations to a giant leap as doctor

The findings from the Study 2 interviews served to illustrate that Foundation doctors appeared to acquire consultation skills through a step-by-step progression that begins with their own inherent characteristics that pave the way in which they engage with their training. The contextual factors of the training environment interplay with the personalities of the individuals in complex ways to produce a skills base that affects both confidence and performance in consultations with patients.

Most participants in this study reflected back on their consultation skills training at university as uncomfortable and stressful when they first began. They found the experience of being observed and critiqued by a tutor and their peers daunting, a finding that was echoed by Malhotra et al. (2009).

Once they had got used to their training and had gained more experience, the participants reported that their learning of consultation skills was a progressive and gradual building of skills enhanced by relevant and timely sessions. Lempp et al. (2005) also expressed the importance of the timing and relevance of clinical training and concluded that teaching might be better received by learners when they were faced with the reality of being a junior doctor as opposed to training during medical school .

Participants described the acquisition of consultation skills competence as being built from foundations (or basic skills) by a gradual learning progression through adapting and interacting with the context within which they find themselves. They recognised that this journey had not and should not stop now they were in their Foundation years. Malhotra et al. (2009) also suggested that the function of learning in the clinical setting was to build on skills taught at university and to experience the hospital setting with all of the barriers that might exist.

It is interesting to note that whilst the interviewed doctors talked of their continual learning across contexts, they also described many differences between their training

in consultation skills and their workplace practice of the learnt skills. They compared their consultation skills training world as starkly different to their 'real' clinical world and, for them, this equated to very different looking consultations compared to those that they performed within medical school. The literature review revealed that the transfer of competence and skills from the classroom training to the hospital environment was challenging. An example was presented by Teunissen et al. (2007) who investigated the clinical workplace as a learning site and discovered that doctors learned by being engaged in clinical work. They described learning as an interaction between individuals and their context and went on to suggest that the workplace might offer a way of linking this to cognitive processes such as construction of meaning and interpretation.

The content of the interviews offered some evidence that these Foundation doctors had in fact attached meaning and interpretation to their learning experiences, given their narrative regarding how and what consultation skills they used in their everyday practice. The fact that they mentioned specific elements of the model that they were taught and effectively used with patients suggested that deep learning had taken place. Equally, their reflection upon specific learning from university could have been an indication that it was successful in producing lasting effects on the consultation skills of Foundation doctors which they were able to transfer to the workplace. This interpretation also links with the previous theme about context *(The impact of context on the practice of consultation skills)* and its impact upon the practice of consultations skills. Teunissen et al. (2007) suggested that doctors have to intrinsically possess a basic set of skills in order that progression can be made successfully. They found that senior doctors in their study suggested that skills such as curiosity, interpersonal skills and willingness to address their own weaknesses were required for junior doctors to foster competence but also viewed such skills as 'un-teachable'. These innate skills are very similar to those that were described and discussed by the participants in this Study 2 and outlined in the theme about doctors' self-reference *(Doctors' self-reference: Perceptions of intrinsic characteristics that impacted on their consultation skills training and practice).*

For participants in this study, the building of skills and the interaction with the context continued through the years of medical school and into the workplace as Foundation doctors, and was evidenced by the amount of discussion related to the environment and its influence on the practice of consultation skills. Both the university and hospital contexts can be viewed as training environments which the Foundation doctors experienced differently as influencing factors upon their learning and practice. These factors were discussed by the participants in terms of both their positive and/or

negative effects on the way in which they communicated with patients. Therefore, the environment could be described as *facilitative* and/or *constraining*. Lempp et al. (2005: p325) used the terms '*enhancing*' and '*hindering*' when identifying processes that effected competencies for final year students.

Similarly, Smith et al. (2011) explored the development of excellence during postgraduate medical training and advocated that clinical environments need to be appropriate and foster collaborative problem solving in order for learners to develop higher level cognitive competencies.

Perceived 'role' of doctor and the impact upon self-efficacy

Participants had been insightful in their comments about their own characteristics in terms of their effect on their practice of effective consultations with patients. They cited numerous self-references when asked about the factors that impacted upon their practice of consultation skills. However, in contrast when they were asked to talk about their self-efficacy they were much less reflective about their intrinsic personality traits and motivations. Self-efficacy/confidence is a psychological concept so one might have expected more statements and discussion concerned with insight and/or reflectiveness of the participants' individual personality traits which they deemed to be influential in how confident they felt when consulting with patients.

The factor that most impacted upon the interviewed doctors confidence to use effective consultation skills was their medical knowledge. They suggested that not having the correct amount of knowledge about the medical condition that they were faced with would affect their confidence in conducting a successful consultation. During the discussion about consultation skills training at university there were also some references to the effect of medical knowledge and preparation on training sessions. Medical knowledge and the imparting of that to patients can be termed as the 'content' of a consultation. The doctors' emphasis on having a grasp of the content of the consultation being imperative to the way a consultation will go adds value to the balance of teaching both content and process during consultation skills training.

In their paper on defining excellence Smith et al. (2011: p38) suggested that:

> "…while superior knowledge and skills are associated with exceptional performance in clinical work, were fundamental to the excellent practitioner, they were not sufficient in themselves".

In contrast, Hecimovich and Volet (2012: p4) investigated factors that influenced interns' confidence in communicating with patients, and they cited that 'difficult cases'

(complex/unfamiliar patient health issues) had an effect upon their confidence in communicating with patients. This could be some evidence of the impact of clinical knowledge upon confidence levels.

The participants were, to varying degrees, talking about their 'role' as a doctor. Their perceptions of what that role entailed were all different even when they shared the experience of context. This might suggest that the doctors have very individual perceptions of what their 'role' means to them. This subsequently impacts upon the way in which they behave as doctors in their consultation with patients. The most interesting discussion about the 'role' of doctor was during the doctors' discussion of self-efficacy. It seemed that similar demographic variables (age and gender) impacted upon the practice of consultation skills, doctors' perception of his/her role and self-efficacy within the workplace.

In the main, the interview participants in this study talked about their natural confidence as a trait that they take into their training and enhance to produce effective communicators. The deviant case in this context is the doctor who stated that they were more confident in their 'role' as a doctor than in their everyday life outside of work. This participant talked more about the doctor 'role' than any of the other doctors and was the only one who seemed unclear of their role in the pre-assessment clinic. The doctor talked of feeling intimidated in the first days there. Hecimovich and Volet (2012: p4) cited 'interactions with clinicians' as having an impact on the confidence of interns to communicate with patients. It seemed to be the case that it was only when this particular participant was clear about their role that they felt confident within that role. This need for clarity was indicated throughout the interview in the discussions about the factors that impacted upon training and practice.

The perception of their 'role' of doctor clearly meant something different for each individual interviewed doctor and consequently their experience of fulfilling that role was variable. It seemed that patient expectations were more important to some doctors, including the patient's stereotypical views related to the traditional model of the doctor-patient relationship, age and gender. The 'role' of doctor was also prominent for some of the doctors in the discussion about self-efficacy. Again there was a sense that the perception that the doctor held of their own 'role' as doctor was either *facilitative* to doctors' confidence or *constraining*.

Across themes discussion

It appeared that across the content of the interviews there was much consensus about how both personality, training and knowledge interplay to produce confidence in

consultations. Teunissen et al. (2007) shared this view and concluded that learning in the workplace arises through the interaction between individuals and their context. Teunissen et al. (2007) also suggested that confidence and the concept of self-efficacy might play a key role in the type of work activities a learner engages in, the nature of that engagement and what they learn from that engagement.

One of the aims of the reform of medical education was to alleviate the stress of medical students in their transition to the 'role' of doctor. The addition of consultation skills training for all students was part of that aim. For the participants in this study, it seemed that they were aware of their new role as junior doctor and negotiated this in very individual ways, influenced by confidence levels and individual traits. The effect of role perception on confidence was interesting in terms of one participant feeling more confident in 'role' than out of it in their everyday life. If feeling confident in the role of doctor leads to more effective consultations with patients then strengthening and clarifying what the doctor's 'role' is within their hospital settings might be key to raising doctors' self-efficacy in communicating with their patients. Eraut (2004) described confidence as both a learning outcome and a determinate to good performance.

Aper et al. (2012) recognised the impact of self-efficacy on consultation skills competence and used it as a measure to assess the impact of three different consultation skills training formats. They postulated that competence requires beliefs about one's efficacy to perform (Aper et al., 2012). Another factor that influenced junior doctors' confidence in patient communication was 'maturing as a clinician' (Hecimovich and Volet, 2012).

If 'clinical maturity' is the aim of medical education, might earlier exposure to the 'real' world of clinical practice and consultations with patients through more workplace training as a medical student be a partial solution? This idea would inevitably raise many ethical and patient-safety complexities but it is one that is emerging within medical education; Lempp et al. (2005: p328) postulated that the challenge was 'to move further along the role of professionalism earlier in the educational process'.

Smith at al. (2011) defined a collection of attributes that were considered essential for effective doctor-patient consultations. Some of these attributes are consistent with the themes defined in Study 2. For example, Smith et al.'s (2011: p38) attribute 'Personal qualities and functions of personality' were alluded to in the way that the participants made reference to those of their own characteristics that they deemed to impact upon their consultation skills. Likewise the attribute 'Conscientiousness' was evident in interviewees' discussion about the need for continual training and monitoring. Having

‘good relationships with patients’ was deemed as important to this sample of participants and was evidenced by their constant references to patient expectations and how they adapted their consultation skills in light of the presenting patient. And finally ‘the environment in which they work’ was explored at length by the participants in this study and drawn out as a theme *(the impact of context on the practice of consultation skills)* which covered the complex associations between context and individuals personal qualities (Smith et al., 2011).

Strengths and limitations

The strength of Study 2 was the authentic and deep exploration of the Foundation doctors’ perspectives by use of one-to-one qualitative interviews. The participants were able to be open and honest about their perspectives of consultation skills training and practice. This resulted in rich data from the real, lived experiences of the junior doctors, who had both taken part in similar training and had had the opportunity to implement that training into their clinical practice as Foundation doctors. The thematic analysis was very successful in aiding the interpretation of the interview data and allowing the presentation of interesting and relevant themes that described the data fully and accurately.

The main limitation of this study was the size of the sample. Whilst data-saturation was partially achieved, it would have been useful to have more participants to enable deeper exploration of the demographic factors that were found to be influential in the training and practice of consultation skills, such as gender, age and university.

Furthermore, the final sample consisted of only 5 participants who had taken part in Study 1, which could be seen as a limitation given the original plan to link the two studies. It would have been useful to have the same participants in both studies in order to better relate the findings from each. This would have strengthened the evidence gained from this study.

Related to this, the findings of Study 2 need to be viewed with the limitations of the sample in mind. Some of these doctors had been part of Study 1 and some were newly recruited for Study 2. Those participants who had been part of Study 1 were given an overview of their individual results as part of the study. It could be argued that these doctors may have been somehow motivated by the positive feedback, regarding the self-efficacy scales they had completed in Study 1, which they received during the interviews, leading to less reporting of the factors that might have had an impact upon their self-efficacy. For those Foundation doctors who had not taken part in Study 1, the

discussion on self-efficacy was not related to any feedback on performance, instead it was introduced as a new subject.

Most participants were recruited from one of the two hospital sites (Norfolk and Norwich University Hospital) and the large majority of them were recruited as a result of Study 1 recruitment, which was concentrated in a specific clinic at the hospital. The hospitals were both located in the East Anglian region and therefore may limit the generalisability of the findings.

The time that was available to the Foundation doctors who participated in the interviews to be away from their work for the study may have impacted upon the length of the interviews and therefore on the scope and freedom for the researcher and the participant to explore their experiences of consultation skill training and practice.

Further research

In the future, it might be interesting to conduct interviews with Foundation doctors periodically throughout their training in order to capture the learning and honing of consultation skills and how that translates into practice over time. A more longitudinal design would offer valuable insights about the building of both confidence and competence in consultation skills and their use with patients in the clinical setting.

There might be a need to explore the negativity associated with consultation skills training for some students. This is imperative to the understanding of what it is about the training that makes it a negative experience for some students. Alternatively what it is about the students themselves that leads to their negative perception. This could be done by the use of a mixed-methods study that first elicits students' demographic data and perceptions of their consultation skills training quantitatively to extrapolate the key factors that foster negativity. Follow up interviews then could explore the issues more deeply. Again this could be done in a longitudinal manner to track the patterns of negativity related to the training and/or practice of consultation skills to investigate those issues that are pervasive through medical school and likely to become part of the doctors' clinical practice for the duration of their career.

Chapter 6: Study 3

6.1 Introduction

Study 3 aimed to investigate qualified clinicians' perspectives on consultation skills training and practice. More specifically, to enquire about the factors that might influence the effectiveness of their training and/or consultation skills practice. The over-arching mixed-methods research project focused on the perspectives of Foundation doctors and their patients regarding consultation skills in Studies 1 and 2. Study 3 was conducted as the final study to complement Study 1 and 2 and build on their preliminary findings. This final stage (Study 3) of the project was designed to examine similar themes that were explored as part of Study 2 but with a more experienced local population of clinicians.

Thus, this study served to widen the focus of the project to a sample of participants that, whilst more diverse, was still very relevant to the complete project. It aimed to build knowledge about salient factors that might influence the effectiveness of consultation skills training and practice of more experienced doctors.

Study 3 will be fully described in this chapter. This will include details about the development of the questionnaire and the procedures that took place in the collecting of data. The inputting, auditing and data analysis will be outlined here and further discussed in the results section of this chapter.

6.1.1 Research question

The specific research question being addressed in Study 3 was:

What are the wider perspectives of qualified clinicians' about consultation skills training and practice?

6.2 Information Gathering

The research question was addressed by asking qualified clinicians to complete an online questionnaire which included questions about their experiences of consultation skills training and practice and the factors that have impacted on their experience. It was hoped that the data collected would also provide some indication of the extent to which consultation skills have been accepted and are valued by those with more extensive experience of the clinical environment.

6.3 The Questionnaire Instrument

6.3.1 Questionnaire development

The interview schedule used in Study 2 with the Foundation doctors was comprehensive, as it was developed through the use of the literature review and the preliminary results of Study 1. Furthermore, the schedule was found to be successful in its endeavour to address the research questions posed in Study 2 so it was deemed as a suitable starting point in the development of a quantitative instrument to use for Study 3 data collection. It was decided that the three themes that were originally used for the interview schedule would be maintained as the basis from which to develop the online questionnaire. The themes were; experience of consultation skills training, using consultation skills 'on the job', and consultation skills training needs now and in the future.

Preliminary data exploration during Study 2 revealed some valuable information about Foundation doctors consultation skills training and practice regarding, for example, the most salient factors that influenced both the effectiveness of the Foundation doctors' consultation skills training, how they used that training in practice and what might impact upon their confidence and ability to use effective consultation skills in the clinical setting. These findings were of value in the wider investigation of clinicians' perspectives. For example, the information about the influential factors was used to develop the response options for the similar questions that were part of the Study 3 questionnaire; the researcher could be confident that these factors would be suitable response options as they were emergent from the findings of Study 2.

Basic demographic questions were included to enable relevant characteristics of the responding sample to be categorised. Those demographic questions were: age, gender, whether English was their first language, medical school attended, year of qualification, current employment status and speciality.

It was decided to run the questionnaire online because this would be easy for the researcher to administer through the sending of a link by e-mail to clinicians who could complete at a time and place of their convenience. The questionnaire was hosted by SurveyMonkey because one of the supervisory panel members already had access to a secure encrypted account.

6.3.2 Description of questionnaire

In total, the questionnaire consisted of 31 questions (Appendix 22). The first 8 questions collected demographic information about the participant. Question 9 asked the participants if they had received any consultation skills training during their undergraduate medical training. If the response to this question was 'yes' then participants were instructed to answer the following 5 questions about their experience of that training. In contrast, if participants answered 'no' they had not received any such training, they were then directed to skip these questions and move on to question 15 which asked these participants if they would have liked to have received training. All participants were able to answer all of the remaining questions.

Questions 16 and 17 asked all participants about any postgraduate consultation skills training. The remainder of the questions requested information concerned with the clinicians' use of consultation skills in practice and the factors that might influence the way in which they were used, how consistent and representative they felt their skills were across different situations, their confidence in using their skills with various patient groups, their opinion on the current emphasis of consultation skills training, their perceived training needs and finally their opinion on the level of consultation skills of current Foundation doctors.

The majority of the questions were fixed choice and had varying amounts of pre-selected answer options. The questions that asked about factors that impacted upon effectiveness of consultation skills and factors influencing confidence when consulting with patients contained 7 answer choices which were taken from the findings of Study 2, as previously discussed. It was deemed appropriate to offer an option labelled 'other' (and a space for elaboration) for both of these questions to ensure that respondents could offer new factors that may not have been reported by or relevant to the participants in Study 2. Participants were asked for their first and second most influencing factor in both effectiveness of consultation skills and confidence when consulting and offered the 7 answer options and the 'other' option each time.

There were a number of open-ended questions in which the participant could offer a more detailed, free response. For those participants who had responded that they had had undergraduate consultation skills training, Question 12 requested information about what might have improved their consultation skills training. Question 28 elicited information about training needs now and in the future. Question 29 requested the respondents to offer any opinions on junior doctors' consultation skills that they may have experienced and finally Question 31 was offered as space to provide any final

comments about consultation skills training experience and training needs for future doctors. This very open question enabled participants to elaborate on any of their previous answers or to comment on any issue that had not been addressed by the previous questions, if they wished.

6.3.3 Structure and order of questions

Modifications

A few of the questions were revised slightly for clarity on the advice of the Faculty of Medicine and Health Sciences Research Ethics Committee at the University of East Anglia. In the first version of the questionnaire, the questions concerned with factors that influenced the effectiveness of consultation skills in the clinical setting and factors that impacted upon confidence were worded slightly differently. Question 18 was originally; 'What two factors do you feel impacted upon the effectiveness of your consultation skills in the clinical setting?' and was changed to 'What is the most important factor to impact on the effectiveness of your consultation skills in the clinical setting?' and 'What is the second most important factor to impact on the effectiveness of your consultation skills in the clinical setting?'. Similar changes were made to the original question related to confidence where the original question asked 'What are the two main factors to influence your confidence level when consulting with patients? And then was changed to two separate questions asking for most important and then second most important factors

6.3.4 Evaluation

The questionnaire was newly developed for use in this study so there was no existing research that could be drawn upon for evaluation of the instrument and its effectiveness in the exploration of clinicians' perspectives of consultation skills training and practice. With that in mind, this study might provide some evidence of whether or not the questionnaire was useful in this type of exploratory investigation.

Reliability

The questionnaire was deemed to be reliable in the eliciting of perspectives of clinicians on consultation skills training and practice due to the fact that it was designed from materials (the interview schedule and the preliminary findings) that had been used earlier in the project with a different population (Study 2). The original interview schedule was built based on the literature review and had subsequently been successful in addressing the research question concerned with Foundation doctors

consultation skills training and practice. There was no reason to believe that the new questionnaire would not be successful in addressing the research questions posed in Study 3.

Validity

Questionnaires are said to be have generally low levels of validity (Creswell and Clarke, 2011). This is due to the nature of the closed questions that are usually associated with questionnaires. Participants are asked questions that are of interest to the researcher and the freedom to offer meaning and elaboration is limited when limited answer categories are available. The questionnaire used in Study 3 contained both closed and free-text questions which might go some way to raising validity by allowing respondents the space to add information about the way in which they had responded. In particular, some of the closed questions that gave fixed choice answers sometimes included an option to select 'other'. This was the case for questions that were thought to have a wide choice of answers that may not have been covered by the options provided. Space was given in these questions for the respondent to elaborate on their answer choice. It was intended that the mixture of open and closed questions contained in the questionnaire might raise the levels of validity of the instrument. In addition, the questionnaires were completed anonymously so that respondents would feel that they could provide answers in an honest way.

6.3.5 Ethical approval

Study 3 was given ethical approval by the Faculty of Medicine and Health Sciences Research Ethics Committee at the University of East Anglia in July 2012.

6.3.6 Pilot

Study 3 was reviewed by both the Primary and Secondary PhD supervisors. The study methodology and questionnaire instrument were deemed suitable to address the research question posed for Study 3. Comments and suggested modifications to the study protocol and questionnaire were incorporated into the final versions.

Unfortunately, it was not possible to pilot the questionnaire through the lack of time and resources available at this stage of the overall project timeline.

6.3.7 Summary

This section has attempted a detailed explanation of the development of the questionnaire designed for use in Study 3 to address the research question. The

structure and content were described, including the modifications made following review. The next section will detail the population chosen for Study 3 and will include explanations of why it was chosen and the inclusion criteria that was used.

6.4 Sample

6.4.1 Participants

Definition of population

In order to address the research question for Study 3, there was a need to locate a sample of qualified clinicians. It was decided that the database of recognised teachers held by the Norwich Medical School at the University of East Anglia would be a suitable population from which to recruit the sample. Clinicians on the database were qualified clinicians who had done some teaching in the medical school. It was presumed that the majority of the registered clinical teachers were or had been practising in the same East Anglian region as the populations used in Study 1 and 2. It was also likely that some of the clinical teachers were employed or had been employed at the hospitals in the region, two of which had been selected as research sites in Study 1 and 2 (Norfolk and Norwich University Hospital, Norwich and James Paget University Hospital, Great Yarmouth).

In addition, this population of registered teachers could have been involved with undergraduate medical education at the Norwich Medical School and perhaps even as part of their practice as clinicians. It was logical to believe that this population would have a variety of experiences, possibly many years of familiarity of the clinical environment and high levels of patient exposure. They may or may not have had consultation skills training. This would depend both on where they had received their undergraduate medical training and the opportunities for any training post-graduation. Nevertheless, it was likely that all would have an awareness of the introduction of such training in undergraduate and postgraduate medical education and the reform of medical education per se through their involvement with an undergraduate medical school. The perspective of those who might find themselves in the role of observing, influencing and/or teaching medical students and/or Foundation doctors might provide some indication of the extent to which effective consultation skills are being used, have been accepted and valued by those with more extensive experience of the clinical environment.

Inclusion criteria

All clinicians with an e-mail address that were registered on the clinicians' sub-section of the recognised teacher's database held by the Norwich Medical School at the University of East Anglia were included as potential participants.

6.4.2 Sampling design

Representativeness

It was impossible to check whether the sample was representative of the population of registered clinicians through the lack of demographics recorded on the database that was used to sample from.

Sampling strategy

The sampling strategy was opportunistic. The database already existed for various purposes within the Norwich Medical School, related to the clinicians' involvement on the undergraduate MB BS course. Following ethical approval to recruit using this database, the gatekeeper of the database agreed to pass on invitation emails. The participants were self-selected, in that those who were willing to participate accessed and completed the online questionnaire.

Number of participants

There were 564 clinicians registered on the database and it was decided that they would all be contacted as potential participants.

6.5 Procedure

Participants were sent an invitation e-mail (Appendix 23) through the gatekeeper using the established distribution list. The email contained a short explanation of the study, a link to the online questionnaire embedded within the email, and the researcher's contact details. The Participant Information Sheet (Appendix 25) was sent as an attachment to this email which offered further information about the study. Participants completed the questionnaire via the link to SurveyMonkey that was included in their invitation emails. Only fully completed questionnaires were included in the study and analysed.

Reminders

A total of 2 reminder emails (Appendix 24) were sent after 2 and 4 weeks had passed from the invitation being sent. Data collection ceased after a period of 6 weeks from the initial contact point.

Information provided to participants

It was made clear at the beginning of the questionnaire that a participant who completed and submitted a questionnaire will be implying consent for their data to be used for research purposes, including publication of anonymised data in research publications. Potential participants received brief details of the study in the invitation email and fuller information via the Participant Information Sheet that was attached to the recruitment email. Participant Information Sheets included information about: the nature and purpose of the study, the amount of involvement required, freedom to participate, contexts in which their data will be used, confidentiality and consent. The Participant Information Sheet included the name and contact details of both the lead researcher and primary supervisor. This was to ensure that participants had detailed information about the study before participating, and could get further information if they had any queries. The Participant Information Sheet also explicitly informed potential participants that they were giving their consent to be involved in the study by completing the questionnaire.

6.6 Advantages and Disadvantages

Advantages

The key advantage of using an online questionnaire to collect data from clinicians was that it had the potential to reach a large sample of participants in a relatively short period of time (Eysenbach and Wyatt, 2002). In particular, the online questionnaire could be distributed via e-mail which reduced the need for paper versions of questionnaires to be printed, distributed and collected which was efficient in saving time and burden for both the researcher and the clinicians in the study population.

Disadvantages

The questionnaires were designed for the clinicians to provide self-report data. There are weaknesses with any self-report data related to the bias that might exist in the subjective responses that are received (Jackson, 2003). There might also be some difficulty in the accurate recall of participants when answering questions about events

retrospectively. This might be an issue because some of the questions in the questionnaire were asking respondents to remember training, which may have taken place many years ago depending on how long the doctor had been qualified for, particularly in the case of the undergraduate training.

6.7 Confidentiality of Data Collected

Participants were recruited via an invitation email sent through the Norwich Medical School using an established distribution list by a gatekeeper unrelated to the PhD project. The lead researcher did not have access to any of individual names or contact details of the potential participants unless they chose to contact the researcher with any queries (no queries were received) .

Participants completed the online questionnaire by directly accessing the link to SurveyMonkey that was included in their invitation emails. Participants were not asked to provide their names when completing the questionnaire. Completed questionnaires were assigned a numeric value by the software. The responses given on the online questionnaire were downloaded from SurveyMonkey, entered and stored into a password protected Excel spreadsheet and were only identified by the assigned participant numbers. The speadsheet was stored on a password protected UEA computer. The only people who had access to data were the members of the supervisory research team named on the Participant Information Sheet. All the information that was collected during the course of the study was kept strictly confidential and in accordance with the Data Protection Act (1998).

6.8 Data Input and Audit

6.8.1 Data input

Once 6 weeks had passed, the data collected was downloaded from SurveyMonkey into an Excel spread-sheet for initial checking and cleaning. There were 2 cases where respondents had given near identical responses from the same IP address, and the timing of the second response (just after a reminder) suggested that the person filled it in a second time forgetting that they had already done it. The duplicates were removed from the dataset. The final dataset was entered into SPSS (V18) in preparation for analysis.

6.8.2 Data analysis

Data was collated and analysed with Microsoft Excel and SPSS (V18) software. Descriptive statistics were used to explore all the quantitative responses within and across the questionnaires. Frequencies and percentages were established for all questionnaire items including the demographical questions.

Free-text comments

The free-text comments were checked and imported into NVivo (V8) in preparation for analysis.

6.8.3 Summary

This section has outlined details of the selection of population and the strategy used to draw the sample for Study 3. The procedural steps that were taken during data collection were explained and included some advantages and disadvantages of the methods used. The means of ensuring confidentiality were briefly discussed. Finally the data input and analysis was introduced and will be further discussed in the Results sections of this chapter.

6.9 Results

The following sections will report details about response rates and the demographical characteristics of the respondents. Exploration of the findings will include summaries of the responses from participants and aims to include data from the entire questionnaire, including outlines of that which was elicited via the open-ended questions. A variety of tables and graphs will be utilised to visually illustrate the findings.

6.9.1 Response rate

The questionnaire used in Study 3 was designed to be completed on-line by respondents who were sent an e-mail containing a link out to the survey. The invitation e-mails and two reminders were sent out via a gatekeeper between July 2012 and September 2012. There were 80 completed questionnaires but two cases were subsequently deleted as it was deemed that they were duplicates, as described previously. The final sample was therefore 78 out of a possible 564 clinicians, meaning that the response rate was 14%.

6.10 Data Analysis

6.10.1 Closed choice questions

The data was originally collected through SurveyMonkey. All data from completed questionnaires were cleaned and initially entered into an Excel database. From there, all of the closed-question data were numerically coded and transferred into SPSS (V18) in preparation for descriptive analysis. As part of this, two of the open-ended responses were modified to create categorical data. The question which asked the clinicians about which university they had done their undergraduate training (Q4) was originally a free-text question but all responses received were subsequently coded into 3 categories, namely; London, overseas and other. All entries that were London based universities were coded as 'London' and all of those that were abroad were coded as 'overseas'. The 'others' category was used to code those cases where the respondent had named a university that was situated outside of London in any other part of the UK. In the same manner, the year of qualification (Q8) was provided in a date form but was subsequently coded into decades to cover all years that were stated.

6.10.2 Demographic profile of clinicians

Table 13 illustrates that the final sample consisted of 78 clinicians equally split between males and females with 65% (N=51) of them being aged 47 or over. Over 87% (N=63) of the respondents had gained their undergraduate training in the UK and 67% (N=50) qualified before 1991. Overall, there were over 63% (N=49) who stated that their current work was in secondary care and 61% (N=48) were consultants. Eight respondents reported that English was not their first language and 6 of these qualified overseas (2 did not specify where they had trained).

Background variable	Number	Percentage
Gender		
Male	39	50
Female	39	50
Total	*78*	*100*
Age		
25-35	6	7.7
36-46	21	26.9
47-57	34	43.6
58-65	15	19.2
66+	2	2.6
Total	*78*	*100*
Where undergraduate medical training took place		
London	27	37.5
Overseas	9	12.5
Other	36	50.0
Total	*72*	*100*
Is English your first language		
Yes	69	89.6
No	8	10.4
Total	*77*	*100*
Year Qualified		
1970-1980	19	25.7
1981-1990	31	41.9
1991-2000	19	25.7
2001-2010	5	6.8
Total	*74*	*100*
Level of current job		
SpR	2	2.6
Consultant	48	61.5
GP	22	28.2
Other	6	7.7
Total	*78*	*100*
Place of work		
Primary Care	23	29.5
Secondary Care	49	62.8
Retired	2	2.6
Other	4	5.1
Total	*78*	*100*

Table 13: Demographic profile of all respondents

Table 14 outlines the current and past supervisory duties of the sample. Twenty-three of the respondents currently had a supervisory role (either Educational or Clinical or both) for Foundation doctors; 21 had had a supervisory role in the past.

		Number of participants	**Percentage**
Are you/have you ever been an Educational/ Clinical supervisor for Foundation doctors?	Currently an Educational Supervisor	4	5.5
	Currently a Clinical Supervisor	7	9.6
	Currently Clinical was Educational	4	5.5
	Currently both	8	11.0
	Was Educational	6	8.2
	Was Clinical	6	8.2
	Was both	9	12.3
	Have never been either	29	39.7
	Total	*73*	*100*

Table 14: Supervisory responsibilities of respondents

6.10.3 Consultation skills training

Table 15 illustrates that over half of the sample (N=46) had not received any consultation skills training while at university but 76% (N=35) of those respondents stated that they would have liked to have had some sort of training. Participants without training did not then have to respond to the following questions that were related to that training. However, those who did state that they had received training (N=30) went on to answer the following questions about that training; whether it was enough, how useful and relevant it was and how much of an impact the training had had on the clinicians current practice. The responses to those questions are reported in Table 15.

Over half of those respondents who had received consultation skills training believed that they had not had enough. Views were split regarding the usefulness of the training, which may reflect differences in characteristics of the training e.g. amount, timing and content. This is supported in differences between respondents in what they regarded as influencing the effectiveness of the training. The relevance of the content of the

training was the most popular response (40%). The majority of respondents felt that the training had had at least a reasonable amount of impact on their practice. In addition to selecting from the provided response options, the question asking about what factor impacted the most upon the effectiveness of their consultation skills training included an ‘other’ option, to enable participants to name factors that were not covered in the response option list. There were 7 respondents who chose this option. Of the 7 respondents 3 of them talked about ‘role-models’ impacting upon their training, 1 mentioned ‘patient feedback’, 1 said that they learned by doing and the remaining 2 just made general comments about how little training they had actually received.

Experience with undergraduate training	Number of participants	Percentage
Received consultation skills training?		
Yes	30	38.5
No	46	59.0
Missing	2	2.6
Amount of training		
Not enough	17	56.7
The right amount	12	40.0
Too much	1	3.3
Total	*30*	*100*
Usefulness of training		
Extremely	5	17.9
Very	7	25.0
Moderately	11	39.3
Not at all	5	17.9
Total	*28*	*100*
Factor influencing effectiveness of training		
Relevant content	12	40.0
Tutors	6	20.0
Timing	1	3.3
Environment	3	10.0
Group members	1	3.3
Other	7	23.3
Total	*30*	*100*
Impact of training on practice		
Huge amount	2	7.1
Reasonable amount	13	46.4
Only a little	8	28.6
Not at all	5	17.9
Total	*28*	*100*

Table 15: Perceptions of respondents regarding their undergraduate consultation skills training

6.10.4 Consultation skills in practice

Effectiveness of consultations

Respondents were asked to choose the most important and then the second most important factor that impacted upon the effectiveness of their consultations. Time available for the consultation, was the most frequently cited factor for both the most important (25%, N=20) and the second most important (33%, N=26). Likewise, my personality was the next most frequently chosen option for both the most important (23%, N=18) and the second most important (18%, N=14). Figure 2 shows the combined frequencies for both the most important and second most important factors. Across the two questions, time was chosen by 30% (N=46) of the respondents and personality was chosen by 21% (N=32). Of the options provided, participants were least likely to select that illness type as impacting on the effectiveness. The 'other' option was provided again here to enable participants not to be limited to the response options provided by the researcher. Fourteen respondents offered other factors that influenced their effectiveness, including: my personal experience, my mental and physical resources, effort made to apply skills, understanding a logical framework, avoiding interruptions and my knowledge of communication skills.

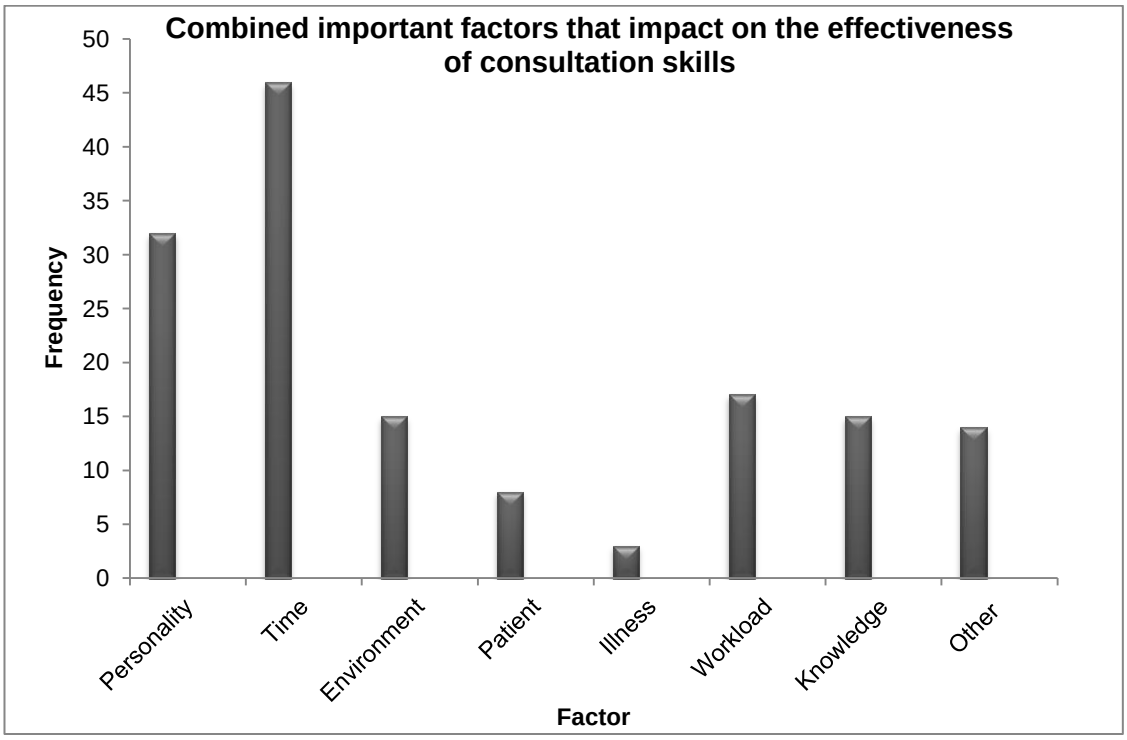


Figure 2: Important factors that impact upon effectiveness of consultations in the clinical setting

Confidence levels

Respondents were asked to rate their confidence levels when consulting with patients on a four-point scale from extremely confident to not at all confident. Figure 3 shows the frequency of the responses. The ‘not at all’ option was not selected by any of the respondents in this sample. Eighty per-cent of the sample rated their confidence level as at least ’very confident’.

