Is there a role for workplace based postgraduate diplomas in the development of community pharmacists?

Volume 1 of 2

By

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Abstract

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Background: Community pharmacists have not fulfilled expectations for an extended role and their education and training is recognised as contributing to this. Postgraduate diplomas may provide the additional development required. These courses are predominantly distance learning based despite evidence that multifaceted approaches are more effective. Furthermore, the role of learning theory in developing or assessing pharmacist education is unclear. UEA obtained funding to provide a workplace based diploma for community pharmacists based in eastern England. The aim of this PhD was to investigate the role of this diploma in community pharmacist development.

Methods: Mixed methods were used. In-depth interviews were conducted with a purposive sample of 15 diploma students in October 2011 after one year of the course. Follow-up interviews were completed one year later. Interviews were conducted in summer 2012 with four community pharmacy employer representatives. A service provision, employment and CPD survey was conducted annually with diploma students (n=39) and a comparison group (n=18). A patient satisfaction survey was conducted in the main workplace of these pharmacists at the outset of the course and repeated as it concluded.

Results: Students described positive effects on their development and practice including improved confidence and inter-professional relationships. The diploma scaffolded learning and a reduction in the potential barriers to CPD was demonstrated. The opportunities for interacting with peers and other healthcare professionals were important. Workload pressures were detrimental. Employers recognised pharmacists needed development but favoured training they controlled. No significant change was seen in the provision of services or patient satisfaction.

Discussion: This work contributes to understanding community pharmacists' needs from a learning theory perspective. Professional isolation impacts negatively on the development of their practice and the social learning facilitated by the diploma appears fundamental to the positive results obtained. Whether a workplace based diploma is the best way to achieve this is unclear.

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List of abbreviations

ACT	Accredited Checking Technician
BTS	British Thoracic Society
CbD	Case-based Discussion
CCG	Clinical Commissioning Group
CE	Continuing Education
CHRE	Council for Healthcare Regulatory Excellence
CI	Confidence Interval
CME	Continuing Medical Education
COPD	Chronic Obstructive Pulmonary Disease
CPD	Continuing Professional Development
CPPE	Centre for Pharmacy Postgraduate Education
DoH	Department of Health
DOPS	Direct Observation of Procedural Skills
EHC	Emergency Hormonal Contraceptive
GLF	General Level Framework
GMC	General Medical Council
GPhC	General Pharmaceutical Council
HEFCE	Higher Education Funding Council for England
HEI	Higher Education Institute
ISTT	Independent Samples T-Test
JPB	Joint Programmes Board
LETB	Local Education and Training Boards
LPC	Local Pharmaceutical Committee
MCQ	Multiple Choice Question
Mini-CEX	Mini-Clinical Evaluation Exercise
Mini-PAT	Mini-Peer Assessment Tool
MPharm	Master of Pharmacy
MRCF	Medication Related Consultation Framework
MUR	Medicines Use Review
NHS	National Health Service
NICE	National Institute for Health and Care Excellence
NMS	New Medicine Service
NVQ	National Vocational Qualification
OSCE	Objective Structured Clinical Examination

OTC	Over The Counter medication
P	Pharmacy medicine
PCT	Primary Care Trust
PCO	Primary Care Organisation
PGD	Patient Group Direction
POM	Prescription Only Medicine
PSTT	Paired Samples T-Test
PSNC	Pharmaceutical Services Negotiating Committee
RITA	Record of In-Training Assessment
RPS/RPSGB	Royal Pharmaceutical Society (of Great Britain)
QIPP	Quality, Innovation, Productivity and Prevention
QOF	Quality and Outcomes Framework
SHA	Strategic Health Authority
SIGN	Scottish Intercollegiate Guidelines Network
UEA	University of East Anglia
WBL	Work-Based Learning
WSRT	Wilcoxon Signed-Rank Test

Glossary of terms used

Clinical Commissioning Groups	NHS organisations responsible for commissioning primary care services in a defined locality, including locally commissioned pharmacy services. Replaced Primary Care Trusts in 2013.
Champix®	Proprietary name for varenicline.
Chemist and Druggist	Weekly pharmacy magazine which features news stories, business and educational articles.
Centre for Pharmacy Postgraduate Education	NHS funded provider of education and training materials for all pharmacists and pharmacy technicians providing NHS services in England.
Competence	The ability to carry out a job or task.
Diclofenac	Analgesic with anti-inflammatory properties.
Educational supervisor	Person responsible for independent, often summative, evaluation of an individual's progress.
Ibugel®	Proprietary gel which has analgesic and anti-inflammatory properties.
Integrated MPharm	5-year MPharm programme which incorporates pre-registration training.
Local Education and Training Boards	NHS organisations responsible for the education and training of health and public health workers in a defined locality.
Local Pharmaceutical Committees	Organisations which represent all NHS pharmacy contractors in a defined locality.
Medicines Use Review	One of the Advanced Services delivered by community pharmacists, consisting of an adherence-centred review with a patient on multiple medicines.
Mentor	Person who supports an individual's development but who is not associated with their summative assessment or performance management.

National Institute for Health and Care Excellence	Department of Health sponsored organisation which provides independent, evidence-based guidance on the most effective ways to prevent, diagnose and treat disease and ill health.
New Medicine Service	One of the Advanced Services delivered by community pharmacists. The service provides support for people with long-term conditions newly prescribed a medicine to help improve medicines adherence.
Over The Counter medication	Medicines which can be bought without a prescription.
Patient Group Direction	Written instructions which legally permit the supply of prescription only medicines to defined groups of patients, without individual prescriptions.
Performance	A measure of how competence is demonstrated in practice.
Pharmaceutical Journal	Weekly pharmacy magazine for members of the Royal Pharmaceutical Society.
Primary Care Organisation	Generic term used to encompass a variety of primary care bodies including PCTs and SHAs.
Primary Care Trusts	Former NHS commissioning bodies. Replaced by Clinical Commissioning Groups in 2013.
Quality and Outcomes Framework	Voluntary incentive scheme for GP practices which rewards them for how well they care for patients.
QuickMist®	Pharmacy medicine used as an aid for smoking cessation.
Responsible Pharmacist	The pharmacist legally in charge of a registered pharmacy.
Strategic Health Authorities	NHS bodies who were responsible for implementing DoH policies at a regional level. Abolished 2013.
Transvasin®	Proprietary treatment for rheumatic and muscular pain.

Tutor	Person who combines the roles of educational supervisor and mentor.
Varenicline	Prescription only medicine used as an aid for smoking cessation.
Voltarol®	Proprietary name for diclofenac.
Work-based assessment	Assessment of practice conducted away from the workplace. This can include simulated scenarios (e.g. OSCEs) and assessment of practice conducted previously in the workplace (i.e. CbDs).
Workplace assessment	Assessment of practice undertaken in the workplace (i.e. assessment of performance).

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For Grandpa, with love.

Chapter 1

Pharmacy Education

1.1 Introduction

This thesis sets out to answer the question of whether there is a role for workplace based postgraduate diplomas in the development of community pharmacists. The piloting of one such diploma by the University of East Anglia (UEA) provided an opportunity to explore this question with course participants and their employers and patients.

The remainder of this chapter sets the scene regarding current education in pharmacy, reviews the literature relevant to postgraduate education in pharmacy, critiques the learning theories that have significance in this field, and concludes with an overview of the UEA Postgraduate Diploma in General Pharmacy Practice (Community Pharmacy) course which forms the backdrop to the thesis.

Chapter 2 (page 43) provides context by describing how expectations of the community pharmacist's role have transformed and the extent to which this transformation has occurred.

Chapter 3 (page 62) outlines the overarching research design and methodological considerations. Qualitative interviews were undertaken with a purposive sample of diploma participants at two time points and with a convenience sample of community pharmacy employers. Separate surveys were conducted of patient satisfaction with community pharmacy services at two time points, and of community pharmacists' service provision, individual role and attitudes to CPD on three occasions. The method used in each study is described within the chapter.

Chapters 4 to 8 contain the results from each study. Chapter 4 (page 93) presents the data from each of the surveys. The remaining chapters present the findings of the qualitative work: chapters 5 (page 108) and 6 (page 131) describe the themes from the initial diploma participant interviews; chapter 7 (page 148) those from the second interviews which took place as the course reached its conclusion; and chapter 8 (page 170) the themes from the interviews with the employers.

The thesis concludes with chapter 9 (page 187) which discusses the question raised at the outset in the context of the study findings, considers the implications of this for the future provision of postgraduate training in terms of its content, delivery and funding, and makes suggestions for further work in this area.

A number of appendices are referred to throughout the thesis and these are contained separately within the second volume.

1.2 Current pharmacy education

Registration as a pharmacist with the General Pharmaceutical Council (GPhC) requires successful completion of a four year masters level degree (the MPharm) and subsequent one year pre-registration period. Once registered, there is an ongoing requirement for pharmacists to complete regular Continuing Professional Development (CPD) to ensure their practice remains up to date.

1.2.1 Undergraduate education

As the regulator for pharmacy the GPhC accredits the undergraduate level pharmacy degrees provided by the UK schools of pharmacy which meet their quality assurance requirements. Only these courses lead to registration.

A three year Bachelor of Science (or Bachelor of Pharmacy) degree was the UK-recognised pharmacist qualification until 1997. The emphasis of this degree was the science of pharmacy, rooted as it was in a period when pharmacists employed these skills in their supply focussed roles or took them to a rapidly growing pharmaceutical industry. With the development of a more clinical role for hospital pharmacists and in anticipation of a similar change in the community setting, the 1986 Nuffield report recommended changes to the undergraduate qualification so that students could be better prepared for patient-facing roles.[1]

The resultant four year MPharm degree has continued to be funded as a science degree and does not receive the funding which entry-level degrees for other clinical professions such as medicine and dentistry receive from public spending agencies like the Higher Education Funding Council for England (HEFCE). This has limited moves towards developing more patient-facing knowledge and skills, with students spending the majority of their time within the academic setting.

Several years after the introduction of the MPharm degree, a survey of 128 pre-registration students working in the east and south east of England found that they felt more confident in the supply aspects of the role and in their knowledge than they did about undertaking more complex decision making activities,[2] suggesting that graduates are leaving university insufficiently prepared for more clinical roles and therefore potentially lacking the confidence to deliver Medicines Use Reviews (MURs) and other patient focussed services.

1.2.2 Pre-registration training

The pre-registration training year, which follows graduation, is the GPhC's method for controlling entry onto its register and ensuring pharmacists perform at the required level. During this year the pre-registration trainee is mentored by their tutor, a practising

pharmacist with at least 3 years experience, whom they are employed alongside and who assumes responsibility for authorising their entry onto the professional register. Successful completion of the pre-registration year requires the trainee to achieve competence in the GPhC's performance standards, which cover personal effectiveness, interpersonal skills and medicines and health.[3] However, it should be noted that this training is not quality assured and there are no mandatory training requirements for tutors. The trainee must also pass the GPhC's registration assessment, a multiple choice question (MCQ) examination which has predominantly used questions which test knowledge, but more recently used questions to test application of knowledge.[4,5] Performance is not assessed.

1.2.3 Educational reforms

Implementation of the recent proposal[6] to reform the undergraduate degree and pre-registration year would see both elements integrated into a 5 year programme managed by the universities and delivered jointly by them with the employers. This would result in increased patient contact during the training period and provide a quality assurance of the workplace delivered experience, thus overcoming the majority of the issues described above. A corollary of this may be that future pharmacists may be better placed to undertake more complex decision making and patient focussed services than their colleagues who qualified under the existing system.