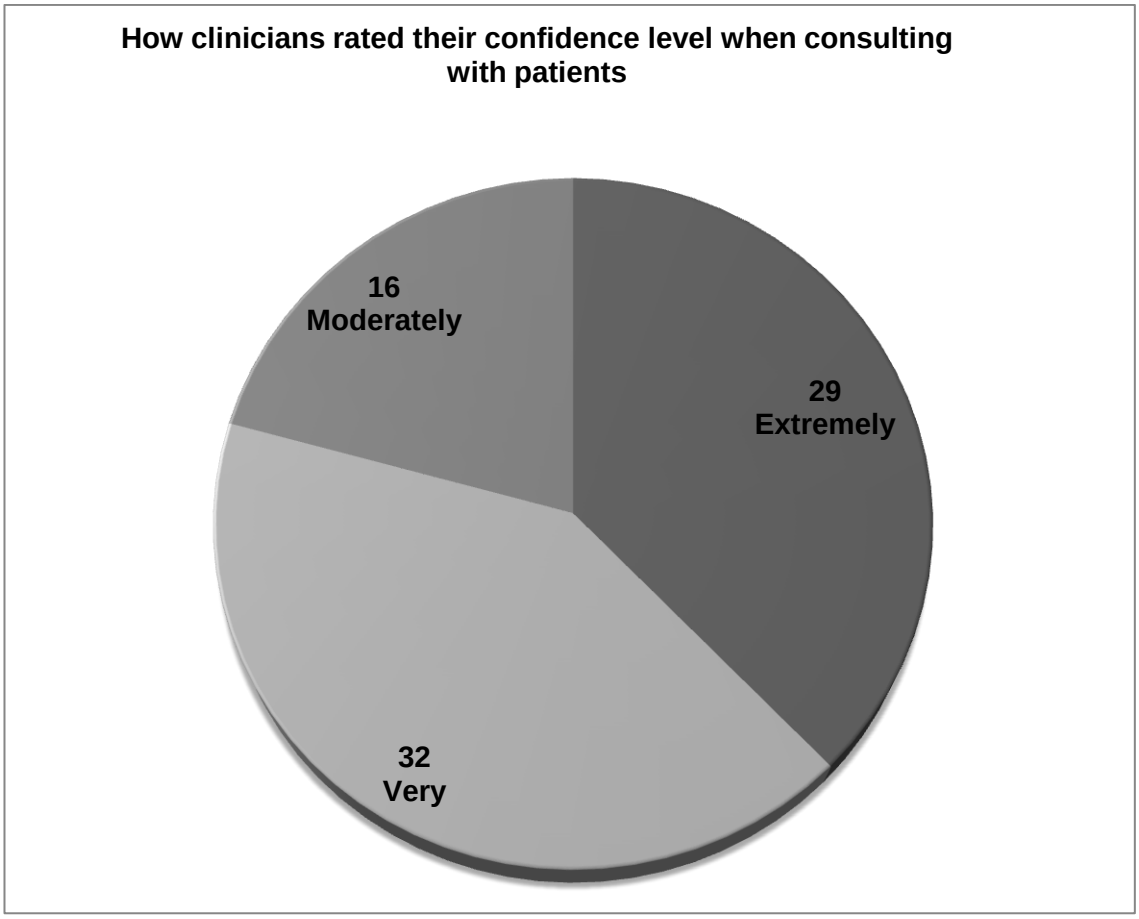


Figure 3: Pie-chart to show confidence levels of clinicians when consulting with most patients

Respondents were then asked to choose the most important and the second most important factor that impacted upon their level of confidence when consulting with patients. Knowledge about illness was the most frequently cited factor for both the most important (26%, N=19) and the second most important (20%, N=16). Likewise, personality was the next most frequently chosen option for both the most important (24%, N=17) and the second most important (19%, N=15). Figure 4 shows the

combined frequencies for both the most important and second most important factors. Across the two questions, knowledge was chosen by 24% (N=35) of the respondents and personality was chosen by 22% (N=32). The 'other' option was provided here to enable participants not to be limited to the response options provided by the researcher. Eleven percent 11% (N=17) of respondents chose this option. Most of these respondents felt that experience impacted on their confidence when consulting; this related to clinical, personal and consultation experience. Other comments included; positive feedback from patients and having a supportive team.

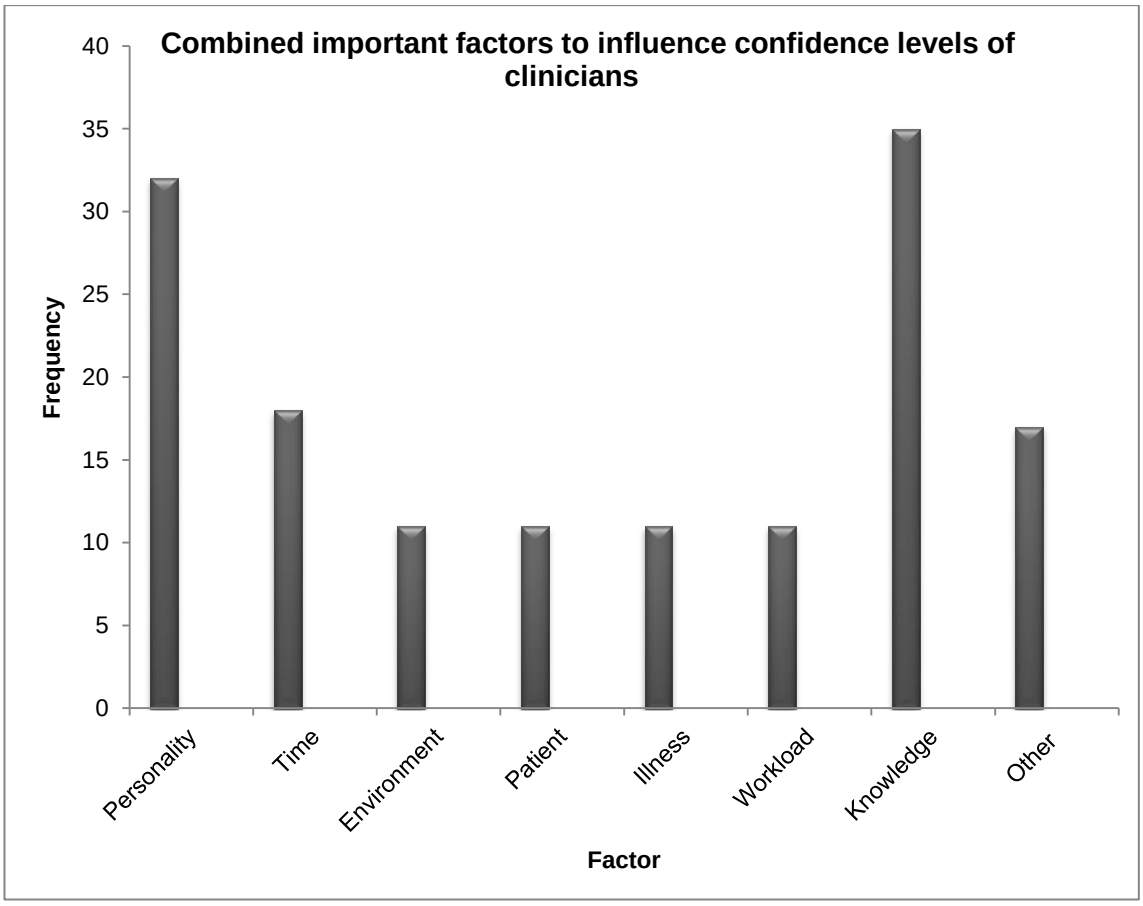


Figure 4: Important factors that impact upon confidence levels when consulting with patients

Comparison of factors

Figure 5 shows that personality was chosen by the same amount of respondents (N=32) as an influencing factor on both the effectiveness of the consultation and confidence levels of the clinician. In contrast, time available for the consultation which

was cited as the most important factor to impact upon effectiveness of the consultation (N=46) was cited by a much smaller amount of respondents (N=18) in relation to confidence levels. The knowledge of illness option was chosen by 24% (N=35) of respondents as a factor to impact upon confidence as opposed to only 10% (N=15) who cited it as a factor to impact upon the effectiveness of their consultation.

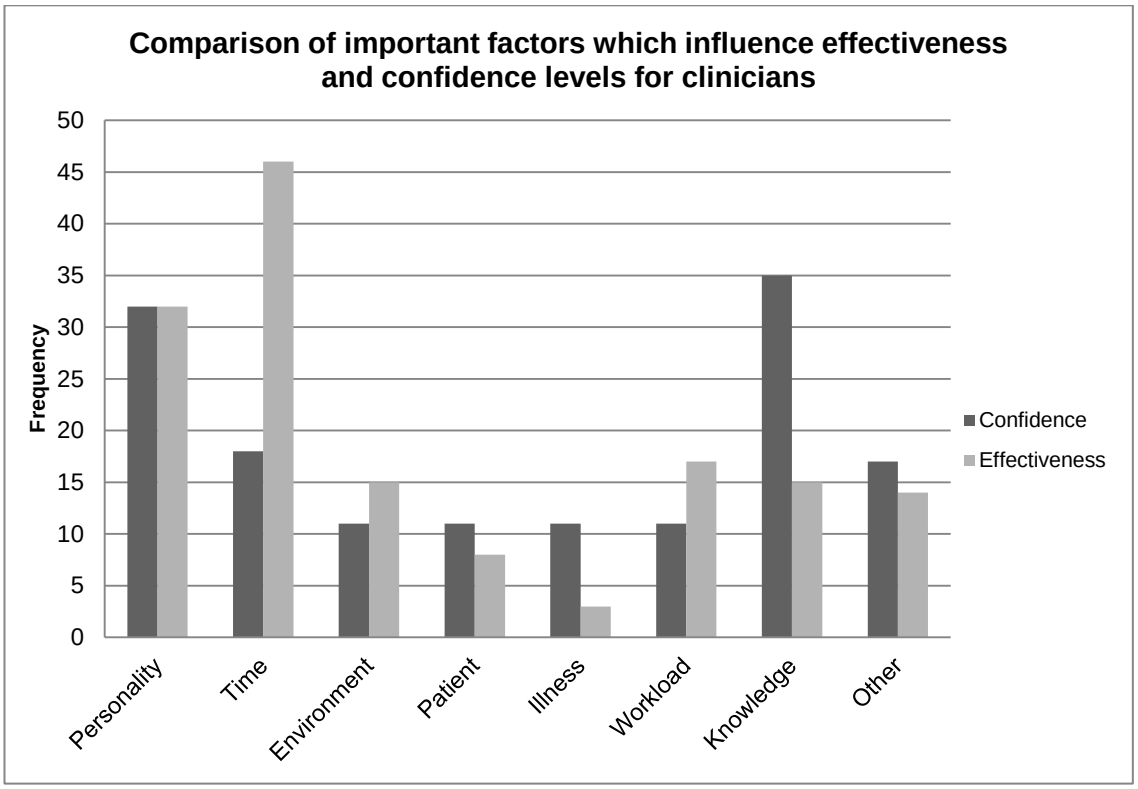


Figure 5: Comparison of influencing factors across effectiveness of consultation and confidence levels

Consistency and representativeness of consultation skills

Table 16 shows that when asked whether their consultation skills were consistent across patient groups, over 92% (N=71) of the sample stated that their skills were extremely or mostly consistent. Similarly, when asked if their skills were consistent across clinical environments, 91% (N=70) of responses were either extremely or mostly consistent. Over half of the respondents (N=43, 56%) felt that their professional communication skills were representative of their general communication skill. The data suggested that the participants' professional communication skills are not always representative of their general communication skills.

Question	Extremely		Mostly		Sometimes		Not at all	
	N	%	N	%	N	%	N	%
How consistent are your consultation skills across patient groups?	10	13.0	61	79.2	5	6.5	1	1.3
How consistent are your consultation skills across clinical environments?	12	15.6	58	75.3	4	5.2	3	3.9
How representative are you professional communication skills of your general communication skills?	17	22.1	43	55.8	15	19.5	2	2.6

Table 16: Consistency and representativeness of consultation skills across environments and patients

Clinicians' opinion of the General Medical Councils recommendations

The UK General Medical Council (GMC) recommends that medical schools and postgraduate educators should invest time and resources in consultation skills training, and the respondents were asked to indicate their views on these recommendations. The respondents were given 3 choices of answer, as is shown in Table 17 along with the frequency that each response was chosen for both of the questions.

The General Medical Council recommends that medical schools invest time and resources to consultation skills training. Which answer best reflects your views on this?		
Response	**Number of participants**	**Percentage**
The GMC are correct to recommend this	62	82.7
The GMC should be recommending more time and resources be invested than currently	8	10.7
Too much time and resources are currently spent on consultation skills training	5	6.7
Total	*75*	*100*
The General Medical Council also recommends that postgraduate training in consultation skills training. Which answer best reflects your views on this?		
Response	**Number of participants**	**Percentage**
The GMC are correct to recommend this	54	72.0
The GMC should be recommending more time and resources be invested than currently	14	18.7
Too much time and resources are currently spent on consultation skills training	7	9.3
Total	*75*	*100*

Table 17: Clinicians opinion about the General Medical Council's recommendations

Respondents were given space after each of these questions in order to elaborate on their opinion. Most of the comments offered were from those participants that had stated that the GMC were 'correct' to make the recommendations. Respondents comments ranged from suggestions of what the GMC should focus on; 'more experience', 'more practical experience', 'time spent should reflect placements' and

‘should look at quality and emphasis’. Other respondents were more specific and talked about how skills should be assessed and enhanced ‘should be identified through assessments and appraisal’, ‘most skill development will be from peer collaboration and reflective practice’, and ‘we all need to learn as there is always room for improvement’.

Comments offered by the small number of respondents who deemed that the GMC were investing ‘too much time and resources’ on consultation skills training in medical school suggested that; ‘and not enough time with patients and clinicians’ and ‘some students are just not going to make good communicators’. Those who stated ‘too much time and resources’ were currently being spent on postgraduate consultation skills training offered comments such as ‘should have learnt as an undergrad’ and ‘regular clinics/consultations keep your skills up to date’.

Finally, the respondents who chose ‘they should be recommending more time and resources be invested than currently’ offered comments such as ‘very important to have good C/S but not in a robotic and utterly predictable way’ and ‘consultations are the front door to most treatment plans, time spent here saves an awful lot of running around’.

6.10.5 Open-ended responses

There were four (Q12, 28, 29 and 30) open ended questions where respondents were asked a specific question and were given a blank space to provide free-text answers (Appendix 26). The responses to Question 29 regarding the clinicians’ opinion of the level of Foundation doctors’ consultation skills were analysed separately. The qualitative comments provided in answer to this question were deemed to be unsuitable to be merged with the other free-text responses, due to their very specific content and the lack of elaboration in the clinicians’ responses (e.g. responses such as “good”, “mostly good”). For this reason, the responses to Q29 were explored, categorized and counted using basic content analysis. Table 18 presents the categories that were created in answer to this specific question. Example quotes from the responses given are included in order to clarify each category. The prevalence of each category is presented numerically to denote the frequency that comments fitted into that category. There are times that the total count of category responses exceeds the amount of responses provided for a particular question. This is because there were some respondents whose comments were longer and covered more than one of the categories.

When respondents were asked about their opinion on the level of consultation skills of junior (Foundation) doctors, over 60% of the comments were positive about the skills of junior doctors by describing them as excellent or very good. Along with excellent and very good, other comments were categorised as; adequate, poor, consultation skills versus clinical skills, better than before, over-trained/programmed in a method.

What is your opinion of the level of consultation skills of junior (Foundation) doctors? 48 responses		
Category		**Example quote**
Excellent or very good	17	“on the whole excellent. they are prepared, courteous, confident and know their limitations”
Good	13	“Generally good”
Adequate	9	“Reasonable but needs fine tuning”
Poor	9	“They are often poor consulters because the method that they have been taught doesn't teach them to be safe consulters, nor how to solve problems in an organised way”
Consultation skills versus clinical skills	5	“Depends on how you define consultation skills? If you mean chatting nicely and empathetically to patients then generally pretty good. If you mean the ability to manage a consultation such that a detailed, appropriate and accurate history is taken and recorded - then the skills are generally poor to very poor”
Better than before	5	“Better than when my cohort were at this stage”
Over-trained/ programmed in a method	2	“Good at present but you do need to make sure you don’t produce communication skills/CCG (Calgary/Cambridge) clones at (name of university)”

Table 18: Responses to open-ended questions

It was considered that responses to Questions 12, 28 and 30 could be merged for further qualitative analysis due to the questions being more related to one another and therefore crossing similar themes. Consequently, these comments were subject to further analysis by adopting the same stages of thematic analysis that was used with the interview data collected as part of Study 2 (fully described in Chapter 5, section 5.10.1-3).

6.10.6 Thematic analysis of questions 12, 28 and 30

The free-text questions 12, 28 and 30 posed to the experienced clinicians as part of the on-line questionnaire (Study 3) were:

Q12. Based on the experiences you've had since medical school, what do you think might have improved the training?

Q28. Is there any area of consultation skills that you would like training on now or in the future?

Q30. Please use this space to provide any final comments about any of the consultation skills training you have received, or training you feel would be useful to the future for you or for future doctors.

It was found that the clinicians' comments in response to the above questions were descriptive and for the most part were well focused on the subject matter of the questionnaire (Appendix 26 and 27). The comments were coded using NVivo (V8) and codes were then merged where appropriate to construct themes that were relevant and useful to describe the data elicited from the three questions.

Learning consultation skills through observation and feedback

There were a substantial number of comments that advocated the value of being observed and subsequently being offered feedback.

> "More is gained by critically watching others consult than videoing each other role-playing".

> "The most important thing is to encourage colleagues who work closely with you to criticise so you can improve".

Some of the participant clinicians were more specific and made suggestions about who should be observed and who might offer the most useful feedback.

> "...Developed the skills required observing good senior colleagues while training".

> "Personal feedback from real patients is the most valuable way to learn"

The view that observation of skilled clinicians and gaining exposure to real patients were important to learning consultation skills was shared by other participants.

> "Even more time with real patients and real doctors who are good at what they do, i.e consulting".

> "See enough patients with the common conditions to know the right questions to ask".

> "More direct patient contact with feedback and observation".

Despite having had patient exposure to practice consultation skills, one participant suggested that time for more reflection may have been useful.

> "The training I received was almost entirely based in live consultations and discussions thereof. I think more time for reflective discussion would have been useful".

There was a sense from one participant that perhaps formalised consultation skills training was not necessary and the more informal means of observing skills of others was more valuable to enhancing consultation skills.

> "As a student, we never had specific consultation skills training in any formalised or planned sense. We learnt by observation, seeing different practitioners at work and seeing and consulting with lots and lots of patients and staff. Then having criticism and feedback in a much more informal manner from clinicians we were working with on a longer term basis, with attachments of up to 3 months. This proved an excellent means of enhancing communication and communication skills. I personally would not change this model".

Overall, the experienced clinicians saw the value in observed practice of consultation skills, whether that was observing skilled clinicians or being observed by others. They advocated for the observer to offer constructive feedback that could be implemented for future learning. In addition, the value of that feedback being provided by real patients and senior clinicians was emphasised by the participants.

The challenge of translation, integration and the position of consultation skills

Another dominant theme that was elicited from the comments made by the participants related to the chasms that exist between consultation skills training and practice. The gap between the classroom/assessment situation and the clinical context was recognised here as well as the issue of the separation and/or integration of clinical skills and consultation skills, which included hints of the hierarchical battle that exists between good clinical reasoning and effective consultation skills.

There were some comments that questioned whether the teaching and assessment of consultation skills were relevant and applicable to subsequent practice in the real clinical setting.

> "I am not convinced that classroom teaching translated to clinical practice in this area".
>
> "...How can we provide a useful connection between learning consultation skills properly and the OSCE system?".
>
> "Students in practice are often much better than in OSCEs when they suspect the 'patient' is an actor".

Although one participant had the view that the framework offered during consultation skills training was useful if applied appropriately in the clinical setting.

> "Consultation skills are like a tool kit. You do not need to use every tool in every consultation but, it is really helpful to be able to reach for the correct tool when needed".

It was suggested by one of the participants that teaching consultation skills in isolation of clinical skills was not useful.

> "I agree consultation skills are important but I think too much time is devoted to the process of this and it has become divorced and separate from the actual business of doing medicine and looking after patients. The students see it as a means to itself and the answer is 'good' consultations skills, yet it is impossible to have excellent consultant skills in isolation from clinical knowledge and reasoning-without these it is impossible to know what to ask or what to say or actually what to do".

In contrast, another participant suggested that clinicians might need to learn more about how to view patients more humanely as opposed to viewing them from the 'disease' perspective.

> "How to deal with people as people and not conditions".

The other chasm that was commented on was the idea that consultations skills did not replace the need for effective clinical skills and knowledge, which were required to make accurate diagnosis.

> "There is no point in knowing when to nod or smile encouragingly etc without being able to make a diagnosis or manage the patient".

Another participant was in agreement with the notion that consultation skills were of little use without sound clinical knowledge. However, this participant took this argument further by suggesting that since the training of such skills was introduced fewer patients were seen and they went as far as to say that a sick patient might prefer a doctor with good clinical knowledge, regardless of the level of their consultation skills.

> "Someone has to do the work and see patients, with the advent of these training courses and teaching our productivity has gone down. I think the educators have lost sight of the fact that there is more than 1 right way of communicating, patients vote with their feet. If I were ill I would want to be seen by someone with good clinical skills based knowledge of medical facts and clinical evidence, not someone who's claim to fame was 'I teach communication skills' or 'I'm a good communicator'. I don't care what the bedside manner is like so long as I knew he/she was an excellent doctor".

The above themes were those that were found to be particularly relevant to the free-text data from Study 3.

However, analysis revealed that some of the comments fitted with the themes that were described earlier as part of Study 2 (Section 5.11.4, page 166). For example, clinicians reported aspects about the context within which consultation skills were taught and learnt.

> "More consultation skills should be taught and observed in their own clinical context and not as separate events".

> "...as it means less wasting of time especially as most working environments are so busy".

There was also some reference to the doctors' personality having an effect on the learning and practicing of consultation skills.

> "I think the main issue is innate ability to communicate, which needs to be a priority in the selection process for medical school...I think poor communicators may get some useful fundamentals from teaching, but for the majority it is of little value".

> "Be a good human being, it will automatically improve your skills. You do not have to mask what you are not".

6.11 Discussion

Study 3 aimed to investigate experienced clinicians' perspectives on consultation skills training and practice. It was the intention to use the findings from Study 1 and the qualitative enquiry and findings of Study 2 to develop a quantitative questionnaire that was suitable to use online with a sample of qualified clinicians. The new questionnaire covered the most relevant themes that were discovered during the previous studies in order to obtain a more rounded view of the issues under investigation. The questionnaire was sent via a gatekeeper to all recognised clinical teachers that were on the Norwich Medical School's database.

Results from this study offered the clinicians' perspective on their experience of consultation skills training, aspects that impacted upon that training and how it might be improved. Additionally, the results shed some light on the factors that influenced qualified clinicians' use of effective consultation skills in their everyday practice, including a focus on self-efficacy and what influenced the levels of self-efficacy for these clinicians.

When clinicians were asked to report on the most influential factors underlying an effective consultation with their patient, they revealed that time available and their own personality were the most salient factors. These are not surprising results given the working environment within which the majority of these clinicians worked. Most worked as consultants in secondary care settings which are very busy environments and can have an effect upon consultation skills. For example, Williams et al. (2001) found that consultations in the hospital settings were often more doctor-centred due to the time constraints on Pre-Registration House Officers.

Perhaps the more surprising result was that their own personality was chosen as the second most influential factor in the clinician's use of effective consultation skills. Given

the discussions in the literature about the many constraints related to the practice environment and patient types, the fact that the respondents cited their own personality more often than other such factors was interesting. However, this finding does corroborate with the traditionally trained sample of clinicians in Watmough et al.'s (2009) study where clinicians perceived that doctors were natural communicators which could be classed as an inherent trait.

The clinicians' responses to the self-efficacy questions were also noteworthy. When asked what were the most important factors that impacted upon their confidence to communicate effectively with their patients, the two most salient responses were knowledge about illness and personality in that order. Clinical knowledge is what provides the content for the doctor-patient consultations. It could be argued that most of the clinicians in this study had studied under the traditional style curricula where the emphasis was on the biomedical sciences and learning factual information.

Alternatively, they were experienced clinicians who would have gained confidence through their clinical experience so it could be the case that by now they were very confident most of the time and probably used to the clinical environment (time available, workload) and most patient types (patient characteristics) and may only be challenged by their knowledge levels regarding different illness types. Kramer et al. (2007) found that doctors' consultation skills were enhanced more by learning and experience in the clinical setting than their knowledge levels and general clinical skills.

The respondent's second most popular choice for affecting their self-efficacy in consultations was personality. One might expect that personality would be cited in a discussion about a very psychological concept such as self-efficacy. For some of the participants 'personal experience' was also an important factor to influence their confidence levels, this factor was added by respondents who chose the 'other 'option (rather than choosing one that was available). Given the mature age and length of clinical experience of the majority of the participants it was hardly surprising that they cited elements of that in response to questions about their confidence levels. Variables such as age and prior education have been found to have a positive impact on self-efficacy levels in perceived consultation skills competence (Hecimovich and Volet, 2012).

According to the results for Study 3, the consultations skills of most clinicians were very consistent and did not fluctuate when they worked in different clinical environments or when they saw different types of patients. However, when asked about whether their professional communication skills were in line with their general communication skills

there was evidence of more incongruence. Almost a quarter of respondents reported that their professional skills were sometimes or not at all representative of their general communication skills. This finding might offer some support to Aspegren et al.'s (2005) idea of the difference between general and specific (professional) social skills.

However, this interpretation has to be viewed with caution. Whilst there is evidence here of some incongruence in the level of communication skills between doctors in the workplace and outside of the workplace, there is no way of knowing the nature of that difference. That is, it is not clear from the results within which environment the consultation skills are regarded as most effective.

The clinicians offered their opinion on recent GMC recommendations for consultation skills training at undergraduate and postgraduate level. These questions were included in response to the discussion in the literature about 'role models' and the 'hidden curriculum' and their effect upon those learning in the clinical environment. (Silverman, 2009) suggested that they were not always conducive to the use of the consultation skills that are taught in medical schools and often de-valued the training that junior doctors have received. They were designed to explore the views of those clinicians who might be acting as role models for Foundation doctors as to the importance of consultation skills training. Most of the sample agreed that the GMC were correct in their recommendations. Coupled with the high percentage of respondents who claimed that they would have liked to have received some consultation skills training this suggests that consultation skills and the training associated with them is valued by more experienced professionals in the workplace; which is in contention with the aforementioned literature.

Moreover, when the respondents in this study were asked to offer free-text comments of the current level of Foundation doctors consultation skills, over half of the respondents were very positive about the existing consultation skills levels and rated them as good, very good or excellent with only a minority of comments that suggested that consultation levels were adequate or poor.

The thematic analysis of the free-text comments revealed two themes: *learning consultation skills through observation and feedback* and *the challenge of translation, integration and the position of consultation skills*. The first theme related to the way in which the experienced clinicians valued the act of observing others in practice as an effective means of learning consultation skills. They advocated that constructive feedback from patients, peers and colleagues was also instrumental in the development of junior doctors' skills when communicating with patients. There was

much evidence in the literature to support this both in the training and practice environments. Clinical placements during medical school are a forum for observation. Simulated consultations that form part of most consultation skills training for medical students includes maximum opportunity for both observing the skills of others and the giving and receiving of feedback designed to assist with learning. Whilst most of the clinicians in Study 3 will not have experienced such training, their traditional experience of medical training was likely to be very much based on observing their seniors, practising skills and then receiving feedback, albeit in a more informal manner than what is done today. This was confirmed in the interview study by Watmough et al. (2009) who explored the views of graduates that had followed a more traditional curriculum at medical school.

The second theme: *the challenge of translation, integration and the position of consultation skills* was interpreted as one that represented the difficulty of transferring that which has been learnt at medical school in the classroom to the clinical workplace. Clinicians described how the two environments were very different which made the integration of them as learning environments challenging for both educators and students alike. Whilst, consultation skills training and the observed level of Foundation doctors' skills were viewed positively by the Study 3 participants, there was some contention in a minority of comments regarding the fact that perhaps, for some, the position of consultation skills in the medical training hierarchy was too high. There was a feeling from some participants that it should never be deemed as more important than good clinical knowledge and medical reasoning skills. Silverman (2009) captured these notions in his discussion about raising the levels of integration between that which was taught formally at medical school and informally in the clinical setting and alluded to the fact that consultation skills training might be viewed as a 'minority sport' by the more traditionally trained clinicians.

Strengths and limitations

A strength of Study 3 was the nature of the electronic delivery and collection of the questionnaires which was both time and resource efficient. The questionnaire was developed using both the interview schedule and the data from Study 2 which was successful in ensuring that themes were relevant. This was illustrated by the fact that there were very small numbers of clinicians selecting the 'other' option for the questions which asked about the factors that impacted upon the use of effective consultation skills and the self-efficacy, indicating that the answer choices offered did manage to capture the most salient factors that influenced the practice of effective consultations. However, in retrospect, the impact of 'personal experience' upon self-

efficacy is discussed in the literature and could have been incorporated as an option to this question.

The final sample recruited for Study 3 was useful in the exploration of those who would inevitably serve as 'role-models' and part of the previously discussed 'hidden curriculum' for Foundation doctors. Positively, the sample contained both primary and secondary care clinicians, an equal number of males and females, and respondents who had graduated from a variety of medical schools.

However, response rate was low in this study which was somewhat surprising given that the questionnaire was presented within an e-mail to be completed online. The e-mails were mostly sent to clinicians' work addresses and the survey was designed to only take around 10 minutes to complete. However, one explanation for this might be that the questionnaires and reminders were sent during the months of July, August and September when many clinicians may have been taking their annual leave.

It must be noted that only thirty-nine per cent of the sample reported having had any consultation skills training, so they were the only respondents who were able to answer the specific questions concerned with their training. This was not surprising given that two-thirds of the clinicians questioned qualified as health professionals before 1991 which was prior to the start of the medical education reforms. However, over three-quarters of those who had not received any training reported that they would have liked to have had some.

There were other limitations concerned with the sample. Respondents were mainly over 47 years of age, were qualified in the UK, had English as their first language and worked in the secondary care setting. The NHS contains a fair number of doctors who qualified overseas and their experiences may not be adequately reflected in this sample due to the low number of those who had qualified overseas. In addition, given that the majority of the respondents in Study 3 had qualified some years back, this will have undoubtedly have affected their recall of any training experiences and of being a trainee doctor. Also, one has to keep in mind that those who completed the online questionnaire may have been either those who can communicate well or had a strong view on the subject, one way or the other.

Another limitation of Study 3 might have been the lack of data analysis. The Study 3 questionnaire was not designed to capture the clinicians self-perceived level of consultation skills, so the exploration of the association of age and gender with those skills was not intended or possible. However, it might have been useful to perhaps explore the effects of such variables on the responses that were given to some of the

other questions, for example, what impacted upon their use of effective communication skills, their confidence in doing so and also their opinions about the GMC recommendations for consultation skills training.

Further Research

Further research should explore how experienced clinicians value the training and practice of consultation skills as more of those who have followed the reformed curricula progress through the system to consultant level. More qualitative research with such doctors might reveal a deeper understanding of what elements of the doctors' personality and the clinical environment affect self-efficacy levels in consultation skill performance. Information about the mechanisms that interplay to foster the use of effective consultation skills as clinicians gain more experience are vital to ensure that future doctors can learn and progress within a supportive and facilitative environment. Another suggestion might be to explore the perceptions of experienced clinicians on their role as being part of the hidden curriculum for more junior doctors and how they see or do not see themselves as suitable 'role models'.

Chapter 7: Project-wide Discussion

7.1 Introduction

The findings of the literature review showed that Foundation doctors were underrepresented in the literature on consultation skills training and practice. Moreover, the reforms in medical education at both the undergraduate and postgraduate level, and the inclusion of consultation skills training were relatively recent events. This meant that evaluation research of the experiences of Foundation doctors' consultation skills training and use in practice was in its infancy at the time this project was started.

This project encompassed three interlinked studies, Studies 1, 2 and 3. Study-specific discussions have been included within each of their individual chapters (see Chapters 4, 5 and 6); the aim of this chapter is to offer a project-wide discussion. The overarching aims of the project will first be summarised as well as the methods chosen to achieve those aims. A discussion of the overall findings will follow with reference to links across Studies 1, 2 and 3, the original research questions and the literature. Strengths and limitations of the project methods will be presented where appropriate. Finally, the conclusions drawn from the entire project will be summarized and related to their implications for practice and suggestions for further research will be presented.

7.2 Summary of Aims of the Project

The overarching research questions were:

- Are junior doctors using effective consultation skills with their patients in the clinical setting and what do their patients think?
- How confident are junior doctors in their ability to perform effective consultations?
- What factors influence the teaching, learning and subsequent practice of consultation skills for junior doctors and other clinicians?

Three interlinked studies were conducted to address the research questions. A parallel questionnaire study including a self-efficacy measure was conducted with Foundation doctors and their patients (Study 1), followed by an interview study with Foundation doctors (Study 2) and finally an online questionnaire study was developed and sent to a sample of experienced clinicians (Study 3).

The three studies aimed to address the research questions by exploring a set of specific aims:

- According to themselves and their patients, are Foundation doctors using consultation skills in an efficient and effective way in the hospital setting? (Study 1)
- How do Foundation doctors rate their self-efficacy both before and after consultations with their patients? (Study 1)
- What factors influence the training and practice of Foundation doctors' consultation skills? (Study 2)
- What are the wider perspectives of qualified clinicians about consultation skills training and practice? (Study 3)

7.3 Summary of Project-wide Methodology

7.3.1 The exploratory approach

The exploratory nature of this project might be deemed as less robust than the more scientific enquiry related to randomized control trials, for instance. Given the limited time, budget and sample of participants, a pragmatic approach was taken to collecting data. This approach could only employ exploratory methods to try to answer the research questions. For example, random sampling would not have been possible. However, the value of exploratory methods should not be underestimated. Within the education literature and more specifically medical education, there has been a call for more evolving or synthesis of methods to investigate areas that are challenging and not suited to the more stringent methods (Lynch et al, 2000).

7.3.2 Mixed-methods

The use of mixed-methods as the overall methodology for this project had both advantages and disadvantages that have been discussed in Chapter 3. Additionally, there were limitations and strengths to the specific methods implemented in each of the three studies, as have been discussed in the associated chapters (4, 5 and 6). This mixed-methods approach had not been used to investigate consultation skills training and practice in the past, so it is has not been critically tested or reviewed by others. This made comparisons across similar studies difficult, which might bring the reliability and validity of the methodology into question. However, the instruments used in Study 1 had been psychometrically tested by the authors Campbell et al. (2007) which might

provide support for the validity of the results reported for this part of the mixed-methods approach. But, the results and conclusions of this project will still need to be viewed with caution in light of both the methodological limitations and the intended exploratory nature.

The use of a mixed-methods approach in this project was successful as a design used to explore the consultation skills training of Foundation and experienced clinicians and how this was perceived by patients. The approach did offer some mediation of the weaknesses associated with purely quantitative or qualitative methods in the exploration of a complex, social phenomena such as consultation skills. The questionnaire part of the study, the confidence scales and the subsequent analysis of the results provided a general understanding of how the Foundation doctors evaluated their consultation skills performance and their perceived self-efficacy in doing so (Study 1) as well as eliciting their patient's perceptions. Then, the qualitative stage of the study (Study 2), along with the analysis of the resulting data, was a means of delving in greater depth into the quantitative results by exploring the Foundation doctor participants' experience of training and practice. Finally, the interview schedule and findings from Study 2 informed the quantitative questionnaire developed for Study 3 in order to investigate perceptions of other, more experienced clinicians to provide a wider perspective on the training and practice issues identified in the previous two studies.

7.3.3 Alternative methods

The use of alternative designs might have also been successful in this project. For example, a purely qualitative project might have been more effective in capturing the qualitative nature of the doctor-patient interactions. Especially given that those interactions took place and were heavily influenced by the context within which they took place that took place. The unique nature of the hospital setting and its impact upon Foundation doctors' consultation skills might have been more effectively explored by the use of non-participant observation methods where the constant presence of the researcher would have enabled a different perspective to be recorded and may have produced some interesting data which could have been followed up by unstructured interviews with a range of participants, including Foundation doctors, their patients and other clinical staff.

Although not the original plan, the researcher was forced to be present by the difficulty of recruitment. Being in the vicinity when the consultations took place between Foundation doctors and their patients would have allowed for data to be recorded by

the researcher using observational methods, assuming ethical permission were granted to allow the researcher to be present in the same room as the consultation was taking place. That said, the presence of a third party/observer may have had an impact on the dynamics of the doctor-patient consultation and therefore the data collected. It could have also led to more patient refusals to participate in the study if they wanted to be alone with their doctor.

In light of the Foundation doctors' workload, following them during their clinical work around hospitals and different wards with the aim to observe live consultations may have been even more challenging, both logistically and in terms of gaining consent. To conduct this type of study would have required a completely different study design from the outset.

The use of observational methods might have eliminated some of the logistical problems of Study 1, in terms of reducing the burden for doctors to carry questionnaire, etc. However, it would not have been as effective in answering the research questions posed in Study 1. The main objective of Study 1 was for Foundation doctors' use of effective consultation skills to be both self-assessed and patient-assessed following a shared consultation experience and not to explore when and how the skills were used.

7.4 Project-wide Findings

7.4.1 The learning experience

Study 1 and 2 of this project elicited the perspectives of newly-qualified doctors who had recently received consultation skills training. The learners' perspective is paramount in the development, delivery and evaluation of new curricula teaching practices. The Foundation doctors were specifically asked about their experiences of consultation skills training during Study 2 and the findings offered valuable insights on simulated learning, including their thoughts on role-playing, peer-feedback and tutors. Many of the issues raised by the Foundation doctors, such as the anxiety felt when performing and being evaluated by their peers and the impact of the quality of facilitators were also raised by Malhotra et al. (2009) and the medical students in Nilsen and Baerheim's (2005) study.

Other salient themes discovered were concerned with how personality, the learning and practice contexts and patient variables all and the impacted upon the Foundation doctors use of effective consultation skills, Additional discussions were about their step-by-step learning of skills.. Much of these influencing factors were shared by Study

3 participants who also recognised that innate abilities and the clinical context were important considerations.

Participants in Study 2 had had varying experiences of medical school and therefore consultation skills training. However, the commonalities across their experiential learning of consultation skills were such that it allowed for the exploration across the participants and to compare and contrast their ideas. Similarly, not all participants in Study 3 had experienced consultation skills training. However, those who had received training were able to offer further insights into what they perceived to impact upon the effectiveness of that training and there was some consistency with the findings of Study 2. For example, the content of the training session and the tutors were chosen as the most influential factors on the effectiveness of consultation skills training by the experienced clinicians.

In Study 2, the majority of the participants felt that the tutor who ran the consultation skills sessions was very influential in the way in which that session went and how effective it was for the students' learning. Participants did talk about the 'content' too; but the content seemed less important than experiences with the tutors for these participants. They expressed the view that the content of the sessions needed to be relevant to their level of knowledge and to the rest of the course in order to be effective,

In contrast, Study 3 participants reported that the 'content' of their consultation skills training had the most impact upon whether that training was effective than any other factor. It could be that these more experienced clinicians had had less experience of consultation skills and tutors. Whilst some had received training, the amount of that training was sometimes small, a notion that was expressed by respondents in the space provided for elaboration. Therefore their experience of varying tutors might have been minimal. Alternatively, it could be that the experienced clinicians could no longer recall the influence of tutors in providing effective teaching. The Foundation doctors in Study 2 would have had more recent, extensive training, with a variety of tutors which would provide them differential experiences of tutors that they could easily recall.

One of the key themes drawn from Study 2 was that of the Foundation doctors experiencing their consultation skills training as a step-by-step learning process where foundations were laid and skills were built gradually. Further evidence of this was offered by the data in Study 1 where the Foundation doctors who were further on in their first year of postgraduate training reported higher levels of self-efficacy and scored higher on their self-assessment of consultation skills, and they also scored the highest on the patient assessments. Free-text comments received from clinicians in Study 3

also offered evidence that they too perceived their learning of consultation skills to be a continual and ongoing process.

These project-wide findings suggested that consultation skills learning is incremental, in that once basic skills are learned they provide the building blocks for future learning, which in turn produces better performance over time. Teunissen et al. (2007) suggested that the way in which doctors used their knowledge was a 'gradual' and 'continuous' process of change and consolidation

There was a sense from participants across the three studies that this learning does not stop with the end of undergraduate medical training and is, and should be, on-going throughout their career. Most clinicians in Study 3 who had not experienced consultation skills training reported that they would have liked to have had some, providing further evidence as to the perceived usefulness of such training for experienced clinicians to use in clinical practice.

7.4.2 The experience in clinical practice

In the investigation on the practice of consultation skills (Study 1) there was clear evidence in the results that Foundation doctors were confident in using effective consultation skills with their patients and they self-assessed their own skills highly. The use of effective skills was also evidenced in the results of the patient assessments provided by patients who had experienced consultations with the participating Foundation doctors. This is both encouraging and positive given the increase in the provision of consultation skills training at both undergraduate and postgraduate level of medical education. All of the Foundation doctors in Study 1 had received consultation skills training under reformed undergraduate medical curricula, albeit from different medical schools. These results could add to the existing evidence that consultation skills training can lead to perceived competence in performing effective consultations (Yeddidia et al., 2003; Mohammed, 2006, Beard et al., 2009). Although, the high patient ratings achieved by Foundation doctors' need to be viewed with some caution; patient evaluations of clinicians' consultation skills were often found to be high and perhaps positively biased (Reinders et al., 2011; Campbell et al., 2007).

During Study 2, participants offered valuable insights into when and how they used their consultation skills training in the clinical setting during their early careers. The interviewees were reflective and explicit in their recall of situations when they may or may not have used their consultation skills in their early days of practice. The most salient contextual influences included the clinical environment, time, patient, illness type, previous experience and clinical knowledge. Many of these factors, and in

particular those concerned with the clinical environment including time and the attitudes of senior colleagues, were echoed in the literature (Williams et al., 2001).

A theme was developed from the analysis of the Study 2 interviews which encompassed the effects of the 'context' upon the practice of consultation skills. It postulated that a specific context can be experienced differently by individuals and could be mediated by the characteristics of an individual including personality and self-efficacy. Foundation doctors reported varying views of both the clinical environment and their experience of it. In the small sample of Foundation doctors who offered interviews in Study 2 their perspectives of a specific unit situated in the same hospital were variable and sometimes opposing.

It is interesting to note that the opposing views of the same environment appeared to be driven by the Foundation doctors' perception of their 'role' within that environment and their related responsibilities. The findings here suggest that the clarity of 'role' and the responsibilities that are attached to that role are a key factor that can then contribute to the doctor's perceived efficacy in conducting effective consultations with their patients. The perceived inadequacy of handovers and a lack of clarity of 'role' and responsibilities were discussed by Foundation doctors' in Study 2 and have been discussed elsewhere in the literature (Brennan et al., 2010; Hauer et al., 2012; Leinster et al., 2012).

These findings from Study 2 in relation to the clinical context might need to be considered when interpreting the findings of Study 1 (the consultation skills questionnaires).The questionnaires were completed by Foundation doctors in the clinical setting so would have been affected by the context within which the data was taken. The same environment was not perceived the same by all of Study 2 participants and therefore would have been experienced differentially by those recruited for Study 1. Differences in their perception of time available, their job roles and responsibilities that were found to affect confidence levels of Study 2 doctors when communicating with their patients were bound to exist for those who took part in Study 1 . These complex interplays of characteristics about the Foundation doctors and their environment suggest that there may have been many confounding variables that would have affected the way in which the Foundation doctors assessed their consultation skills and confidence as part of Study 1. Other authors have suggested the existence of a large number of variables that impact upon the doctor-patient interaction. For example, Roter and Hall (2002) identified more than 150 different communication variables when exploring the doctor-patient consultations.

The value and effectiveness of an integrated, experiential consultation skills training curriculum on the acquisition and maintenance of effective consultation skills has been discussed in the literature (Silverman, 2009; Papageorgiou et al., 2011; Van Dalen et al., 2002). In Study 2, all participants reported that they were taught consultation skills by the use of longitudinal, experiential training methods.

In a review of theoretical physician communication skills training research, Cegala et al. (2002) advocated the use of a structured framework that pays attention to stages and functions of the consultation as being the most robust way of teaching, learning and subsequently evaluating the effectiveness of any consultation skills intervention. All except 1 of the participants in Study 2 specified that they were taught by use of the Calgary/Cambridge model (Kurtz et al., 2005) which is such an approach. All interviewees in Study 2 expressed the usefulness of their training and referred to an assimilation of skills and behavior that they used with their patients in their clinical practice. Participants continually used the exact terminology taken from the Calgary/ Cambridge model when talking about their practice of consultation skills with patients in the clinical setting. They also offered very specific circumstances of when they consciously drew on their training as well as citing related behaviours that they engaged in during performing consultation skills with their patients. The majority of the participants talked about unconsciously using that which had been ‘drummed’ into them during consultation skills sessions at university. They felt that some behaviours had become second nature by the time that they had left medical school and were consulting with patients in the clinical setting. This could add further evidence to Maguire and Pitceathly’s (2002) findings that experiential learning in consultation skills training leads to effective learning and recall for those who receive such training. An alternative definition of the automatic use of skills might be ‘routinised’, as described by Eraut and Hirsh, 2007.

This evidence might also suggest that experiential learning by the use of a specific model assisted in enabling Foundation doctors to successfully transfer the skills and knowledge that they were taught at medical school into their practice with real patients in the clinical setting. Issues regarding the transfer of consultation skills from the classroom to the clinical setting and the differences between the two settings were discussed both by participants of Study 2 and have been highlighted in the literature (Williams et al., 2001).

Considering that the Foundation doctors were early career clinicians and over half of the clinicians in Study 3 had been qualified for over 20 years, there were many commonalities in their responses. This might offer some evidence that there are

particular common factors that influence clinicians' training, practice of and confidence in communicating with their patients. The shared views of the study participants may suggest that common factors such as age, personality traits, time available for a consultation, clinical knowledge and previous experience play a central role in the training and effective use of consultation skills in clinical practice. Factors such as these seemed pertinent for clinicians, regardless of access to and experience of consultation skills training.

7.4.3 The differences between training and practice

There was a debate in the literature about the disparity between the consultation skills that are taught in the classroom at medical school and how that relates to or is translated into what is subsequently practiced in the clinical setting (Brown, 2012; Silverman, 2009; Malhotra et al., 2009; Lienard et al., 2010). These chasms can be described as; theory versus practical, classroom versus real life, or simulated versus real life and were all echoed by the Foundation doctors in Study 2 and also by the more experienced clinicians in Study 3.

In Study 2, even though they had not been asked directly about the differences between consultations conducted in the classroom and in the clinical setting, participants repeatedly described how the consultations that they practiced in their training sessions and in the Objective Structured Clinical Examination (OSCE) assessments were very different to those that they conducted in real doctor-patient consultations. Some Foundation doctors criticized their consultation skills training and their tutors for being too inflexible and using rigid tick-box teaching in their teaching methods. Others cited differences in both the structure of the consultations as well as their own behaviours during the consultations between the classroom and clinical practice. As previously discussed, elements of the classroom and clinical context were cited as influential upon the performance of effective consultations. Participants expressed that during training the fact that they were being observed by tutors and peers affected their performance and in real consultations there were issues of time, colleagues' attitudes and their workload that had an impact on their performance. Silverman (2009: p365) recognised the challenge of practising effective consultations skills 'in the climate they find themselves in as students and junior doctors'.

The clinicians in Study 3 also identified some gaps in consultation skills training that were related to marrying the learning of consultation skills with real clinical consultations. They advocated the need for more real patient experience, observation and feedback as valuable tools for learning and some questioned the usefulness of

classroom teaching of consultation skills. They promoted the observation of good role models and more training in taking a history from 'unselected' patients, that is patients that had not been explicitly asked to see a junior doctor to assist in their training. All of these have been called for in the literature by both the learners (Malhotra et al., 2009), teachers (Silverman, 2009; Kelly, 2007) and researchers (Lempp, 2005; Reinders et al., 2011) of consultation skills training.

It might be the case that earlier exposure of consultation skills training within the clinical context with real patients would enhance skills acquisition and assist in mediating the teaching-practice gap. In turn this could go some way to reducing transitional challenges for junior doctors as they progress from student to doctor.

The assimilation of specific skills, taught experientially, by the use of a structured model is the objective of most consultation skills curricula. Kurtz et al. (2005) recognised that communication skills comprise of a number of competencies that clinicians need to master in order to communicate effectively with their patients. Broadly these are described as content (what is said), process (how it is said) and perceptual (insight and understanding of the doctor-patient relationship) skills (Kurtz et al., 2005). This is a view shared by Kramer et al. (2004) who suggested that communication skills are built from acquiring knowledge skills and attitude components through training and/or experience (Kramer et al., 2004). As previously discussed, he evidence found in this project goes some way to supporting the success of such learning.

However, there might be an opposing view emerging, about whether such teaching methods are detrimental to the individuality and uniqueness of doctor-patient consultation skills? Hastings et al. (2006) reported that new teaching strategies had been introduced to counteract the 'formulaic enquiry' of the patients' perspective during consultations and Silverman (2007) recognized that some learners are observed as

> "doing communication skills, by the book, with all the correct tools but without any apparent depth or soul" (Silverman 2007: p88).

This project may have found some evidence of this when Foundation doctors expressed that their skills were practiced unconsciously and had become second nature. Added to their view that teaching and OSCEs were too linear and tick-box style, might it be the case that for some, this might result in consultations that are too methodical and structured.

Clinicians in Study 3 reported working with junior doctors who had learned their skills via such methods and described their practice as being 'robotic' and them becoming 'clones' and warned against training methods that were potentially too structured and stringent. If it is the case that some consultation skills training can produce robotic, clone type behaviours then does that not defeat the object of patient-centred consultations where there is a sense of an individual approach adapted to the uniqueness of the patient that the doctor is faced with at any one time? The saving grace might be that Foundation doctors recognised this and expressed that the only time that their consultations with patients resembled the structured, tick- box style that they perceived they were taught, was in the classroom and during assessments. This was evidence that Foundation doctors were fully aware that real life consultations are starkly different to the ones they have practiced in both the classroom and during OSCEs. This might be something that needs to be explicit in consultation skills training and perhaps addressed further in assessment procedures.

It might be the case that some students lack in innate consultation skills, and it is those who might adopt more of the structure and tick-box style into their own learning and develop ritualistic ways of consulting with their patients. Likewise, might it be the case that those less skilled are the ones who find it more challenging to adapt and modify their consultation behaviours during real doctor-patient consultations in their clinical practice? Or is the transfer of skills from medical school to clinical practice more related to that which the doctors have naturally in terms of personality and self-efficacy? Is it the case that clinicians who are skilled communicators then identify and successfully mediate the differences between classroom and clinical practice by taking the skills learnt during training, developing their own style, with a flexibility that's needed for different contexts? All of these issues could usefully benefit from further exploration using different methodologies. A suggestion might be the use of observation. Real doctor-patient consultations could be observed and/or video recorded with a view to capturing the process elements of the consultations aforementioned.

Kurtz et al. (2005) recognised that consultation skills learning and teaching should not be a case of mastering a list of skills. They promoted the development of insight and attitudes during training. Despite this, the Calgary/Cambridge and other such methods have been criticized for being too concerned with the separate elements/skills of effective communication and failing to teach/assess the more global competencies involved in the doctor-patient interaction.

In light of the data from Studies 2 and 3, it would seem that Skelton (2005) made a valuable point when he suggested that consultation skills are more of an art than a science and perhaps should be taught and assessed that way. The references to 'tick-boxy' teaching and assessment by the participants in Study 2, as well as the suggestions in Study 3 that students can be over-trained in consultation skills leading to robotic behaviour, offered some evidence that perhaps such skills might be better taught by exploring a more attitudinal approach where more global competences are mastered and assessed. This notion of consultation skills being more of a global set of skills would also be consistent with Eraut and Hirsh's (2007) concept of holistic learning as opposed to atomistic learning**.**

7.4.4 Factors that impact upon training and practice of consultation skills

The clinical environment

The thematic analysis of Study 2 and 3 revealed that both Foundation doctors and more experienced clinicians were aware of the importance of considering the impact of the clinical context upon doctor-patient consultations. They recognised that consultation skills training and performance was affected by the environment within which they worked which suggests that whilst aspects of the clinic workplace might be less influential for those who have had more exposure to it, it remains to be a unique environment within which to learn and work. Smith et al. (2011) suggested that an individual must be influenced by the environment in which they find themselves. They concluded that ultimately it is the environmental factors that will determine success in achieving excellence.

It might be argued that the workplace offers a more conducive environment than the classroom within which to build excellence in skills such as consultation skills. Study 1 results showed that those doctors who were in the third rotation (between 8 and 12 months) of their Foundation training rated themselves and were rated by patients higher than those in earlier rotations on the consultation skills questionnaire. Also doctors who fell into the more mature age range (41-60) rated themselves higher. The step by step building of skills consistently described by the Foundation doctors in Study 2 and their appreciation of continual process of gaining experience and knowledge fits with the notion that Foundation doctors who are further on in their training and more mature rate their own consultation skills higher. Eraut and Hirsh (2007) suggested that workplace learning is effective in building 'cultural knowledge' which is acquired informally through taking part in work based activities. They use a useful continuum

from ‘competent’ to ‘proficient’ which might also describe the continual learning process that participants experience from student to junior doctor and beyond.

Clinical communication teaching within hospital and primary care settings when undergraduate medical students are in their placements or when they perform their clinical examinations and procedures would facilitate a more “natural” approach to learning these skills and changing attitudes. This would require though healthcare professionals in these settings to be trained with these skills and the evidence behind their use and most importantly it requires these healthcare professionals to be able to demonstrate these skills in action. It also requires role-models demonstrating these skills during graduate medical education and beyond. Some attempts have been made in the last ten years to evaluate these skills in senior healthcare professionals and to make the training in clinical communication part of continuous professional development. However, to make research part of this culture is a step still too far in this field and both the qualitative and quantitative data has shown this.

Doctors’ personality

Watmough et al. (2006b) found that doctors viewed their communication skills as something inherent and the results from Studies 2 and 3 provided evidence that the Foundation doctors and more senior clinicians perceived that their ‘personality’ impacted upon both the effectiveness of consultations with patients and the confidence with which consultation skills were used. Interestingly, Foundation doctors believed that ‘personality’ traits were more influential upon their use of effective consultation skills than they were on their levels of confidence. Foundation doctors suggested that their inherent personal characteristics such as their honesty, natural attitudes, outgoingness and general social skills played an important role in their learning and practice of effective consultation skills. These findings were useful leads for further exploration with experienced clinicians in Study 3, where results revealed that for experienced clinicians ‘personality’ was the second most influential factor in both how clinicians used effective consultation skills and the level of self-efficacy that they felt in using effective skills.

Both Foundation doctors and more experienced clinicians cited their own ‘clinical knowledge’ as the most influential factor on how confident they felt in conducting an effective consultation. The General Medical Council advocate that doctors are reflective in their practice as clinicians and recommend honesty, trustworthiness and an ability to recognise the limits of their own professional knowledge and competence (GMC, 2009). It could be argued that doctors who are self-aware might hone these skills more

successfully as they reflect on and learn from their practice However, it also adds weight to the promotion of self-directed learning and the acceptance of clinicians that they cannot know everything and so need to be pro-active in preparing themselves prior to consultations and/or having the confidence to communicate to their patients that which they do not know.

Doctors' self-efficacy

As discussed throughout this project, self-efficacy was determined to be a relevant variable in the discussion on learning new skills (Gist and Mitchell, 1992) and more specifically on building competence in consultation skills (Gulbrandsen et al., 2009). For this reason, self-efficacy was measured in real-time experience during Study 1 with Foundation doctors, discussed retrospectively with Foundation doctors as part of Study 2 and clinicians responded to questions about their self-efficacy as part of the questionnaire in Study 3.

Foundation doctors' self-efficacy was found to be generally high both before and after patient consultations and usually higher following a consultation in comparison to prior to the consultation. This offered evidence that the Foundation doctors felt confident in their ability to use effective consultation skills during their impending consultations with new patients. Whilst not measured directly, this might suggest that their consultation skills training had been instrumental in their perceptions of confidence. Other researchers have claimed that improving levels of communication skills is related to rising levels of self-efficacy (Watmough et al., 2006a; Ammentorp et al., 2007).

In Study 1, Foundation doctors' confidence levels were related to higher performance ratings on the self-assessment measure. Findings also showed that gender, age and training rotation had a significant impact upon the Foundation doctors' measure of self-efficacy. This corroborates with (Hecimovich and Volet, 2012) who found that confidence increased as age increased for their sample of doctors participating in their internship, but they did not find that gender had an impact. However, Kramer et al. (2007) warned that self-assessed confidence may not be good predictor of performance and that over-confidence might lead to non-accurate self-assessments of skill (Kramer et al., 2007).

In Study 2 ,the key factor that was consistently stated as having most impact upon confidence levels during patient consultations was levels of 'clinical knowledge'. This finding suggested that doctors' confidence was affected by their perceived level of clinical knowledge, which in turn had an impact upon their consultation skills performance. This might add weight to the usefulness of the teaching approach

adopted by many consultation skills curricula, where equal focus is afforded to both content and process skills, and is advocated by Kurtz et al. (2005). Although, it has been suggested by Norman (2004), that confidence in knowledge acquisition can be affected by studying under a new curriculum. Given that the Foundation Programme was introduced from 2005, it could be classed as relatively new. Furthermore, other authors have noted that self-efficacy is *not* improved through simulated learning and peer feedback and it might even be reduced through the presence of a physician observing and through the learner's apprehension and fear associated with this type of teaching (Aper et al., 2012).

In summary, experienced clinicians in Study 3 chose similar factors (clinical knowledge and personality) as impacting on their confidence in using effective consultation skills as the Foundation doctors had in Study 1. This evidence might add strength for the existence and prevalence of these influential factors. Doctors' confidence in communication skills has been shown to be improved by prior experience and interactions with clinicians and patients (Hecimovich and Volet, 2012). It would be logical to assume that Study 3 participants had had extensive clinical experience given the fact that a large majority had been qualified for some years. Experience of the clinical environment may have hardened the more experienced doctors (Study 3 participants) to the external factors (clinical context, patient characteristics, illness type and workload) that were found to effect confidence to perform in less experienced junior doctors. There was evidence in Studies 2 and 3 that clinicians perceived their 'clinical knowledge' to be an important influence on how confident they felt in using consultation skills in an effective way.

The perceived 'role' of the doctor and its influence on self-efficacy was an interesting theme and raises the question of whether confidence levels are related to how much someone relies on their 'role' to enhance competence and performance levels? For example, is it those who are less confident naturally as communicators who make use of their 'role' as doctor to elevate their self-efficacy? As well as the discussion of confidence in Study 2, there were some clinicians in the Study 3 sample who reported their confidence levels as only 'moderately' confident. Given the fact that most of these were very mature and experienced clinicians this might be tentative evidence that people who evaluate themselves as less confident naturally will always do so and rely on external influences such as their professional status to address the deficit.

In order to negate the impact of role uncertainty on confidence in performing consultation skills, one suggestion might be to ensure that all trainee doctors have a clear idea about their roles and responsibilities, which are specific to the clinical context

within which they work. This information would have to be provided to trainee doctors when they first start work as a Foundation doctor, and each time they move to a new department, where expectations of the role they are to perform might be different. This might go some way to mediating the varying amounts of ambiguity among doctors about their individual role and responsibilities which have been shown to affect competence (Watmough et al., 2010; Hawken, 2005) and, in this project, consultation skills performance.

It has to be noted that in Study 1 self-efficacy was recorded by the Foundation doctors at the time of the consultations, but the further exploratory questions related to the factors perceived to impact upon on self-efficacy (Study 2 and 3) were answered retrospectively by Foundation doctors and other clinicians. There is no way of knowing whether the participants in Study 2 or Study 3 would have answered differently if they had been questioned about influencing factors immediately after their consultation experience with patients.

Self-efficacy seemed to be effected mainly by the perceived levels of clinical knowledge and characteristics to do with personality traits in this project. If that is the case, then self-efficacy levels might not be directly built through consultation skills training. It seems the amount of perceived clinical knowledge is that which makes clinicians feel confident in subsequently using effective consultation skills. This might add weight to the idea that the content and relevance of consultation skills training is vital. However, it is logical to presume that gaining competence in consultation skills might allow doctors to better mediate any gaps in their knowledge that exist in the early years of medical school and Foundation years when learning of clinical knowledge is still taking place. For example, the doctors' ability to relay the fact that they may not know something to their patients and colleagues is a skill that might need to be enhanced and developed.

A training student is not expected to know everything and having the ability to communicate this to their seniors and patients is a key skill to master and could have an impact on patient safety. Related to this debate is that the amount of basic science needed for medical students in the undergraduate years has not been clarified by GMC guidelines (Leinster, 2003). In order to ensure that the interaction of self-efficacy, clinical knowledge and consultation skills is considered, a suggestion might be to monitor and build self-efficacy in all students by providing them with enough clinical knowledge for their level of study before teaching them complex consultation skills. A key part of this teaching might be to help students to recognize their own limits, in terms of knowledge and skills, and teach them how to communicate this to others. But,

can self-efficacy be taught or is it inherent in the personalities that students bring to medical school? Could it be the case that some students might never be confident as communicators? Do admission procedures need to include a measure of confidence? The evidence presented here suggested that Foundation doctors report having high levels of confidence when communicating with their patients. However, confidence levels do not always reflect actual competence (Caspi et al., 2006).

There were a few comments made by participants in Study 2 and 3 that alluded to the fact that they felt there might be some people who will never be effective communicators regardless of the amount of training that they receive. Are they the ones who are cause for concern with regard to patient complaints? Even if the overwhelming answer is that effective consultation skills can be taught/learned and then subsequently practiced competently, there are still many challenges in deciphering how, what and when to teach, by whom and to whom should they be taught.

Doctors' gender

The impact of doctors' gender on the areas being explored in this project was evidenced in Study 1 where males scored higher than females on both their self-assessment of consultation skills and the self-efficacy measure. This finding was not surprising given that males tend to demonstrate more confidence in their abilities and therefore rate their skills higher than females who tend to underestimate their abilities (Blanch et al., 2008).Many other studies have found gender differences in consultation skills performance (Roter and Hall, 2002; Campbell et al., 2007). For example, females have been found to fair better in a range of communication behaviours than males (Roter et al., 2002).

It should be noted though that the patients' assessments of the doctors' skills in Study 1 did not show any significant differences between males and females. This might suggest that patients experienced the consultations differently to the doctors. Multiple realities of the same doctor-patient consultations have been illustrated by Barry (2002) who explored both the doctor and patients' perspectives qualitatively following a shared consultation.

It was difficult to determine any gender differences in Study 2 due to the small number of participants, in particular the low number of males. Whilst the Study 3 questionnaire did record the clinician's gender, it was not designed to measure consultation skills of the participants so a comparison of the level of skills by gender was not possible.

Doctors' workload

Whilst doctors' workload was not directly addressed as part of this project, it seemed to be quite a prominent theme in the findings. In Study 1, it contributed to recruitment rates and subsequent low numbers of Foundation doctor participants. In Study 2, during the interviews, Foundation doctors discussed how heavy their workloads were which impacted on both their time and emotional capacity. They spoke of specific environments where their patient numbers were high and situations where their mental and physical resources were tested. Stress levels and heavy workloads of junior doctors were also discussed in the literature (Paice et al., 2002b, Forssell, 2007, Leinster et al., 2012) and is a concept that cannot be negated when carrying out research that requires the participation of this type of population and perhaps could have been given more attention in this project.

The value of consultation skills training

In the literature there was evidence of the notion that senior clinicians held a negative view of consultation skills training (Watmough et al., 2006a; Watmough et al., 2006b; Williams and Lau, 2004). Often, it was reported that more senior clinicians viewed these types of skills as less important and sometimes detrimental to clinical knowledge and problem-solving skills. During Study 2, Foundation doctors had discussed that their seniors were not always supportive of their use of effective consultation skills or the way that they had been taught these skills at medical school. They also reported that sometimes more senior colleagues and consultants would not demonstrate appropriate skills and it was the Foundation doctors who might have to intervene to address any deficits with patients. There was also the suggestion that more senior clinicians would complain that consultations took too long when taught skills were used in the clinical setting. Silverman (2009) suggested that appropriate role-models were facilitative in learning consultations skills as well as promoting them as an equally important part of medical education. He discussed the issue of experienced clinicians not receiving or valuing the teaching and practice of consultation skills and suggested that most viewed it as something that is just an aside to the teaching of clinical knowledge at medical school.

Positively, Study 3 provided mostly evidence against that notion. Most of those who had not received any training expressed that they would have liked to have had some. Clinicians in Study 3 were asked about their opinion on recommendations regarding the current provision of consultation skills training and the performance of any current Foundation doctors that they had observed in the practice environment. The majority of

participants agreed with the increased resources afforded to such training by the GMC. Moreover, they were positive about the level of consultation skills that they had observed in clinical practice by Foundation doctors. These positive perspectives of consultation skills training and practice are of great importance. It is hoped that through their value and interest in such skills, they will be better role-models to junior colleagues by demonstrating effective consultation skills. They might also be pro-active in developing their own and others skills in this area and in turn raise the credibility of such training in the clinical environment.

The evidence in this project may indicate the first signs of a cultural shift within clinical practice and in particular secondary care. It is hoped that this change of attitude is bourn from the promotion of consultation skills training by the GMC both in medical schools and postgraduate medical education. Moreover, the improved abilities of students who progress to junior doctors with the benefit of effective consultation skills should promote the validity of such training to more senior colleagues. However, this type of cultural shift will take time to filter through medical education and clinical practice which is characterised by a long history of a traditional training system that over-valued scientific and clinical knowledge. It has to be noted that there was a small minority of Study 3 participants who offered comments that did fit with the ideology that sound clinical knowledge and reasoning supersedes the need for using effective consultation skills.

Patient variables

In Study 1, patient age and gender were explored in relation to their impact upon their assessment of their doctors' consultation skills. Whilst the scores did vary across the age and gender characteristics there was no significant impact upon the patient's or doctor's ratings of doctors' skills. Equally, in Study 1 patient ratings for the consultation skills of their Foundation doctor showed that the doctors' gender, age or training rotation of the doctor did not have a significant impact upon the way that patients rated their doctors' consultation skills.

The age and gender of patients were not found to have any effect on their ratings of Foundation doctors' consultation skills (Study 1). It is difficult to know why this is, given that the literature suggested that age and gender of patients can affect doctor-patient consultations in a number of ways (Little et al., 2001, Bonney et al., 2009). An explanation why these influencing factors did not impact upon the consultations in Study 1 may be the context within which the data was collected; namely, the patient met the doctor once, for specific pre-operative assessment checks and/or the

predominantly older age range of the patients that were sampled. As noted previously, female Foundation doctors showed significantly more change in their perceptions of self-efficacy from before consultation to after, than males. It is unclear whether this was due to characteristics of the female doctors, their patients, an interplay between the two or some other aspect of the interaction. It would be worth exploring further the effects of patients on doctors' self-efficacy generally and any differences between males and females specifically.

Patient preferences, vulnerability (Leckie et al. 2006) attitudes (Bonney et al. 2009) and expectations (Main et al. 2010) of their doctors have been found to affect doctors' confidence and the use of their consultation skills. Study 2 found evidence that many patient variables were influential in the way in which effective consultation skills are practiced in the clinical setting. Patient expectations, perceptions, illness type and attitudes were particularly salient for Foundation doctors both in terms of their self-efficacy and use of effective consultation skills. In contrast, clinicians in Study 3 did not perceive patient factors as salient influences upon their use of effective consultations skills nor their perceived confidence in doing so. The differential findings of patient variables between Foundation doctors in their first year of practice and experienced clinicians could be explained by the amount of patient exposure. Foundation doctors would still be coming up against certain patient and illness types that were new to them and thus would have a stronger impact upon the way that they used their consultation skills with such patients. Whereas, the more experienced clinicians might have encountered many types of patients and dealt with most situations during their years of practice and therefore the impact has been somewhat diminished.

7.5 Sampling Issues

It was determined that current Foundation doctors will have experienced recent consultation skills training during medical school and will be in the early days of practicing as trainee doctors so would be the most appropriate group from which to draw suitable participants to address the research questions. However, the participants in Studies 1 and 2 were only recruited from the East Anglian Foundation School which was the nearest location to the institution that funded this project. They were also only recruited from two local hospitals which were in convenient reach of the researcher location. The limited parameters of the population were not ideal but suitable for the time constrained nature of the project.

As mentioned before, power calculations related to sample size were not carried out due to the exploratory nature of the project and the lack of previous research studies

that power calculations could be based on. For example, there were many locations within the hospital setting that patients would have not met the inclusion criteria related to their physical and psychological health. Random sampling of Foundation doctors and their patients would require more researchers and a larger recruitment area, which would in turn require large sums of money which were not available.

Through the various recruitment challenges, the Study 1 sample comprised of only 24 Foundation doctors. However, this resulted in a final dataset of over 100 shared consultations which provided more than 200 completed questionnaires. This allowed for comprehensive analysis by both doctor and patient characteristics. It is possible, that there could have been some bias in the self-selective nature of the sampling for Study 1. Despite the small quantity of interviews in Study 2, the actual content elicited was comprehensive and the participants were reflective about their experience, so the resulting data were suitable for thematic analysis. Again, for Study 3 the sample size was small. However, the 78 clinicians who fully completed the online questionnaire provided a satisfactory amount and variability of free-text comments from which to draw some interesting insights. Moreover, the final sample achieved provided one that was varied in terms of gender, medical school attendance and included clinicians practising in both primary and secondary care.

7.6 Recruitment Challenges

The many difficulties faced in the recruitment of participants across this project were outlined in the relevant chapters (Chapter 4, 5 and 6) and are further discussed in the following section.

The sample sizes of Foundation doctors in both Study 1 and 2 were much lower than was originally planned. Given the evidence of the heavy burden regarding their daily workload that trainee doctors carry this was hardly surprising. They are struggling with the transition from medical student to doctor and dealing with new levels of responsibility and time to take part in research was not a priority (Brennan et al., 2010). Their postgraduate training is such that they are also transient and move across medical specialties and sometimes hospitals, at least three times in their first year. In the Eastern region the Foundation doctors are rotated across more than one hospital site. Studies 1 and 2 recruited participants from only two of those sites (based in Norwich and Great Yarmouth). This may have reduced the number of Foundation doctors available at the research sites at any one time point. This will have undoubtedly reduced the size and accessibility of the Foundation doctors available from which to draw the participants. In their review of clinicians and patient participation in health

research Campbell et al. (2007b) confirmed that restricted availability of clinicians automatically reduced the number of both research sites and the patient pool.