1.2.4 Education and development post-registration

Currently, once registered as a pharmacist, the only mandatory requirements for education and development are to meet the GPhC's standards for CPD.[7] A plan for a more robust revalidation process, which may act as a further incentive to professional development, is currently out for consultation.[8] The Royal Pharmaceutical Society (RPS) recently launched its professional recognition programme (RPS Faculty) which aims to support pharmacist development and align itself to future revalidation requirements.[9] Pharmacists may also choose to undertake one of a number of postgraduate diplomas to support their education and development. CPD, revalidation, RPS Faculty and postgraduate diplomas are discussed in more detail below.

1.2.4.1 Continuing professional development

To demonstrate maintenance of their professional capability pharmacists are required to complete a minimum of nine CPD records per year which reflect their current or future practice.[7]

The introduction of CPD for healthcare professionals was a recommendation of the Bristol Royal Infirmary inquiry.[10] Legislation introduced in 2010 made the GPhC

responsible for setting standards of CPD for pharmacists and ensuring compliance.[11] Prior to this the Royal Pharmaceutical Society of Great Britain (RPSGB) had updated its code of ethics for pharmacists to include a CPD requirement, replacing the obligation for pharmacists to complete 30 hours of continuing education (CE) every year.

CPD has been defined as a process of systematic, ongoing, self-directed learning.[12] The process is a cyclical one, which draws on Kolb's model of experiential learning.[13] Figure 1.1 illustrates the four stages of the cycle: reflection, planning, action and evaluation.

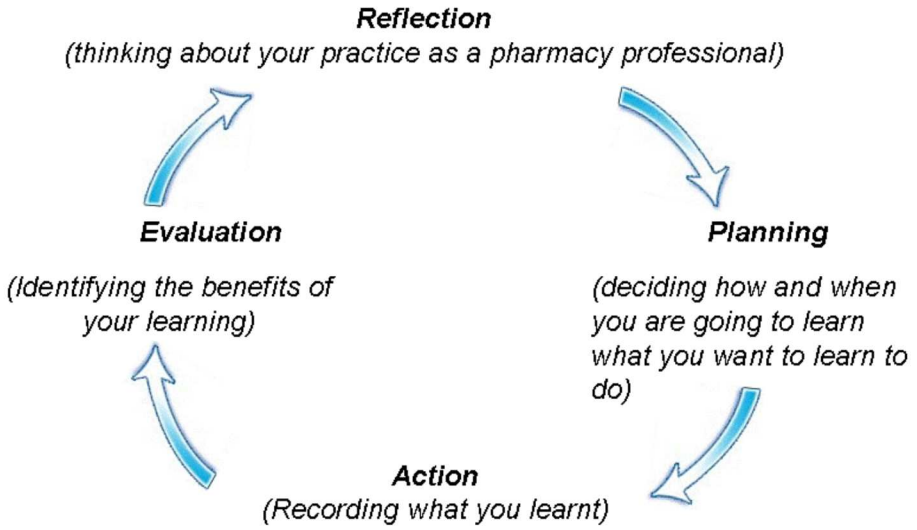


Figure 1.1 The CPD cycle (taken from the GPhC guide to CPD, page 5).[14]

Not every learning experience includes all four stages, although every cycle should include an evaluation so that the learner reflects on what they have learnt and how it has benefitted their practice. The CPD process can commence at any stage of the cycle with most people favouring beginning at either reflection or action.[14]

CPD differs from continuing education which tends to consist of structured, often didactic, educational activities, completion of which does not always result in practice change.[15] That is not to say that these activities cannot be undertaken at the 'action' stage of the CPD cycle, where the addition of reflective practices increases the value of the learning.

A number of studies have been conducted into the impact of the introduction of mandatory CPD on pharmacists and their practice. A series of in-depth interviews and focus groups with hospital pharmacists in 2004 and 2005 found that the majority did not feel the CPD recording process led to a change in their practice above and beyond the learning experience itself and struggled to understand its value.[16] Pharmacists have also reported confusion around the CPD process itself as a barrier to its

completion.[17,18] Other studies have reported time as a barrier to CPD, particularly in the absence of protected time for its completion at work.[19,20]

Despite these difficulties, 99% of CPD records reviewed by the GPhC have met the required standards.[21] However, structured interviews with a random sample of 30 community pharmacists suggested that they tended to complete CPD only when they received the call for submission of their CPD record from the GPhC rather than as part of a continuing process of development, and that learning was drawn from a narrow range of readily available information resources to simply update their knowledge rather than develop practice. Demographic details of these pharmacists were not reported limiting the generalisability of these findings.[22] Semi-structured interviews with female community pharmacists found that they tended to choose CPD topics based on personal interest or accessibility, rather than by identifying gaps in knowledge through a process of reflection.[18]

An ability to self-assess learning needs is a pre-requisite if the self-directed reflective approach of CPD is to be of benefit. However, it is known that poor self-assessment skills are common, with most people believing they are 'above-average.'[23,24] Pharmacists are not immune to this phenomenon with impairment of self-assessment skills shown to be greatest in those with the weakest skills.[25]

The transition in learning environment as the individual moves from undergraduate to pre-registration to becoming a registered community pharmacist compounds the issues around support and self-assessment. Figure 1.2 illustrates this and highlights the difference between the community and hospital sectors. Undergraduate students are in an environment where they are fully supported through the learning process whilst at university, and learning is directed by the course syllabus. During the pre-registration year the student maps their development to the GPhC standards and a more self-reliant approach is required, but they are supported and guided by their tutor throughout this process. However, once qualified community pharmacists are often isolated from their peers and do not have access to support in the workplace. This differs in hospital pharmacy departments where newly qualified pharmacists are usually mentored while undertaking a postgraduate diploma and a learning culture often exists in which group educational sessions take place during the working day. An example of this is the Centre for Pharmacy Postgraduate Education (CPPE) 'learning @ lunch' programme which many hospital pharmacy departments have engaged with.[26]

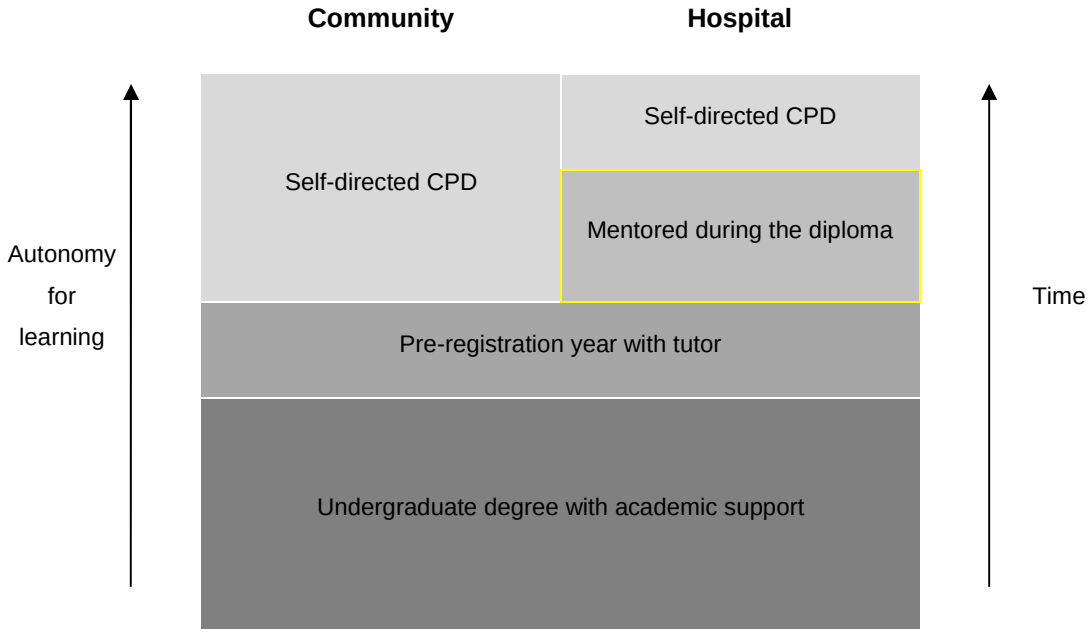


Figure 1.2 The transition through learning environments for pharmacists entering the community and hospital sectors.

The literature suggests that community pharmacists would benefit from additional support with their CPD. A lack of understanding of the CPD process and/or time pressures have resulted in a tendency to choose learning topics by interest or convenience. A greater understanding of the CPD process may lead to improved learning cycles which impact on practice. Pharmacists have also been shown to be poor at self-assessment of their learning needs and in areas of weakness alternative methods should be considered. Newly qualified hospital pharmacists are supported to meet the CPD requirements through undertaking a postgraduate diploma.

Without the link to career progression community pharmacists have questioned the relevance of CPD once established in their role.[19] Their uptake of additional education such as that provided by postgraduate diplomas has been limited and largely dependent on individual motivation. According to Eraut these individuals would be from one of three groups: professionals that want to specialise or improve their knowledge base; managers who need a management qualification; and professional educators responsible for preparing the 'new generation.'[27]

The introduction of new services may provide some motivation for learning as they often require completion of additional training as part of an accreditation process.[28] This is often limited to an understanding of the processes involved in delivering and administering the service rather than a detailed training and assessment of the skills required to successfully implement it.

Poor motivation and a lack of support, in the form of protected time, guidance in the identification of learning needs and/or the provision of suitable learning opportunities, has resulted in a situation where some community pharmacists are completing the minimum required CPD activities solely to meet the requirements of the regulator.

1.2.4.2 Revalidation

The White Paper which recommended the separation of the RPSGB's regulatory and representative functions proposed that all health professional regulators had revalidation measures in place for their registrants to ensure the ongoing fitness to practise of practitioners.[29] A separate working group had previously been formed to consider revalidation of the medical profession and it was their proposals[30] that were adopted within the White Paper.[29] Consequently the process of introducing revalidation for the medical profession has preceded that of other health professionals; the General Medical Council (GMC), the regulatory body of the medical profession, introduced revalidation at the end of 2012.

The GMC revalidation process requires that all licensed doctors undergo an annual appraisal and maintain a portfolio of supporting evidence, drawn from their practice, to include CPD, quality improvement activity, significant events, feedback from colleagues and patients, and reviews of complaints and compliments. Doctors will be required to provide this information at least once in every five year cycle.[31]

In 2008 a working group was formed which established the principles for the regulatory bodies of non-medical health professionals to consider when preparing their proposals for revalidation.[32] These principles were based on transparency, accountability and consistency, and that revalidation should be proportionate and targeted.

Following this the RPSGB began the process of developing proposals for the revalidation of pharmacists and the GPhC has continued this work. Currently undertaking a period of consultation with a range of stakeholders, the GPhC has defined revalidation as "the process by which assurance of continuing fitness to practise of registrants is provided and in a way which is aimed primarily at supporting and enhancing professional practice," and agreed a set of draft principles.[8] These principles include that the adopted revalidation model will be consistent with the principles set out by the working group for non-medical health professionals[32] and that the model will include some form of assessment and be based on the standards of conduct, ethics and performance applied to all registrants.

The impending arrival of revalidation may provide the motivation which will see an uptake in the participation of community pharmacists in postgraduate education, as has been suggested for GPs.[33] However, the focus of revalidation is assessment and

based on the evidence of community pharmacists experiences with CPD this group will need support to ensure they are able to attain the standards required. The leads to the question of what is required to ensure community pharmacists' practice is supported and enhanced.