Retention of participants was also challenging and particularly retention across Study 1 and 2 given the potential transfer across hospital sites that were not all included in these studies. Equally, this movement of Foundation doctors across various hospitals during the years, might have meant that some of the Foundation doctors invited to take part in Studies 1 and 2 were also new to the hospital site, which would undoubtedly add to their daily stress levels and thus impact on the likelihood of them taking part in the studies. Leinster et al. (2012) found that junior doctors were often not given sufficient induction procedures as they moved around hospitals and departments which added to their sometimes challenging experiences of new clinical settings.

Whilst, many strategies were used during this project, to enhance recruitment, including presentations during teaching sessions, face-to-face contact, e-mail reminders, snowballing and using clinical contacts there was still little improvement. The response rates achieved, in other studies of junior doctors, echo the challenges of recruitment in this project with aspects of workload, stress levels and lack of time available being reported as the main reasons for non-participation (Campbell et al. 2007a, Brennan et al. 2010). More specifically, during Study 2, Foundation doctors confirmed that their busy schedules, high patient numbers and responsibilities made it difficult to make any further commitments on their time.

The fact that this project was carried out by a sole researcher who was not a member of staff at the hospital sites created many challenges in terms of both access to the sites and to contact lists of current Foundation doctors working at the hospital during each rotation. This in turn caused many time delays that were not fully anticipated in the planning of the project. The logistical challenges of the clinical setting impacted hugely upon the recruitment of Foundation doctors into the studies. The literature on the recruitment and retention of research participants in the healthcare setting is growing. In particular, the recognition of the challenges involved in recruitment of clinicians and patients is building. The barriers and the facilitating factors of conducting clinical research are being explored by researchers. For example, Kaur et al. (2012) are developing an evidence-base survey to be used by researchers in order to explore the issues behind recruitment in unsuccessful clinical trials. They conclude that there are numerous elements about the research site, the clinical team, the study team and the information and consent procedures that interplay to effect recruitment strategies.

This experience has offered valuable insights into the difficulties of carrying out research in the clinical environment and in particular with a population that could be deemed as already having a full workload. Study 3 response rates were also low which was more surprising given that it was an online questionnaire that was sent via e-mail to the clinicians. It was expected that participants would complete the questionnaire at a time and location of their convenience. Brennan et al. (2010) also achieved a low recruitment of 16.6% response rate from first year Foundation doctors with again shift patterns and time constraints being cited as reasons for non-participation.

The recruitment experience in this project and similar experiences reported in the literature (Campbell et al., 2007; Watmough et al., 2006; Gude et al., 2009) illustrated that despite the use of various methods to collect data from participants working in the clinical setting resulted in similarly low response rates might offer some evidence that these types of participants are indeed hard to reach. Patel et al. (2003) discussed the many common pitfalls that exist for clinical research and offered some useful strategies for overcoming them.

Perhaps there are lessons to be learned from this project for researchers who find themselves in the clinical setting. Detailed insights of the barriers that exist within the clinical environment and specifically for recruitment of Foundation doctors could assist in mediating the challenges for other researchers looking to conduct research in a similar secondary care setting, or with similar groups of clinicians.

7.7 Implications for Training and Practice

Findings from both the literature review and the three research studies reported here suggest that consultation skills training needs to be longitudinal, timely, relevant, integrated and taught by a variety of tutors who offer a balance of experience to promote, content, process and perceptual skills in equal measure. There needs to be more marrying of the training environment with that which occurs in reality to address the chasm that exists for students between how they learn at medical school and how they are expected to perform when working in a real clinical context. More integration of that which is practised in the consultation skills classroom, assessment and clinical reality would promote more authentic, patient-centred consultation skills from students and prevent the increase of clone-type behaviours. This could be achieved by more *in situ* training sessions that would include the contextual influences that exist in the workplace environment. This would also serve to raise awareness for students earlier in their training of the differences between primary and secondary care settings and the impact of contextual differences upon the use of effective consultation skills. The

facilitative and constraining nature of the complex clinical context could be experienced early and therefore mediated prior to the 'giant leap to doctor' that is characteristic of the transitional period. Equipped with confidence in consultation skills, newly qualified doctors might deal with challenging situations, patients and colleagues more efficiently and thus cope better with the stressors of transition and developing a professional identity.

Consultation skills training and assessment should be given more time and resources during the postgraduate curricula in a bid to encourage the progressive learning that continues to take place for qualified clinicians. The impact of clinical role models could be balanced by the existence of consultation skills experts who could train, observe and assess Foundation doctors and more experienced clinicians, and maintain the focus of process and perceptual skills in their training. It may be that formative OSCEs at the end of the first and second years of Foundation training would be useful. However, OSCEs require resources and time and this may never be materialised in practice.

Real patient perceptions of training doctors' consultation skills are invaluable and useful to the development of more advanced skills. However, as experienced in Study 1 of this project, this can be difficult to achieve due to the limited access to wards and gatekeepers for the researcher. Not to mention the ad-hoc nature of when Foundation doctors are asked to conduct a consultation with patients. It would be valuable for postgraduate curriculum developers to have knowledge of wards/clinics within secondary care settings where this activity regularly occurs, and to support researcher access to these settings where appropriate. Once, identified, these contexts could become relevant training opportunities for Foundation doctors to elicit feedback from patients following their consultations. It would be valuable to recommend that Foundation doctors have to collect a certain amount of patient feedback during their Foundation years in order to gain qualification. This type of activity could be extended to experienced clinicians as part of their continuing professional development to ensure that the credibility of effective consultation skills is maintained and good role models are readily available and observed by the more junior doctors.

Medical education research currently does not attract large grants. One would hope that small scale projects like this one would start generating stepping stones for future larger scale studies. There is a fair amount of money that goes into resourcing the teaching of consultation skills in undergraduate medical education (e.g. sessional tutors, simulated patients and real patients, video equipment etc.) but there is very little evidence in terms of the effectiveness of this teaching in doctors' future practice. It is

imperative therefore to start accumulating evidence that would support or refute this type of training.

7.8 Strengths and Limitations

7.8.1 Strengths

The mixed-methods design used in this project was a strength of the project. The design was suitably flexible and allowed for the evolving nature of the project, which permitted for the necessary changes in recruitment and data collection strategies to take place. This, as a consequence, allowed important difficulties in carrying out research in this area to be identified, as well as collecting data that could answer the research questions.

Using the interview schedule and preliminary findings from Study 2 as a basis to develop a new questionnaire for Study 3 was a strength to the research. It ensured that the items on the questionnaire were appropriate and relevant to the research questions, the issues raised in Study 2 and the participants being investigated. Another strength of the project was that multiple perspectives from Foundation doctors, patients and more experienced doctors were explored. In particular, the data drawn from the Study 3 questionnaire allowed for some triangulation of the overall project findings.

Overall, the selection of populations used for each of the three studies was appropriate and successful in addressing the research questions posed in this project. A dual perspective was gained on consultation skills performance from Foundation doctors and their patients. A deeper perspective of recent training and practice experiences was gained through the Foundation doctors in Study 2, which was then used to elicit a different perspective of similar issues from more experienced clinicians. The added value of the population in Study 3 was that they were able to offer their opinions on current consultations skills training practices and their observations of how Foundation doctors were performing in their consultations with patients in the clinical setting, in addition to providing information about the use of consultation skills in practice from their more experienced perspective.

7.8.2 Limitations

All 3 studies in this project relied on the participants to provide their own perceptions on aspects of consultation skills training and practice. Aper et al. (2012) warned against the reliance of self-perceived competence because it does not always match an objective measure of competence. Davis et al. (2006) reviewed the accuracy of

physicians' self-assessment compared to objective assessments. They only found positive correlations in 7 of the 20 studies. In Study 1, the patients' assessment of the shared consultation doctor was elicited and it was intended that this counterbalanced the bias of self-report.

All three studies relied on the participants to be retrospective about their experience to a greater or lesser extent. The accuracy of recall over time can be questioned. There was an attempt to counteract this by ensuring that Foundation doctors and patients questionnaires were distributed and completed very soon after the consultation had taken place in Study 1. This was achieved in the vast majority of cases. In Study 2 Foundation doctors were asked to recall elements of their training and practice which was experienced between 4 and 12 months prior to the interviews taking place. Again, there might be some deterioration of the accuracy of the way in which they recalled the information. Given the transitional experience of Foundation doctors and all of the stressors that that entails, this may have affected the manner in which they talked about their training and practice experiences. For example they might be more positive or negative about it depending upon how prepared they had felt for their role as a Foundation doctor. In Study 3, a large majority of the respondents had qualified over 20 years ago. They were also mature group of clinicians. The recollection of their undergraduate training might be diminished through the passing of time.

The vast majority of the Foundation doctor participants recruited in this project were white British which was a serious limitation and should be addressed in future studies. The underlying difficulties of the clinical consultations between doctors and patients from different ethnic, cultural and socio-economic backgrounds are considerable. Such differences also play an immense role in the training of doctors and become particularly obvious in the consultation skills training.

The concept of doctors' 'workload' and its varying impact upon the dynamics of doctor-patient interactions was discovered and explored in the literature. However, the research questions posed in this project were not designed to address the specific issue of 'workload'. In retrospect, it seemed that there was much discussion about workload during the Study 2 interviews, so perhaps it may have been useful to explore the doctors' 'workload' further during the interviews in order to elaborate on how the doctors perceived their workload to effect the way in which they used their consultation skills with patients. Additionally, the literature revealed that the 'workload' of doctors, and more specifically trainee doctors, was the most cited barrier for doctors' non-participation in research; as such, workload might be an important issue that could have been addressed to a further degree than it was during this project.

None of the instruments used in this project measured non-verbal behaviour and this may be deemed as a flaw in an exploration of consultation skills training and practice. Video-taped consultations and/or direct observation would have addressed this issue but the project design and resources did not allow for either of these methods to be employed. Future studies using these methodologies would provide very interesting insights into this aspect of clinical communication, which has been described as being an integral part of consultations (Kurtz et al., 2005).

7.9 Generalisability of Findings

As discussed, there was much corroboration of findings across all three studies which added strength to the overall results of the project. In addition, many of the findings reported here supported findings from research reported in the literature review. However, the interpretation of the project findings has to be viewed with caution with regard to their generalisability to other samples and settings. The Norwich Medical School at the University of East Anglia offers a well-established model of consultation skills training that is longitudinal and concentrated. This might have created a culture of clinicians who have a raised awareness of consultation skills, value their use and have experienced first-hand the benefits through their work with UEA students and graduates.

The context within which the Study 1 and 2 data were collected was a small out-patients clinic within one local hospital, so the findings may not be generalizable to other hospital locations. Additionally, the participants were drawn from those working in the Eastern region and therefore may not apply to other Foundation doctors, patients and experienced clinicians training and practising in other regions of the UK and abroad. Finally, the sample sizes achieved across all studies were small and as such make it difficult to draw inferences. The project was pragmatic and constrained by time and resources.

7.10 Recommendations for Further Research

Further research would be required to identify suitable locations within healthcare settings where doctors are available and willing to participate, and where patients are well enough to take part. More efficient recruitment strategies that maximise recruitment and retention of participants need to be developed and adopted. Most importantly, medical education research that looks into effectiveness of undergraduate teaching and how this is implemented in practice is paramount if we want to foster evidence-based medical education in the 21st century. In order for this to happen, the

culture within the NHS needs to change in terms of prioritizing research areas and the funding that could support it. In order to support research that looks into processes and skills that are not easily quantifiable, such as consultation skills, wider societal changes need to take place such as putting more emphasis on therapeutic relationships and their impact on hard core outcomes such as admissions, recovery rates, cost of treatments etc. If the culture in the busy environments of the NHS changed and graduate medical education research had more kudos, doctors who themselves undertook this type of research could probably achieve better results in data collection. This view is echoed by Campbell et al. (2007) who discussed that whilst worldwide medical organisations increasingly recognize the importance of communication skills development, doctors in practice might not see the need to enhance or assess their skills.

Future research might usefully include the use of more ethnographic methods where the researcher will spend time in the clinical environment with Foundation doctors. This might be of benefit to both the participants and the researcher. For the researcher, the environment might become more familiar and assist in terms of how best to access, approach and maximize the numbers who could be engaged in the research process. For the Foundation doctors, this might offer some reassurance that the research was non-threatening to their careers, and additionally it would be a means of receiving valuable feedback from a range of patients on the performance levels of consultation skills. In the literature doctors have been found to express the need for more feedback and find it valuable to their learning and professional development. Equally, having the time to build rapport with the researcher would aid in raising the credibility of the researcher who might otherwise be viewed as of a lower priority within the very hierarchical nature of the clinical setting. This might go some way to maximising sample sizes of Foundation doctors who are already underrepresented in the literature on consultation skills training and practice. Given that it is Foundation doctors who are the early consumers of the new curricula that includes consultation skills training, their views are fundamental in the evaluation of those new curricula. Furthermore, their input will enable them to be instrumental in the future development of their ongoing training and the training of those junior doctors who come after them.

It would be interesting to carry out a similar study with clinicians who are placed in hospitals in a different region because there are likely to be differences in factors such as patient characteristics, workload, between, for example small local hospitals versus large city hospitals. Equally, it would be interesting to do similar research within a teaching hospital that was linked to a more traditional medical school, where

consultation skills are taught using a different approach, to see if performance and perceptions of consultation skills and practice reflect the culture that is fostered within the medical school, that provides the majority of the graduates into the hospital training system.

More research on the early experiences of Foundation doctors' consultation skills practice in the clinical setting could hold the key to improving the issues that they and their peers face as they make the difficult transition from student to practicing doctor. There is evidence that students that require remediation are often those who lack effective consultation skills (Leung et al., 2009).

The credibility of consultation skills and the importance of effective skills in doctor-patient interactions will only be raised as more research is carried out. More research can only be carried out if Foundation doctors take part in that research. The only way that this can happen is if Foundation doctors and their seniors see the value in, and are encouraged and given the time to take part in such research. The solution might be to implement a system whereby the completion of questionnaires self-assessing their consultation skills and asking patients to do the same, is a requirement of the Foundation Programme and a compulsory activity. That way, not only would the Foundation doctors be more aware and reflective about their interactions with their patients, they would be receiving valuable feedback from real patients that could be vital to the honing and practice of effective skills. Senior staff would have access to information that might be important in addressing remediation of struggling doctors before they progress further into their careers. More senior clinicians and educational supervisors would then witness the growing attention to consultation skills, which could lead them to see more value in the training of such skills. In turn, those further up the clinical hierarchy could promote the credibility of important front of house skills within their clinical environments and ultimately raise the profile of the sometimes sidelined skills. These skills can create better outcomes for patients, reduce complaints and encourage the patient-centred attitudes that are advocated for by the GMC.

Longitudinal studies that follow students from their undergraduate medical training at university and into their Foundation training and beyond would be a means of investigating the impact of contextual factors, and whether such factors are facilitating or constraining to the practice of effective consultations. Additionally it would allow investigation of whether the impact of context changes over time and with increasing clinical experience. Research conducted by Foundation doctors themselves might offer a solution to the access and recruitment of training doctors. They would have insider knowledge on time schedules and research sites within the clinical setting that were

suitable for the investigation of consultation skills training and practice. Again, this activity could become part of the postgraduate training to develop research skills by conducting or taking part in timely, relevant research that could be personally beneficial.

Some research on the barriers to conducting research in secondary care settings would be useful. Also to explore alternative strategies that facilitate and encourage researchers to investigate phenomena that is of a less biomedical nature, and therefore might be less valued by those who act as gatekeepers to potential research participants. How can we encourage those senior clinicians and medical directors to offer similar assistance to educational or consultation skills research, as they offer to randomised clinical trials, for example.

Finally, it would be interesting to research the impact of patient behaviour on the confidence and the ability of Foundation doctors to use effective consultation skills. The explicit or implicit nature of how the patient reacts and behaves during a consultation has both costs and benefits to the receiver of such feedback, and should not be underestimated. It might be valuable to use more qualitative methods to capture the real time experience of a doctor-patient encounter. The use of observation techniques of Foundation doctor and patient consultations might be valuable with a view to capturing the impact of specific patient behaviours on the skills of doctors. Follow up interviews with the doctors to analyse the observations and elicit their perspectives about the interactions, might be useful in exploring the costs and benefits of positive and negative feedback from patients that was part of the shared consultation.

7.11 Value of the Project

The intensive ends to which the researcher went to recruit patients and doctors in this project, and the challenges and barriers that were experienced in the clinical context have been fully described in this project. This description offers a novel contribution to medical education research generally, and the investigation of Foundation doctors more specifically.

Some of the results from Study 1 were presented at an international conference held by the European Association of Communication in Health in 2010 and received positive feedback. Another abstract of the project which incorporated Study 2 results was accepted for presentation at the International Conference of Communication in Health to be held in September 2013.

7.12 Personal Reflections

If I had the opportunity to start this project anew, I would have perhaps insisted on more contact and assistance from the local collaborators at each of the research sites. This may have led to the establishment of some relevant contacts with people working within specific wards in order to explore whether or not they were suitable for data collection. The advantage of this would be the fact that the new contacts would have on the ground experience of their wards. They could offer useful information about the wellness of the patients, whether there were junior doctors available and whether they conducted suitable consultations with patients within that ward.

I would have spent more time making contacts and liaising with hospital staff while I was waiting for the study to receive ethical approval. Whilst I would not have been able to contact Foundation doctors at that stage prior to ethical approval, I could have familiarised myself with the hospitals and their staff. That said, at the beginning of my PhD I was probably lacking confidence and did find the 'closed' nature of the clinical setting challenging. I felt that clinicians were very busy looking after patients and those that were higher up the hierarchy were even more unreachable due to their credibility and workload. I felt that as a research student, I was very much an 'outsider' and that my research was probably not high on the list of priorities for busy clinical staff. With hindsight, more experience of recruitment and an increased confidence in my skills as a researcher, would have made me more proactive and confident in the way that I approached those who may have been of some assistance during the recruitment stages of the process. I would also have been more aware of the value of my project to medical education and clinical practice which, again, would have motivated me more to cross the barriers that I faced in gaining access to Foundation doctors and patients.

My biggest challenge was recruitment which resulted in small sample sizes for each of the 3 studies. Perhaps there may have been some value in exploring other methods of data collection when numbers remained low over time. As previously mentioned, the use of a more ethnographical design may have allowed for more depth of exploration of the small sample of Foundation doctors and patients. Similarly, I could have explored patient views in a more qualitative way, as my experience was that they were very willing to take part in Study 1. Equally, the other members of staff on the pre-assessment clinic were very accommodating and might have also been useful as a source of information about their experience of Foundation doctors' consultation skills within the unit. Again, this suggestion for revising the design to be more ethnographical in nature has emerged from a growing knowledge, experience and confidence of research processes. But as it was, the lack of time and resources available for this

project, as well as the parameters of ethical approval governed the amount of changes that could be made during the project.

In summary, if I started this project anew, I would have made more contacts at the research sites, been more confident in my own skills and the value of the project as a whole. I would have made much more use of qualitative research methods from the outset to elicit a deeper understanding of Foundation doctors' consultation skills training and practice.

7.13 Conclusions

This project aimed to explore whether, how and with what level of confidence junior doctors used effective consultation skills when consulting with their patients. Perceptions of the doctors themselves and their patients were part of that exploration. The research was successful in reaching the aims and answering the research questions by providing evidence, through Study 1, that effective consultations were taking place according to both patients' and Foundation doctors' ratings of shared consultations. The ratings on both the doctors and patient questionnaires were generally high, with patients scoring doctors higher than they scored themselves. It was discovered that variables related to the Foundation doctors such as gender, age, university and length of time in practice had an effect on their own assessment of skills but not on the patient scores for those skills. The self-efficacy of doctors both before consultations with patients and after was rated high and significant differences were found between males and females and between the different rotations.

The aim of Study 2 was to explore what factors influenced the teaching, learning and subsequent practice of consultation skills for junior doctors. This aim was successfully addressed through the exploration of the way that consultation skills training and practice was experienced and perceived by Foundation doctors during interviews. Five main themes were discovered and described. Those themes were; *the impact of context (classroom and clinical) on the practice of consultation skills*; *doctors' self-reference*: *perceptions of intrinsic characteristics that impacted on their consultation skills training and practice*; *awareness and reaction to patient characteristics, expectations and needs; step-by-step building from foundations to a giant leap as doctor* and *perceived 'role' of doctor and the impact upon self-efficacy.* The themes that emerged from the Study 2 findings reflected many of the issues that were current and relevant to consultation skills training and practice in the literature review and were found to add value to the findings of Study 1. The findings offered evidence that there are many variables about the clinical context, the doctors themselves and the patients

that interplay to affect and influence the way that consultation skills are implemented in real doctor-patient interactions.

Study 3 aimed to widen the focus of Study 2 to clinicians who were more experienced in a bid to explore their experience of consultation skill training and practice. Results revealed that these clinicians reported similar themes and key factors that impacted upon their training and practice of consultation skills as the Foundation doctors had in Study 2 and as found in the literature review. Those factors were aspects of the clinical context such as time and personality variables. In addition, similar salient factors were reported in relation to self-efficacy, namely clinical knowledge and personality. Probably the most unexpected and important finding was that the majority of the clinicians were mostly positive about the teaching and practice of consultation skills. They were very positive about the level of effective skills that they had observed in Foundation doctors as they conducted real consultations in the workplace.

The multi-perspectives on the factors that affected training and practice of consultation skills, gaps in current consultation skills training and practice and suggestions for improvement were found to be common across both samples. The recognition of the chasm that exists between what is taught, learnt and practised during consultation skills training and that which is subsequently practised in real life doctor-patient interactions was also shared across the samples.

Evidence about consultation skills training and practice is building, and the findings of this project could add to that knowledge base by providing information about the performance of Foundation doctors' consultation skills in practice as perceived both by these doctors and their patients, and views about training experiences and factors that impact on use of consultation skills in practice. New knowledge and understanding of consultation skills training and performance at the grass-root level of trainee doctors in their first few placements could be vital given the stressful experience of transition and the issues with the transfer of consultation skills from classroom to the clinical environment. Early evaluation and feedback might be instrumental in the development of the doctors' consultation skills and the levels of patient satisfaction associated with the performance of such skills. Whilst the findings from this project add to the limited literature regarding what happens to the consultation skills of Foundation doctors following graduation, more research is still needed. The patients' perspective sought as part of this project was invaluable given that the ultimate aim in all healthcare provision is patient-centred care.

References

AL-WAHAIBI, A. & ALMAHREZI, A. 2009. *An Application of Educational Theories and Principles of Teaching and Learning Communication Skills for General Practitioners in Oman.* Oman Medical Journal, 24**,** 119-127.

AMMENTORP, J., SABROE, S., KOFOED, P. E. & MAINZ, J. 2007. *The effect of training in communication skills on medical doctors' and nurses' self-efficacy. A randomized controlled trial*. Patient Educ Couns, 66**,** 270-7.

APER, L., RENIERS, J., KOOLE, S., VALCKE, M. & DERESE, A. 2012. *Impact of three alternative consultation training formats on self-efficacy and consultation skills of medical students*. Medical Teacher, 34**,** e500-e507.

ASPEGREN, K. 1999. BEME Guide No. 2: *Teaching and learning communication skills in medicine-a review with quality grading of articles.* Medical Teacher, 21**,** 563-570.

ASPEGREN, K., X00F & NBERG-MADSEN, P. 2005. *Which basic communication skills in medicine are learnt spontaneously and which need to be taught and trained?* Medical Teacher, 27**,** 539-43.

ATKINSON, P. 1975. *In cold blood: bedside teaching in a medocal school*, in Channan, G and Delamont, S, eds, Frontiers of classroom Research.

BALINT, E. 1957a. [Three phases of a transference neurosis]. Psyche (Stuttg), 11**,** 526-42.

BALINT, M. 1957b. *The doctor, his patient, and the illness,* Michigan, International Universities Press.

BALINT, M. 2000. *The Doctor, His Patient And The Illness*, Churchill Livingstone.

BANDURA, A. 1977. *Social Learning Theory,* Englewood Cliffs, NJ, Prentice Hall.

BANDURA, A. 1994. *Self-Eficacy*. *In:* RAMACHAUDRAN, V. (ed.) Encycopledia of Human Behaviour. New York Academic Press.

BANDURA, A. & WOOD, R. E. 1989. *Effect of perceived controllability and performance standards on self-regulation of complex decision-making*. Journal of Personality and Social Psychology, 56**,** 805-814.

BARRY, C. A. 2002. *Multiple realities in a study of Medical Consultations*. Qualitative Health Research. 12:1093. Sage publications

BEARD, J., STRACHAN, A., DAVIES, H., PATTERSON, F., STARK, P., BALL, S., TAYLOR, P. & THOMAS, S. 2005. *Developing an education and assessment framework for the Foundation Programme*. Medical Education*,* 39**,** 841-851.

BECK, R. S., DAUGHTRIDGE, R. & SLOANE, P. D. 2002. *Physician-patient communication in the primary care office: a systematic review*. J Am Board Fam Pract, 15**,** 25-38.

BECKER, H., GEAR, B., HUGHES, C and STRAUSS, A. (1961). *Boys in White: Student Culture in Medical School.*

BLACK, N. & JENKINSON, C. 2009. *Measuring patients' experiences and outcomes.* BMJ, 339**,** b2495.

BLOOR, M. & WOOD, F. 2006. *Keywords in Qualitative Methods. A vocabulary of Research Concepts,* London, Sage.

BONNEY, A., PHILLIPSON, L., REIS, S., JONES, S. & IVERSON, D. 2009. *Patients Attitudes to general practice registrars: A review of the literature*. Education for Primary Care, 20**,** 371-8.

BRAUN, V. & CLARKE, V. 2006. *Using Thematic Analysis in Psychology.* Qualitative Research in Psychology, 3**,** 77-101.

BRENNAN, N., CORRIGAN, O., ALLARD, J., ARCHER, J., BARNES, R., BLEAKLEY, A., COLLETT, T. & DE BERE, S. R. 2010. *The transition from medical student to junior doctor: today's experiences of Tomorrow's Doctors.* Medical Education, 44**,** 449-458.

BROWN, J. 2012. *Perspective: Clinical Communication Education in the United Kingdom: Some Fresh Insights.* Acad Med.

BYRNE, P., LONG, B. & 1976. *Doctors Talking to Patients,* London, HMSO.

CAMPBELL, C., LOCKYER, J., LAIDLAW, T. & MACLEOD, H. 2007. *Assessment of a matched-pair instrument to examine doctor−patient communication skills in practising doctors*. Medical Education, 41**,** 123-129.

CAMPBELL, M. K., SNOWDON, C., FRANCIS, D., ELBOURNE, D., McDONALD, A.M, KNIGHT, R., Entwistle, V., GARCIA, J., ROBERTS, I and GRANT, A. 2007b.

Recruitment to randomised trials-strategies for trial enrolment and participation study. The STEPS study. Health and Technology Assessment. 11:48

CARROLL, J. G. & MONROE, J. 1979. *Teaching medical interviewing: a critique of educational research and practice.* J Med Educ, 54**,** 498-500.

CAVE, J., GOLDACRE, M., LAMBERT, T., WOOLF, K., JONES, A. & DACRE, J. 2007. *Newly qualified doctors' views about whether their medical school had trained them well: questionnaire surveys.* BMC Medical Education, 7**,** 1-6.

CEGALA, D. J., COLEMAN, M. T. & TURNER, J. W. 1998. *The development and partial assessment of the medical communication competence scale.* Health Commun, 10**,** 261-88.

CEGALA, D. J. & LENZMEIER BROZ, S. 2002. *Physician communication skills training: a review of theoretical backgrounds, objectives and skills.* [Review] [43 refs]. Medical Education, 36**,** 1004-16.

COLLINS 2009. Collins English Dictionary- Complete and unabridged. 10th ed.: Harper Collins.

COLLIVER, J. A. 2000. *Effectiveness of problem-based learning curricula: research and theory*. Acad Med, 75**,** 259-66.

CORNISH, F. & GILLESPIE, A. 2009. *A pragmatist approach to the problem of knowledge in health psychology.* J Health Psychol, 14**,** 800-9.

COX, J. 2006. *Understanding Doctors' Performance*, Radcliffe.

CRAIG, J. L. 1992. *Retention of interviewing skills learned by first-year medical students: a longitudinal study.* Medical Education, 26**,** 276-281.

CRESWELL, J. 2007. *Qualitative enquiry and Research Design. Choosing among 5 approaches.*, Sage Publications.

CRESWELL, J. 2008. *Educational Research: Planning, conducting and evaluating Quantitative and Qualitative Research*, Pearson Education.

CRESWELL, J. & CLARKE, V. P. 2011. *Designing and conducting Mixed Methods Research: 2nd Edition*, Sage Publications.

DENZIN, N. & LINCOLN, Y. 1998. *Strategies of Qualitative Enquiry.,* Thousand Oaks CA, Sage.

DOH 2000. NHS Plan: *A Plan for Investment, A Plan for Reform*. *In:* HEALTH, D. O. (ed.). London: The Stationery Office.

DOH 2003a. *European Working Time Directive*.

DOH 2003b. *Response of the Four UK Health Ministers to the Consultation on the Unfinished Business: Proposals for Reform*. *In:* HEALTH, T. F. U. H. D. D. O. (ed.). London.

DOH 2004. *Modernising Medical Careers: The Next Steps. The Future Shape of Foundation Specialist and General Practice Training Programmes*. London.

DREVER, E. 2006. *Using Semi- Structured Interviews in Small Scale Research. A Teachers Guide.*, SCRE Centre: University of Glasgow.

DUFFY, F. D., GORDON, G. H., WHELAN, G., COLE-KELLY, K., FRANKEL, R., PHYSICIAN, A. P. I. T. A. A. O., EDUCATION, P. S. C. O., COMMUNICATION, E. O. C. I. & INTERPER 2004. *Assessing Competence in Communication and Interpersonal Skills: The Kalamazoo II Report*. Academic Medicine, 79**,** 495-507.

ERAUT, M. 2004. *Deconstructing apprenticeship learning: What factors effect its quality? In:* MULDER, R. & SLOANE, P. (eds.) *New approaches to Vocational Education in Europe; the Construction of Complex learning-Teaching Arrangements.* Oxford: Oxford University Press.

ERAUT, M. & HIRSH, W. 2007. *The significance of Workplace Learning for Individuals, Groups and Organisations*, SKOPE Monograph 9, Oxford.

ERAUT, M. 2009. *Improving the Quality of Work-placements: Findings from the UK Teaching and Learning Research Programme.* Presented as a paper at the AERA Annual Conference, San Diego, April 2009 Symposium on Learning in the Workplace.

EYSENBACH, G. & WYATT, J. 2002. *Using the Internet for surveys and health research*. J Med Internet Res, 4**,** E13.

FORSSELL, J. 2007. *Has anyone met a patient? Balint Groups with young doctors in their Foundation Years at a county hospital in Sweden*. Psychoanalytic Psychotherapy, 21**,** 181-191.

FOX, E. J. 2006. *Constructing a Pragmatic Scienceof Learning and Instruction with Functional Contextualism*. Educational Technology Research and Development Vol. 54**,** p. 5–36.

FOX, E. J. 2008. *Contextualistic perspectives*. *In:* M., S. J., D, M. M., J, V. M. & P, D. M. (eds.) *Handbook of research on educational communications and technology* 3rd ed. Mahwah, NJ: Lawrence Erlbaum Associates.

FRANCIS, J. J., JOHNSTON, M., ROBERTSON, C., GLIDEWELL, L., ENTWISTLE, V., ECCLES, M. P. & GRIMSHAW, J. M. 2009. *What is an adequate sample size? Operationalising data saturation for theory-based interview studies.* Psychology & Health, 25**,** 1229-1245.

FRASER, R. 1999. *Clinical Method: A General Practice Approach*, Butterworth-Heinemann.

GIST, M. E. & MITCHELL, T. R. 1992. *Self-Efficacy: A Theoretical Analysis of Its Determinants and Malleability*. The Academy of Management Review, 17**,** 183-211.

GMC. 2009. *Tomorrow's Doctors*. Available: http://www.gmc-uk.org/education/undergraduate/tomorrows_doctors_2009.asp [Accessed 21/11/2011].

GMC, G. M. C. 1993. *Tomorrow's Doctors: Recommendations on Undergraduate Medical Education*. London.

GMC, G. M. C. 2003. *Tomorrow's Doctors Recommendations on Undergraduate Medical Education*. London.

GOODFELLOW, P. B. & CLAYDON, P. 2001. *Students sitting medical finals—ready to be house officers?* JRSM, 94**,** 516-520.

GOODSON, L. and Vassar, M. 2011. *An overview of Ethnography in Healthcare and Medical Education Research*. Journal of Educational Evaluation for Health Professions. 8:4.

GREENE, J. 2007. *Mixed Methods in Social Eenquiry:*, John Wiley and Sons.

GUDE, T., VAGLUM, P., ANVIK, T., BAERHEIM, A., EIDE, H., FASMER, O. B., GRAUGAARD, P., GRIMSTAD, H., HJORTDAHL, P., HOLEN, A., NORDOY, T., SKIRBEKK, H. & FINSET, A. 2007. *Observed communication skills: how do they relate to the consultation content? A nation-wide study of graduate medical students seeing a standardized patient for a first-time consultation in a general practice setting*. BMC Med Educ, 7**,** 43.

GUDE, T., VAGLUM, P., ANVIK, T., BAERHEIM, A., FASMER, O. B., GRIMSTAD, H., HJORTDAHL, P., HOLEN, A., NORDOY, T. & EIDE, H. 2009. *Do physicians improve their communication skills between finishing medical school and completing internship?*

A nationwide prospective observational cohort study. Patient Education & Counseling, 76**,** 207-12.

GULBRANDSEN, P., JENSEN, B. F. & FINSET, A. 2009. *Self-efficacy among doctors in hospitals after a course in clinical communication.* Tidsskr Nor Laegeforen, 129**,** 2343-6.

HAMMOND, M. M., MORGAN, H. K., EDWARDS, M. E., LYON, J. A., and WHITE, C. 2012. *Is video review of patient encounters an effective tool for medical student learning? A review of the literature*. Advances in Medical Educational and Practice.3:19-30.

HARASYM, P. H., WOLOSCHUK, W. & CUNNING, L. 2008. *Undesired variance due to examiner stringency/leniency effect in communication skill scores assessed in OSCEs.* Advances in Health Sciences Education, 13**,** 617-32.

HASMAN, A., COULTER, A. & ASKHAM, J. 2006. *Education for partnership:Developments in Medical Education.* Oxford: picker Institute Europe.

HASTINGS, A. M., MCKINLEY, R. K. & FRASER, R. C. 2006. *Strengths and weaknesses in the consultation skills of senior medical students: identification, enhancement and curricular change*. Medical Education, 40**,** 437-443.

HAUER, K. E., HIRSH, D., MA, I., HANSEN, L., OGUR, B., PONCELET, A. N., ALEXANDER, E. K. & O'BRIEN, B. C. 2012. *The role of role: learning in longitudinal integrated and traditional block clerkships.* Medical Education*,* 46**,** 698-710.

HAWKEN, S. J. 2005. *Good communication skills: Benefits for doctors and patients.* New Zealand Medical Journal, 32.

HEAVEN, C., CLEGG, J. & MAGUIRE, P. 2006. *Transfer of communication skills training from workshop to workplace: the impact of clinical supervision.* Patient Educ Couns, 60**,** 313-25.

HECIMOVICH, M. & VOLET, S. 2012. *Tracing the evolution of chiropractic students' confidence in clinical and patient communication skills during a clinical internship: a multi-methods study.* BMC Medical Education 12

HODGES, B., TURNBULL, J., COHEN, R., BIENENSTOCK, A. & NORMAN, G. 1996. *Evaluating communication skills in the OSCE format: reliability and generalizability*. Med Educ, 30**,** 38-43.

HUTCHINSON, A., WILLIAMS, M., MEADOWS, K., BARBOUR, R. S. & JONES, R. 1999. *Perceptions of good medical practice in the NHS: A survey of senior health professionals*. Quality in Health Care, 8**,** 213-218.

ICO, I. C. S. O. 1998. The Data Protection Act.

JACKSON, S. L. 2003. *Research and statistics. A Critical Thinking Approach*, Thomson Wadsworth.

KAUFMAN, D. 2003. *ABC of learning and teaching in medicine: Applying educational theory in practice.* British Medical Journal*,* 25**,** 213-216.

KAUR, G., Smyth, R. L and WILIIAMSON, P. 2012. *Developing a survey of varriers and facilitators to recruitment in randomised control trials.* Trials 13:218.

KELLY, M. 2007. *A practical guide for teachers of communication skills. A summary of current approaches.*, Radcliffe Publishing.

KNOWLES, M. S. 1980. *The modern practice of adult education: From pedagogy to andragogy.,* Englewood Cliffs, Prentice Hall/Cambridge.

KOLB, D. 1984. *Experiential learning: experience as the source of learning and development,* Englewood Cliffs, NJ, Prentice Hall.

KRAMER, A. W. M., DÜSMAN, H., TAN, L. H. C., JANSEN, J. J. M., GROL, R. P. T. M. & VAN DER VLEUTEN, C. P. M. 2004. *Acquisition of communication skills in postgraduate training for general practice*. Medical Education, 38**,** 158-167.

KRAMER, A. W. M., ZUITHOFF, P., JANSEN, J. J. M., TAN, L. H. C., GROL, R. P. T. M. & VLEUTEN, C. P. M. 2007. *Growth of Self-Perceived Clinical Competence in Postgraduate Training for General Practice and its Relation to Potentially Influencing Factors*. Advances in Health Sciences Education, 12**,** 135-145.

KURTZ, S. M. 2002. *Doctor-patient communication: principles and practices.* Can J Neurol Sci, 29 Suppl 2**,** S23-9.

KURTZ, S. M. & RICCARDI, V. M. 1979. *Nonverbal communication as an element of genetic counseling.* Birth Defects Orig Artic Ser, 15**,** 245-56.

KURTZ, S. M., SILVERMAN, J. & DRAPER, J. 2005. *Teaching And Learning Communication Skills In Medicine*, Radcliffe Pub.

LECKIE, J., BULL, R. & VRIJ, A. 2006. *The development of a scale to discover outpatients' perceptions of the relative desirability of different elements of doctors' communication behaviours.* Patient Education & Counseling, 64**,** 69-77.

LEINSTER, S. 2003. *Standards in medical education in the European Union.* Med Teach, 25**,** 507-9.

LEINSTER, S. J., S MILES , PEACOCK, D., CAVENAGH, P., PAPAGEORGIOU, A., GIBSON, S. & WOOD, D. 2012. *Investigating the performance of newly qualified doctors with reference to patient satisfaction and patient safety*.Final Report for the National Institute for Health Research, under their Research for Patient Benefit Programme (No. PB-PG-0808-17193). Norwich.

LEMPP, H., COCHRANE, M. & REES, J. 2005. *A qualitative study of the perceptions and experiences of Pre-Registration House Officers on teamwork and support*. BMC Medical Education, 5.

LEUNG, F. H., MARTIN, D. & BATTY, H. 2009. *A theory-based curriculum design for remediation of residents' communication skills.* Med Teach, 31**,** e555-9.

LEVINSON, W., ROTER, D. L., MULLOOLY, J. P., DULL, V. T. & FRANKEL, R. M. 1997. *Physician-patient communication. The relationship with malpractice claims among primary care physicians and surgeons*. JAMA, 277**,** 553-9.

LEWIN, S. A., SKEA, Z. C., ENTWISTLE, V., ZWARENSTEIN, M. & DICK, J. 2001. *Interventions for providers to promote a patient-centred approach in clinical consultations.* Cochrane Database Syst Rev**,** CD003267.

LIDDELL, M. J. & DAVIDSON, S. K. 2004. *Student attitudes and their academic performance: is there any relationship?* Med Teach, 26**,** 52-6.

LIAMPUTTONG, P. and EZZY, D. 2005. *Qualitative Research Methods. 2nd Edition*. Oxford University Press.

LIENARD, A., MERCKAERT, I., LIBERT, Y., BRAGARD, I., DELVAUX, N., ETIENNE, A., MARCHAL, S., MEUNIER, J., REYNAERT, C., SLACHMUYLDER, J. & RAZAVI, D. 2010. *Transfer of Communication Skills to the Workplace during Clinical Rounds: Impact of a Program for Residents*. PLoS ONE, 5.

LINKLATER, G. T. 2010. *Educational needs of foundation doctors caring for dying patients.* J R Coll Physicians Edinb*,* 40**,** 13-8.

LITTLE, P., EVERITT, H., WILLIAMSON, I., WARNER, G., MOORE, M., GOULD, C., FERRIER, K. & PAYNE, S. 2001. *Preferences of patients for patient-centred approach to consultation in primary care: observational study*. BMJ, 322**,** 468.

LLOYD, G., SKARRATTS, D., ROBINSON, N. & REID, C. 2000. *Communication skills training for emergency department senior house officers--a qualitative study.* Journal of Accident & Emergency Medicine*,* 17**,** 246-50.

MAGUIRE, P. & PITCEATHLY, C. 2002. *Key communication skills and how to acquire them.* BMJ, 325**,** 697-700.

MAKOUL, G. 2001. *Essential Elements of Communication in Medical Encounters: The Kalamazoo Consensus Statement.* Academic Medicine, 76**,** 390-393.

MALHOTRA, A., GREGORY, I., DARVILL, E., GOBLE, E., PRYCE-ROBERTS, A., LUNDBERG, K., KONRADSEN, S. & HAFSTAD, H. 2009. *Mind the gap: Learners' perspectives on what they learn in communication compared to how they and others behave in the real world.* Patient Education & Counseling, 76**,** 385-90.

MANNING, D., MCKINLEY, D. & CHIPAMAUNGA, S. 2010. *Student learning experiences in a diversified academic environment.* Medical Education, 44**,** 493-494.

MARSHALL, C. & ROSSMAN, G. B. 2006. *Designing Qualitative Research,* London, Sage.

MEAD, N. & BOWER, P. 2000. *Measuring patient-centredness: a comparison of three observation-based instruments.* Patient Educ Couns, 39**,** 71-80.

MEAKIN, R. & WEINMAN, J. 2002. *The 'Medical Interview Satisfaction Scale' (MISS-21) adapted for British general practice.* Fam Pract, 19**,** 257-63.

MENDLINGER, S. & CWIKEL, J. 2008. *Spiraling Between Qualitative and Quantitative Data on Women's Health Behaviors: A Double Helix Model for Mixed Methods.* Qualitative Health Research, 18**,** 280-293.

MERTENS, D. & FRESHWATER, D. 2007. *The Journal of Mixed Methods Research.* The Journal of Mixed Methods Research.

MILLER, G. E. 1990. *The assessment of clinical skills/competence/performance*. Acad Med, 65**,** S63-7.

MOHAMMED, B. R., PATWARY, S., PERRY, S. R. & WILKIE, V. 2006. *Consultation skills training for hospital doctors: An evaluation of a pilot workshop for ophthalmology.* British Journal of Hospital Medicine**,** 67 (4) (pp 206-207), 2006.

NEIGHBOUR, R. 1987. *The Inner Consultation,* Lancaster, MTP Press Lancaster.

NEWBLE, D. 2004. *Techniques for measuring clinical competence: objective structured clinical examinations.* Medical Education, 38**,** 199-203.

NHS, I. C. 2011. *Data on Written Complaints in the NHS. In:* SERVICE., T. H. A. S. C. I. C. P. O. T. G. S. (ed.).

NILSEN, S. & BAERHEIM, A. 2005. *Feedback on video recorded consultations in medical teaching: why students loathe and love it - a focus-group based qualitative study.* BMC Med Educ*,* 5**,** 28.

NOBUO, N., TOSHIYA, S. & SHUJI, T. 2011. *The Current Medical Education System in the World*. JMed Dent Sci 201, 58**,** 79-83.

O'CATHAIN, A., MURPHY, E. & NICHOLL, J. 2007. *Why, and how, mixed methods research is undertaken in health services research in England: a mixed methods study.* BMC Health Services Research*,* 7**,** 85.

OLIVER, D. G., SEROVICH, J. M. & MASON, T. L. 2005. *Constraints and Opportunities with Interview Transcription: Towards Reflection in Qualitative Research.* Soc Forces, 84**,** 1273-1289.

PAICE, E., HEARD, S. & MOSS, F. 2002a. *How important are role models in making good doctors?* BMJ, 325**,** 707-710.

PAICE, E., RUTTER, H., WETHERELL, M., WINDER, B. & MCMANUS, I. C. 2002b. *Stressful incidents, stress and coping strategies in the pre-registration house officer year.* Medical Education, 36**,** 56-65.

PAPAGEORGIOU, A., MILES, S., FROMAGE, M., KEMMY, J. & LEINSTER, S. J. 2011. *Cross-sectional evaluation of a longitudinal consultation skills course at a new UK medical school.* BMC Medical Education*,* 11**,** 55.

PASKINS, Z. & PEILE, E. 2010. *Final year medical students' views on simulation-based teaching: a comparison with the Best Evidence Medical Education Systematic Review.* Med Teach, 32**,** 569-77.

PATEL, M. X, DOKU, V, TENNAKOON, L. 2003. *Challenges in recruitment of research partcipants. Advances in Psychiatric Treatment.* 9:238.

PENDLETON, D., SCHOFIELD, T., PTATE & HAVELOCK, P. 1984. *The Consultation, An Approach to teaching and learning.,* Oxford, Oxford Medical Publications.

PFEIFFER, C., MADRAY, H., ARDOLINO, A. & WILLMS, J. 1998. *The rise and fall of students' skill in obtaining a medical history.* Medical Education, 32**,** 283-288.

PHILLIPS, E. & PUGH, D. 2010. *How to get a PhD.*

REDINBAUGH, E. M., SULLIVAN, A. M., BLOCK, S. D., GADMER, N. M., LAKOMA, M., MITCHELL, A. M., SELTZER, D., WOLFORD, J. & ARNOLD, R. M. 2003. *Doctors' emotional reactions to recent death of a patient: cross sectional study of hospital doctors*. BMJ*,* 327**,** 185.

REGEHR, G. & EVA, K. 2006. *Self-assessment, self-direction, and the self-regulating professional.* Clin Orthop Relat Res, 449**,** 34-8.

REINDERS, M. E., RYAN, B. L., BLANKENSTEIN, A. H., VAN DER HORST, H. E., STEWART, M. A. & VAN MARWIJK, H. W. 2011. *The effect of patient feedback on physicians' consultation skills: a systematic review.* Academic medicine : journal of the Association of American Medical Colleges, 86**,** 1426-1436.

ROTER, D. & HALL, J. 2002. *Physician gender effects in medical communication: a meta-analytic review*. Journal of American Medical Association, 288**,** 756-64.

ROTTHOFF, T., BAEHRING, T., DAVID, D. M., BARTNICK, C., LINDE, F., WILLERS, R., SCHAFER, R. D. & SCHERBAUM, W. A. 2011. *The value of training in communication skills for continuing medical education.* Patient Educ Couns*,* 84**,** 170-5.

SAKS, M. & ALLSOP, J. 2007. *Researching Health: qualitative, quantitative and mixed methods*.

SAKS, M. & ALLSOP, J. 2013. *Researching Healthy, Qualitative, Quantitative and Mixed Methods. 2nd Edition*. Sage Publications.

SANDELOWSKI, M. 2000. *Whatever happened to qualitative description?* Research in Nursing & Health, 23**,** 334-340.

SCHMIDT, E., GRAMM, L. & FARIN, E. 2012. *Communication preferences of patients with chronic back pain in medical rehabilitation.* Schmerz, 26**,** 69-76.

SILVERMAN, J. 2009. *Teaching clinical communication: a mainstream activity or just a minority sport?* Patient Educ Couns, 76**,** 361-7.

SKELTON, J. R. 2005. *Everything you were afraid to ask about communication skills.* Br J Gen Pract, 55**,** 40-6.

SMITH, A. F., GLAVIN, R. & GREAVES, J. D. 2011. *Defining excellence in anaesthesia: the role of personal qualities and practice environment*. BJA: British Journal of Anaesthesia*,* 106**,** 38-43.

STEWART, M. 2001. *Towards a global definition of patient-centred care*. BMJ, 322**,** 444-445.

STEWART, M. 2006. *Patient-Centred Medicine: Transforming the Clinical Method*, Radcliffe Medical Press.

STEWART, M., JB, B., WW, W., IR, M., CL, M. & TR, F. 1995. *Patient-Centred Medicine: Transforming the Clinical Method*, Thousand Oaks: Sage Publications.

STOTT, N. C. & DAVIS, R. H. 1979. *The exceptional potential in each primary care consultation.* J R Coll Gen Pract, 29**,** 201-5.

TASHAKKORI, A. & CRESWELL, J. W. 2007a. *Editorial: The New Era of Mixed Methods.* Journal of Mixed Methods Research, 1**,** 3-7.

TASHAKKORI, A. & CRESWELL, J. W. 2007b. *Exploring the Nature of Research Questions in Mixed Methods Research*. Journal of Mixed Methods Research, 1**,** 3-7.

TASHAKKORI, A. & TEDDLIE, C. 2003. *Handbook of Mixed Methods*, London: Sage.

TEUNISSEN, P. W., BOOR, K., SCHERPBIER, A. J. J. A., VAN DER VLEUTEN, C. P. M., VAN DIEMEN-STEENVOORDE, J. A. A. M., VAN LUIJK, S. J. & SCHEELE, F. 2007. *Attending doctors' perspectives on how residents learn.* Medical Education, *41**,** 1050-1058.*

UTTING, M., CAMPBELL, F., RAYNER, C., WHITEHOUSE, C. & DORNAN, T. 2000. *Consultation skills of medical students before and after changes in curriculum*. JRSM, 93**,** 247-253.

VAN DALEN, J., KERKHOFS, E., VAN KNIPPENBERG-VAN DEN BERG, B. W., VAN DEN HOUT, H. A., SCHERPBIER, A. J. & VAN DER VLEUTEN, C. P. 2002. *Longitudinal and concentrated communication skills programmes: two dutch medical schools compared.* Adv Health Sci Educ Theory Pract, 7**,** 29-40.

VELDHUIJZEN, W., RAM, P., VAN DER WEIJDEN, T., WASSINK, M. & VAN DER VLEUTEN, C. 2007. *Much variety and little evidence: a description of guidelines for doctor-patient communication.* Medical Education, 41**,** 138-45.

VIOLATO, C. & LOCKYEAR, J. 2006. *Self and peer assessment of paediatrics, psychiatrists and medicine specialists: implications for self-directed learning.* Advanced Health Science Education, 11**,** 235-44.

VON FRAGSTEIN, M., SILVERMAN, J., CUSHING, A., QUILLIGAN, S., SALISBURY, H., WISKIN, C. & ON BEHALF OF THE, U. K. C. F. C. C. S. T. I. U. M. E. 2008. *UK consensus statement on the content of communication curricula in undergraduate medical education*. Medical Education, 42**,** 1100-1107.

WATMOUGH, S., CHERRY, M. G. & O'SULLIVAN, H. 2012. *A comparison of self-perceived competencies of traditional and reformed curriculum graduates 6 years after graduation.* Medical Teacher, 34**,** 562-568.

WATMOUGH, S., GARDEN, A. & TAYLOR, D. 2006a. *Does a new integrated PBL curriculum with specific communication skills classes produce Pre Registration House Officers (PRHOs) with improved communication skills?* Medical Teacher, 28**,** 264-9.

WATMOUGH, S., GARDEN, A. & TAYLOR, D. 2006b. *Pre-registration house officers' views on studying under a reformed medical curriculum in the UK*. Medical Education, 40**,** 893-9.

WATMOUGH, S., O'SULLIVAN, H. & TAYLOR, D. 2009. *Graduates from a Traditional Medical Curriculum evaluate the effectiveness of their medical curriculum through interviews.* BMC Medical Education, 9.

WATSON, K., WRIGHT, A., MORRIS, N., MCMEEKEN, J., RIVETT, D., BLACKSTOCK, F., JONES, A., HAINES, T., O'CONNOR, V., WATSON, G., PETERSON, R. & JULL, G. 2012. *Can simulation replace part of clinical time? Two parallel randomised controlled trials.* Med Educ, 46**,** 657-67.

WILKINSON, T. J. & FONTAINE, S. 2002. *Patients' global ratings of student competence. Unreliable contamination or gold standard?* Med Educ, 36**,** 1117-21.

WILLIAMS, C., CANTILLON, P. & COCHRANE, M. 2001. *The doctor-patient relationship: from undergraduate assumptions to pre-registration reality*. Medical Education, 35**,** 743-7.

WILLIAMS, G. & LAU, A. 2004. *Reform of undergraduate medical teaching in the United Kingdom: a triumph of evangelism over common sense.* BMJ, 329**,** 92-94.

WILLIAMS, N. & OGDEN, J. 2004. *The impact of matching the patient's vocabulary: a randomized control trial.* Fam Pract, 21**,** 630-5.

YEDIDIA, M. J., GILLESPIE, C. C., KACHUR, E., SCHWARTZ, M. D., OCKENE, J., CHEPAITIS, A. E., SNYDER, C. W., LAZARE, A. & LIPKIN, M., JR. 2003. *Effect of communications training on medical student performance.* JAMA, 290**,** 1157-65.

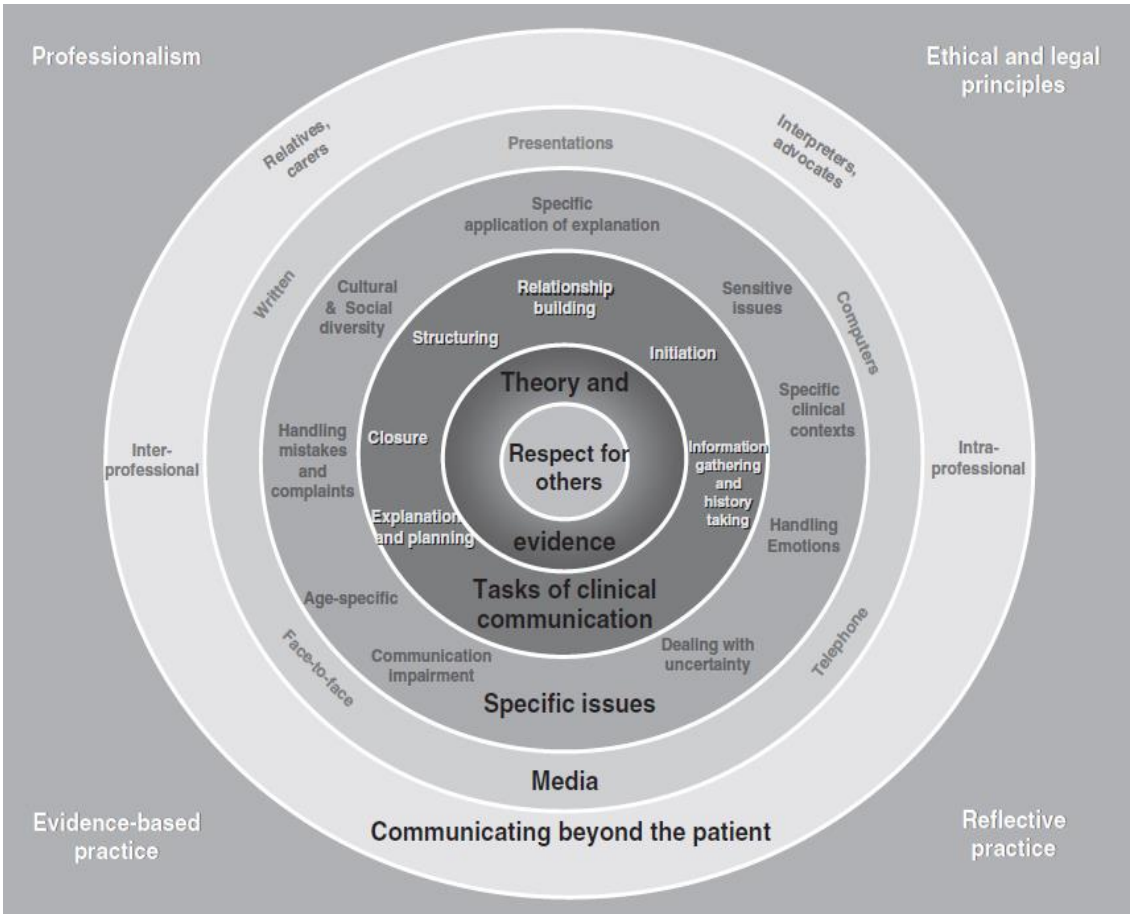
YUDKOWSKY, R., DOWNING, S. & OMMERT, D. 2006. *Prior experiences associtaed with residents' scores on a communication and interpersonal OSCE.* Patient Education & Counseling, 62**,** 368-373.

ZAHARIAS, G., PITERMAN, L. & LIDDELL, M. 2004. *Doctors and patients: gender interaction in the consultation.* Acad Med, 79**,** 148-55.

ZANDBELT, L. C., SMETS, E. M., OORT, F. J., GODFRIED, M. H. & HAES, H. C. D. 2004. *Satisfaction with the Outpatient Encounter. A Comparison of patients' and Physicians' Views*. J Gen Intern Med. November; 19 (11): 1088–1095. *,* 19**,** 1088-1095.

Appendices

Appendix 1: The Consensus Statement



References: Martin von Fragstein, Jonathan Silverman, Annie Cushing, Sally Quilligan, Helen Salisbury & Connie Wiskin on behalf of the UK Council for Clinical Communication Skills Teaching in Undergraduate Medical Education (2008)

Appendix 2: The Calgary/Cambridge Guide to the Medical Interview

INITIATING THE SESSION

Establishing initial rapport

1. Greets patient and obtains patient's name
2. Introduces self, role and nature of interview; obtains consent if necessary
3. Demonstrates respect and interest, attends to patient's physical comfort

Identifying the reason(s) for the consultation

4. Identifies the patient's problems or the issues that the patient wishes to address with appropriate opening question (e.g. "What problems brought you to the hospital?" or "What would you like to discuss today?" or "What questions did you hope to get answered today?")
5. Listens attentively to the patient's opening statement, without interrupting or directing patient's response
6. Confirms list and screens for further problems (e.g. "so that's headaches and tiredness; anything else……?")
7. Negotiates agenda taking both patient's and physician's needs into account

GATHERING INFORMATION

Exploration of patient's problems

8. Encourages patient to tell the story of the problem(s) from when first started to the present in own words (clarifying reason for presenting now)
9. Uses open and closed questioning technique, appropriately moving from open to closed
10. Listens attentively, allowing patient to complete statements without interruption and leaving space for patient to think before answering or go on after pausing
11. Facilitates patient's responses verbally and non–verbally e.g. use of encouragement, silence, repetition, paraphrasing, interpretation
12. Picks up verbal and non–verbal cues (body language, speech, facial expression, affect); checks out and acknowledges as appropriate
13.Clarifies patient's statements that are unclear or need amplification (e.g. "Could you explain what you mean by light headed")
14. Periodically summarises to verify own understanding of what the patient has said; invites patient to correct interpretation or provide further information.
15. Uses concise, easily understood questions and comments, avoids or adequately explains jargon

16. Establishes dates and sequence of events

Additional skills for understanding the patient's perspective

17. Actively determines and appropriately explores:

• patient's ideas (i.e. beliefs re cause)

• patient's concerns (i.e. worries) regarding each problem

• patient's expectations (i.e., goals, what help the patient had expected for each problem)

• effects: how each problem affects the patient's life

18. Encourages patient to express feelings

PROVIDING STRUCTURE

Making organisation overt

19. Summarises at the end of a specific line of inquiry to confirm understanding before moving on to the next section

20. Progresses from one section to another using signposting, transitional statements; includes rationale for next section

Attending to flow

21. Structures interview in logical sequence

22. Attends to timing and keeping interview on task

BUILDING RELATIONSHIP

Using appropriate non-verbal behaviour

23. Demonstrates appropriate non–verbal behaviour

• eye contact, facial expression

• posture, position & movement

• vocal cues e.g. rate, volume, tone

24. If reads, writes notes or uses computer, does in a manner that does not interfere with dialogue or rapport

25. Demonstrates appropriate confidence

Developing rapport

26. Accepts legitimacy of patient's views and feelings; is not judgmental

27. Uses empathy to communicate understanding and appreciation of the patient's feelings or predicament; overtly acknowledges patient's views and feelings

28. Provides support: expresses concern, understanding, willingness to help; acknowledges coping efforts and appropriate self care; offers partnership

29. Deals sensitively with embarrassing and disturbing topics and physical pain, including when associated with physical examination

Involving the patient

30. Shares thinking with patient to encourage patient's involvement (e.g. "What I'm thinking now is....")

31. Explains rationale for questions or parts of physical examination that could appear to be non-sequiturs

32. During physical examination, explains process, asks permission

EXPLANATION AND PLANNING

Providing the correct amount and type of information

33. Chunks and checks: gives information in manageable chunks, checks for understanding, uses patient's response as a guide to how to proceed

34. Assesses patient's starting point: asks for patient's prior knowledge early on when giving information, discovers extent of patient's wish for information

35. Asks patients what other information would be helpful e.g. aetiology, prognosis

36. Gives explanation at appropriate times: avoids giving advice, information or reassurance prematurely

Aiding accurate recall and understanding

37. Organises explanation: divides into discrete sections, develops a logical sequence

38. Uses explicit categorisation or signposting (e.g. "There are three important things that I would like to discuss. 1st..." "Now, shall we move on to.")

39. Uses repetition and summarising to reinforce information

40. Uses concise, easily understood language, avoids or explains jargon

41. Uses visual methods of conveying information: diagrams, models, written information and instructions

42. Checks patient's understanding of information given (or plans made): e.g. by asking patient to restate in own words; clarifies as necessary

Achieving a shared understanding: incorporating the patient's perspective

43. Relates explanations to patient's illness framework: to previously elicited ideas, concerns and expectations

44. Provides opportunities and encourages patient to contribute: to ask questions, seek clarification or express doubts; responds appropriately

45. Picks up verbal and non-verbal cues e.g. patient's need to contribute information or ask questions, information overload, distress

46. Elicits patient's beliefs, reactions and feelings re information given, terms used; acknowledges and addresses where necessary

Planning: shared decision making

47. Shares own thinking as appropriate: ideas, thought processes, dilemmas
48. Involves patient by making suggestions rather than directives
49. Encourages patient to contribute their thoughts: ideas, suggestions and preferences
50. Negotiates a mutually acceptable plan
51. Offers choices: encourages patient to make choices and decisions to the level that they wish
52. Checks with patient if accepts plans, if concerns have been addressed

CLOSING THE SESSION

Forward planning

53. Contracts with patient re next steps for patient and physician
54. Safety nets, explaining possible unexpected outcomes, what to do if plan is not working, when and how to seek help

Ensuring appropriate point of closure

55. Summarises session briefly and clarifies plan of care
56. Final check that patient agrees and is comfortable with plan and asks if any corrections, questions or other items to discuss

OPTIONS IN EXPLANATION AND PLANNING (includes content)

IF discussing investigations and procedures

57. Provides clear information on procedures, eg, what patient might experience, how patient will be informed of results
58. Relates procedures to treatment plan: value, purpose
59. Encourages questions about and discussion of potential anxieties or negative outcomes

IF discussing opinion and significance of problem

60. Offers opinion of what is going on and names if possible
61. Reveals rationale for opinion
62. Explains causation, seriousness, expected outcome, short and long term consequences
63. Elicits patient's beliefs, reactions, concerns re opinion

IF negotiating mutual plan of action

64. Discusses options eg, no action, investigation, medication or surgery, non-drug treatments (physiotherapy, walking aides, fluids, counselling, preventive measures)

65. Provides information on action or treatment offered

name

steps involved, how it works

benefits and advantages

possible side effects

66. Obtains patient's view of need for action, perceived benefits, barriers, motivation

67. Accepts patient's views, advocates alternative viewpoint as necessary

68. Elicits patient's reactions and concerns about plans and treatments including acceptability

69. Takes patient's lifestyle, beliefs, cultural background and abilities into consideration

70. Encourages patient to be involved in implementing plans, to take responsibility and be self-reliant

71. Asks about patient support systems, discusses other support available

References:

Kurtz SM, Silverman JD, Draper J (1998) Teaching and Learning Communication Skills in Medicine. Radcliffe Medical Press (Oxford)

Silverman JD, Kurtz SM, Draper J (1998) Skills for Communicating with Patients. Radcliffe Medical Press (Oxford)

Appendix 3: Study 1 – Questionnaires

Foundation Doctor

Piloting a Patient-Doctor communication Skills Survey

Physician Questionnaire

Marking Instructions: Please indicate your answer by selecting one of the alternatives and checking the squares like this: ☑

Interpretation of the rating scale: This form is used by a variety of patients, therefore, not all of the following items may be relevant to you. If any of these items are **NOT** relevant to you, mark these **"unable to assess"**

This questionnaire is being completed following a patient consultation at JPUH/ NNUH Date..... on.....Ward

I am: ☐ Male ☐ Female

I am: ☐ 18-25 ☐ 26-40 ☐ 41-60

I graduated from: ☐ University of East Anglia ☐ Cambridge University

I am a : ☐ FY1 ☐ FY2 **Doctor**

Since graduation, I have received the following amount of consultation skills training:

☐ 1-2hr ☐ 2-4hrs ☐ 4-6hrs ☐ over 6hrs

Today's consultation was mainly for (select one only):

☐ new problem ☐ an ongoing problem ☐ combination of old and new problem

☐ routine check up ☐ completion of forms ☐ other

In total, I have been training in this hospital for:

☐ less than 1 month ☐ between 1 and 4 months

☐ between 4 and 8 months ☐ between 8 and 12 months ☐ over 12 months

I have seen this patient:

☐ for the first time ☐ once or twice a year

☐ less than once a year ☐ three or more times a year

Please indicate how much you agree with the statements on the left side of the page using the following scale:

1-Strongly Disagree, **2**-Disagree, **3**- Neutral, **4**-Agree, **5**- Strongly agree

UA- Unable to assess

In this consultation, I:	**1**	**2**	**3**	**4**	**5**	**UA**
1. Greeted the patient in a way that made them feel comfortable.	☐	☐	☐	☐	☐	☐
2. Discussed the patient's reason(s) for coming today.	☐	☐	☐	☐	☐	☐
3. Encouraged the patient to express their thoughts concerning their health problem.	☐	☐	☐	☐	☐	☐
4. Listened carefully to what the patient had to say.	☐	☐	☐	☐	☐	☐
5. Understood what the patient had to say.	☐	☐	☐	☐	☐	☐
6. If a physical examination was required, explained what was done and why.	☐	☐	☐	☐	☐	☐
7. Explained the lab tests needed (eg. blood, x- rays, etc) to explore the patient's problem(s)	☐	☐	☐	☐	☐	☐
8. Discussed treatment options with patient.	☐	☐	☐	☐	☐	☐
9. Gave the patient as much information as they wanted.	☐	☐	☐	☐	☐	☐
10. Checked with patient to see if treatment plan(s) was acceptable.	☐	☐	☐	☐	☐	☐
11. Explained medications, if any, including possible side effects.	☐	☐	☐	☐	☐	☐
12. Encouraged the patient to ask questions.	☐	☐	☐	☐	☐	☐
13. Responded to the patient's questions and concerns.	☐	☐	☐	☐	☐	☐
14. Involved the patient in decisions as much as they wanted.	☐	☐	☐	☐	☐	☐
15. Discussed next steps including any follow-up plans.	☐	☐	☐	☐	☐	☐
16. Checked to be sure the patient understood everything.	☐	☐	☐	☐	☐	☐
17. Showed care and concern about the patient as a person.	☐	☐	☐	☐	☐	☐
18. Spent the right amount of time with the patient.	☐	☐	☐	☐	☐	☐
19. Overall, I was satisfied with this consultation today.	☐	☐	☐	☐	☐	☐

Study 1 - Patient Questionnaire

Piloting a Patient-Doctor communication Skills Survey

Patient Questionnaire

Marking Instructions: Please indicate your answer by selecting one of the alternatives and checking the squares like this: ☑

Interpretation of the rating scale: This form is used by a variety of patients, therefore, not all of the following items may be relevant to you. If any of these items are **NOT** relevant to you, mark these **"unable to assess"**

This questionnaire is being completed following a consultation with:
Dr.....

I am: ☐ Male ☐ Female

I am: ☐ 18-25 ☐ 26-40 ☐ 41-59 ☐ 60+

Today's visit was mainly for (select one only):
☐ new problem ☐ an ongoing problem ☐ combination of old and new problem
☐ routine check up ☐ completion of forms ☐ other

I have been in this hospital for:
☐ under a week ☐ between 2 and 4 weeks ☐ between 4 and 8 weeks
☐ between 8 and 12 weeks ☐ over 12 weeks

I have seen this doctor:
☐ for the first time ☐ once or twice a year
☐ less than once a year ☐ three or more times a year

Please indicate how much you agree with the statements on the left side of the page using the following scale:

1-Strongly Disagree, **2**-Disagree, **3**- Neutral, **4**-Agree, **5**- Strongly agree

UA- Unable to assess

This doctor:	**1**	**2**	**3**	**4**	**5**	**UA**
1. Greeted me in a way that made me feel comfortable.	☐	☐	☐	☐	☐	☐
2. Discussed my reason(s) for coming today.	☐	☐	☐	☐	☐	☐
3. Encouraged me to express my thoughts concerning my health problem.	☐	☐	☐	☐	☐	☐
4. Listened carefully to what I had to say.	☐	☐	☐	☐	☐	☐
5. Understood what I had to say.	☐	☐	☐	☐	☐	☐
6. If a physical examination was required for my health concerns, the doctor explained what was done and why.	☐	☐	☐	☐	☐	☐
7. Explained the lab tests needed (eg. blood, x- rays, etc)	☐	☐	☐	☐	☐	☐
8. Discussed treatment options with me.	☐	☐	☐	☐	☐	☐
9. Gave as much information as I wanted.	☐	☐	☐	☐	☐	☐
10. Checked to see if treatment plan(s) was acceptable to me.	☐	☐	☐	☐	☐	☐
11. Explained medications, if any, including possible side effects.	☐	☐	☐	☐	☐	☐
12. Encouraged me to ask questions.	☐	☐	☐	☐	☐	☐
13. Responded to my questions and concerns.	☐	☐	☐	☐	☐	☐
14. Involved me in decisions as much as I wanted.	☐	☐	☐	☐	☐	☐
15. Discussed next steps including any follow-up plans.	☐	☐	☐	☐	☐	☐
16. Checked to be sure I understood everything.	☐	☐	☐	☐	☐	☐
17. Showed care and concern about me as a person.	☐	☐	☐	☐	☐	☐
18. Spent the right amount of time with me.	☐	☐	☐	☐	☐	☐
19. Overall, I was satisfied with my visit by the doctor today.	☐	☐	☐	☐	☐	☐

Appendix 4: Feedback from Lay Members of PPIRes

Norfolk NHS
Primary Care Trust

PUBLIC & PATIENT INVOLVEMENT IN RESEARCH
CHECKLIST – PATIENT QUESTIONNAIRE

Project Title: Pilot Patient-Doctor Comms Skill Survey – Patient Questionnaire

Ref: Papageorgiou

Reviewer/Panel Member Name or Initials: Norma Emack

All acronyms, abbreviations, specialist terms explained?	☐	☐	☑
Are there additional sources of information about the topic?	☐	☑	☐

Content	Yes	No	N/A
Are there references given?	☐	☑	☐
Are the researchers/authors named?	☐	☑	☐
Are any risks/benefits associated with the research clearly outlined?	☐	☐	☑
Is there a contact for further information given?	☐	☐	☑

Comments

(I have used N/A above because the questions seem more appropriate to the Lay Summary than to the questionnaire.)