1.2.4.3 RPS Faculty[9]

The RPS launched its professional recognition programme, RPS Faculty, in July 2013. The stated aim of the programme is to provide a means of formally acknowledging the professional development and advancement in practice achieved by pharmacists across all sectors of practice. Registration on the programme is voluntary and limited to members of the RPS with at least two years' post-registration practice experience.

Once registered, participants are encouraged to build their Faculty portfolio. This should provide evidence of learning, experience and professional achievements which provide evidence linked to the Advance Pharmacy Framework (APF). The framework has been designed to be used by experienced pharmacists and consists of 6 clusters; these include expert professional practice; collaborative working relationships; leadership; management; education, training and development; and research and evaluation.

The Faculty recognises three levels of advanced practice; Advanced Stage 1 ("established, experienced" practice), Advanced Stage 2 ("excellent" practice) and Mastery ("exceptional" practice). These levels are reflected in the evidence requirements within the APF. Attainment of each level confers a unique set of post-nominals valid for 5 years.

Currently assessment is conducted by recognition of prior experience and is only open to those with more than 10 years' experience. Peer assessment, using testimonials, and expert practice assessment, via a detailed career-based CV, is undertaken together with assessment of the portfolio. Plans for assessing those with 2 to 10 years' experience have yet to be revealed but are likely to follow a similar pattern.

Support for participants is provided in the form of a library of professional curricula. These align to the APF's core practice clusters with expert professional practice subdivided into separate curricula by clinical specialism. Signposting to development resources including journal websites and guidelines is provided rather than specific educational interventions. Access to a mentoring scheme is provided. In this way the RPS believe the programme will support pharmacists in readiness for the proposed revalidation plans.

1.2.4.4 Postgraduate diplomas

Within the hospital setting it has been recognised that the level of education received by pharmacists up to registration is insufficient for them to perform the role required, which has become a more clinical one, driven by the needs of the NHS to maximise the use of limited resources. Chapter 2 (see page 58, parallel developments in hospital pharmacy) provides further detail on these changes and their rationale. Pharmacists that wish to progress their careers within hospital are required to demonstrate development of their practice through completion of a postgraduate diploma or equivalent.[34]

Postgraduate courses are not subject to accreditation by the GPhC. Instead these courses must meet the standards of the awarding Higher Education Institute (HEI) and therefore tend to be evaluated and reviewed using internal processes, which mostly focus on enrolment figures, pass rates and student satisfaction. Due to concerns about the content of postgraduate courses and whether they met the needs of hospital pharmacists and their employers[35] the Joint Programmes Board (JPB), a collaborative between NHS pharmacy services and nine universities based in the south east of England, developed a competency-based diploma designed to meet the needs of both parties by equipping hospital pharmacists with the core skills and competencies required to provide pharmaceutical care in their practice setting. The diploma is employer-led and provided by the universities working with JPB accredited hospitals. The employer-led nature of the curriculum means that it is linked to the NHS development tool (the Knowledge and Skills Framework) and grading and pay scales (Agenda for Change),[34] and thereby supports individuals to achieve career progression. Although the focus is on developing pharmacists to practice at a general level, the foundations for specialist roles are laid as the course progresses. The career pathway in community pharmacy is less formalised than in hospital and the development of strategies for post-registration career development of pharmacists has been recommended to maximise pharmacy's contribution to the health of the nation.[36] The early career community pharmacist's role usually progresses to involve the management and development of small teams, without a parallel increase in clinical complexity. This is captured by Wright *et al.* in their summary of pharmacist career trajectories.[37] Community pharmacists that progress their career tend to move in to senior management positions which have greater management and leadership responsibilities but remove them from patient-facing activities. Therefore, the clinical complexity of their work is decreased rather than increased. In addition if the transition of the community pharmacist's role from a medicines supply focus to a patient and public health focus, as described later in Chapter 2, is to be successful then improved communication skills and inter-professional relationships are required.

A number of postgraduate courses in pharmacy practice have been developed for community pharmacists in the UK. A search of school of pharmacy websites undertaken in 2010 by this researcher found most courses' aims were not aligned to community pharmacists' career trajectories or developing practice and instead were focused on developing clinical knowledge. Management skills development was included as an option for some courses.

The majority of these courses were delivered by distance learning, with no or only minimal attendance required for study at the HEI. A reason for this may include that these courses are typically less costly than others to provide.[38] It has previously been shown that community pharmacists tend to complete distance learning packages in their own time[39] and this may be seen as preferable by their employer. Assessment was usually of knowledge and theoretical performance, undertaken mainly via written coursework, with written examinations sometimes used. Other methods of assessment mentioned included oral presentations, reflective logbooks and Observed Structured Clinical Examinations (OSCEs). Consequently, these courses tend to develop participant's knowledge in areas in which they are not currently practising and only partially assess application of knowledge. Furthermore, the modes of delivery employed minimise opportunities for face to face learning and learning from peers. It would appear then that parallels may be drawn between existing postgraduate courses for community pharmacists and the issues identified in the CPD literature of a lack of protected time and effective environments for development activities and of support for identification of learning needs and development of practice.

1.2.4.4.1 Literature review of the evidence for postgraduate diplomas

A literature search was conducted to identify studies that had examined the value of UK postgraduate diplomas for pharmacists. The following databases were searched: Medline, Cumulative Index to Nursing and Allied Health Literature (CINAHL), British Education Index (BEI), Educational Resources Information Centre (ERIC), Academic Search Complete and the Cochrane Library. The journals International Journal of Pharmacy Practice and Pharmacy Education were searched using the search tools incorporated into their respective website homepages. A variety of search terms were combined using Boolean operands. The exact terms used varied depending on the individual database but included pharmacy, pharmacist, education, learning, training, development, postgraduate, graduate, practitioner, diploma, certificate, course and evaluation. The titles and abstracts of all articles were examined. Only a limited number were relevant indicating a limited body of research on the value of postgraduate diplomas for pharmacists.

Kostrzewski *et al.*[40] used the previously validated[41] 'Approaches to Study Inventory' (ASI) to measure student learning approaches on a postgraduate diploma in Pharmacy Practice aimed at hospital pharmacists. The ASI is a self-reporting questionnaire consisting of 64 statements grouped into three main orientations to studying, namely 'meaning', 'reproducing' and 'achieving'. The majority of the 94 participants were hospital pharmacists, although two community pharmacists also took part. The results demonstrated that participants had a greater 'meaning orientation' than 'reproducing orientation' in their approach to learning. That is to say they were focussed on gaining a deep understanding and relating this to their everyday experiences rather than completing surface learning for the purposes of task completion and assessment success. A low score for 'extrinsic motivation', a subscale within the 'achieving orientation' was obtained indicating that participation was not solely for the qualification it led to. The timing of the study meant that the research encompassed a restructuring of the course from a fixed curriculum to a modular format which the authors indicated resulted in an increased workload. Those students who were undertaking the revised course did score significantly higher for the surface approach to learning than those on the original course, suggesting workload pressures may impact on the quality of learning. The study did not attempt to uncover how participant learning translated into their practice. Only brief details of the course structure were provided so the extent to which this impacted on the learning approaches adopted cannot be fully explored.

A content analysis of UK postgraduate clinical pharmacy courses for hospital pharmacists showed differences in entry level, duration, content, delivery and assessment[35] and a wide variance in student experiences of 10 of these programmes undertaken by hospital pharmacists during the period 1991 to 1996 was demonstrated by Quinn *et al.*[42] using the validated course experience questionnaire (CEQ) tool.[43-45] CEQ requires participants to rate their experience of a course in five areas (good teaching; clear goals and standards; appropriate workload; appropriate assessment; and emphasis on independence) on a scale of one (low agreement) to five (high agreement). 364 (72%) responses were received and these indicated statistically significant differences in perceived teaching quality between the different courses. Good teaching was divided into 'academic' (reflecting institutional teaching) and 'practice educational support' (reflecting practice activities) scores. In both cases scores were slightly above the midpoint (3.59 and 3.26 respectively) suggesting teaching and educational support could be improved. A reason for the low 'academic' score may be that the teaching methods deployed by these courses did not match those stated in course documentation which emphasised self-directed and experiential approaches[35] and therefore did not meet the needs of adult learners.[46] This is supported by the low score (2.24) for emphasis on independence which suggests these courses closely directed student learning with little opportunity for them to

explore their own development needs. The low 'practice educational support' score may reflect a lack of support in the workplace from practice tutors or reflect the quality of that support as not all courses provided tutor training.[35] Appropriate assessment scored highest (3.99) whereas appropriate workload scored 2.96. Work by Wilson *et al*.[47] found that deep approaches to learning were supported by good teaching, appropriate assessment and emphasis on independence, whereas heavy workload and inappropriate assessment were associated with a surface approach to learning. Quinn *et al.'s* findings therefore suggest that postgraduate programmes delivered during this period in the UK were not optimised to encourage the deep learning approaches which would improve practice performance.

Laaksonen *et al.*[48] explored the self-assessed competence of community pharmacists working in the north east sector of the London Strategic Health Authority (SHA) who had completed a postgraduate certificate in clinical pharmacy which on successful completion enabled participants to provide accredited clinical medication reviews. A questionnaire based on the General Level Framework (GLF) competencies was developed and sent out one year after completion of the course to 179 community pharmacists (43 of whom had been recruited to the certificate programme). A response rate of 50% was obtained, however 67% of the certificate group replied compared with 45% in the untrained group. There was no difference in the self-assessed competence of the two groups. However those in the certificate group may have been more aware of their competence gaps and therefore may have assessed themselves more stringently. Furthermore the difference in response rates may have introduced bias if individuals who did not respond were different to those that did (for example if they chose not to respond because they felt they had low competence). Alternatively it may be that the certificate group increased their knowledge through the training but were not supported to put this into practice and therefore increase their competence; the course description provided referred to 300 hours training[49] delivered via four compulsory modules; an optional module; a two-day workshop on patient interviewing and care planning; and a one-day IT workshop, but made no reference to tutor support or mentoring in the practice environment. Pharmacists in the certificate group were more likely to provide more services (the majority providing 3-6 services compared with 1-2 in the untrained group) however it is likely that pharmacists that provide more services would have self-selected to enrol in a course which accredited them to provide another. The difference in the number of services provided before starting the course and at the time of the survey was not captured.

A retrospective study was undertaken of mini-Peer Assessment Tool (mini-PAT) data completed by hospital pharmacists who had taken University College London's postgraduate diploma in general pharmacy practice between 2007 and 2010.[50] The mini-PAT is a multisource feedback tool (see page 32) which participants in the course

completed 5 times at 6-monthly intervals. Results demonstrated an increase in the overall ratings for competence provided by all groups and in self-assessment between the time of the first mini-PAT after 6 months and the last. The authors did not explicitly state how the course contributed to this improvement although they alluded to the provision of formative feedback based on mini-PAT results to tailor individual development. However, without a comparison group it is not possible to say whether these improvements occurred as a result of the diploma. For example performance may have improved as a result of 3 years further practice experience.

The limited research on postgraduate courses for pharmacists in the UK describes the variety in content, delivery and assessment methods used. Course workload pressures, lack of or poor quality educational support and inappropriate assessments result in a surface approach to learning and this is likely to be exacerbated without protected time at work for development activities as seen with CPD. It is not clear if courses are optimised to meet the needs of the independent adult learner and nor is it clear whether such courses result in improved practice. Where measures have been identified to indicate changes in performance the self-selecting nature of participants and failure to account for the effects of the passage of time are significant limiting factors.