Accessible	Yes	No	N/A
Resources in alternative languages and formats are signposted?	☐	☑	☐

General Comments

(A comprehensive set of questions! An extra could be: "The doctor readily agreed to someone (a family member?) being present."

Presumably all patients are adults? If children, would a parent fill the questionnaire? Clarify in the Lay Summary??

THANK YOU

Norfolk NHS
Primary Care Trust

PUBLIC & PATIENT INVOLVEMENT IN RESEARCH CHECKLIST – PATIENT QUESTIONNAIRE

Project Title: Pilot Patient-Doctor Comms Skill Survey – Patient Questionnaire

Ref: Papageorgiou

Reviewer/Panel Member Name or Initials: Norma Lovack

Text/layout	Yes	No	N/A
Is the design and layout of information consistent?	☑	☐	☐
Is the date/version shown?	☐	☑	☐
Is a good clear font used throughout?	☑	☐	☐
Is the type large enough?	☐	☑	☐
Is bold text used for emphasis only?	☑	☐	☐
Underlining is minimal?	☑	☐	☐
Upper case is used sparingly?	☑	☐	☐
Lines of type are clearly spaced?	☑	☐	☐
Unrelated sections are clearly separated?	☑	☐	☐
Information is summarised and/or bullet-pointed?	☐	☐	☐

Comments

Content	Yes	No	N/A
Is the target group clearly identified?	☐	☐	☑
Is the aim of the study clear?	☐	☐	☑
Is it clear what participants are being asked to do?	☑	☐	☐
Is the language user friendly?	☑	☐	☐
Is there too much jargon/technical language?	☐	☑	☐
Are the arrangements for obtaining consent clear?	☐	☐	☑

Norfolk NHS
Primary Care Trust

PUBLIC & PATIENT INVOLVEMENT IN RESEARCH CHECKLIST – PHYSICIAN QUESTIONNAIRE

Project Title Pilot Patient-Doctor Comms Skill Survey – Physician Questionnaire

Ref: Papageorgiou

Reviewer/Panel Member Name or Initials: Noreen Lovack

All acronyms, abbreviations, specialist terms explained?	☐	☐	☑
Are there additional sources of information about the topic?	☐	☑	☐

Content	Yes	No	N/A
Are there references given?	☐	☑	☐
Are the researchers/authors named?	☐	☑	☐
Are any risks/benefits associated with the research clearly outlined?	☐	☐	☑
Is there a contact for further information given?	☐	☐	☑

Comments

(I have used N/A above because the questions seem more appropriate to the Lay Summary than to the Questionnaire.)

Accessible	Yes	No	N/A
Resources in alternative languages and formats are signposted?	☐	☐	☐

General Comments A comprehensive set of questions! Does the study already know, or need to ask, the doctor's length of experience? How long does a doctor count as "newly qualified"?

THANK YOU

Norfolk

DO PATIENTS AND YOUNG DOCTORS PERSPECTIVES ABOUT THE QUALITY OF COMMUNICATION DURING HISTORY TAKING (CLERKING) DIFFER?

KAY SUMMARY

	Yes	No	N/A
Is the design and layout of information consistent?	☑	☐	☐
Is the date/version shown?	☐	☐	☑
Is a good clear font used throughout?	☑	☐	☐
Is the type large enough?	☑	☐	☐
Is the target group clearly identified?	☑	☐	☐
Is the aim of the study clear?	☑	☐	☐
Is it clear what participants are being asked to do?	☑	☐	☐
Is the language user friendly?	☑	☐	☐
Is there too much jargon/technical language?	☐	☑	☐
Are the arrangements for obtaining consent clear?	☐	☐	☑
All acronyms, abbreviations, specialist terms explained?	☐	☐	☑
Are there additional sources of information about the topic?	☐	☐	☑
Are there references given?	☐	☐	☑
Are the researchers/authors named?	☑	☐	☐
Are any risks/benefits associated with the research clearly outlined?	☐	☐	☑
Is there a contact for further information given?	☐	☑	☑

Norfolk NHS
Primary Care Trust

PUBLIC & PATIENT INVOLVEMENT IN RESEARCH
CHECKLIST – LAY SUMMARY

Project Title **DO PATIENTS AND YOUNG DOCTORS PERSPECTIVES ABOUT THE QUALITY OF COMMUNICATION DURING HISTORY TAKING (CLERKING) DIFFER?**

Ref: Papageorgio 7/07

Reviewer/Panel Member Name or Initials: .....

Text/layout		**Yes**	**No**	**N/A**
Is the design and layout of information consistent?	yes	☐	☐	☐
Is the date/version shown?	no	☐	☐	☐
Is a good clear font used throughout?	Needs 14pt	☐	☐	☐
Is the type large enough?		☐	☐	☐

Content		**Yes**	**No**	**N/A**
Is the target group clearly identified?	no	☐	☐	☐
Is the aim of the study clear?	yes	☐	☐	☐
Is it clear what participants are being asked to do?	no	☐	☐	☐
Is the language user friendly?	ok	☐	☐	☐
Is there too much jargon/technical language?	no	☐	☐	☐
Are the arrangements for obtaining consent clear?	n/a	☐	☐	☐
All acronyms, abbreviations, specialist terms explained?		☐	☐	☐
Are there additional sources of information about the topic?		☐	☐	☐

Reliable – The Evidence-base		**Yes**	**No**	**N/A**
Are there references given?	no	☐	☐	☐
Are the researchers/authors named?	yes	☐	☐	☐
Are any risks/benefits associated with the research clearly outlined?		☐	☐	☐
Is there a contact for further information given?		☐	☐	☐

Comments

Interesting topic. The language could be simplified a bit.

THANK YOU

Norfolk NHS
Primary Care Trust

PUBLIC & PATIENT INVOLVEMENT IN RESEARCH
CHECKLIST – PATIENT QUESTIONNAIRE

Project Title Pilot Patient-Doctor Comms Skill Survey – Patient Questionnaire

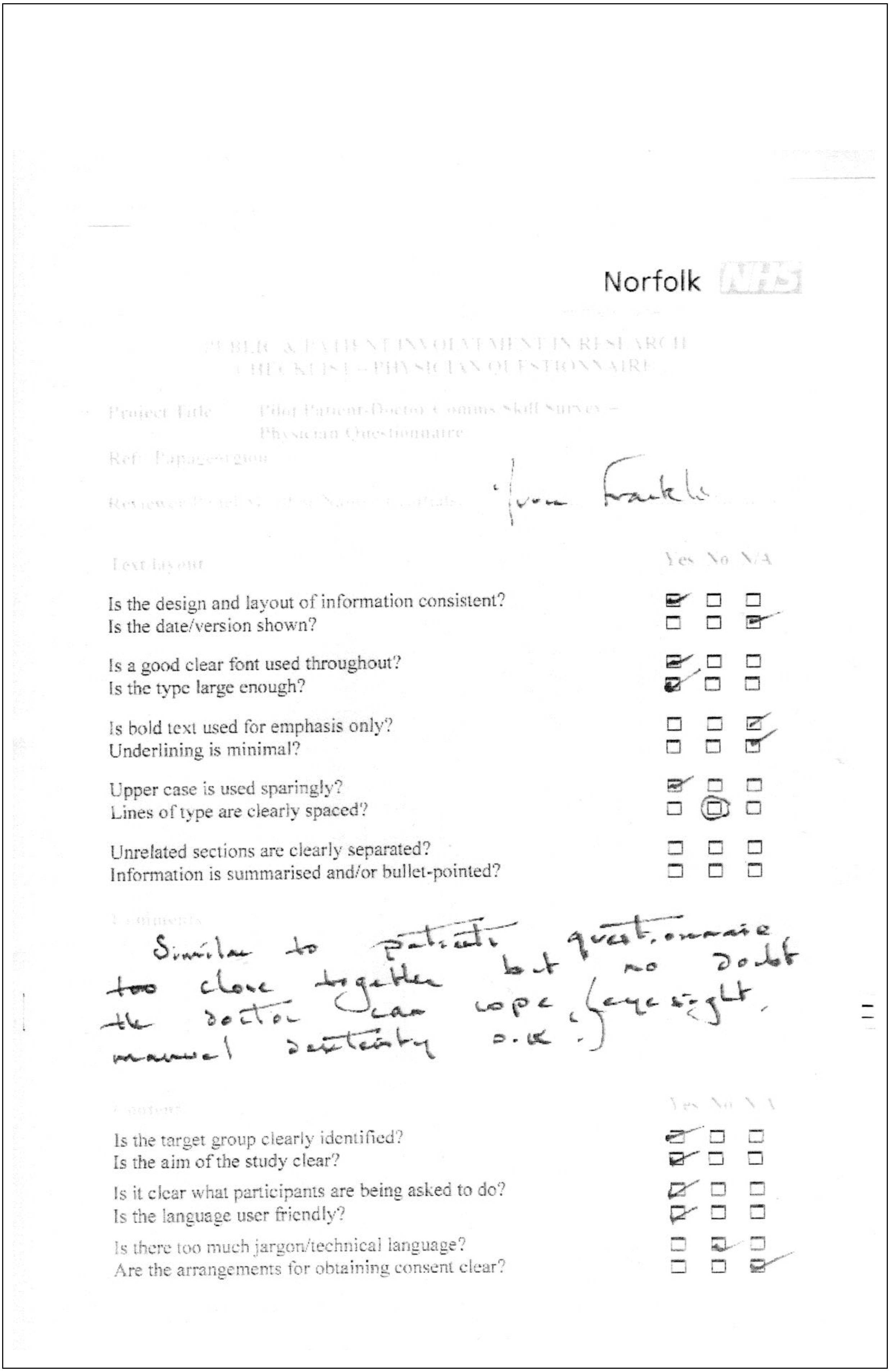
Ref: Papageorgiou

Reviewer/Panel Member Name or Initials: [signature]

Text/layout	Yes	No	N/A
Is the design and layout of information consistent?	✓	☐	☐
Is the date/version shown?	☐	☐	✓
Is a good clear font used throughout?	✓	☐	☐
Is the type large enough?	✓	☐	☐
Is bold text used for emphasis only?	☐	☐	✓
Underlining is minimal?	☐	☐	✓
Upper case is used sparingly?	✓	☐	☐
Lines of type are clearly spaced?	☐	◯ (circled)	☐
Unrelated sections are clearly separated?	☐	☐	✓
Information is summarised and/or bullet-pointed?	☐	☐	✓

Comments The questionnaire; questions for patient (& doctor) rather close together – easy to mark wrong question.

Content	Yes	No	N/A
Is the target group clearly identified?	✓	☐	☐
Is the aim of the study clear?	✓	☐	☐
Is it clear what participants are being asked to do?	✓	☐	☐
Is the language user friendly?	✓	☐	☐
Is there too much jargon/technical language?	☐	✓	☐
Are the arrangements for obtaining consent clear?	☐	☐	✓



Norfolk NHS

PUBLIC & PATIENT INVOLVEMENT IN RESEARCH
CHECKLIST – PHYSICIAN QUESTIONNAIRE

Project Title: Pilot Patient-Doctor Comms Skill Survey – Physician Questionnaire

Ref: Papageorgiou

Reviewer Details (Print Name and Date): Ivor Franklin

Text layout	Yes	No	N/A
Is the design and layout of information consistent?	✓		
Is the date/version shown?			✓
Is a good clear font used throughout?	✓		
Is the type large enough?	✓		
Is bold text used for emphasis only?			✓
Underlining is minimal?			✓
Upper case is used sparingly?	✓		
Lines of type are clearly spaced?		(circled)	
Unrelated sections are clearly separated?			
Information is summarised and/or bullet-pointed?			

Comments

Similar to patient questionnaire too close together but no doubt the doctor can cope (eyesight normal certainly o.k.)

Content	Yes	No	N/A
Is the target group clearly identified?	✓		
Is the aim of the study clear?	✓		
Is it clear what participants are being asked to do?	✓		
Is the language user friendly?	✓		
Is there too much jargon/technical language?		✓	
Are the arrangements for obtaining consent clear?			✓

Norfolk

	Yes	No	N/A
All acronyms, abbreviations, specialist terms explained?	☐	☐	☑
Are there additional sources of information about the topic?	☐	☑	☐
Content			
Are there references given?	☐	☐	☑
Are the researchers/authors named?	☑	☐	☐
Are any risks/benefits associated with the research clearly outlined?	☐	☐	☑
Is there a contact for further information given?	☐	☑	☐
Accessible			
Resources in alternative languages and formats are signposted?	☐	☑	☐

I find this very interesting as when an inpatient, I have never been checked by a doctor. Out patients - different because after first visit - follow up is continued of the first visit.

THANK YOU

I could write reams on this subject! HF

Norfolk NHS
Primary Care Trust

PUBLIC & PATIENT INVOLVEMENT IN RESEARCH
CHECKLIST – PATIENT QUESTIONNAIRE

Project Title: Pilot Patient-Doctor Comms Skill Survey – Patient Questionnaire

Ref: Papageorgiou

Reviewer/Panel Member Name or Initials: Ivone Franklin

All acronyms, abbreviations, specialist terms explained?	☐	☐	☐
Are there additional sources of information about the topic?	☐	☐	☐

Content	Yes	No	N/A
Are there references given?	☐	☐	☑
Are the researchers/authors named?	☑	☐	☐
Are any risks/benefits associated with the research clearly outlined?	☐	☐	☑
Is there a contact for further information given?	☐	☐	☐

Comments

Accessible	Yes	No	N/A
Resources in alternative languages and formats are signposted?	☐	☑	☐

General Comments

THANK YOU

Appendix 5: Study 1 Foundation Doctor Self-Efficacy Scales

Date: .....

Please complete BEFORE clerking your patient

Question 1: How confident do I feel about my ability to communicate effectively with my patient?

Not Very Confident **Very Confident**

Study 1 Foundation Doctor Self-Efficacy Scale

Date: .....

Please complete AFTER clerking your patient

Question 2: How confident do I feel that I communicated effectively with my patient?

Not Very Confident **Very Confident**

Appendix 6: Study 1 and 2 Ethical Approval Letter

NHS

National Research Ethics Service

Norfolk Research Ethics Committee
c/o The Norfolk & Norwich University Hospitals NHS Foundation Trust
East of England REC Office [2]
Room 2.08 First Floor
Aldwych House
57 Bethel Street
NORWICH
NR2 1NR

Telephone: 01603 289813
Facsimile: 01603 286573

22 February 2010

Mrs Michelle Dianna Fromage
PhD student
School of Medicine, Health Policy and Practice
The Postgraduate Room 0.27
The Queens Building
University of East Anglia,
Norwich
NR4 7TJ

Dear Mrs Fromage

Study Title:	**What is the impact of the delivery approach (longitudinal versus concentrated) of a consultation skills training programme in the undergraduate medical curriculum on Foundation Year doctors and their patients?**
REC reference number:	**09/H0310/103**
Protocol number:	**6**

Thank you for your letter of 09 February 2010, responding to the Committee's request for further information on the above research and submitting revised documentation.

The further information has been considered on behalf of the Committee by the Chair in consultation with selected Members.

Confirmation of ethical opinion

On behalf of the Committee, I am pleased to confirm a favourable ethical opinion for the above research on the basis described in the application form, protocol and supporting documentation as revised, subject to the conditions specified below.

Ethical review of research sites

The favourable opinion applies to all NHS sites taking part in the study, subject to management permission being obtained from the NHS/HSC R&D office prior to the start of the study (see "Conditions of the favourable opinion" below).

Conditions of the favourable opinion

The favourable opinion is subject to the following conditions being met prior to the start of the study.

Appendix 7: Study 1 and 2 Research and Development Approval Letter

James Paget University Hospitals NHS
NHS Foundation Trust

Research & Development Department
First Floor, Southside
James Paget University Hospital NHS Foundation Trust
Lowestoft Road
Gorleston
Great Yarmouth
Norfolk
NR31 6LA

Direct Dial: 01493 452432
Email: Karen.Reavell@jpaget.nhs.uk

Strictly Private & Confidential
Mrs M Fromage
School of Medicine, Health Policy and Practice
University of East Anglia
Room 0.27
The Queen's Building
Norwich
NR4 7TJ

10 May 2010

R&D Ref No: 2010/STU/02

Dear Mrs Fromage

What is the impact of the delivery approach (longitudinal versus concentrated) of a consultation skills training programme in the undergraduate curriculum on Foundation Year doctors and their patients

Thank you for the protocol regarding the above. This is to confirm that your study has been reviewed by the Research Support and Governance Group and has been approved. The following documents were reviewed:

Document	Version	Date
Application	38254/106003/14/874	04/03/10
Application for SSI for JPUH	38254/106020/6/678/51498/170345	04/03/10
Protocol	Version 6	
Flowchart	Version 1	06/11/09
FY Doctor's Invitation Letter	Version 4	28/01/010
FY Doctors Consent Form	Version 3	05/11/09
Consent Form FY – Visual Analogue & Questionnaire	Version 3	09/11/09
Patient Consent Form	Version 3	05/11/09
Physician Questionnaire		
Patient's Information Sheet	Version 4	27/01/10
Invitation letter for patients	Version 4	01/01/10
Information sheet for ward staff	Version 2	28/01/10
UEA Indemnity Letter	Sue Steel	09/03/10
CV (Chief Investigator)	Mrs Michelle Fromage	18/05/09
CV (Academic Supervisor)	Alexia Papageorgiou	12/03/10

Appendix 8: Study 1 and 2 Research and Development Approval Letter

East Norfolk and Waveney Research Governance Committee

NHS

Please reply to: Research Governance Committee Office
Research and Development Department
Level 3, East Block, Room 032
Norfolk & Norwich University Hospitals NHS Foundation Trust
Colney Lane
Norwich
NR4 7UY
Direct Dial: 01603 287805
Internal: 3805
Direct Fax: 01603 289800
e-mail: rdoffice@nnuh.nhs.uk
Website: www.norfolkhealthresearch.nhs.uk

Mrs Michelle Fromage
School of Medicine, Health Policy & Practice
The Queens Building
University of East Anglia
Norwich
NR4 7TJ

27th May 2010

Dear Mrs Fromage

Re: 2010HPP05S (63-03-10) What is the impact of the delivery approach (longitudinal versus concentrated) of a consultation skills training programme in the undergraduate medical curriculum on Foundation Year doctors and their patients?

Following confirmation of a favourable Ethical opinion I am pleased to confirm that your project has been given full approval from the East Norfolk and Waveney Research Governance Committee and Research Management Team and you may start your research. As a condition of approval you are required to notify the Clinical Directors in the departments that are participating in this study when you are about to enrol Foundation Year Doctors.

Please note that this approval applies to the following sites:

- Norfolk & Norwich University Hospitals NHS Foundation Trust

I have enclosed two copies of the Standard Terms and Conditions of Approval. Please sign and return one copy to the Research Governance Committee office. Failure to return the standard terms and conditions may affect the conditions of approval.

Please note, under the agreed standard terms and conditions of approval you must inform this Committee of any proposed changes to this study and to keep the Committee updated on progress.

If you have any queries regarding this or any other study please contact Claire Dawdry, Research Governance Administrator, at the above address. Please note, your reference number is **2010HPP05S (63-03-10)** and this should be quoted on all correspondence.

The Committee would like to take this opportunity to wish you every success with this project.

Yours sincerely

Dr Richard Reading
Chair
Consultant Paediatrician – NHS Norfolk

Encs – Standard terms and conditions, Guidance for screening of patient notes
Cc. Dr T Roques, NNUH

Appendix 9: Extension of Ethical Approval for Study 1 and 2

NRES Committee East of England – Norfolk

06 January 2012

Victoria House
Capital Park
Fulbourn
Cambridge
CB21 5XB

Mrs Michelle Dianna Fromage
Tel: 01223 590906
PhD student
School of Medicine, University of East Anglia
The Postgraduate Room 0.27
The Queens Building
University of East Anglia, Norwich
NR4 7TJ

Dear Mrs Fromage

Study title:	**What is the impact of the delivery approach (longitudinal versus concentrated) of a consultation skills training programme in the undergraduate medical curriculum on Foundation Year doctors and their patients?**
REC reference:	**09/H0310/103**
Amendment number:	**Amendment #1 (Minor)**
Amendment date:	**23 November 2011**
Amendment date:	**Extension of project finish date to June 2012**

Thank you for your letter of 23 November 2011, notifying the Committee of the above amendment.

The Committee does not consider this to be a "substantial amendment" as defined in the Standard Operating Procedures for Research Ethics Committees. The amendment does not therefore require an ethical opinion from the Committee and may be implemented immediately, provided that it does not affect the approval for the research given by the R&D office for the relevant NHS care organisation.

Documents received
The documents received were as follows:

Document	Version	Date
Notification of a Minor Amendment	Amendment #1 (Minor)	23 November 2011

Statement of compliance
The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees (July 2001) and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

09/H0310/103: Please quote this number on all correspondence

Yours sincerely

Ms Har Hari Kaur

Assistant Committee Co-ordinator

E-mail: Recofficetemp@eoe.nhs.uk

Appendix 10: Study 1 and 2 Foundation Doctor Invitation Letter

Faculty of Health

School of Medicine, Health Policy and Practice
Room 0.27, Queens Building
University of East Anglia
Norwich NR4 7TJ
United Kingdom

Email: michelle.fromage@uea.ac.uk
Tel: +44 (0) 1603 593094

Fax: +44 (0) 1603 593752 or 01603 593604
Web: www.uea.ac.uk

Dear Foundation Doctor

I am intending to conduct a research study to investigate the impact of the delivery approach (longitudinal versus concentrated) of a consultation skills training programme in the undergraduate medical curriculum on Foundation Year doctors and their patients. Anonymous data about the level of patient understanding and satisfaction with secondary care consultations will be collected. I have enclosed a copy of the participant information sheet for your attention. In addition, I hope to be available for further information during your consultation skills sessions at the hospitals. I would very much appreciate your assistance.

If you feel that you would like to participate in this study or would like more information then do not hesitate to contact me (Michelle Fromage, details above). I would be grateful if you could respond within two weeks to express your interest in being involved in this study.

In anticipation, sincere thanks for your valued response.

Yours Faithfully

Michelle Fromage

Appendix 11: Study 1 and 2 Foundation Doctor Invitation Letter (Version 2)

Faculty of Health

School of Medicine, Health Policy and Practice
Room 0.27, Queens Building
University of East Anglia
Norwich NR4 7TJ
United Kingdom

Email: michelle.fromage@uea.ac.uk
Tel: +44 (0) 1603 593094
Fax: +44 (0) 1603 593752 or 01603 593604
Web: www.uea.ac.uk

Dear Foundation Doctor

I am conducting a research study to investigate the impact of consultation skills training in the undergraduate medical curriculum on Foundation Year doctors and their patients. Anonymous data about the level of patient understanding and satisfaction with the consultations will be collected. I have attached a copy of the participant information sheet for your attention. I would very much appreciate your assistance.

There are two studies that you can participate in

1) a one-one interview about your consultation skills training and experience and/or

2) completing questionnaires about a consultation with your patients.

If you feel that you would like to take part in either study or would like more information then do not hesitate to contact me (Michelle Fromage).

In anticipation, sincere thanks for your valued response.

Yours Faithfully
Michelle Fromage

Also involved in the project are:
Emeritus Sam Leinster
Dr Alexia Papageorgiou
Dr Charlotte Salter
Dr Susan Miles
Dr Gill Price

Appendix 12: Study 1 and 2 Foundation Doctor Information Sheet

Study Title: What is the impact of the delivery approach (longitudinal versus concentrated) of a consultation skills training programme in the undergraduate medical curriculum on Foundation Year (FY) doctors and their patients?

You are being invited to take part in a research study. Before you decide whether or not to take part, we would like you to understand why the research is being done and what it will involve. So, please take time to read the following information carefully and discuss it with others if you wish. Please contact Michelle Fromage (contact details below) if anything is not clear or if you would like more information. This information sheet is yours to keep.

What is the purpose of the study?

Our aim is to explore the impact of consultation skills training on FY doctors' and their patients and whether delivering the training using a longitudinal or concentrated approach makes a difference. The study is being conducted as part of the researchers PhD award.

Are you testing my knowledge in some way?

No, this is not a test of your knowledge. There are no right or wrong answers, we are only interested in your opinions/perceptions.

Who will be taking part in the study?

We are contacting FY doctors who are employed at the Norfolk and Norwich University Hospital, Norwich and James Paget University Hospital, Gt Yarmouth. We will also approach a sample of FY doctors' patients. You have been contacted because you are working as a FYdoctor at one of these two hospitals.

Do I have to participate in this study?

No. You are under no obligation to participate in this research study. If you decide to take part you are still free to withdraw your data without giving a reason to the point of data analysis.

If I do decide to take part, what will I have to do?

Once recruited, you (FY doctor) will be requested to read and sign relevant consent forms. You will then be located at your hospital/ward and be provided with all relevant documentation and asked to provide the researcher with a patient list for the day. From

the list, patients will be selected and approached by the researcher for recruitment (in consultation with the most senior member of nursing staff available). This will take place **prior** to their consultation with you. You will be asked to complete the self-efficacy visual analogue scale (VAS) **prior** to consulting with the pre-selected patients. Following (within 24 hours-where possible) the consultation experience, you will be requested to complete the physician version of the consultation skills questionnaire, which will take no more than 5 minutes to complete, as well as repeating the VAS. All

3 documents will need to be placed in the addressed envelope provided and returned to the researcher or handed to a member of staff on the ward. Patient recruitment will be conducted by the researcher and on pre-agreed dates until the required sample of 20 patients per doctor is reached (approx.10 from each of 2 of your FY rotations).

Will my responses be kept anonymous?

Yes, all the information that you provide during the course of the study will be kept strictly confidential and in accordance with the Data Protection Act (1998). The responses you give in the returned questionnaire will be entered in a password protected spreadsheet and they will be identified by a partricipant number. All data will be presented in such a way as to preserve your anonymity. Your name will not be mentioned at all in any subsequent dissemination activity. The only people who will have access to your data are the members of the supervisory research team. Data will be securely disposed of 10 years after the end of the study.

What will happen to the results?

After analysis of the data, the findings may be disseminated within the institutions participating in the research for Consultation skills training development purposes, at national and international conferences, and in journal publications. A summary of the results will be sent to requesting FY doctors when available with an invitation to take part in a further interview where results will be summarised and offered as feed-back and an opportunity will be given for you to comment in more depth on your experience.

Who is running the study?

The study is being run by Mrs Michelle Fromage, a Postgraduate Researcher at the School of Medicine, Health Policy and Practice, University of East Anglia (UEA), Norwich under close supervision of Dr Alexia Papageorgiou, a consultation skills lecturer in the School of Medicine, Health Policy and Practice at the UEA. Prof Sam Leinster, Dr Charlotte Salter and Dr Gill Price are all based at the UEA and are also part of the supervisory panel.

Who has reviewed the study?

Ethical review will be sought from the Norfolk NHS Research Ethics Committee (NREC).

What if I have problems with my consultation skills?

If you are unhappy with your consultation skills you will have access to further help and support and can contact your clinical supervisor for further information. The data collected during this study will not affect your career.

Whom can I contact for further Information?

Michelle Fromage (Researcher)
School of Medicine
Room 0.27, The Queens Building
University of East Anglia
Norwich,NR4 7TJ
Telephone: 01603 593094
E-mail: michelle.fromage@uea.ac.uk

Dr Alexia Papageoriou (Supervisor)
School of Medicine
University of East Anglia
Norwich, NR4 7TJ
Tel: 01603 591293
E-mail: a.papageorgiou@uea.ac.uk

Appendix 13: Study 1 Foundation Doctor Consent Form for Questionnaire and Visual Analogue Scale

University of East Anglia

Study Title: What is the impact of the delivery approach (longitudinal versus concentrated) of a consultation skills training programme in the undergraduate medical curriculum on Foundation Year doctors and their patients?

Please take time to read each statement below	Please initial
I have read and understood the participant information sheet for the above study and have had the opportunity to ask questions.	
I understand that my participation is voluntary and that I am free to withdraw at any time.	
I understand that all information will remain strictly confidential.	
I agree that all information collected about me as part of the study can be stored and analysed by the researcher at the University of East Anglia.	
I understand that relevant sections of data collected during the study may be looked at by individuals from regulatory authorities or from the NHS Trust, where it is relevant to my taking part in this research. I give permission for these individuals to have access to my records.	
I agree to take part in this study.	

Name of Participant: ……...

Signature: .....

Date: …….....

Name of

Researcher: ……...

Signature: .....

Date: .....

Appendix 14: Study 1 Patient Invitation Letter

Faculty of Health

School of Medicine, Health Policy and Practice
Room 0.27, Queens Building
University of East Anglia
Norwich NR4 7TJ
United Kingdom

Email: michelle.fromage@uea.ac.uk
Tel: +44 (0) 1603 593094
Fax: +44 (0) 1603 593752 or 01603 593604
Web: www.uea.ac.uk

Dear Patient

I am currently conducting a research study (as part of my PhD) which aims to compare the skills of Foundation Year (FY) doctors who have gone through two different methods of teaching of consultation skills at University. The study aims to investigate whether the way in which student doctors are trained in consultation skills makes a difference to how well they perform when they are communicating with patients in the workplace.

In order to do this, I will need to ask some patients to answer questions about their experience. I have attached a copy of the participant information sheet for you to read and keep. I will be happy to answer any other questions that you may have before you decide to take part.

If you are interested in being involved you will be asked to read and sign a consent form prior to having your consultation with the junior doctor today. You will then be given a questionnaire that I would request that you complete **after** your consultation.

I would very much appreciate your assistance.

In anticipation, sincere thanks for your valued response.

Yours Sincerely

Michelle Fromage

Appendix 15: Study 1 Patient Information Sheet

Study Title: What is the impact of the delivery approach (longitudinal versus concentrated) of a consultation skills training programme in the undergraduate medical curriculum on Foundation Year doctors and their patients?

You are being invited to take part in a research study. Before you decide whether or not to take part, we would like you to understand why the research is being done and what it will involve. So, please take time to read the following information carefully and discuss it with others if you wish. Please contact the researcher, Michelle Fromage (contact details at the end of the document) , if anything is not clear or you would like more information. This information sheet is yours to keep.

What is the purpose of the study?

I am currently conducting a research study (as part of my PhD) which aims to compare the skills of Foundation Year (FY) doctors who have gone through two different methods of teaching of consultation skills at University. The study aims to investigate whether the way in which student doctors are trained in consultation skills makes a difference to how well they perform when they are communicating with patients in the workplace.

Are you testing my knowledge in some way?

No, this is not a test of your knowledge. There are no right or wrong answers, we are only interested in your opinions.

Who will be taking part in the study?

We are contacting all Foundation Year (FY) doctors who are employed at the Norfolk and Norwich University Hospital, Norwich and James Paget Hospital, Gt Yarmouth. You have been contacted because you are a patient of a FY doctor who is working at one of these two hospitals.

Do I have to participate in this study?

No. You are under no obligation to participate in this research study. If you decide to take part you are still free to withdraw your data without giving a reason to the point where we start analysing the data.

If I do decide to take part, what will I have to do?

The next step is that you will be asked to read and sign a consent form before you have your consultation with your doctor. Once you have had your consultation you will be given a short questionnaire that will take no more than 10 minutes to complete. As it is about your experience, it is best to complete it as soon as possible (within 24 hours-where possible). You will be provided with an addressed envelope in which to place the questionnaire once you have finished which can then be handed to the researcher (if still available) or to a member of staff on the ward.

Will my responses be kept anonymous?

Yes, all the information that you provide during the course of the study will be kept strictly confidential and in accordance with the Data Protection Act (1998).

The responses that you give will be identified by a number. Your name will not be mentioned at all in any written reports. Only the supervisory team will have access to your information. Data will be securely disposed of 10 years after the end of the study.

What will happen to the results?

A summary of the results will be sent to any requesting FY doctors and/or patients when available. It is planned for the results to be available in Public and Patient Involvement in Reserach (PPiRes) publications and on their website. The findings from this study will also be circulated within the Universities who are responsible for communication skills training and reported in hospital publications.

Who is running the study?

The study is being run by Mrs Michelle Fromage, a Postgraduate Researcher at the School of Medicine, Health Policy and Practice, University of East Anglia (UEA), Norwich. Dr Alexia Papageorgiou who is a consultation skills lecturer at UEA, will supervise the researcher throughout the study. Prof Sam Leinster, Dr Charlotte Salter and Dr Gill Price are all based at the UEA and are also there to support the researcher

Who has reviewed the study?

The study was looked at by representative patients from (PPiRes) who provided valuable feedback on the study. All research in the NHS is looked at by an independent group of people called a Research Ethics Committee tp protect your safety, rights, well being and dignity. This study has been reviewed by the Norfolk Research Ethics Committee.

Whom can I contact for further Information?

You can contact the postgraduate researcher or her academic supervisor (details below).

Where can I find independent Information?

You can find general information about taking part in research at www.norfolkhealthresearch.nhs.uk. This is the Public and Patient Involvement in Research (PPiRes) website. Also, the hospital website www.nnuh.nhs.uk offers information where you will find details of the NHS complaints procedure, should you have any problems or concerns.

Contact Details:

Michelle Fromage (Researcher)
School of Medicine
Room 0.27, The Queens Building
University of East Anglia,
Norwich,
NR4 7TJ.
Telephone: 01603 593094.
E-mail: michelle.fromage@uea.ac.uk

Dr Alexia Papageoriou (Supervisor)
School of Medicine
University of East Anglia
Norwich
NR4 7TJ

Telephone: 01603 591293
E-mail: a.papageorgiou@uea.ac.uk

Appendix 16: Study 1 Patient Consent Form

Study Title: What is the impact of the delivery approach (longitudinal versus concentrated) of a consultation skills training programme in the undergraduate medical curriculum on Foundation Year doctors and their patients?

Please take time to read each statement below	Please initial
I have read and understood the participant information sheet for the above study and have had the opportunity to ask questions.	
I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, and without my medical care or legal rights being affected.	
I hereby authorise Michelle Fromage (the researcher) to access my hospital record to obtain only information that is relevant for this project (illness type, length of illness, length of stay in hospital).	
I understand that all information will remain strictly confidential.	
I understand that relevant sections of my medical notes and data collected during the study may be looked at by individuals from regulatory authorities or from the NHS Trust, where it is relevant to my taking part in this research. I give permission for these individuals to have access to my records.	
I agree to take part in this study.	

Name of Participant: ……

Signature: .....

Date: …….....

Name of

Researcher: ……..

Signature: .....

Date: .....

Appendix 17: Study 2 Foundation Doctors

Consent Form for Interview

Study Title: What is the impact of the delivery approach (longitudinal versus concentrated) of a consultation skills training programme in the undergraduate medical curriculum on Foundation Year doctors and their patients?

Please take time to read each statement below.	Please initial
I have read and understood the participant information sheet for the above study and have had the opportunity to ask questions.	
I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason.	
I understand that the interview will be tape recorded and that I can refuse to answer a question if I wish and stop the interview at any time without having to give an explanation.	
I understand that all information will remain strictly confidential.	
I agree that all information collected about me as part of the study can be stored and analysed by the researcher at the University of East Anglia.	
I understand that small parts of what I say may be quoted anonymously when the results of the research are reported.	
I understand that relevant sections of data collected during the study may be looked at by individuals from regulatory authorities or from the NHS Trust, where it is relevant to my taking part in this research. I give permission for these individuals to have access to my records.	
I agree to take part in this study.	

Name of Participant: ……

Signature: .....

Date: …….....

Name of

Researcher: ……....

Signature: .....

Date: .....

Appendix 18: Study 2 Interview Guide for Foundation Doctors

Briefing statement:

The purpose of this interview is to find out how you feel about your consultation skills training and practice. If you took part in Study 1 then an overview of the results will be feedback to you. The interview will be non-judgemental and anonymous. I will ask some pre-prepared questions but will be guided by what you say and explore your thoughts and feelings about your consultation skills training and practice. Please let me know if you would like to stop the interview at any time and it should only last up to one hour.

Opening question:

Please can you tell me about your experience of consultation skills training?

Themes:

- Consultation skills training at Medical School.
  (Feedback of any results from the initial stage of the study (only those who had participated in Study 1).
- Using consultation skills 'on the job'.
- Consultation skills training needs now and in the future.

Prompts/follow up questions:

- What did you think about that?
- Can you give me an example?
- Silence
- Could you just clarify what you meant by…..?

Appendix 19: Study 2 Foundation Doctors Interview Schedule

Q1 Experience of consultation skills training in your undergraduate degree.

Tell me about your experience of consultation skills training in your undergraduate degree

Can you give me a brief description of your consultation skills training?
Prompt for pro's and con's, role play, feedback

- When did it start and how did the timing of it feel

Prompt for too early too late etc

- Can you tell me roughly how much training and practice you received

Prompt for scheduling, lectures, seminars, enough, too much, in what ways etc)

- Was there a particular method/framework or approach that was used in your consultation skills training?

Prompt What approach? C/C and others

- What are your thoughts on the approach that was used in your communication skills training?

Prompt for views on usefulness, relevance, etc

- Tell me about your experience of role play and of feedback and being videoed

Prompt for experiences positive, negative, realistic, unrealistic, challenging, exposing, good practice etc

- Again, reflecting on your consultation skills training at university, what factors impacted the most upon the training to determine its effectiveness/usefulness.

Prompt for tutors, model, timing, role-play, etc

Q2 Consultation skills challenges "on the job"

Moving on to where you are now, as an FY1/2 Doctor, reflecting on your consultation skills training at university:

- Tell me about how you use your consultation skills in your daily practice

Prompt for if, where and when

- Could you give a concrete example of this?
- What have you found to be of the most use in your work place

Prompt how was it useful, not useful, what might have been more useful

- Do you have any suggestions for what could be changed about your undergraduate consultation skills training to support you better as a FY doctor

Feedback individual results from parallel questionnaires and VAS if applicable.

Q3 Thoughts on your individual performance according to the scoring from the questionnaires.

Tell me about your thoughts on the scores you achieved during the initial stage of the study. Give space for them to talk.....

- Why do you think you scored in this way?

Prompt for personality, previous experience, training, context.

- What factors do you think impacted on your scores?

- Are they at the level that you expected them to be?

Prompt for better, worse etc.

- In your opinion, is this a true reflection of your consultation skills performance in the workplace?

Prompt for why you think it is or is not.

- How consistent do you feel that your consultation skills are?

Prompt for context, ward, patient, workload, tiredness, superiors.

- Reflecting on a different rotation/hospital/ward, might you have scored differently?

Prompt for yes, no, maybe and why might this be the case?

- How representative are your consultations in the pre-assessment clinic to your general consultation style in the workplace?

- Reflecting on your individual performance scores, what factors influence you the most in performing effective consultations as a FY doctor?

Prompt for training, feedback, personality, context, this study, previous experience.

- Reflecting on your confidence scores, what factors impact the most upon your confidence in having effective consultations with patients?

Prompt for context, patient needs, superiors etc.

Q4 Communication skills needs as FY doctor

- Speaking as a FY Doctor, can you identify any communication skills training needs that you have now

- Or might have in the future?

Appendix 20: Example Transcript from a Study 2 Participant

	Notes	Speaker	Conversation	Codes
1.		MF	Ok so we'll make a start then thank you for coming all we're going to talk about like I said before was your experience of training we'll start with that	
2.		1	Ok	
3.		MF	Um so tell me about your experience of consultation skills training in your degree	
4.		1	Ok so during medical school I trained at UCL in London we did have a fair amount of sort of consultation and communication skills in terms of you would have what is called a professional development spine and you had a session each week small group seminar type um environment um and you were kind of taught the importance of the consultation and how you should approach patient and dealing with difficult situations within a consultation	
5.		MF	Mm	
6.		1	For the first two years the non-clinical years they that experience wasn't brilliant because you obviously didn't have that kind of hands on patient contact and you didn't have the everyday practice of having a consultation with a patient	
7.		MF	Ok	
8.		1	However as you moved into the clinical sort of setting it was much improved it was much more appropriate and applicable to what you	

	Notes	Speaker	Conversation	Codes
			were actually doing	
9.		MF	Ok so did the consultation skills sessions continue in your clinical years did they go all the way through	
10.		1	Yes	
11.		MF	Right	
12.	TIME: 1.10.7	1	What they started to do was bring in more difficult subjects say having a consultation in which you have to break bad news or if you had an angry patient how did you approach that within the consultation um but the kind of bog standard how to have a consultation was covered in the first few years and then as you got through you would add in a more difficult scenario	
13.		MF	Yes ok good so how did it feel in terms of timing did it feel right that it went all the way through because some people experience the first two years and then none in the clinical years or vice versa	
14.		1	No I think the way that it was staggered I think that learning the kind of key aspects of a consultation early on and then introducing the more difficult aspects of a consultation I think that was important and it was important that it carried on throughout medical school um particularly as we were growing as students and started to see more and do more	
15.		MF	Yes yes so that worked for you so there was enough too much or it felt ok	

	Notes	Speaker	Conversation	Codes
16.		1	I have to say that actually I think it was enough	
17.		MF	Yes	
18.		1	I mean I was slightly different cos I did my two years and then I intercalated and did a BSc in primary health care which meant that you actually did a whole kind of um project on consultation you were videoed so we had I had a lot more extra stuff during that BSc yes	
19.		MF	Yes	
20.		1	So I felt that that gave me a massive advantage when I started my clinical work	
21.	TIME: 2.31.6	MF	Mm	
22.		1	I have to say um but I think that other students found that it was adequate it was enough it wasn't kind of over the top	
23.		MF	No	
24.		1	Communication skill sit was just how to deal with the consultation	
25.		MF	Ok and was it taught in isolation to clinical skills or was it kind of integrated	
26.		1	Yes I would say actually that was all part of this professional development spine	
27.		MF	Yes	
28.		1	It was all in that you didn't really sort of if you were on the ward know one would really watch you do a consultation and check that	

	Notes	Speaker	Conversation	Codes
			everything was going ok	
29.		MF	No	
30.		1	As I said the only time I had that done to me was during my BSc at a GP practice where there was time to do it	
31.		MF	Yes yes and a different setting altogether really isn't it ok was there a particular method or framework you know like a approach to comm. Skills	
32.		1	Yes well to the consultation it was the Calgary Cambridge guide is what we were kind of taught on	
33.		MF	Yes	
34.		1	Um	
35.		MF	Do you think that was useful	
36.		1	Yes and I have to say I you know I know people have different views about how you should do a consultation but that's the one that I still try and use as a practising doctor	
37.	TIME: 3.31.8	MF	Yes ok good um so did you do the old role play and feedback and that kind of thing	
38.		1	Yes um we did do that and sometimes as we got better as students it became a better learning environment but what we used to do was sit in say a seminar group of about 8 people you'd have a tutor who tended to be from the community so often a GP tutor they would come in you'd sit there and um we would have an actor for a patient and each student would come up and take a section of	

	Notes	Speaker	Conversation	Codes
			the his of the consultation	
39.		MF	Yes	
40.		1	So either the wrapping up at the end or the initial gathering of information	
41.		MF	Yes which ever you were learning that day kind of concentrating on	
42.		1	We kind of did it that way initially and that I have to say was quite tedious because obviously everyone's at different levels and you've got to sit there and you've got to watch everyone do their bit and it's never going to flow for you because you've only done a small aspect of the consultation however when we got to sort of 4th and 5th year we were able to do the whole consultation um we did it behind a mirrored screen so that we kind of did it and we were in our own consultation room but the rest of the group were watching us	
43.		MF	Oh	
44.		1	And gave us feedback on it which was actually it was really daunting	
45.		MF	Yes	
46.	TIME: 4.44.1	1	But the feedback that they gave you you know when you don't realise that you do things when you're in a consultation	
47.		MF	Absolutely	
48.		1	Like umming and arhing and all that kind of thing	

	Notes	Speaker	Conversation	Codes
49.		MF	All the body language yes	
50.		1	So that I have to say that was really good at the end	
51.		MF	So did you prefer where they all behind the mirrored screen was that better	
52.		1	Yes all yes	
53.		MF	Rather than facing all of your pier group	
54.		1	Yes that just makes it it makes it unreal and it's not how the situation is and actually being a room with just with one patient that's kind of difficult initially as well	
55.		MF	Yes	
56.		1	Because it's just you and that person so that was a good experience to have	
57.		MF	Yes	
58.		1	And then obviously we had feedback on	
59.		MF	So I guess that's how it's going to be isn't it a lot of the time	
60.		1	Yes	
61.		MF	Most of the time probably ok um so if you reflect on your comm. skills training what factors impacted the most on the training to determine whether it was effective or not so you know if you came out of a comm. skills session and felt that it was particularly useful what might what would have made that difference	
62.	TIME:	1	I think it was often dependent on the tutor	

	Notes	Speaker	Conversation	Codes
	5.39.8			
63.		MF	Yes	
64.		1	And I'm sure you get that a lot I think that when it was a clinician when it was somebody who had you know lots of experience themselves they could give you different view points and they could say ok you might do it this way someone else does it this way but that's not wrong	
65.		MF	Yes	
66.		1	You know it's just different	
67.		MF	Yes	
68.		1	It's ok provided you're getting the points and you and the patient are happy with the outcome um the times it didn't go so well were with sort of maybe healthcare professionals who don't have your kind of responsibility as a doctor I suppose I don't mean tha tin a bad way	
69.		MF	No	
70.		1	I just (?) if they have a different outlook on cos a nurses consultation or an occupational health therapist their consultation will be completely different to the doctor I think	
71.		MF	Yes yes	
72.		1	Even though the principles should be the same they are different	
73.		MF	Yes	

	Notes	Speaker	Conversation	Codes
74.		1	Um and I think sometimes we were taught by educationalist which was really good in that they knew everything that should be done but as and that was actually more useful when we were early on years 1 and 2 being taught be someone who knew the theory and the method	
75.	TIME: 6.43.4	MF	Yes	
76.		1	And then as we got more clinical I think it was better being given by clinicians	
77.		MF	Ok good did you always have just one tutor or were there sometimes	
78.		1	No it was usually one and I think you probably could have had two	
79.		MF	Yes	
80.		1	If there was enough to go round I think then making it even smaller groups or you know having two different sides of the kind of coin would be god	
81.		MF	Ok good so if we move onto where you are now as a FY1	
82.		1	Yes	
83.		MF	Yes and reflecting on your training at University tell me about how you use your comm. skills in your daily practice	
84.		1	It's so interesting how you come out of medical school knowing exactly what you should do and doing in your OSCEs doing the perfect consultation and then after about	

	Notes	Speaker	Conversation	Codes
			two weeks worth of being a doctor that just completely goes out of the window um not in terms of you're not you know being nice to the patient and things and you're getting the information you need but your structure is completely different because you've got a whole new role you're not the medical student with an hour to take a history	
85.		MF	Yes	
86.		1	You have to do it quickly and it's often in an acute setting an so I do try an use my communication skills and in the pre-op clinic that's exactly where I try and do my Calgary Cambridge and I start from the beginning and make a plan	
87.	TIME: 7.55.7	MF	Yes	
88.		1	That's kind of where I use it but I have to say on the wards I don't feel that I use that structure as much	
89.		MF	No	
90.		1	Probably just because things aren't reinforced like it would be quite nice it's difficult because some people would say if we taught communication skills as a doctor then would you be teaching people to suck eggs but I don't think that's true	
91.		MF	No	
92.		1	I think it would help to have the odd session to reinforce the way that you do your consultations	

	Notes	Speaker	Conversation	Codes
93.		MF	Yes and you haven't had any since this is your first rotation	
94.		1	It's my first three months as a doctor	
95.		MF	Yes	
96.		1	So	
97.		MF	Um cos I don't I know there used to be some in place the odd comm. skills you know as part of your Tuesday afternoon	
98.		1	Yes	
99.		MF	Teaching but I think maybe that's not there	
100		1	I think it's I think at the moment it's had to be replaced by other things that (?) demand like infection control and	
101		MF	Yes yes	
102		1	You know those extra things were as actually as a new doctor what you need is someone to say this is what you're doing well and these are the communication skills you should be using	
103	TIME: 8.51.4	MF	Absolutely just some feedback you know	
104		1	Yes it would help	
105		MF	Ok so you say that where you might use it most is the pre-op clinic which is great because that was the kind of place that I thought our questionnaires suited	
106		1	Yes	

	Notes	Speaker	Conversation	Codes
107		MF	Um because previous doctors had said to me it wouldn't be appropriate on a ward round or anything like like that we couldn't a) carry around all the documents b) we don't do a full full enough consultation to give the questionnaire because it was quite in depth	
108		1	Yes	
109		MF	In a lot of ways so if you then look at the pre-assessment clinic what have you found to be the most use in well in your doctor three months if you were reflecting on your training you know was it kind of a particular	
110		1	So in terms of how was the pre-op clinic good	
111		MF	Yes no what I mean is it's kind of like what you found most useful what have you used most from comm. skills training wherever you've been in your rotation	
112		1	Um	
113		MF	Or do you not really re	
114		1	I suppose I haven't really reflected that much on how I use it	
115		MF	No	
116	TIME: 9.58.6	1	The times I have used it a lot breaking bad news that was really important because if I hadn't had that training I would have really messed up	
117		MF	Yes	
118		1	On a number of occasions	

	Notes	Speaker	Conversation	Codes
119		MF	Yes yes	
120		1	So I definitely pull it there and I definitely use it with angry patients and relatives	
121		MF	Mm yes	
122		1	But I tend not to sort of not actively but I'm sure I do subconsciously draw on it when I'm doing normal consultation	
123		MF	Yes but you're more conscious of it then	
124		1	When it's a difficult consultation	
125		MF	Because you're thinking about what you're going say next and in terms of structure ok that's interesting so do you have any suggestions for what could be changed about your under grad comm. skills to support you better as a junior doctor I mean you've said more training as a junior doctor or at least some sessions (?) training	
126		1	I think as an under graduate I think I've been lucky and I've been taught well and my BSc helped um I think being taught by clinicians it's something that needs to be majored on and um smaller groups would be better form communication it has to be for communication cos you can't do it you can I remember them trying to teach us communication as a lecture I don't know who came up with that idea but it just didn't work	
127		MF	No no so groups of less than 8 then	
128		1	Yes	

	Notes	Speaker	Conversation	Codes
129		MF	Cos you said normally 8	
130		1	8 probably 8 – 10 would fine depending on how many tutors you have for that groups	
131		MF	But your groups at Uni were normally bigger than that were they	
132		1	They were about 8 with one tutor	
133	Part 1 ENDS: 11.27.7	MF	So about right ok so I'm going to pause there	
134		MF	Ok starting a new recording but that's fine I'll just collate them together ok so with regard to your thoughts on the scores that I've just given you and basically your performance scores um so tell me about your thoughts that you achieved during this initial stage of the study	
135		1	Um I'm quite happy with the results I'm pleased and I think I'm not surprised that there is a difference between what I thought and what the patients thought but I didn't think it would be that big a gap um	
136		MF	Yes ok so why do you think you scored in this way	
137		1	Um I think that it's hard to do this without making yourself	
138		MF	I know	
139		1	(?)	
140		MF	(?)	

	Notes	Speaker	Conversation	Codes
141		1	I feel like I have a good nature with people not just patients I feel I have a good nature with people so I think that some of this stuff the grids from the patient and the answering the questions or seeing if they need questions answering I think that just comes naturally to me	
142	TIME: 1.00.0	MF	Mm mm	
143		1	So that's where I feel that I've probably done quite on um and I think like I said with pre-op clinic I do get the time to do a more structured consultation so that's probably why you know I think is you did this up on the ward these scores would probably not be anywhere near as high	
144		MF	Ok	
145		1	Because the relationship with the patients is quite different	
146		MF	Ok so what impacts on your scores is what you've got naturally um time and place (?)	
147		1	Yes it's definitely time and place	
148		MF	Yes	
149		1	And I think in pre-op clinic there's the other thing where as the junior doctor you are actually the only person who is going to see that patient before they come into uh for their operation	
150		MF	Mm	

	Notes	Speaker	Conversation	Codes
151		1	So you've got a lot more responsibility um and therefore you wouldn't want to let yourself down or admit someone for an operation when they shouldn't have one so you're I feel that I'm more thorough with them and I'm doing everything well I'm documenting everything I feel we have a really productive consultation but on the wards again I'm with a consultant that's kind of telling me what to say	
152		MF	Right	
153		1	So you with the pre-op clinic you do all this shared decision making and you really work with the patient to make sure that their going for this operation and it's medically appropriate and they're happy	
154	TIME: 2.10.3	MF	yes	
155		1	On the wards you're just doing a kind of paternalistic relationship and	
156		MF	Yes	
157		1	You're telling them what to do	
158		MF	Yes um interesting so do you think as a kind of training ground then the pre-assessment clinic is really useful	
159		1	I took my medical students in there and they loved it and they learnt so much more than trying to take a history on a ward	
160		MF	Really so that was good because I I kind of came across it by talking to FY2's that had	

	Notes	Speaker	Conversation	Codes
			already finished	
161		1	Yes	
162		MF	Because I wasn't getting any participants and not a lot of data and it was them that said you know the only place that this is really going to work we've got the time we do a longer consultation is if we do the pre-assessment clinic	
163		1	Yes	
164		MF	Um and you're saying that actually for you it's beneficial as well as	
165		1	As a doctor	
166		MF	A junior doctor	
167		1	And I think if you you have to do lots of things as a junior doctor and particularly when you've just qualified so you'll do your on call bit which is really important for your acute medical knowledge and your management of patients in an acute situation but I think you have to do stuff like pre-op clinic because otherwise your ability to have good communication skills and do a good structured consultation will go out of the window	
168	TIME: 3.13.9	MF	Yes	
169		1	Because you don't do it on a daily basis	
170		MF	Yes so it's good practice even though it's not monitored or	

	Notes	Speaker	Conversation	Codes
171		1	And apart from (?)	
172		MF	Yes ok so um my question was are they at the level you expected them to be you said that you know it would you would expect that from from your personality and from where you were working	
173		1	Yes I mean	
174		MF	The environment	
175		1	I think they're generous but I think I wouldn't have thought they'd be 2's or anything	
176		MF	Ok and you've said um that this is a true reflection of your communication skills in the workplace you would agree with that and how consistent so you feel that your consultation skills are kind of across context and patients and wards	
177		1	I think that the general core bog standard bits of a consultation are general across wherever I work and my ability to communicate with patients is at a general level I think that what's gained from a consultation both on my part from the knowledge I get from the patient and also on the patients part from how satisfied they feel I think that that varies quite a bit and that's based on the location and the time available	
178		MF	Mm mm ok and um my next is about might you have scored differently in a different rotate hospital or ward you've already answered that that yes you probably would um and how representative are your consultations in the pre-assessment clinic to	

	Notes	Speaker	Conversation	Codes
			your general consultation style	
179	TIME: 4.46.7	1	Yes I don't think they are I think to an extent they are I'm not saying I go onto the ward and I just say patient x do this	
180		MF	No	
181		1	But it is different and I feel like I'm doing the right things when I'm in pre-op and I feel like we are making a decision together and I am answering the questions they have and their ideas their concerns all of those things whereas I think on the ward I do it but it's more rushed	
182		MF	Yes	
183		1	and probably a bit I don't mean it any less genuinely but I think that they probably feel that I'm not being genuine when I say do you have any other concerns	
184		MF	Right	
185		1	Cos I'm saying it not like so lets talk about it I'm saying any concerns	
186		MF	Yes	
187		1	Ok	
188		MF	Yes and that's natural you know and that's I guess I guess if you started to take as long as you maybe take in a pre-assessment clinic what would the consultants be doing or the	
189		1	You'd get sacked	

	Notes	Speaker	Conversation	Codes
190		MF	So there you are so you kind of run in with it with the environment that you find yourself in	
191	TIME: 5.44.4	1	yes	
192		MF	And the patient you've got in front of you I guess	
193		1	Yes	
194		MF	Makes the difference	
195		1	Yes and I think we all do that I think it varies for everyone	
196		MF	Yes ok um so in answer to what factors influence you the most in performing effective consultations goes back to location time anything else	
197		1	So yes you're general kind of attitude to it your personality the type of patient and I know and I thought it would never thought it would happen to me but I know that when you've got a patient who is being really difficult that your attitude changes and your communication changes and I don't like the fact that it does that because you always say that you won't do that and you'll still remain impartial but you don't	
198		MF	No	
199		1	So the type of patient the kind of person you are and like ultimately the training that you've had I think because you can see it between where people have trained that people are quite different	

	Notes	Speaker	Conversation	Codes
200		MF	Yes	
201		1	Avril one of my colleagues she trained at UEA and if we do an F1 ward round I will kind of sit through the patients and will do sort of 40 patients in about an hour and a half and if she does it that will take until lunch time starting at eight	
202		MF	Really	
203	TIME: 6.56.1	1	And her consultations are lovely	
204		MF	Yes	
205		1	But it's kind of it's not saying that ones because we both come out with the same management plan	
206		MF	Yes	
207		1	And opinion it's just how we do things	
208		MF	How we do it	
209		1	And probably what you need as a happy medium	
210		MF	Yes	
211		1	But I don't know how we do that	
212		MF	No no it's difficult thousand dollar question isn't it	
213		1	Exactly	
214		MF	Ok so um if we go now to your um confidence scores you know the self efficacy	
215		1	Yes	

	Notes	Speaker	Conversation	Codes
216		MF	And like we did discuss it's quite consistent um you know before and after an across the seven or eight consultations so what factors impact the most on your confidence or having an effective consultation	
217		1	For me I think that it's not anything and this will annoy you with your study but I don't think it's anything to do with the communication I think for me it's about my knowledge base and I so I'm working in general surgery but colorectural surgery specifically and in pre-op you can see anything from a thyroid patient to a breast patient and I don't you know if they've gone down for any reason I think it will be where I've said to a patient do you have any further questions and they'll say yes what actually is a wide local excision of a breast lump and I stop	
218	TIME: 8.07.7	MF	yes	
219		1	Because I don't want to give them I don't want to misinform them	
220		MF	No	
221		1	But they need to know something but I don't so I think for me it's a knowledge base thing	
222		MF	Yes	
223		1	That shakes my confidence in consultation	
224		MF	Yes yes and not really the patient you're faced with or the	

	Notes	Speaker	Conversation	Codes
225		1	No I mean patients do it I do think there's patient factors there but	
226		MF	But the main	
227		1	For me it's the knowledge	
228		MF	(?) absolutely yes and you know you're not the first to say that and I think we all feel the same if we feel a little bit	
229		1	If you're out of your depth it's not	
230		MF	Yes yes	
231		1	It doesn't make for a good consultation	
232		MF	No no and I guess would you know that you were out of your depth before they came in so like when you were scoring your self efficacy	
233		1	Yes I think what I try and do in pre-op is read their notes first so I know what kind of what's going on but even still I'm not going to know the intricacies of an angioplasty for a vascular patient	
234		MF	No	
235	TIME: 8.54.1	1	So I think yes I probably would have scored myself a bit lower	
236		MF	If it was something that wasn't your area	
237		1	yes	
238		MF	Ok but then once the consultation was over if it had gone ok probably	
239		1	It may (?) up it a little bit yes	

	Notes	Speaker	Conversation	Codes
240		MF	Yes ok fine so um speaking as a FY doctor again now can you identify any consultation skills training needs that you have now you've mentioned that you you think there should be continuous training which doesn't seem to be happening as we speak	
241		1	Yes I think you have to have some element of continuous training and I don't mean you know discussing the theories all over again I just mean I don't know how you could do it whether it would be some small group work were we each took on an actor and we watched each other's consultation skills maybe just that once every rotation	
242		MF	yes	
243		1	Like three times a year that would be nothing but it would just have an element of reinforcing what you know that you should know	
244		MF	Yes	
245		1	And you should practice but you don't always do it	
246		MF	No so do you get any feedback do you get any little	
247	TIME: 10.00.4	1	Not since I've started working no no	
248		MF	No	
249		1	Cos no ones taught us formally and no ones other than you no ones looked at my consultation skills which in a way is worrying isn't it because if you've got someone that's	

	Notes	Speaker	Conversation	Codes
			really quite awful then that goes unchecked forever	
250		MF	Absolutely unless until there's a complaint	
251		1	Yes	
252		MF	From a patient or something goes terribly wrong which is why the GMC have said we teach comm. skills now because lots of their complaints and lots of their law suits are about end up being about consultation skills really	
253		1	Yes	
254		MF	So yes I think that's worrying um like I said when I first started this study that was in place um and maybe it will change again but as we speak it's not happening	
255		1	I don't think it's happened certainly not as formal teaching and obviously we're not ever going to get especially in surgery you never get watched by a consultant about communication skills cos that's not really on their radar	
256		MF	No well no I well no I guess they don't have to talk much to their patients whilst they're sleeping	
257		1	No exactly	
258		MF	Do they need good consultation skills	
259		1	They certainly do	
260		MF	Yes	

	Notes	Speaker	Conversation	Codes
261	TIME: 11.05.0	1	Do they have them	
262		MF	Debateable ok so you can identify that at the moment not that you personally need them but you might you might think it's useful if there was a little bit more continuous teaching just three times a year or something	
263		1	Ye	
264		MF	So can you envisage that changing as you become an FY2 or do you think that should continue you know like do you envisage any other comm. skills training needs in the near future apart from what you've said	
265		1	I can't think of that at the moment there's things specific to me like with regards to the knowledge based thing	
266		MF	Yes	
267		1	Why not an induction week just tell us all the procedures that are going to pop up in a pre-op clinic so we can go away and read them up and them we'll feel better about the consultation when we do it	
268		MF	Yes	
269		1	But the communication skills themselves no I don't think so I think it's just a case of reinforcing what's taught already well at medical school because it is taught well and you can't really argue with that	
270		MF	It seems to be across the board I mean I haven't obviously everyone has had communication skills training because they	

	Notes	Speaker	Conversation	Codes
			have to now but I've not come across anyone that has said they haven't had enough at med school or you know they don't feel confident to communicate so it's clear that there seems to be enough from what I've heard	
271	TIME: 12.16.5	1	(?)	
272		MF	At med school	
273		1	And the only other thing I would say just for the F1 2 bit there is a bit on our portfolio that you get and it's called patient education or explaining things to the patient maybe that would be that should be taught to us better because alright we can communicate and have a consultation but now we're in the position where we do have to explain procedures to patients you know is there a particular way we should go about doing this and maybe being taught that as an F1	
274		MF	Yes	
275		1	Would be quite useful	
276		MF	Helpful cos that would be like a building block wouldn't it	
277		1	Yes	
278		MF	Onto your consultation skills	
279		1	Yes	
280		MF	So you've done the angry patient the breaking bad news and maybe you could build that in you can do consultation skills	

	Notes	Speaker	Conversation	Codes
			sessions and have that as a focus couldn't you so ok that's great alright thank you very much	
281	TAPE ENDS: 13.04.9	1	Thank you	

Appendix 21: Study 2 Description of Nodes used to code interview data

Description of nodes created:

Consultation Skills Training

Function - Any reference to the doctors' perception of the function of consultation skills training.

Positive talk - Any positive comments about the doctors experience of consultation skills training.

Negative talk - Any negative comments about the doctors' consultation skills training experience.

Influencing factors - Any reference to factors that influenced the effectiveness of consultation skills training.

Consultation Skills Practice

Doctor variable - Anything about the doctor that impacts on the practice of consultation skills.

Environment - Any reference to characteristics about themselves which impact upon their practice of consultation skills.

Time pressures - References to the availability or lack of time and its effect on consultation skills

Patient variables - Anything about the patient that impacts upon the practice of consultation skills.

How used - Any reference to how consultation skills training was used on practice.

When used - Any description of when in particular consultation skills are used by Doctors.

Specific skills use - Any references related to specific Calgary Cambridge skills or specific situations covered in Medical School

Influences on Self-efficacy

Knowledge - Any reference to the doctors' level of knowledge that impacts upon their confidence.

Preparedness - Any reference to the impact of preparation on confidence.

Doctor variables - Any reference to characteristics about themselves which impact upon their confidence.

Doctor Role - Any reference to the doctor-role in relation to confidence.

Gender - Any reference to gender and its impact upon confidence.

Previous experience - Any reference to the doctors previous experience having an impact on confidence.

Patient factors - Any reference to patient factors that impact upon doctors' confidence.

Skills Base

Context - Any reference to context and its impact upon the doctors' general consultation skills base.

Personality - Any reference to the impact of the doctors' personality traits on the doctors' general consultation skills set.

Consultation skills training at university - Any reference to the impact of consultation skills training at University on the doctors' general consultation skills set.

The nodes created from the interview data were then merged to create and describe themes.

Name of code	No. of Interviews coded with node (out of 8)	No. of references coded with node	Total length of references (paragraphs)
Function	7	30	32
Positive talk	8	88	88
Negative talk	8	67	69
Influencing factors	8	59	61
Doctor variable	6	26	25
Environment	8	70	72
Time pressures	8	18	18
Patient variables	7	54	51
How used	8	47	48
When used	8	45	48
Specific skills use	8	18	18
Knowledge	7	30	32
Preparedness	6	16	16
Doctor variables (self-efficacy)	1	5	5
Doctor role	3	12	12
Gender	1	2	2
Previous experience	3	7	8
Patient factors	2	6	5
Context	4	14	13
Personality	6	27	28
Consultation skills training at university	6	22	21

Table showing nodes created in NVivo (V8) and their respective coverage across the interview data.

Coding Summary Report

Project: Interviews with Junior Doctors

Name: Michelle Fromage

Internals\Copy of Transcript

Document

Tree Nodes\Comments on Scores: Node Coding 1.02% References 2

1

Coverage 0.72%

13910 - 14117

Um I'm quite happy with the results I'm pleased and I think I'm not surprised that there is a difference between what I thought and what the patients thought but I didn't think it would be that big a gap um

2

Coverage 0.30%

17829 - 17915

I think they're generous but I think I wouldn't have thought they'd be 2's or anything

Tree Nodes\Context-Practice\Doctor variable: **Node Coding 1.78% References 1**

Coverage 1.78%

8742 - 9252

It's so interesting how you come out of medical school knowing exactly what you should do and doing in your OSCEs doing the perfect consultation and then after about two weeks worth of being a doctor that just completely goes out of the window um not in terms of you're not you know being nice to the patient and things and you're getting the information you need but your structure is completely different because you've got a whole new role you're not the medical student with an hour to take a history.