This lack of evidence necessitates consideration of other areas of pharmacist education. Supplementary Prescribing (SP) by pharmacists was introduced in the UK in 2003. The requisite training is accredited by the GPhC. Courses are offered by many HEIs and requires a minimum of 26 days equivalent general training completed over a period of 3 to 6 months and a mandatory period of at least 12 days learning in practice. This period of learning in practice requires working alongside a designated medical practitioner (DMP). The DMP has mentoring and assessing responsibilities for their SP trainee. Training in consultation skills is integral to these courses and learning outcomes are assessed by written examinations, OSCEs and reflective journals. Independent Prescribing (IP) by pharmacists was introduced in 2006. IP courses are similar to SP courses but have a greater emphasis on patient assessment and diagnosis. Non-medical prescribing is an umbrella term which incorporates both IP and SP. The similarities in delivery methods and participants between NMP and postgraduate diplomas suggested it may be worthwhile reviewing the literature on NMP qualification training and education. Although a recent systematic review of the educational interventions to improve prescribing competency found that few studies focussed on NMP,[51] there is a growing body of literature that has developed on SP for pharmacists in the UK.

Nine purposively sampled pharmacist SPs were interviewed to explore their views on the consultation skills training they had completed as part of their SP course at one UK

University [52]. Fifty hours of distance learning materials and 2 half-day taught sessions were provided. The course emphasised practice, observation and feedback to optimise learning. Participants were positive about the university-based training they had received but reported difficulties in transferring their learning into practice. It was felt that additional experiential learning opportunities would support this process.

A questionnaire distributed to all registered SP pharmacists in 2005[53] explored perceptions of the extent to which the SP course had prepared them for the role as a secondary objective. 401 (82%) responses were received and of these 206 (51%) were not practicing as SPs. A median score of 3 (on a Likert scale of 1[strongly disagree] to 5 [strongly agree]) was obtained from practising SPs when asked if their SP course had fully prepared them for the role. The reasons for this were not explored.

A postal questionnaire was completed by 186 (77%) pharmacist SPs who had completed their training at one UK University.[54] A modified version was returned by 144 (62%) of their DMPs. Just over half (50.5%) of the SPs practiced in community pharmacy. 60% of SPs reported that their DMP reviewed their consultation skills during their 12 days learning in practice. The most frequent method of review was face to face (70%). Other methods included using videos (15%), written reports (3%) and tape recordings (2%). SPs viewed their experience positively in terms of it being an opportunity for developing and testing communication skills, working with medical practitioners and developing inter-professional relationships. A concern raised by some DMPs (6%) was the poor information about their role as a mentor.

In a later study a postal questionnaire was sent to all 808 pharmacists qualified as SPs in England in April 2007.[55] The 10 page long questionnaire which included sections on training and support, practice and team working was returned by 411 (51%) pharmacists. Less than half of these (47%) were practicing as supplementary prescribers. SP training was perceived as useful by 82% of respondents with 87% agreeing that their DMP had fulfilled their role. Furthermore open question responses most frequently cited the period of learning in practice and the DMP's involvement as the most useful aspects of the training. Consultation skills and contact with other healthcare professionals were also considered valuable parts of SP training, whereas the amount of documentation required to demonstrate competencies was viewed less favourably.

Semi-structured interviews, mainly by telephone, were undertaken by Cooper *et al.*[56] with 43 purposively sampled stakeholders to explore views on UK nurse and pharmacist supplementary prescribing. Participants included pharmacist supplementary prescribers. Mentoring by a DMP was viewed positively by stakeholders but it was not clear why or to what extent this was felt by their mentees.

A combination of interviews and focus groups with pharmacist supplementary prescribers and GPs based in two PCTs in the Midlands were conducted to explore perceptions on the training provided for SP qualification and subsequent CPD.[57] All participants had completed their training at the same Midlands University. This course was described as including a high proportion of distance learning plus 6 days of interactive sessions at the University. The reflective learning elements of the academic course were said to prepare pharmacists for proficient reflection on their period of learning in practice. Once again the opportunity to work with a DMP was perceived as making a significant contribution to the learning process. This included observation of the GP's practice, the discussion of individual cases that took place, and peer observation with feedback. The reciprocal learning acknowledged by both groups supported improved inter-professional relationships. In contrast with the Cleland *et al.*[52] study participants did not appear to have concerns about putting their skills into practice; the contribution of the 6 days interactive training compared with 2 half day sessions is unknown.

The search was broadened to consider the medical education literature, where the situation is similar in that the evidence for the effectiveness of Continuing Medical Education (CME) is limited.[58]

An early literature review of the effect of CME strategies for practicing doctors reviewed 99 controlled trials of replicable educational interventions.[59] Multifaceted interventions (interventions combining at least 3 educational approaches) had the greatest positive effect on practitioner performance and healthcare outcomes. Single interventions were less effective, especially relatively short (≤1 day) events. A limitation of many of the trials included in the review was that they studied volunteer practitioners whom it might be expected would already be high performers. The review did not attempt to discern the most effective combinations within a multifaceted intervention. Davis later described how educational interventions were categorised for the purposes of the review.[60] These included educational materials, formal education programmes, outreach visits, opinion leaders, audit and reminders.

Oxman *et al.*[61] in an update to the work of Davis *et al.*[59] described how the majority of studies which used printed educational materials (PEMs) alone were unable to demonstrate a change in practitioner performance. Face to face interventions were effective in improving prescribing and increasing the delivery of some services, and workshops could also lead to changes in practice. Multifaceted interventions were again highlighted as an effective method for improving professional performance. The authors noted that due to inadequacies in the papers reviewed, it was not possible to draw conclusions about the effects of specific interventions.

A 1999 review focussed on the effect of formal educational programmes on primary care physicians' performance.[15] Interventions were categorised as didactic (i.e. predominantly lectures with minimal interaction or discussion), interactive (e.g. sessions using techniques such as role-play, discussion and problem solving) or mixed sessions. Fourteen trials met the selection criterion of using an objective determination of performance in the workplace (e.g. measures of counselling provision to smokers, cancer screening or exercise advice) or of healthcare outcomes. Those which utilised didactic methods alone did not alter physician performance. Positive changes were reported in the majority of studies which used interactive or mixed approaches. Multiple interventions were more effective than single ones.

A meta-analysis to determine the effectiveness of CME on physician knowledge, performance and patient outcomes found that active (e.g. workshops and small group activities) and mixed interventions were more effective that passive methods alone (e.g. written materials), which were not associated with a change in performance.[62] A negative correlation was demonstrated between number of participants and effectiveness of an intervention, and interventions were more effective in single discipline groups than multi-disciplinary ones. The paper did not define the terms physician knowledge, performance and patient outcomes. Neither did it explore the specific characteristics or combinations of the educational interventions which may have contributed to their effectiveness. In fact the authors criticised the paucity of information about the characteristics of educational programmes and activities in the literature.

A systematic review of the educational interventions in palliative care for general practitioners demonstrated that multifaceted approaches were more effective than didactic methods alone at changing practitioner behaviours.[63] Interventions which combined some or all of group discussions, case management, role-play, self-directed learning, practice based activities and didactic methods were considered multifaceted approaches. Design issues with the studies included in the review prevent conclusions being drawn about the contribution of the different interventions to educational effectiveness, or the relevance of how they are used in combination.

More recently a series of Cochrane reviews have been published examining the effects of a variety of educational interventions on objective measures of professional practice and healthcare outcomes.[64-68] Studies measuring knowledge or performance in test situations only were excluded. In all of these reviews the majority of studies featured participants who were physicians.

Eighteen trials based in either the hospital or primary care setting were included in the review of the effect of local opinion leaders.[64] Fourteen of these trials targeted physicians, two targeted nurses and the remainder a combination of physicians, nurses

and midwives. The results indicated that opinion leaders alone or in combination with other interventions may support changes in practice. The role of the opinion leader was not clearly described in the majority of cases, limiting their usefulness in determining effective interventions using this approach.

The review of the effect of PEMs included 45 studies in a wide variety of settings including general practice and hospital.[65] The results suggested that when used alone and compared to no intervention, PEMs have a small positive effect on practice.

Most (121 out of 140) of the studies included in the review of audit and feedback measured the effect on doctors, although some studies measured the effect on nurses or pharmacists.[66] Eight-four of the trials were set in primary care. Health professionals were given feedback (verbally and/or in writing) after their performance was measured. This feedback was given by either the researchers responsible for the study, by supervisors or colleagues, by professional organisations or by the employer. The frequency of feedback ranged from only once to once a week. The effect on professional behaviour and on patient outcomes was variable, but seemed most effective when; recipients are underperforming; feedback is provided by a supervisor or colleague; it is provided more than once; it is given both verbally and in writing; and it includes clear targets and an action plan.

O'Brien *et al.*[68] reviewed 69 studies that evaluated educational outreach visits, the majority of which studied physicians practicing in primary care. Educational outreach visits were defined as face to face visits by trained individuals visiting clinicians in the workplace and providing them with information to change their practice. This could include feedback about their performance, or be based on removing barriers to change. These interventions appeared to improve prescribing and other types of practice, for example providing screening tests. Effects varied and the reasons for this could not be explained. The type of visitor or their capability in providing information and feedback may be important factors.

In all but 5 of the 81 studies included in the review of the effects of educational meetings and workshops participants were physicians, with the majority of these undertaken in either general practice or other community settings.[67] The review found that educational meetings alone or combined with other interventions can improve professional practice and healthcare outcomes. The effect was small and similar to the other types of CME described previously. In contrast with the finding of Mansouri[62] larger attendance at educational meetings was associated with increased effectiveness, however this may reflect the perceived importance of or educational need for the topic, and therefore motivation to engage with and act upon it.

A recent systematic review assessed the effectiveness of educational interventions designed to improve general practitioners' diabetes management.[69] The authors examined effects based on different educational methods and found these were inconsistent, and where the impact was positive it was not possible to draw conclusions about which of the individual methods was effective in enhancing practice or patient outcomes.

Following the introduction of the GP appraisal system in the UK in 2002, a review of the literature on GP perceived benefits of the process was undertaken.[70] Their findings included that appraisers provided a role similar to that of a mentor, offering opportunities to discuss issues and provide feedback and guidance in a supportive environment. This encouraged reflection which influenced learning behaviour, and supported the identification of weaknesses and prioritising of learning needs. GPs felt their clinical practice improved as a result. A recent literature review examined the research on vertical integration in GP education.[71] Vertical integration for GPs describes a continuous educational pathway from undergraduate level to postgraduate level and beyond which supports the CPD needs of learners at every stage. A key characteristic of this is learning from GPs with different levels of experience and seniority, other healthcare professionals and colleagues, and patients. Benefits of this approach were identified as an increased confidence in practice, whereas time constraints and workload pressures of those GPs providing support were identified as barriers to implementation.

The current literature on SP courses for pharmacists explores the contribution of the different training elements to some extent, with qualitative work providing some insight into their relative importance for participants. The 12 days of mentoring appears to play a key role. Observation, case discussions and feedback are all perceived as important contributors and it is important that the DMP understands the requirements of their role. The nature of this relationship also appears to support the development of inter-professional relationships through reciprocal learning, working together and discovering more about each other’s roles. Interactive study days may prepare participants more effectively for practice than distance learning materials.

The CME literature reinforces a need for adult learning approaches[46] when planning educational interventions. The effect of PEMs on practice, a mainstay of the education of pharmacists, is minimal. Similarly, in medicine, it is the least effective techniques (didactic programmes and PEMs) that are the most commonly used.[72] Multifaceted approaches are the most likely to be of benefit, but there is uncertainty about the most effective combinations of the individual interventions. Furthermore it is unclear whether it is the variety within a multifaceted approach that is important or merely the number of interventions. Qualitative research may provide deeper insight into which elements are

perceived important by the recipients of such educational interventions. In addition the views of other stakeholders, such as employers, on the effectiveness of these interventions, are not apparent from either the pharmacy or medical education literature.

Although there is some reference to the principles of adult learning developed by Knowles[46] in the literature reviewed above, much of it fails to draw on the relevant learning theories. These will be explored in Section 1.3.

1.3 Learning theories

This section will provide an overview of the learning theories relevant to the education of pharmacist practitioners, particularly those pertinent to workplace based learning, and discuss the implications for the education of community pharmacists, drawing on the evidence available in medical education where applicable.

1.3.1 Overview of learning theories

There are a number of different learning theories which differentially emphasise the role of the individual learner and their environment in the learning process.[73] Despite the lack of a single overarching learning theory there are a number of common themes shared by the various theories, and there is value in considering these together with their implications for educational practice.

In the context of community pharmacist postgraduate education it is useful to first consider Knowles' andragogy.[46] Although not a theory of learning as such, it describes the general characteristics of the adult learner and presents six assumptions on how adults learn in contrast with the pedagogical model.[46,74] These assumptions can be summarised as follows:

1. The need to know: Adults need to know why they need to learn something and how they will benefit.

2. The learner's self-concept: Adults want to be responsible for their own decisions and therefore want to choose what, when and how they learn.

3. The role of the learner's experience: Adults bring a range of experiences with them into the learning environment which contribute to the learning process.

4. Readiness to learn: Adults become ready to learn when they can see how the learning will help them in real-life situations.

5. Orientation to learn: Adults are problem-centred and need to see an application for their learning.

6. Motivation: Although adults can be externally motivated to seek learning opportunities (e.g. job promotion), internal factors such as self-esteem and job satisfaction are more important to them.

Seven principles of adult learning based on these assumptions were presented by Knowles.[74] These were that an effective learning climate should be established; that learners should be involved in planning the content and method of their learning; that learners should be involved in identifying their learning needs; that learners should be supported to develop their own learning objectives; that learners should be assisted in identifying resources which will help them achieve their objectives; that learners should be supported in progressing their learning plans; and that learners should evaluate their learning.

Knowles also examined another theoretical approach to adult learning, that of self-directed learning.[75] More recently Candy identified four dimensions associated with self-directed learning, these being self-directedness, self-management in learning, learner control of instruction and the independent pursuit of learning.[76]

Whilst the mandatory CPD required of pharmacists encourages a self-directed approach it can be argued that the andragogical principles which require support and guidance are not always addressed in the learning undertaken by community pharmacists. This is evidenced by the barriers to CPD and issues with its quality described earlier. Similarly, many postgraduate courses for community pharmacists are delivered by distance learning, not related to the needs of the workplace or of practice, are prescriptive in content and may not be relevant to the learner. The RPS Faculty model may be seen as an attempt to address some of these issues with support available in the form of resources including professional curricula and optional mentoring. Motivation may also be provided for some by the prospect of obtaining Faculty post-nominals. However, the requirement to demonstrate development across the whole APF and an emphasis on assessment of this development rather than support for development itself are indicative of some deficiencies in this approach. Furthermore, the issue of establishing an effective learning environment is not broached and newly qualified pharmacists are excluded from the programme.

1.3.2 Workplace based learning

In the last couple of decades there has been increased attention given to the learning and development that can and does occur in the workplace.[77] This is nothing new; prior to the introduction of formal education all vocational education occurred in the workplace. This is true of pharmacist education where historically registration was obtained through a system of apprenticeship. Formal education became widely established during the industrial revolution and professional training increasingly

entered the domain of the HEIs. However changes in society, technological advancements and globalisation have resulted in a reversal of this trend[78,79] and a growing realisation that some learning for work is best obtained in the workplace.[77] The constantly changing nature of work requires what has been termed 'lifelong learning';[80] no longer is it sufficient for a career to be based on a single formal qualification. It is these factors which have led to the introduction of CPD in many professions including pharmacy (see page 4).

The description of the adult learner presented by andragogy resonates with the increasing popularity of workplace learning, as, for learning needs identified in work, the rationale and application for learning may be readily apparent to the learner. In healthcare professional education there are though a number of factors which present challenges to the implementation of this type of learning. Firstly, the relationship between HEIs and employers can create tensions where the goal of the HEIs is academic excellence, whereas the employers seek development of an effective, productive workforce.[81] Secondly, workplace based learning has been perceived as inferior to formal education. In medical education this is manifested by an emphasis on protected teaching time away from the job and investment in off-site development opportunities.[82] This is less apparent in community pharmacy, but this is perhaps because there has been little investment in postgraduate training per se.

At this point it is useful to discuss the terms work-based learning (WBL) and workplace learning which are sometimes used interchangeably and without definition in the literature.[83,84] Both encompass the relationships between the individual and social processes of learning and working at a personal and organisational level.[85] A divergence in the terms has occurred where they have been used for different purposes. For example, WBL has tended to be the term used in HEI programmes with a focus on equivalence for managing learning and assessment (i.e. WBL is organised and planned), whereas the term workplace learning has been used by employers with a focus on managing employee competence and to describe learning embedded in everyday work.[86]

Recently it has been argued that the following definition of WBL should be used to encompass these different aspects:

"WBL…encapsulate(s):

Learning at work, for work and through work;

Learning that expands human capacities through purposeful activities;

Learning where the purposes derive from the context of employment."[86]

This definition, which is applied from this point forward within this thesis, reflects the changing status of WBL. An early marker of this was when the UK government defined WBL as:

"The effective learning that can take place at the workplace, and not only in the formal academic setting…, and help individuals to learn through the experience of work itself".[87]

More recently the UK Council for Industry and Higher Education argued that HEIs should increase their focus on the learning needs of those in the workplace through the development of work-based knowledge and skills.[88]

Undergraduate courses in professional education increasingly acknowledge the workplace as a site of learning, blurring the distinction between HEIs and the workplace.[89] In postgraduate training trainees are usually employees with both learning and work commitments; this is particularly true of community pharmacists. This leads to the question of for whose benefit is the learning, which has implications for how postgraduate education is designed. Evans *et al.* suggest WBL can be viewed from three different perspectives.[90] From an industrial relations viewpoint WBL is driven by the needs of the workplace, from the employer's perspective, and is for the employer to control. Community pharmacy is a private enterprise and therefore WBL focussed on improving productivity and profitability rather than professional practices could be expected. In medicine and hospital pharmacy the NHS is the largest employer and its perspective on WBL must encompass a wider accountability to government and ultimately the electorate, for whom other measures such as the quality and accessibility of the service are important. Having said that, the NHS clearly has an interest in the effectiveness of the services it contracts to community pharmacy. From a sociological perspective the workplace is a site of social interaction, socialisation and identity formation; in medical education the interactions and relationships the student has with others has been shown to impact upon their learning experiences, the training they receive and the professional identity they form.[91,92] The hospital setting may be conducive to a similar developmental experience for hospital pharmacists but the isolated nature of community pharmacy may be a barrier to WBL in these workplaces.[93] Viewing WBL from a learning theory perspective is explored below (page 24).

1.3.3 Formal and informal learning

In medical education the learning that occurs in the workplace has typically been described as 'informal' and been undervalued by academics and students when compared to the 'formal learning' delivered by HEIs.[82] A typology of 'non-formal' learning has been proposed which focuses on the individual's intention to learn and departs from the use of the term 'informal'.[94] This describes a range of learning that

spans from the ‘implicit’ learning that occurs without any prior intention to learn by the individual and which they are unaware of, to the ‘deliberative’ learning that the individual purposefully plans. ‘Reactive’ learning is the learning that *can* occur between these two points; although not planned, if the individual recognises the learning opportunity they may later reflect on the learning event or experience.

This suggests WBL should be designed to include support for individuals in recognising opportunities for reactive learning. The professional isolation experienced by community pharmacists[93] indicates that this support may not be readily accessible. It is here that there may be a role for HEIs in encouraging individuals to recognise the opportunities the workplace provides for learning. Such steps may encourage learning which develops practice more effectively than would appear to be the case with the learning undertaken for mandatory CPD (see page 4).

1.3.4 Summary

The principles of adult learning described have value when considering how best to design and support educational interventions for community pharmacist education. WBL has seen an increase in its status and learning that occurs at, for or through work may address some of the requirements for effective adult learning to occur. However, workplace factors and the way in which individuals perceive work as an opportunity for learning may act as barriers. Before further exploration of how these barriers may be overcome it is useful to consider those learning theories which are of particular relevance to WBL.

1.3.5 Learning theories relevant to WBL

As mentioned above a number of learning theories have been proposed which vary in the how they differentiate the role of the individual and their environment in the learning process. In mind-centred approaches (cognitive theories) all learning is considered to come from within the workings of the individual mind, whereas in environment-centred approaches (behavioural theories) learning stems from external stimulation.[95] A further distinction is made in the theories that consider the social aspects of learning. Sfard[96] drew a distinction between cognitive and behavioural theories in which the objective of learning is acquisition of knowledge and skills and transfer between contexts (learning as acquisition) and social theories of learning in which learning is conceived as a process of becoming part of a community (learning as participation).

There are theories within these different classifications which have utility when discussing WBL and these are presented below.

1.3.5.1 Behavioural theories

In behaviourism, learning is demonstrated by the behavioural changes that result from external stimuli. In this context learning by doing, frequent practice in different situations and reinforcement of changed behaviours are important factors in the learning process.[97]

A criticism of behaviourism is that learning is explained only in terms of what is directly observable and overlooks the role of thinking, reflection and understanding. This reduces learning to perform work to those directly observable behaviours that can be atomised and which individuals can be trained to perform, the implication being that this can occur in advance of joining the workplace.[98] The development of highly detailed competency frameworks and competency based training, such as those seen in pharmacy,[99-103] is based upon this understanding of learning, but invites the question as to whether job performance can be fully specified in advance, especially given the pace of change in the modern workplace. The proposal to develop a more generalisable framework for pharmacists consisting of generic competencies which support a broader personal and professional development[37] may result in a more appropriate application.

1.3.5.2 Cognitive theories

In contrast with behavioural theories of learning in which the learner is a passive receiver of knowledge, cognitive theories view the individual as an active processor of information, constructing their own knowledge in light of their existing experiences and abilities.[82,104] Here, learning is considered to reside in the mind, be propositional in nature, be expressible and be perceptible to the individual.[105] Examples of cognitive theories include experiential learning[13] and reflective practice.[106]

Kolb's model of experiential learning is a cyclical one.[13] He suggests that for learning to be effective the individual needs to utilise four different components of learning represented by each stage of the cycle. 'Concrete experience' is the act of doing something, whether as an individual or as part of group; reading or observing an activity is not sufficient. 'Reflective observation' is the ability to review and reflect on these experiences using individual perspectives and those of others. 'Abstract conceptualisation' is the process of understanding the new experience in the context of existing knowledge and 'active experimentation' puts new understanding into practice, supporting problem solving and decision making. This model is useful as a model of learning from an applied perspective; at each stage of the cycle different activities can support the learning process.