Tree Nodes\Context-Practice\Environment: Node Coding 4.78% References 7

1

Coverage 0.28%

9300 - 9380

and it’s often in an acute setting an so I do try an use my communication skills

2

Coverage 0.37%

9545 - 9652

That’s kind of where I use it but I have to say on the wards I don’t feel that I use that structure as much

3

Coverage 0.85%

9677 - 9920

Probably just because things aren’t reinforced like it would be quite nice it’s difficult because some people would say if we taught communication skills as a doctor then would you be teaching people to suck eggs but I don’t think that’s true

4

Coverage 1.48%

18173 - 18596

I think that the general core bog standard bits of a consultation are general across wherever I work and my ability to communicate with patients is at a general level I think that what’s gained from a consultation both on my part from the knowledge I get from the patient and also on the patients part from how satisfied they feel I think that that varies quite a bit and that’s based on the location and the time available

5

Coverage 0.99%

19054 - 19337

But it is different and I feel like I'm doing the right things when I'm in pre-op and I feel like we are making a decision together and I am answering the questions they have and their ideas their concerns all of those things whereas I think on the ward I do it but it's more rushed

6

Coverage 0.56%

19363 - 19522

and probably a bit I don't mean it any less genuinely but I think that they probably feel that I'm not being genuine when I say do you have any other concerns

7

Coverage 0.25%

19550 - 19622

Cos I'm saying it not like so lets talk about it I'm saying any concerns

Tree Nodes\Context-Practice\How used: Node Coding 0.79% References 3

1

Coverage 0.16%

9461 - 9507

and I start from the beginning and make a plan

2

Coverage 0.22%

11803 - 11865

I suppose I haven't really reflected that much on how I use it

3

Coverage 0.41%

12240 - 12357

But I tend not to sort of not actively but I'm sure I do subconsciously draw on it when I'm doing normal consultation

Tree Nodes\Context-Practice\Time pressures: Node Coding 0.29% References 2

1

Coverage 0.09%

9274 - 9299

You have to do it quickly

2

Coverage 0.20%

19280 - 19337

whereas I think on the ward I do it but it's more rushed

Tree Nodes\Context-Practice\When used: Node Coding 1.16% References 4

1

Coverage 0.28%

9381 - 9460

and in the pre-op clinic that's exactly where I try and do my Calgary Cambridge

2

Coverage 0.50%

11902 – 12044

The times I have used it a lot breaking bad news that was really important because if I hadn't had that training I would have really messed up

3

Coverage 0.08%

12070 - 12094

On a number of occasions

4

Coverage 0.30%

12124 - 12211

So I definitely pull it there and I definitely use it with angry patients and relatives

Coverage

Tree Nodes\FY Training needs: Node Coding 9.69% References 14

1

Coverage 0.34%

9945 - 10042

I think it would help to have the odd session to reinforce the way that you do your consultations

2

Coverage 0.41%

10400 - 10518

I think it's I think at the moment it's had to be replaced by other things that (?) demand like infection control and

3

Coverage 0.54%

10576 - 10731

where as actually as a new doctor what you need is someone to say this is what you're doing well and these are the communication skills you should be using

4

Coverage 1.52%

16958 - 17393

And I think if you you have to do lots of things as a junior doctor and particularly when you've just qualified so you'll do your on call bit which is really important for your acute

medical knowledge and your management of patients in an acute situation but I think you have to do stuff like pre-op clinic because otherwise your ability to have good communication skills and do a good structured consultation will go out of the window

5

Coverage 0.14%

17431 – 17471

Because you don't do it on a daily basis

6

Coverage 1.15%

24284 - 24614

Yes I think you have to have some element of continuous training and I don't mean you know discussing the theories all over again I just mean I don't know how you could do it whether it would be some small group work were we each took on an actor and we watched each other's consultation skills maybe just that once every rotation

7

Coverage 0.45%

24640 - 24770

Like three times a year that would be nothing but it would just have an element of reinforcing what you know that you should know

8

Coverage 0.78%

24995 - 25218

Cos no ones taught us formally and no ones other than you no ones looked at my consultation skills which in a way is worrying isn't it because if you've got someone that's really quite awful then that goes unchecked forever

9

Coverage 0.80%

25721 - 25951

I don’t think it’s happened certainly not as formal teaching and obviously we’re not ever going to get especially in surgery you never get watched by a consultant about communication skills cos that’s not really on their radar

10

Coverage 0.39%

26683 - 26795

I can’t think of that at the moment there’s things specific to me like with regards to the knowledge based thing

11

Coverage 0.70%

26821 - 27021

Why not an induction week just tell us all the procedures that are going to pop up in a pre-op clinic so we can go away and read them up and them we’ll feel better about the consultation when we do it

12

Coverage 0.72%

27047 - 27254

But the communication skills themselves no I don’t think so I think it’s just a case of reinforcing what’s taught already well at medical school because it is taught well and you can’t really argue with that

13

Coverage 1.65%

27661 - 28132

And the only other thing I would say just for the F1 2 bit there is a bit on our portfolio that you get and it’s called patient education or explaining things to the patient maybe that would be that should be taught to us better because alright we can communicate and have a consultation but now we’re in the position where we do have to explain

procedures to patients you know is there a particular way we should go about doing this and maybe being taught that as an F1

14

Coverage 0.07%

28158 - 28179

Would be quite useful

Tree Nodes\influences on confidence\Doctor variables\Knowledge: Node Coding 2.93% References 7

1

Coverage 0.64%

22061 - 22243

For me I think that it's not anything and this will annoy you with your study but I don't think it's anything to do with the communication I think for me it's about my knowledge base

2

Coverage 1.34%

22244 - 22626

and I so I'm working in general surgery but colorectural surgery specifically and in pre-op you can see anything from a thyroid patient to a breast patient and I don't you know if they've gone down for any reason I think it will be where I've said to a patient do you have any further questions and they'll say yes what actually is a wide local excision of a breast lump and I stop

3

Coverage 0.22%

22664 - 22728

Because I don't want to give them I don't want to misinform them

4

Coverage 0.31%

22754 - 22843

But they need to know something but I don’t so I think for me it’s a knowledge base thing

5

Coverage 0.14%

22869 - 22910

That shakes my confidence in consultation

6

Coverage 0.14%

23266 - 23306

If you’re out of your depth it’s not

7

Coverage 0.14%

23332 - 23371

It doesn’t make for a good consultation

Tree Nodes\influences on confidence\Doctor variables\Preparedness: Node Coding 0.69% References 1

1

Coverage 0.69%

23528 - 23726

Yes I think what I try and do in pre-op is read their notes first so I know what kind of what’s going on but even still I’m not going to know the intricacies of an angioplasty for a vascular patient

Tree Nodes\influences on confidence\Patient factors: 0.23% References 1

1

Coverage 0.23%

22992 - 23057

No I mean patients do it I do think there's patient factors there

References

Coverage

Tree Nodes\Skills base\Context: Node Coding 5.33% References 8

1

Coverage 0.75%

14697 - 14911

like I said with pre-op clinic I do get the time to do a more structured consultation so that's probably why you know I think is you did this up on the ward these scores would probably not be anywhere near as high

2

Coverage 0.21%

14936 – 14997

Because the relationship with the patients is quite different

3

Coverage 0.66%

15164 - 15354

And I think in pre-op clinic there's the other thing where as the junior doctor you are actually the only person who is going to see that patient before they come into uh for their operation

4

Coverage 1.39%

15379 - 15775

So you've got a lot more responsibility um and therefore you wouldn't want to let yourself down or admit someone for an operation when they shouldn't have one so you're I feel that I'm more thorough with them and I'm doing everything well I'm documenting everything I feel we have a really productive consultation but on the wards again I'm with a consultant that's kind of telling me what to say

5

Coverage 0.71%

15803 - 16006

So you with the pre-op clinic you do all this shared decision making and you really work with the patient to make sure that their going for this operation and it's medically appropriate and they're happy

6

Coverage 0.25%

16044 - 16116

On the wards you're just doing a kind of paternalistic relationship and

7

Coverage 0.10%

16142 - 16172

You're telling them what to do

8

Coverage 1.25%

20403 - 20760

the type of patient and I know and I thought it would never thought it would happen to me but I know that when you've got a patient who is being really difficult that your attitude changes and your communication changes and I don't like the fact that it does that because you always say that you won't do that and you'll still remain impartial but you don't

Tree Nodes\Skills base\Personality: Node Coding 1.19% References 2

1

Coverage 0.98%

14307 - 14586

I feel like I have a good nature with people not just patients I feel I have a good nature with people so I think that some of this stuff the grids from the patient and the answering the questions or seeing if they need questions answering I think that just comes naturally to me

2

Coverage 0.22%

20341 - 20403

So yes you're general kind of attitude to it your personality

Tree Nodes\Skills base\Training University: Node Coding 1.95% References 5

1

Coverage 0.51%

20835 - 20980

and like ultimately the training that you've had I think because you can see it between where people have trained that people are quite different

2

Coverage 0.83%

21012 - 21250

one of my colleagues she trained at UEA and if we do an F1 ward round I will kind of sit through the patients and will do sort of 40 patients in about an hour and a half and if she does it that will take until lunch time starting at eight

3

Coverage 0.11%

21291 - 21323

And her consultations are lovely

4

Coverage 0.34%

21349 - 21446

But it’s kind of it’s not saying that ones because we both come out with the same management plan

5

Coverage 0.15%

21545 - 21589

And probably what you need as a happy medium

Tree Nodes\Specific skills use: Node Coding 0.89% References 3

1

Coverage 0.50%

11902 - 12044

The times I have used it a lot breaking bad news that was really important because if I hadn’t had that training I would have really messed up

2

Coverage 0.08%

12070 - 12094

On a number of occasions

3

Coverage 0.30%

12124 - 12211

So I definitely pull it there and I definitely use it with angry patients and relatives

Coverage

Tree Nodes\training\Changes gaps: Node Coding 1.35% References 4

1

Coverage 0.23%

8286 - 8352

No it was usually one and I think you probably could have had two

2

Coverage 0.51%

8378 - 8524

If there was enough to go round I think then making it even smaller groups or you know having two different sides of the kind of coin would be god

3

Coverage 0.28%

12902 - 12983

I think being taught by clinicians it's something that needs to be majored on

4

Coverage 0.32%

12984 - 13076

and smaller groups would be better form communication it has to be for communication cos

Tree Nodes\training\Description: Node Coding 6.79% References 9

1

Coverage 1.54%

327 - 768

Ok so during medical school uh I trained at UCL in London we did have a fair amount of sort of consultation and communication skills in terms of you would have what is called a professional development spine and you had a session each week small group

seminar type um environment um and you were kind of taught the importance of the consultation and how you should approach patient and dealing with difficult situations within a consultation

2

Coverage 1.30%

1382 - 1753

What they started to do was bring in more difficult subjects say having a consultation in which you have to break bad news or um if you had an angry patient how did you approach that within the consultation um but the kind of bog standard how to have a consultation was covered in the first few years and then as you got through you would add in a more difficult scenario

3

Coverage 0.55%

3343 - 3500

It was all in that you didn't really sort of if you were on the ward know one would really watch you do a consultation and check that everything was going ok

4

Coverage 0.40%

3525 - 3638

Um as I said the only time I had that done to me was during my BSc at a GP practice where there was time to do it

5

Coverage 0.35%

3806 - 3906

Yes well to the consultation it was the Calgary Cambridge guide is what we were kind of taught on

6

Coverage 1.44%

4274 - 4686

Yes um we did do that and sometimes as we got better as students it became a better learning environment but what we used to do was sit in say a seminar group of about 8 people you'd have a tutor who tended to be from the community so often a GP tutor they would come in you'd sit there and um we would have an actor for a patient and each student would come up and take a section of the his of the consultation

7

Coverage 0.27%

4712 - 4789

So either the wrapping up at the end or the initial gathering of information

8

Coverage 0.83%

5177 - 5414

however when we got to sort of 4th and 5th year we were able to do the whole consultation um we did it behind a mirrored screen so that we kind of did it and we were in our own consultation room but the rest of the group were watching us

9

Coverage 0.11%

13500 - 13532

They were about 8 with one tutor

Coverage

Tree Nodes\training\Function: Node Coding 0.58% References 2

1

Coverage 0.41%

5545 - 5661

But the feedback that they gave you you know when you don't realise that you do things when you're in a consultation

2

Coverage 0.17%

5694 - 5743

Like umming and arhing and all that kind of thing

Tree Nodes\training\Influencing factors: Node Coding 3.93% References 7

1

Coverage 0.94%

2505 - 2773

I mean I was slightly different cos I did my two years and then I intercalated and did a BSc in primary health care which meant that you actually did a whole kind of um project on consultation you were videoed so we had I had a lot more extra stuff during that BSc yes

2

Coverage 0.29%

2799 – 2881

Um so I felt that that gave me a massive advantage when I started my clinical work

3

Coverage 0.15%

6795 - 6838

I think it was often dependent on the tutor

4

Coverage 0.97%

6864 - 7140

And I'm sure you get that a lot I think that when it was a clinician when it was somebody who had you know lots of experience themselves they could give you different view points and they could say ok you might do it this way someone else does it this way but that's not wrong

5

Coverage 0.33%

7220 - 7314

It’s ok provided you’re getting the points and you and the patient are happy with the outcome

6

Coverage 0.92%

7815 - 8079

Um and I think sometimes we were taught by educationalist which was really good in that they knew everything that should be done but as and that was actually more useful when we were early on years 1 and 2 being taught be someone who knew the theory and the method

7

Coverage 0.34%

12806 - 12902

I think as an under graduate I think I’ve been lucky and I’ve been taught well and my BSc helped

Tree Nodes\training\Negative talk: Node Coding 4.72% References 9

1

Coverage 0.85%

796 - 1038

For the first two years the non-clinical years they that experience wasn’t brilliant because you obviously didn’t have that kind of hands on patient contact and you didn’t have the everyday practice of having a consultation with a patient

2

Coverage 1.04%

4879 - 5177

We kind of did it that way initially and that I have to say was quite tedious because obviously everyone's at different levels and you've got to sit there and you've got to watch everyone do their bit and it's never going to flow for you because you've only done a small aspect of the consultation

3

Coverage 0.24%

5439 - 5507

And gave us feedback on it which was actually it was really daunting

4

Coverage 0.26%

6017 - 6092

Yes that just makes it it makes it unreal and it's not how the situation is

5

Coverage 0.34%

6093 - 6189

and actually being a room with just with one patient that's kind of difficult initially as well

6

Coverage 0.62%

7314 - 7492

um the times it didn't go so well were with sort of maybe healthcare professionals who don't have your kind of responsibility as a doctor I suppose I don't mean tha tin a bad way

7

Coverage 0.62%

7517 - 7695

I just (?) if they have a different outlook on cos a nurses consultation or an occupational health therapist their consultation will be completely different to the doctor I think

8

Coverage 0.22%

7725 - 7789

Even though the principles should be the same they are different

9

Coverage 0.52%

13076 - 13225

you can't do it you can I remember them trying to teach us communication as a lecture I don't know who came up with that idea but it just didn't work

Tree Nodes\training\Positive talk: Node Coding 5.45% References 10

1

Coverage 0.53%

1059 - 1210

However as you moved into the clinical sort of setting it was much improved it was much more appropriate and applicable to what you were actually doing

2

Coverage 1.24%

1976 - 2331

No I think the way that it was staggered I think that learning the kind of key aspects of a consultation early on and then introducing the more difficult aspects of a consultation I think that was important and it was important that it carried on throughout medical school um particularly as we were growing as students and started to see more and do more

3

Coverage 0.17%

2430 - 2479

I have to say that actually I think it was enough

4

Coverage 0.42%

2919 - 3039

I have to say um but I think that other students found that it was adequate it was enough it wasn't kind of over the top

5

Coverage 0.61%

3984 - 4157

Yes and I have to say I you know I know people have different views about how you should do a consultation but that's the one that I still try and use as a practising doctor

6

Coverage 0.83%

5177 - 5414

however when we got to sort of 4th and 5th year we were able to do the whole consultation um we did it behind a mirrored screen so that we kind of did it and we were in our own consultation room but the rest of the group were watching us

7

Coverage 0.19%

5791 - 5844

So that I have to say that was really good at the end

8

Coverage 0.27%

6215 - 6291

Because it's just you and that person so that was a good experience to have

9

Coverage 0.92%

7815 - 8079

Um and I think sometimes we were taught by educationalist which was really good in that they knew everything that should be done but as and that was actually more useful when we were early on years 1 and 2 being taught be someone who knew the theory and the method

10

Coverage 0.28%

8117 - 8197

And then as we got more clinical I think it was better being given by clinicians

Appendix 22: Study 3 Online Questionnaire

Consultation Skills V2

Clinicians' perspectives of consultation skills training and practice

Thank you for taking the time to complete this questionnaire about your consultation skills training and experiences since beginning work as a qualified medical doctor:

Please note that if you complete this questionnaire then you are giving your consent for any data you provide to be used anonymously in research presentations and publications (please see the Participant Information Sheet that accompanied the link to this questionnaire for more information if required).

Please start by answering the following background questions

1. Gender:

- Male
- Female

2. Age:

- 18-24
- 25-35
- 36-46
- 47-57
- 58- 65
- 66 and over

3. Is English your first language?

- Yes
- No

4. Where did you do your undergraduate medical training? (name of university)

5. At what level is your current job?

- Foundation Year 1
- Foundation Year 2
- SpR
- Consultant
- General Practitioner

Other (please specify)

6. What is your current speciality? (Or previous if you are now retired)

Consultation Skills V2

7. What is your current place of work?

- Primary care
- Secondary care
- Community

Other (please specify)

8. In what year did you qualify as a medical doctor (year of graduation from medical school)?

Now we would like to ask you about your experiences with any consultation skills training during your undergraduate medical degree. Please answer the questions to the best of your recollection.

9. Did you receive any consultation skills training during your undergraduate medical training?

- Yes
- No (If no, please go to question 15 below)

10. What are your thoughts about the amount of undergraduate training that you received in consultation skills?

- Not enough
- The right amount
- Too much
- N/A

11. How useful has the undergraduate consultation skills training been since qualifying?

- Extremely Useful
- Very Useful
- Moderately Useful
- Not at all Useful
- N/A

12. Based on the experiences you've had since medical school, what do you think might have improved the training?

Consultation Skills V2

13. What ONE factor impacted the most upon the effectiveness of your undergraduate consultation skills training?

- Relevant content
- Tutors
- Timing of training
- Training environment
- Group members (i.e. other students you trained with)
- Other

Other (please specify)

14. How much has your undergraduate consultation skills training positively impacted upon your everyday practice?

- A huge amount
- A reasonable amount
- Only a little
- Not at all
- N/A

15. If you didn't have any formal consultation skills training as part of your undergraduate medical training, would you have liked this?

- Yes
- No
- N/A

Please feel free to provide any comments to elaborate on your response

Please now turn your attention to any training in consultation skills you have had since graduating medical school.

16. Please provide details of any training you have had in consultation skills since graduating medical school?

17. At what stage of your career did this take place?

Now we would like you to think about your experiences of using your consultation skills in practice.

Consultation Skills V2

18. a) What is the most important factor to impact on the EFFECTIVENESS of your consultation skills in the clinical setting?

- My Personality
- Time available for the consultation
- Working environment in which the consultation is taking place
- Patient characteristics
- Illness type
- Overall workload at the time
- Knowledge about illness
- Other

Other (please specify)

19. b) What is the second most important factor to impact on the EFFECTIVENESS of your consultation skills in the clinical setting?

- My Personality
- Time available for the consultation
- Working environment in which the consultation is taking place
- Patient characteristics
- Illness type
- Overall workload at the time
- Knowledge about illness
- Other

Other (please specify)

20. How consistent do you feel your consultation skills are across different patient groups in the workplace?

- Extremely consistent
- Mostly consistent
- Sometimes consistent
- Not at all consistent

Consultation Skills V2

21. How consistent do you feel your consultation skills are with patients across different clinical environments (i.e. wards, depts)?

- Extremely consistent
- Mostly consistent
- Sometimes consistent
- Not at all consistent

22. How representative are your professional communication skills of your general communication skills in everyday life?

- Extremely representative
- Mostly representative
- Sometimes representative
- Not at all representative

23. How do you rate your confidence levels when consulting with most patients?

- Extremely confident
- Very confident
- Moderately confident
- Not at all confident

24. a) What is the most important factor to influence your CONFIDENCE LEVEL when consulting with patients?

- My Personality
- Time available for the consultation
- Working environment in which the consultation is taking place
- Patient characteristics
- Illness type
- Overall workload at the time
- Knowledge about illness
- Other

Other (please specify)

Consultation Skills V2

25. b) What is the second most important factor to influence your CONFIDENCE LEVEL when consulting with patients?

- My Personality
- Time available for the consultation
- Working environment in which the consultation is taking place
- Patient characteristics
- Illness type
- Overall workload at the time
- Knowledge about illness
- Other

Other (please specify)

Finally we would like you to think about the training needs of future doctors.

26. Currently the GMC (General Medical Council) recommends that medical schools invest time and resources on consultation skills training. Which answer best reflects your views on this?

- The GMC are correct to recommend this
- They should be recommending more time and resources be invested than currently
- Too much time and resources are currently spent on consultation skills training

Please elaborate on / explain your answer:

27. The GMC (General Medical Council) also recommends postgraduate training in consultation skills. Again, which of the following best reflects your views

- The GMC are correct to recommend this
- They should be recommending more time and resources be invested than currently
- Too much time and resources are currently spent on postgraduate consultation skills training

Please elaborate on / explain your answer:

28. Is there any area of consultation skills that you would like training on now or in the future?

Consultation Skills V2

29. What is your opinion of the level of consultation skills of junior (Foundation) doctors? (please go on to the next question if you don't have any dealings with the Foundation doctors)

30. Please use this space to provide any final comments about any of the consultation skills training you have received, or training you feel would be useful for the future for you or for future doctors:

Thank you again for taking the time to complete this questionnaire.

If you would like a copy of the results at the end of the study then please contact Michelle.Fromage@uea.ac.uk.

Please click on the "Done" button to submit your responses.

Appendix 23: Study 3 Participant Invitation E-mail

An opportunity to provide your views about consultation skills training and practice

Dear Sir or Madam

You are being contacted because you are currently in the database of Recognised Teachers at the Norwich Medical School, University of East Anglia.

We are conducting a research project which aims to explore the views of clinicians regarding consultation skills training and practice, via a short online questionnaire, and we would really appreciate your assistance. The study is being conducted as part of the lead researcher's PhD. It forms part of a larger project investigating perceptions of consultation skills training and practice in junior doctors. I have attached the Participant Information Sheet for your attention which provides further details about the study.

If you are able to take part in the study then please follow the link provided below to complete the short questionnaire by XXXX DATE.
https://www.surveymonkey.com/s/ZLK739G

We will be sending 2 reminders before the deadline. Testing indicates that it should take approximately 10 minutes to complete. You are not asked for your name on the questionnaire, and any responses you provide will kept completely confidential.

Please feel free to contact me if you have any queries about the study.

In anticipation, sincere thanks for your valued response.

Yours faithfully
Michelle Fromage

.....

Michelle Fromage
PhD Research Student (MED)
Room 0-27
The Queens Building
University of East Anglia
Norwich
NR4 7TJ
Tel: 01603 593300
E-mail: michelle.fromage@uea.ac.uk

Also involved in the project are:
Emeritus Professor Sam Leinster
Dr Alexia Papageorgiou
Dr Charlotte Salter
Dr Susan Miles
Dr Gill Price

Appendix 24: Study 3 Participant Reminder E-mail

Dear Doctor

You were recently contacted because you are currently in the database of recognised teachers at the Norwich Medical School, University of East Anglia.

We are conducting a research project which aims to explore the views of clinicians regarding consultation skills training and practice. The study is being conducted as part of the lead researcher's PhD. It forms part of a larger project investigating perceptions of consultation skills training and practice in junior doctors. I have attached the Participant Information Sheet for your attention which includes contact details of the researcher should you have any further queries.

I would like to take this opportunity to thank those doctors who have already completed the questionnaire and apologise for repetition.

However, if you have not completed your questionnaire yet please could you complete it by ..... so that your views can be included. Please follow the link provided below to complete the short questionnaire.
https://www.surveymonkey.com/s/ZLK739G

In anticipation, sincere thanks for your valued response.

Yours Faithfully
Michelle Fromage

.....

Michelle Fromage
PhD Research Student (MED)
Room 0-27
The Queens Building
University of East Anglia
Norwich
NR4 7TJ
Tel: 01603 593300
E-mail: michelle.fromage@uea.ac.uk

Also involved in the project are:
Emeritus Professor Sam Leinster
Dr Alexia Papageorgiou
Dr Charlotte Salter
Dr Susan Miles
Dr Gill Price

Appendix 25: Study 3 Participant Information Sheet

Study Title: Clinicians' perspectives of consultation skills training and practice.

You are being invited to take part in a research study. Before you decide whether or not to take part, we would like you to understand why the research is being done and what it will involve. So, please take time to read the following information carefully and discuss it with others if you wish. Please contact the Lead Researcher, Michelle Fromage (contact details below), if anything is not clear or if you would like more information. This information sheet is yours to keep.

What is the purpose of the study?

Our aim is to explore the views of clinicians regarding consultation skills training and practice. The study is being conducted as part of the Lead Researcher's PhD. It is part of a larger project investigating perceptions of consultation skills training and practice in junior doctors.

Are you testing my knowledge in some way?

No, this is not a test of your knowledge. There are no right or wrong answers, we are only interested in your opinions.

Who will be taking part in the study?

We are contacting clinicians in the database of recognised teachers at the Norwich Medical School at the University of East Anglia. You have been contacted because your name is in the database.

Do I have to participate in this study?

No. You are under no obligation to participate in this research study.

If I do decide to take part, what will I have to do?

If you decide to take part you will complete the questionnaire via the link to SurveyMonkey that was included in your invitation email, sent to you via the Norwich Medical School. The survey should take approximately 10 minutes to complete. If you decide you do not wish to continue to participate and choose to stop before submitting

your final responses at the end of the questionnaire your data will not be included; only full datasets will be analysed.

Will my responses be kept anonymous?

You will be contacted via an invitation email sent through the Norwich Medical School using an established distribution list. The Lead Researcher will not have access to any individual names or contact details unless you choose to contact her with any queries. You will not be asked to provide names when completing the questionnaire. Completed questionnaires will be assigned a numeric value by the software. The responses given will be only identified by the assigned participant number. They will be stored in a password protected spreadsheet, on a password protected UEA computer. The information that you provide will be kept strictly confidential and in accordance with the Data Protection Act (1998). Data will be securely disposed of 5 years after the end of the study.

What will happen to the results?

After analysis of the data, the findings will be written up for a PhD and disseminated within the participating institutions for consultation skills training development purposes. The findings may also be disseminated at national and international conferences, and in journal publications. All data will be presented in such a way as to preserve participant anonymity. Your name will not be mentioned at all in any dissemination activity. The only people who will have access to the anonymous data you provide when completing the survey are the Lead Researcher and members of the supervisory research team (Listed under 'Who is running the study'). A summary of the results will be sent to any participating clinician on request.

What happens if I have any concerns about participating in the study?

If you have a concern about any aspect of this study, you should contact the Lead Researcher who will do her best to answer your questions. If you remain unhappy or wish to complain formally, you can do this by contacting Dr Papageorgiou (contact details below).

Who is running the study?

The study is being run by Mrs Michelle Fromage, a Postgraduate Research student at the Norwich Medical School, University of East Anglia (UEA), under close supervision of Dr Alexia Papageorgiou, a Senior Lecturer in Clinical Communication (St George's University of London Medical School, University of Nicosia) and Dr Susan Miles, a

Research Associate in Medical Education (Norwich Medical School,UEA). Emeritus Professor Sam Leinster, Dr Charlotte Salter and Dr Gill Price are also part of the supervisory panel and are all based at the Norwich Medical School.

Who has reviewed the study?

Ethical review was provided by the Faculty of Medicine and Health Sciences (FMH) Research Ethics Committee.

Whom can I contact for further Information?

Michelle Fromage (Lead Researcher)

Room 0.27, The Queens Building
University of East Anglia
Norwich, NR4 7TJ

Tel: 01603 593300
E-mail: michelle.fromage@uea.ac.uk

Dr Alexia Papageorgiou (Primary Supervisor)
St George's University of London Medical School at University of Nicosia
93 Agiou Nikolaou Street
Engomi
Nicosia 2408
Cyprus
E-mail: papageorgiou@unic.ac.cy

Appendix 26: Study 3 Open-ended Responses

(The responses are exactly as provided by the participants, including spelling mistakes)

Q12. Based on the experiences you've had since medical school, what do you think might have improved the training? - Open-Ended Response

More on providing explanations to patients

More work with simulated patients especially around MUS and giving explanations

As a student, we never had specific consultations skills training in any formalised or planned sense. We learnt by observation, seeing different practitioners at work and seeing and consulting with lots and lots of patients and staff. Then having criticism and feedback in a much more informal manner from clinicians we were working with on a loner term basis, with attachments of up to 3 months. This proved an excellent means of enhancing communication and communication skills. I personally would not change this model.

More exposure to communication skills

I can't recall if I was actually assessed on my consultation skills specifically - perhaps only as part of a wider OSCE. Assessment may have driven more learning. Also, I found having a consultation videoed once was helpful - perhaps doing this on more than one occasion would have helped.

more of it, smaller groups

see enough patients with the common conditions to know the right answers to ask

More role play, practice+++

Even more time with real patients and real doctors who are good at what they do ie consulting

Be a good human being, it will automatically improve your skills. You do not have to mask what you are not

At Guys in the late seventies we had quite a lot of communication skills training, which I still regard as having been forward looking and appropriate. I am not convinced it could have been improved.

more role playing, more videos of consultations and more feedback from patients/colleagues involved in role plays to actively improve it

consultation skill training would have been useful!!

Personal feedback from real patients is the most valuable way to learn. I am not convinced that classroom teaching translates to clinical practice in this area.

More is gained by critically watching others consult than videoing each other role playing

Further emphasis in final year.

more about the theory of consultations and actor role playing similar to what they have at UEA

It being on the curriculum at all!

experience and practice

It was 1 hour long, so little use

MODERN TRAINING MUCH BETTER!

more direct patient contact with feedback and observation. A clearer structure to the theoretical background to consultation skills.

some time ago now. one 1/2 day as part of gp module in 4th year. amazing tutor which is why it stuck in mind.

To have some training

The training I received was almost entirely based in live consultations and discussions thereof. I think that more time for reflective discussion would have been useful.

It was generally fairly theoretical - more practically based training would have been better

More role play and practice. Direct feedback from observers.

I have just written 4 papers on teaching consulting skills at undergraduate level in primary care in which I have described a number of visual models to aid teaching & how consultation skills training could be improved upon. There is not enough training in safe consulting to make them safe doctors when they qualify.

Our group being at the end of the alphabet was frequently broken up so that our teaching was fragmented and no one wanted to teach anything to do with neurology

Q27. The GMC (General Medical Council) also recommends postgraduate training in consultation skills. Again, which of the following best reflects your views - Please elaborate on / explain your answer:

Don't know current situation. Cannot comment

should have learnt as undergrad

of course doctors need some training in consultation but practical experience/training in the real-life situation is more valuable than theoretical classroom-based or simulation exercises

skills are enhanced by reflective practice and peer review

but doctors need to see patients

I think the need for consultation skills training should be identified through assessments and appraisal, where individuals may benefit from targeted help but a blanket policy is unnecessary

Regularly clinics/consultations keep your skills up to date

the need is imperative the details negotiable

Sometimes psychiatrists are poor at CS and this + knowledge are essentially their job

As 26. We all need to learn as there is always room for improvement.

I think most skill development will be from peer collaboration and reflective practice than in a great deal of formal training although the latter is helpful if there is a clear model.

Until the current cohorts of well trained undergraduates attain consultant level

Most complaints arise from poor communication. There should be an option to use an intermediary to discuss such issues, which would avoid a good number of complaints

Q28. Is there any area of consultation skills that you would like training on now or in the future? - Open-Ended Response

Consultations via an interpreter Managing the angry and disaffected patient

telephone consultations

I think refreshers every few years are a good thing.. No specific areas

How to consult effectively and keep to time!!

postgrad refresher courses

Effective consultation skills when under time pressures

psychiatric

advanced communication skills course should be strongly recommended to all SPRs and above and possibly repeated every 5 years

No but I'd like more feedback on the effectiveness of consultation

no

Ongoing training. It is such a fundamental part of all medical interactions that it should be part of all reflective practice.

Angry/unrealistic patients who are unhappy to accept PCT limitations on treatment offered

cosultation skills with young people for non-paediatricians esp in area of child protection.

Theoretical updates for senior faculty

Sexual health issues

Changing behaviour and NLP

Not really, except how can we provide a useful connection between learning CS properly and the OSCE system. I do also feel that giving the essence of time even if you don’t have it is really important to communication, as is gauging the level at which to 'pitch'.

I consider cons skills to be an area which I always include within my CPD and try to cover various aspects every year

Working with disabled people and those with mental health issues.

History taking and also with clinical skills

just done some telephone truing which was good - i think needs to be a rolling refresher as you get into bad habits.

Too late

Nothing specific

No. Undergraduate teaching has trained me well.

Not sure. Feedback is valuable

Chairing a meeting

Improve dealing with alcoholic and substance abuse consultations so that each party goes away satisfied

Discussions about do not resucitate and preferred place of death

Self help

How to deal with people as people not conditions

communication during the physical examination

communication skills considering different cultural backgrounds

Internal medicine

Q29. What is your opinion of the level of consultation skills of junior (Foundation) doctors? (please go on to the next question if you don't have any dealings with the Foundation doctors) - Open-Ended Response

Much better than mine was!

Good

Very good - have ben impressed with those I have seen.

Depends on how you define consultation skills? If you mean chatting nicely and empathetically to patients then generallly pretty good. If you mean the ability to manage a consultation such that a detailed, appropriate and accurate history is taken and recorded - then the skills are generally poor to very poor. If you mean the skills in discussing, presenting and consulting with fellow colleagues then also poor and not as good as they should be.

Better than when my cohort were at this stage

very good communication skills

Good

Generally good

They themselves admit that talking and explaining issues to patients are a weak point in their learning.

Better than ours was!

Adequate

VARIABLE

Modest

Generally excellent

Generally good .

Mostly good

on the whole excellent. they are prepared, courteous, confident and know their limitations

Variable

Generally very good. I do worry they are over trained/programmed with a method.

Perhaps this will round off as they gain maturity.

Good

its good. Better than I was at their age

Mostly very good

too friendly, often they have poor grasp of medical facts.

ok. not dazzling

very variable

some good some bad

UEA has a lot of this - probably to the detriment of other clinical knowledge

Classroom teaching - amazingly good.

Consultation skills OK but deductive reasoning of what are key pointers to diagnosis not so good

Generally very good. Those who have poor skills with patients tend to have poor social skills away from patients and no amount of classroom teaching is going to alter personality and upbringing (particularly for those who have a problem with arrogance and paternalism!)

Variable but on the whole quite good

UEA graduates very good indeed, overseas graduates sometimes shockingly poor, other UK graduates somewhere inbetween, usually pretty good

Good at present but you do need to make sure you dont produce comm skills/CCG clones at UEA!

Superb. Especially from the UEA.

Depends where they trained, I have seen some very good and bad

From the UEA excellent

Very good

I only have direct feedback from those who have completed the course and who say that it is invaluable when starting out.

very good - from limited contact with (3 F2 doctors) to date UEA graduates better than St Georges

Poor - lack of clinical experience, repeated over and over again - not styliased patients

better than it used to be.

GoodUEA graduates are usually very good.

generally very good (esp the UEA graduates)

They are often poor consulters because the method that they have been taught doesn't teach them to be safe consulters, nor how to solve problems in an organised way. Teaching consulting skills is not the same as teaching communication skills and there is way too much bias on the latter in undergraduate education. This extends to clinical OSCE marking grids, where students receive too many marks for communication skills but there are no marks awarded for safe consulting. Safe consulting should be a mandatory component of consultation skills training and should be formally examined within all the clinical OSCEs, as communication skills are.

Poor

very good

very good to poor depending on the medical school they were trained

Reasonable but needs fine tuning

Appendix 27: Study 3 – Free-text Responses to Question 30

Q30: Please use this space to provide any final comments about any of the consultation skills training you have received, or training you feel would be useful for the future for you or for future doctors.

The use of actors to role play for undergrad education at Norwich Med School is excellent. Would be a good idea to do similar for Foundation doctors, particularly if they have not been taught so well as here. Possibly all foreign doctors coming to this country should be required to have Cons Skills Training - attitudes to openness, honesty and confidentiality particularly regarding bad news and serious illness are not the same worldwide.

I agree consultation skills are important but I think too much time is devoted to the process of this and it has become divorced and separate from the actual business of doing medicine and looking after patients. The students see it as a means to itself and that the answer is "good" consultation skills, yet it is impossible to have excellent consultant skills in isolation from clinical knowledge and reasoning - without these it is impossible to know what to ask or what to say or actually what to do. There is no point in knowing when to nod or smile encouragingly etc without being able to make a diagnosis or manage the patient. More consultation skills should be taught and observed actually in their own clinical context and not as separate events.

currently training to become an associate tutor for foundation doctors and ST1's

Doctors who have qualified abroad and specifically those in whom English is not their first language may need additional support at post graduate level whilst training.

I feel very strongly that consultation skills are a vital part of what we do, but also question the ability to teach these skills. I think the main issue is innate ability to communicate, which needs to be a priority in the selection process for medical school. My experience of formal teaching of communication skills is not positive. It is so complex, with each consultation unique due to the interaction at every point between clinician and patient. I think poor communicators may get some useful fundamentals from teaching, but for the majority it is of little value

I have invested time and energy in improving my consultation skills having had some awful experiences as a junior doctor. I believe senior doctors can learn form trainees so

I would like to see a competency where senior doctors are required to assess their supervisees / trainees consulting with patients and relatives which would provide a 2-way benefit. Students in practice are often much better than in OSCEs when they suspect the 'patient' is an actor.

Have received sufficient training, Developed the skills required observing good senior colleagues whilst training

some one has to do the work and see patients, with the advent of these training courses and teaching our productivity had gone down. I think the educators have lost sight of the fact that there is more than 1 right way of communicating, patients vote with their feet. If I were ill I would want to be seen by someone with good clinical skills based on knowledge of medical facts and clinical evidence, not someone who's claim to fame was "I teach communication skills" or "I'm a good communicator". I don't care what the bed side manner is like so long as I knew he/she was an excellent doctor.

Training I received was useful but may not have effected my skill. As a paediatrician I need to know that parents/carers and children feel I have communicated effectively and the tools we currently use to assess this are rather too crude.

the most important thing is to encourage colleagues who work closely with you to criticise so that you can improve.

I am a clinical supervisor for SPr's and have been an educational supervisor but not for foundation year dr. I would question the make up of the questionnaire/deductions that can be drawn from this?

role play with actors very useful

Consultation skills are like a tool kit. You do not need to use every tool in every consultation but, it is really helpful to be able to reach for the correct tool when needed.

An aside-- interesting situation on a medical tv soap recently. The nurse said re an old person ' We now have to spend 2 minutes talking to the man to ask these questions (checklist) about whether he can manage at home and then record that we have done it' .The patient felt patronised and the encounter was not a skilled consultation. I do get worried that helpful and useful c skills which do also give the doctor a framework could get taken over by box ticking for medico-legal reasons if we do not keep this in mind....

Skills such as are used in psychotherapy consultations need to be examined and used when dealing with patients with a long or complicated history or diagnosis.

do find role play in front of groups stressful . ?? individual role play with an actor and ? just tutor or just student and actor may be interesting to look at.

Students need more training in taking history and clinical examinations in unselected patients.

Senior doctors often need help with their consultation skills but this is a difficult area to address.

I am happy for you to contact me, if you would like to discuss any of these points. As you will have gathered, this is an area in which I take a great interest! I would like to see a copy of the results, please. Best wishes.

When I finished medical school, the type of training I had was not up to the job I had to do. Assessing patients was like using a blunderbuss - ask a load of questions and hope for the best. There was no emphasis on focussed questions in response to the presenting history of the patient. This last point is so important as it means less wasting of time especially as most working environments are so busy