Schon's model of the reflective practitioner rejects professional practice as simply putting theory into practice.[106] Instead individuals learn from their experiences, testing and modifying theories through a process of reflection on and action in their practice. The skills required for reflective practice can be developed through exercises such as portfolio and journal keeping.[107] Effective guidance, supervision, and feedback from a mentor figure can help identify opportunities for reflection and support development of reflective practices.[107,108] However, supervisory arrangements have been identified as fragmented and inadequate in postgraduate medical education and processes have recently been implemented to ensure the trainee's clinical work is supervised at all times.[109] The situation is more stark in pharmacy where supervision is not required once registered and community pharmacists often work in isolation.[93]

An emphasis on cognitive theories of learning has contributed to the widespread adoption of portfolios, appraisal and personal development planning in medical education,[110] and this has been seen to a limited degree within postgraduate pharmacy education.[50,102] However, although cognitive theories address the criticisms of behaviourist models by emphasising the individual's role in the learning process, they do so without reference to a wider social context.

1.3.5.3 Social theories

Social theories of learning emphasise the social and participatory dimensions of learning whilst retaining the individualistic aspects of learning described in behavioural and cognitive models; learning is social in nature and we learn from each other. This section will provide an overview of the social learning theories that have been argued to be most relevant to the work and learning of teams and communities.[111-113]

1.3.5.3.1 Social cognitive theory

In social cognitive theory[114] learning is considered to be of a social nature, occurring in interactions with others and the environment. Both the influence of the environment on individual learning and the active role the individual takes in processing learning are recognised, unifying aspects of behavioural and cognitive theories.

Bandura[115] asserted a dynamic relationship between environmental, behavioural and personal factors in learning, with the relative influence of each dependent on the activity, the individual and the situation. To illustrate this, in a busy work environment an individual's focus might be on meeting the needs of the job; when performing something new feedback will have the strongest influence; and at other times personal factors will prevail and the individual may decide what they want to learn.

Five basic capabilities were identified by Bandura[115] which are of relevance when considering learning. These are symbolising, forethought, self-regulation, vicarious and self-reflection capabilities. Symbolising enables individuals to internalise experiences and use them to inform future decisions and actions. Forethought enables individuals to anticipate the outcomes of actions and adjust plans accordingly; this can act as a motivator for current behaviour. Self-regulation occurs through an evaluation of the outcomes of the individual's behaviours. Vicarious capability enables individuals to learn by observing the actions and consequences of others; role-modelling has an important part to play in enhancing vicarious learning. Finally, self-reflection enables individuals to critically examine their thinking and behaviours.

Self-efficacy (or self-belief), an individual's judgement on their ability to complete an activity, is considered to be a central concept within social cognitive theory. It impacts on what the individual chooses to do, the effort and persistence with which they pursue their choices, and the level of anxiety or sureness in their approach. Performance attainments, vicarious experiences, verbal persuasion and one's physiological state can inform views on self-efficacy.[116]

1.3.5.3.2 Social constructivism

Social constructivism stresses the role of social engagement in learning. Building upon cognitive theories it posits that engaging with others supports the interpretation of new information and thus the construction of new knowledge. Based on his observations of children and adults, Vygotsky[112] argued that we learn more effectively when interacting with more knowledgeable individuals than when working alone. This can be contrasted with the work of Kolb,[13] for example, where it is assumed that it is simply undertaking the learning experience that results in learning. A range of interactions may facilitate this type of learning, including with peers and with experts.

Vygotsky also introduced the concept of zones of learner development which have utility when considering how to structure training programmes.[112] The 'zone of actual development' encompasses what an individual can do independently, whereas the 'zone of proximal development' indicates what can be done with the support of someone more knowledgeable. Recognition of what can be done independently by an individual can support the scaffolding of their learning to maximise their development.[82]

1.3.5.3.3 Situated learning

Situated learning[111] belongs to the group of socio-cultural learning theories that build upon the ideas of social constructivism by placing a greater emphasis on the role of the wider community and the transformation that occurs as learners participate with it. Learning is viewed as an everyday activity and the distinction drawn from working is

seen as a false one. Working activities and learning activities can occur together when faced with complex issues. Furthermore, workplace colleagues can be viewed as a learning resource to support decisions made at work.

Lave and Wenger in developing situated learning identified four key ideas relevant to WBL in their qualitative studies of apprenticeships.[111] These were that learning is a part of social practice; learning takes place in communities of practice; learning takes place through legitimate peripheral practice; and that language has an important role in developing practice.

New situations, new colleagues (and new patients) in the workplace can provide learning opportunities even though these may not always be recognised; learning occurs through social interactions, hence learning is a part of social practice. Communities of practice can be identified by their common expertise, the way they work and their practice culture.[117] Community pharmacists are required to participate in a variety of communities of practice (e.g. their immediate community pharmacy team, community pharmacy across a locality and the wider primary healthcare team) but may need support in achieving this, particularly given the issues around isolation and inter-professional relationships.[93,118] Legitimate peripheral participation describes activities a learner can undertake within a community which facilitate the development of expertise and eventual full participation within that community. Ideally activities will be structured so that there is a gradual progression (e.g. from observation of an MUR to unsupervised consultations). Finally, the importance of language in practice highlights the process of developing expertise through learning to use the appropriate language or 'talk' of the community. These ideas can be related to Eraut's 'non-formal' learning[94] in that the degree to which the individual recognises the learning can be variable.

Although the value of Lave and Wenger's ideas has been promoted in medical education[110,119,120] there is little evidence to support this. Semi-structured interviews with GP registrars supported the idea of communities of practice but suggested that feelings of isolation were a barrier to participation in legitimate peripheral practice.[121] Parallels can be drawn with community pharmacy where isolation has been recognised.[93] The limited extent with which students can engage in clinical activities has also been demonstrated to be a barrier to learning through legitimate peripheral practices.[122] In pharmacy, clinical activities are limited at undergraduate level due to the funding of the MPharm degree, and whilst the pre-registration year may provide some opportunities working alongside the tutor the transition to full responsibility is abrupt, occurring on the day of qualification.

Criticisms of situational learning include that it underplays the role of cognition[82] and formal learning[123], and does not fully consider workplace variations[124,125] or how the most experienced members of a community continue learning.[126]

1.3.6 Summary of learning theories and implications for community pharmacist education

All of the theories explored above have at least some merit in supporting our understanding of the learning process. Behavioural and cognitive theories of learning describe how knowledge and skills are acquired, but do so without consideration of the wider social context and how learning occurs within teams and communities.

Social cognitive theory helps us understand the relationship between environmental, behavioural and personal factors in learning and social constructivism highlights the learning that can be facilitated by social interactions with those more knowledgeable than us. Socio-cultural models such as situated learning theory fully emphasise the participatory aspects of learning described by Sfard,[96] although their use may be limited where the community is dysfunctional.

WBL fits a process curriculum model.[82] Learning outcomes can vary between learners; the content of learning is derived from the learner's experiences; its purpose is to maximise potential rather than the attainment of competence; and support in the form of scaffolding of development for the learner is paramount.

Lifelong learning is as relevant to community pharmacists as it is to any other profession. The mandatory CPD introduced to formalise this within the profession encompasses many of the principles outlined above; for example it is self-directed and includes reflection. However, its quality has been criticised[18] and the fact that community pharmacists are not meeting expectations in terms of service delivery[118] suggests something is missing from the learning they undertake. Opportunities for community pharmacists to undertake learning activities in the workplace are limited by the fact that they often work in isolation; even when newly qualified they are expected to perform their role with no supervision. WBL opportunities are dependent on the way in which work is organised[27] and without direct management or supervision community pharmacists can find themselves in a position where opportunities for exposure to new ways of working, new activities, role-modelling and feedback on their performance are minimal. Furthermore, their isolation can mean that peer interactions are uncommon, which limits another avenue of learning. This also results in only a small amount of newly created knowledge being shared and thereby "the wheel is reinvented many times over."[27] Consideration of the learning theories above suggests community pharmacists would benefit from greater support to identify and facilitate appropriate learning opportunities. This may be particularly relevant to those who are newly qualified to further their participation within their communities of practice.

In the current environment the need for healthcare professionals to demonstrate high quality performance has been established. As discussed in detail in Chapter 2, for

community pharmacists this will require development of their role in delivering services, better utilisation of staff and improvement of their communication and relationship building skills. However, undergraduate education remains science-based, pre-registration training is not optimised, revalidation has yet to be established and the requirements for CPD do not necessarily result in a change in practice. Therefore there is a need for educational support which is focussed on the individual and their performance, and which should in theory better prepare practitioners for their role.

1.3.7 Methods which support the scaffolding of learner development

Although some of the postgraduate diplomas available for community pharmacists employ learning and assessment activities which can facilitate WBL, the predominantly distance learning approach that has been used in the majority of cases restricts the inclusion of those approaches that require interaction with colleagues, course staff and fellow students. This limits the opportunities for learning from more knowledgeable or experienced individuals.

Activities such as directed reading, case studies, report writing and other written assignments can all be provided as distance learning activities. Other activities such as giving presentations and performing role-plays require face to face contact, although developments in information technology may help overcome this need. However, the spontaneous discussions that occur within a classroom environment or even during breaks in teaching (e.g. coffee and lunch breaks) are arguably only attainable if participants are physically present together, and these informal interactions have previously been suggested as an important facilitators of social learning.[127,128]

A number of tools are available which can be used to facilitate WBL, many of which are already used in the training of other healthcare professionals, including some existing diplomas for hospital pharmacists.[102] These include observation in the workplace, observation in simulated environments, feedback from colleagues and patients, case presentations and portfolios of evidence.[129] A summary of these tools, evidence for their use and consideration of their utility in community pharmacy is provided below.

1.3.7.1 Observation in the workplace

Tools developed to observe workplace performance include the mini-CEX (mini-Clinical Evaluation Exercise), the MRCF (Medicines Related Consultation Framework) and DOPS (Direct Observation of Procedural Skills).

Mini-CEX

The mini-CEX is designed to assess clinical skills, attitudes and behaviours in routine practice[130] including pharmacist-patient and pharmacist-healthcare professional interactions. It can also be used to assess other areas of practice including dealing with medicines information enquiries and clinical checking. Assessment should be undertaken by a senior pharmacist and typically would be expected to last 20 minutes. This consists of 15 minutes observation of practice and 5 minutes of feedback.[102] An example of the mini-CEX tool is included in Appendix 1.There is strong evidence for the utility of mini-CEX in formative assessment; it has high content validity,[131-133] participants rate the experience positively as a tool for learning,[134] perceive that it improves the quality of training and feedback[135,136] and it can be used in a wide range of settings and circumstances.[129] Lack of time or suitable patients can be a barrier to uptake and reliability is potentially high and improved by multiple assessments with a range of assessors.[131,133] Mixed results for inter-rater reliability of mini-CEX and other workplace observation tools have been reported[131,132] and there is conflicting evidence for the impact of assessor training.[137,138] More recently the results of a qualitative content analysis of 983 mini-CEX forms completed as part of a postgraduate medical programme in 20 teaching hospitals in Taiwan emphasised the importance of assessor training in the use of the tool; in this setting written feedback tended to focus on clinical judgements with less attention paid to communication skills. The design of the study prevented the content of any additional oral feedback being assessed.[139]

The mini-CEX can facilitate WBL in that it can be used to provide feedback on workplace activities, identify further learning needs and involve members of the wider community in supporting learner development. However the isolation of community pharmacists would indicate a limited access to experienced practitioners who could undertake this and there may be an issue in undertaking this in work time from an employer's perspective if they perceive it as disruptive to the usual running of their business. Furthermore where such support is available the unpredictable nature of the community pharmacist's work may mean that practice opportunities suitable for observation to do not present at a convenient time. This may be particularly relevant in the case of infrequent activities, for example interactions with other healthcare professionals, which conversely may be those activities which require most development. Hence there are some significant barriers to its use.

MRCF

The MRCF is used to assess communication skills when consulting with patients about their medicines. It was developed so that its structure and content mapped to a typical medicines related consultation,[140] such as an MUR, and any pharmacist trained in its

use can carry out the assessments. Typically assessment will last for 30-45 minutes including feedback. An example of the MRCF tool is included in Appendix 2.

A literature review by Mills *et al.* found less evidence to support the use of the MRCF compared to the mini-CEX but reported indications that it may have a positive educational effect, and that it's acceptability to participants appears to be high.[129]

WBL can be facilitated by the MRCF in a similar way as the mini-CEX and equally there are similar barriers to its use in the community setting. Its format does lend itself to use in self-assessment and this may facilitate WBL by enabling the learner to take responsibility for identifying their own development needs. However this would not remove the need for training in its use and guidance on how to address the development needs identified.

DOPS

DOPS involves the assessment of technical or practical skills performed on real patients.[129] This does not include the assessment of consultation skills. Its use has mainly been in medicine and the skills assessed are not those commonly encountered in pharmacy. Mills *et al*. uncovered some examples of its use in pharmacy but no evidence to support this.[129] Community pharmacists and their staff offering services which involve technical elements such as injecting or blood sample collection could expect to undergo a similar method of assessment. Pharmacy technicians commonly experience similar assessment to become accredited checking technicians. For example the National Pharmacy Association's 'Accuracy in Dispensing' course requires that trainees complete an independent assessment of their accuracy checking abilities.[141] For these reasons DOPS is not considered as a tool for developing community pharmacists' practice.

1.3.7.2 Feedback from colleagues and patients

The mini-Peer Assessment Tool (mini-PAT), see Appendix 3, is a multi-source feedback tool designed to obtain feedback from a variety of people with experience of the individual's practice and can therefore be considered a form of workplace assessment. In the case of pharmacists this can include colleagues, staff, management and other healthcare professionals. The individual seeking feedback distributes an assessment form to each person they would like feedback from and also completes a self-assessment. This requires completion of rating scales for various aspects of performance and space for comments is also included. Completed forms are usually sent to the individual's HEI, for example as a course requirement, where results are collated and a summary feedback report produced in an anonymised format for the individual. Using this report they can compare how they are perceived with their own

perception and identify areas for development.[142] There is evidence to support the utility of multi-source feedback in formative assessment using the mini-PAT. Although not formally validated, it is a shortened version of the validated Sheffield Peer Review Assessment Tool (SPRAT)[143] used in the medical profession. Content validity is derived from its mapping to the standards for good medical practice as defined by the GMC,[144] however, as Abdulla notes, it is assessors' overall perception of the individual's performance which is captured[145] and this view may be influenced by other factors such as personal relationships.[146] The reliability of the mini-PAT has not been demonstrated, however Lockyer reported that reliability of multi-source feedback may be adequate if enough assessors are used.[147] A literature review by Wood *et al.* found between 5 and 15 assessors were required to minimise the possibility of an inaccurate rating.[148] Significant educational impact has been reported for multi-source feedback tools provided that constructive feedback is received from the educational supervisor and the individual perceives the feedback to be accurate and credible.[145,149] Non-specific feedback and feedback perceived as negative or inaccurate has been shown to have little impact on performance.[150,151]

The mini-PAT supports learner development by collating feedback from a range of perspectives and enables the individual to compare this with their own perceptions. Results are usually discussed with an educational supervisor or manager and plans developed to address gaps in performance which support further learning and development. In the immediate workplace, the utility of the mini-PAT by community pharmacists may be limited by the range of views they could seek; although they are likely to have staff and potentially managers that can be asked to participate, their peers and other healthcare professionals may not have sufficient experience of their work to enable them to comment. Furthermore the practicalities around collation of the results by an organisation such as an HEI present a barrier to its use and it is not clear who would assume the role of educational supervisor in the community pharmacy environment.

1.3.7.3 Case presentations

Case presentations are used to support the development of the individual's knowledge of both disease and its evidence based treatment.[129] The case-based discussion (CbD) tool structures this process. Here the individual will usually present a choice of recent case records to an assessor, who will lead a structured discussion on one of these to assess the individual's record keeping, clinical skills, planning skills, professionalism and overall clinical care. This work-based assessment can take place in or outside of the workplace and lasts approximately 30 minutes, including feedback which is provided immediately upon completion of the discussion.[102] In medicine's foundation training programme a minimum of 2 CbDs are recommended per four-month clinical

placement using assessors who have expertise in the case presented.[152] A study of the formative use of CbDs with paediatric trainees explored their perceptions concerning the feedback they were given. All 32 trainees on the specialist trainee programme at Mersey Deanery were sent a questionnaire designed to capture their views; 26 (81%) responded. These responses informed the design of a structured interview in which 9 trainees participated. The interviews and qualitative data from the questionnaires were thematically analysed and several themes derived. Trainees felt that CbDs aided reflective learning and resulted in changes in practice by improving their decision making skills. Assessors with understanding and experience of the process, and who were positive about it, were viewed as providing the most valuable feedback. The choice of case was also important with more challenging cases leading to more useful feedback.[153]

CbDs support WBL through preparation and discussion of patient cases, and the feedback obtained as a result of this. The community pharmacy environment again presents some problems, particularly relating to access to a suitably experienced assessor in the workplace.

1.3.7.4 Observation in simulated environments

Practitioners can be assessed in simulated environments designed to reflect their practice. As such this is a form of work-based assessment. For example, the OSCE uses a series of simulated tasks to test participant competence.[154] In pharmacy this can be in areas such as medication history taking, counselling and responding to symptoms. Many stations use actors to role-play patients or other healthcare professionals. Participants advance through the stations at timed intervals, whilst examiners remain with their station throughout the examination ensuring each participant is assessed by a variety of examiners and endeavouring to ensure each station is assessed in a consistent manner.[155]

OSCEs were first developed for the training of medical students in the 1970s[156] and have been used mainly as a summative assessment, where the evidence from their use in mainly medicine and nurse undergraduate education suggests that they are potentially highly reliable if constructed and organised appropriately.[155,157,158] However, they are resource-heavy in terms of time, staff and cost.[155,159] Their ability to validly assess practice is also questionable as they are undertaken in an artificial environment which does not necessarily reflect the context in which the task is usually completed, and students may perform to ensure they meet the requirements of the assessment criteria in a manner which may not be representative of their usual practice[160] or conversely underperform and fail due to heightened examination stress.[157,161] Despite these limitations there is evidence to indicate both staff and students view OSCEs

positively,[162,163] that they motivate learning,[164] improve confidence[165] and enable curriculum weaknesses to be identified.[158]

Less evidence is available for the use of OSCEs for developmental purposes. Mills *et al.* reported that several pharmacy pre-registration training providers were using OSCEs formatively with some indicating they would use them summatively if this was recognised by the GPhC.[129] In postgraduate education, an OSCE has been successfully used to highlight areas of weakness and stimulate further study to assist dental practitioners to organise their CPD,[166] and in medicine an OSCE has been developed to support practitioners in developing their cultural competence (competence to support diverse patient populations).[167] Used in this way the OSCE could support learning by providing opportunities for practising workplace activities with feedback.

1.3.7.5 Portfolios

A portfolio can be described as a collection of work used to demonstrate an individual's development over time and their capacity to reflect on this.[168] There is a wide variation in how they may be structured and assessed ranging from use as a simple collection of work (i.e. a logbook) to those requiring a reflective commentary on their contents. Consequently their reliability is low,[129,131] but can be increased if the portfolio is assessed by several independent assessors.[169,170] Correlation with the results of traditional assessments of medical competency is poor,[169] thus limiting their validity.

The types of work that can be recorded within a healthcare professional's portfolio include critical incidents, routine clinical experiences, video recordings of consultations, audits and project work, feedback materials, exam preparation materials and reflective journals,[171] with the majority of this coming from the workplace. A combination of the different assessment methods outlined above can be included within a portfolio to provide a rounded picture of an individual's competence and this is preferable to using any one single method.[172] However, without the addition of the reflective elements it has been argued that the "document becomes a scrapbook rather than a portfolio"[173] and its completion a meaningless chore as the reflection underpins the learning process.[171] There is evidence to suggest the impact may be worse than this. A survey of 539 surgical trainees which sought opinions on an online portfolio used to administer various workplace assessments reported that over 90% felt the programme had a neutral or negative impact on their training,[174] and Davis *et al.* received generally negative responses from undergraduate medical students about the process of preparing a portfolio which required completion of a checklist of tasks, with some students believing this led to a deskilling in clinical competencies.[175] The individual should be permitted to include at least some evidence of their choice to prevent the

portfolio becoming simply a collection of coursework and reflective elements can be introduced by the inclusion of personal development planning and reflective essays within the portfolio's requirements.[161] This should include reflection on how the evidence contained relates to the individual's development. By doing this the portfolio becomes more than the sum of its parts, demonstrating practice achievements (with supporting evidence), learning, and recognition of and plans for future development needs.[176]

Portfolios have been used in healthcare professional post-registration settings as a tool for feedback, a prompt for reflection, and as a link between learning and practice.[177] Examples in pharmacy include the reflective approach of the CPD portfolio[14] and the logbook approach used in pre-registration training.[178]

The use of portfolios as a form of summative assessment has been questioned due to concerns about their validity and reliability and therefore they should not be used on their own in high stakes single-instance assessment.[169] Webb *et al.* stated that the "value of the portfolio lies in the process, rather than in the end product itself" and that this process would ensure successful completion of coursework.[179]

Portfolios are a potentially valuable learning tool if they are structured in a way that enables presentation of evidence (with at least an element of individual choice in which evidence is presented), reflection on practice and learning, and planning for future development needs. This requires considerable resourcing, including access to trained support, which limits their use in community pharmacy. The RPS Faculty requirement for building a portfolio is encouraging, but currently the support provided is minimal and the primary intention is one of assessment.

1.3.7.6 The role of the tutor

When the assessment tools described above are used formatively, feedback should be provided on performance and the learner supported in identifying appropriate learning activities. If done well this results in a perceived positive effect on practice.[180] Even before the tools are used our understanding of the learning theories relevant to WBL would indicate that support is likely to be required in identifying opportunities for learning and reflection.

A number of different roles that may provide this support have been defined including mentors, education supervisors and tutors. In pharmacy the tutor is the most common role and has been defined as someone who acts as both education supervisor and mentor,[37] that is to say they are responsible for the independent, often summative, evaluation of the individual's progress as well as providing support and formative feedback. However, whilst provision of this role is a requirement during the pre-

registration training period, and specialist educational roles exist with the hospital setting, community pharmacists are unlikely to have access to such a figure in the normal course of their work. Roles such as the local CPPE tutor may provide some limited support, however they are unlikely to possess the personal knowledge of the learner which will enable them to identify what the learner can already achieve independently and that in which they need additional support. The onus therefore is on the individual community pharmacist to identify for themselves the need for a tutor or mentor figure. Even if they do so the practicalities of operating such a relationship may be restrictive, especially in terms of time, cost and employer support.

1.3.7.7 Implications

A number of tools and approaches have been identified which can support WBL although, with the exception of the mini-CEX, there is mixed evidence for their utility in formative assessment. Van der Vleuten and Schuwirth stated the view that "there are no inherently bad or good assessment methods" advocating "a shift from individual methods to an integrated programme."[181] The learning theories which have utility when considering WBL also suggest that, although the individual should have responsibility for their own learning, a variety of learning experiences and methods should be available to scaffold their development. Formal recognition of the development undertaken can be used to provide additional motivation.

In community pharmacy the requirements for access to senior colleagues, peers, and other healthcare professionals, together with the unpredictable nature of community pharmacy work may compromise the feasibility of many of the developmental tools described. Furthermore, those responsible for providing feedback should have received training in the use of the tools and in delivering effective feedback to support the individual in improving their practice.[180] The tutor role described above may help to address these requirements if they have undertaken the appropriate training and there should be flexibility in terms of who else can be called upon as an assessor and how and which practice opportunities are utilised for assessment. Additional structured activities may need to be developed to provide learning experiences both in the workplace (e.g. activities which the individual community pharmacist might not be expected to encounter or generate in the normal course of their work without prior knowledge or guidance) and outside of it. The scaffolding of community pharmacist development would appear to require significant structuring to overcome the many issues identified.

1.4 UEA Postgraduate Diploma in General Pharmacy Practice (Community Pharmacy)

1.4.1 Background

Although the education pharmacists in the UK undertake prior to registration has changed it has not kept pace with the shift in demands of the role and consequently is arguably no longer fit for purpose. This has been recognised in the hospital sector where newly registered pharmacists are required to complete further training, usually in the form of a postgraduate diploma, if they are to progress their careers. This has not been the case in community pharmacy, despite an implicit recognition of the fact that many pharmacy services require the pharmacist to undertake additional training as part of an accreditation process. As a result this group of pharmacists have not widely accessed postgraduate education post registration.

The East of England SHA developed a strategy for public health to increase service provision and patient satisfaction with services.[182] This strategy was dependant on having an effective and flexible community pharmacy workforce integrated within the primary healthcare team. To support this funding was made available to set up a bespoke postgraduate diploma for community pharmacists working in eastern England, combined with an evaluation to assess its effectiveness. Applicants required a declaration of support from their employer to ensure they would be able to undertake course activities in the workplace and at the university.

The diploma was developed independently from this study at the UEA. Based on the JPB model described earlier (see page 10), its aims were to prepare practitioners for current and future roles within community pharmacy by developing management skills, encouraging more integrated working within the wider healthcare team, enhancing the provision of pharmacy services and ultimately improving job satisfaction. To achieve this a range of activities and assessments were employed with the stated emphasis being on student-centred workplace based competency development, with an ethos to enhance and develop self-reliance and an adult approach to learning in support of continuing professional development, rather than didactic delivery methods.

1.4.2 Course overview

The three year course was divided into two levels of 18 months each. Level one consisted of two modules covering pharmacy practitioner development in the NHS and applied pharmacy practice skills, whilst level two's sole module addressed the pharmaceutical care of patients with short and long term conditions. The emphasis of the course was the development of individual performance and hence the content of the course is not covered here. However, copies of all three module outlines can be

found in Appendix 4. Box 1.1 provides an overview of the course components which were used routinely to facilitate learner development.

Community pharmacists (students) undertaking the diploma were required to maintain a learning portfolio, and measure their progress and identify their development needs using the GLF. The GLF is an evidence-led competency framework adapted for community pharmacists[183] which has been demonstrated to lead to greater increases in competency scores when comparing pharmacists trained in its use with those that have not.[184] Grouped into four sections, delivery of patient care, personal, problem solving, and management and organisation, it is designed to reflect the nature of the role undertaken by pharmacists in the workplace.

A variety of teaching and learning methods were provided to enable students to develop their competence in the different areas covered by this framework. These included workplace learning and practice activities, work-based assessment tools, directed reading, assignments and study days.

Each student participating in the course was assigned a workplace tutor to support them in selecting appropriate work-based learning activities and to conduct workplace and work-based assessments. The majority of these tutors were experienced community or primary care-based pharmacists, with the remainder drawn from practising pharmacist members of UEA's School of Pharmacy.

Course component		Level 1 requirement	Level 2 requirement	Notes
Study days	Study day sessions	✓	✓	Study day activities include case studies, group discussions, group tasks, individual presentations and role-plays.
	Pre-study day preparatory work	✓	✓	Pre-study day work includes directed reading, workplace activities (e.g. audit, case studies) and wider work-based activities (e.g. liaising with local GPs to access patient notes, observe consultations).
Portfolio - assessment tools	Mini-CEX	✓ (minimum of 5)	✓ (minimum of 2)	
	MRCF	✓ (minimum of 2)	✓ (minimum of 2)	
	Mini-PAT	✓ (at 6 and 14 months)	✓ (at 6 and 14 months)	
	CbD	✓ (minimum of 5)	✓ (minimum of 2)	
Portfolio - additional elements	Other evidence	✓	✓	Significant interventions, extended interventions, patient profiles, care plans and CPD cycles.
	Progress review	✓	✓	Record of in-training assessment and GLF review conducted with tutor.
Coursework	Level 1 assignments	✓	N/A	Assignments including critique of pharmaceutical service, critical reflection on consultation skills, assessment of patient social needs and patient safety task.
	Level 2 assignments	N/A	✓	Assignments including audit, therapeutic dilemma, CbD presentation and service development with change management.
Assessment	OSCE	✓	×	Nine 10 minute stations designed to reflect practice and which primarily assess communication and problem solving skills. Mock assessment and feedback provided for students.
	MCQ	✓	×	A 2 hour multiple-choice exam consisting of 40 questions related to 8 practice-based scenarios. Mock assessment and feedback provided for students.

Box 1.1 Summary of diploma course components.

Assessment was in line with the recommendations that followed the Shipman inquiry[185] in that performance in the workplace was assessed using a variety of work-based assessment tools, including mini-PATs, mini-CEXs, CbDs and MRCFs. Course portfolio requirements for each are included in Appendix 5. Although it was expected that workplace assessments would usually be undertaken by the tutor, any pharmacist trained in the use of the tools could complete them. Tutors reviewed student progress against the GLF competencies at the 12 month and 18 month stage of Level 1, and the 6 month and 16 month stage of Level 2. This review was formally documented on a Record of In-Training Assessment (RITA) for inclusion in the student's portfolio.

Other methods of gathering evidence for the portfolio included significant interventions, extended interventions, CPD cycles, patient profiles, pharmaceutical care plans and medicines information competence. An evidence mapping form was provided for students to detail how each piece of evidence mapped onto the GLF.

Study days held throughout the course aimed to complement student development throughout the programme. Study days were delivered at locations within the eastern region, and students were divided into three groups to attend the most geographically convenient location. The focus of these days was to enable the students to discuss examples of patients and experiences with each other and expert facilitators rather than didactic teaching. Prior to each study day students were set pre-study day work which included structured reading, the identification of relevant patient cases or other activities which would both contribute to study day activities and support competency development linked to the GLF. An example study day timetable for each level is included in Appendix 6.

A number of course activities benefited from access to GPs or GP-held patient records. Students were encouraged to develop relationships with their local GPs to facilitate coursework requirements. UEA-headed documentation was made available to support this including a letter from the course director introducing the student to their GPs and explaining the course, and a patient consent form for facilitating access to patient notes.

Successful completion of the diploma was dependent on tutor sign-off of the student's progress against the GLF at the end of each level together with the submission of a portfolio which scored at least 50% in the assessed elements. Assessment of Level 1 also included a practice scenario-based MCQ exam and objective structured clinical examination (OSCE). An example MCQ scenario-based question (Appendix 7) and OSCE station (Appendix 8) are included. Level 2 assessments included two peer-

reviewed CbDs, a prescribing audit, a peer-reviewed therapeutic dilemma and completion of a change management strategy.

1.4.2.1 Steering group

A steering group was established by the Course Director to guide and support the development of the diploma to ensure that it met the requirements of the SHA and its stakeholders.

It consisted of the following members:

- director of postgraduate programmes at UEA (chairperson);
- director of UEA's postgraduate diploma for community pharmacists;
- at least one representative from the Local Pharmaceutical Committees (LPCs) in the East of England SHA;
- at least one representative from each community pharmacy multiple with at least 20 pharmacies in the East of England SHA;
- at least one representative from Primary Care Trusts (PCTs) in the East of England SHA;
- at least one representative from the East of England SHA (the funding body);
- at least one representative from Hertfordshire and Kings Schools of Pharmacy.

1.5 Summary

This chapter has discussed current and recently proposed changes to pharmacy education, reviewed postgraduate pharmacy education literature and the learning theories relevant to postgraduate learning, and described UEA's Postgraduate Diploma in General Pharmacy Practice (Community Pharmacy).

The next chapter describes how expectations of the community pharmacist role are changing and the extent to which these expectations are being met. The conclusions from the first two chapters will be presented at the end of Chapter 2 together with the aims and objectives of this PhD thesis.

Chapter 2

Community Pharmacy in Great Britain

2.1 Introduction

Within the last 20 years the role of the community pharmacist in the UK has moved away from a medicines supply focus to a patient focus with greater involvement in both public health and supporting patients with the management of their medicines.[186] This chapter will explain how changes in technology, upskilling of support staff, government policy and societal expectations have contributed to this transformation, and consider how community pharmacy has responded. This will provide context to the issues facing community pharmacists' education discussed in Chapter 1. To end, the conclusions drawn from both chapters 1 and 2 will be presented together with the aims and objectives of this thesis.

2.2 Modern history

A brief review of the modern history of the community pharmacy role in Great Britain reveals how originally there was a much greater emphasis on the provision of patient advice and how changes in government policy in the first half of the 20th century resulted in a switch to a medicines supply led role.

The origins of the community pharmacist role as we recognise it now can be traced back to the chemists and druggists of the 18th and 19th centuries. Many served an apprenticeship under an apothecary, but despite various attempts to introduce controls over their practice anyone could set up a business as a chemist and druggist without training. Those that had received training understood that they needed to introduce a formal education system and to organise themselves on a professional level to prevent others taking control of their activities. The Pharmaceutical Society of Great Britain (PSGB) was formed in 1841 by a group of chemists and druggists with this in mind.[187]

The Pharmacy Act of 1852 restricted certain titles, including 'pharmacist', to those registered with the PSGB, and the Pharmacy Act of 1868 empowered the PSGB to introduce a register of all chemists and druggists. At this time the apothecaries, who were closest in role to today's general practitioners, dispensed the majority of their own prescriptions. The chemists and druggists, or pharmacists as they were now titled, therefore provided healthcare advice and relied on the Over The Counter (OTC) sales this generated as their main source of income.[188]

A significant change was seen with the passing of the National Insurance Bill of 1911,[189] which introduced medical benefits for those in employment. It recognised the need to separate prescribing from dispensing and restricted the supply role of medicines to registered pharmacists, although a few exceptions were made to prevent the unemployment of doctors' dispensers. Not surprisingly, from the first day of the

scheme pharmacies experienced a huge increase in demand for their dispensing service.[188]

The National Health Service Act of 1946[190] extended medical benefits to the whole population, so that people could see a general practitioner for free at the point of access, and this decreased the demands on pharmacists for their advice. This was coupled with a marked upturn in the number of prescriptions dispensed through pharmacies, from 65 million in 1937 to 250 million in 1950,[191] and had the effect of shifting the role of the community pharmacist to a largely dispensing one. Although they maintained their OTC supply role, community pharmacists were often restricted to their dispensaries and not in direct contact with their patients.[188]

The role of the community pharmacist had moved away from that of a provider of healthcare advice and remedies to a medicines supply focussed role which fully utilised their compounding skills but which involved minimal patient contact.

2.3 Deskilling

Although the medicines supply function initially utilised pharmacists' compounding skills, technological advances combined with the upskilling of pharmacy support staff resulted in a deskilling of the supply process and the pharmacist's role within it.

With advances in the production of pharmaceuticals, and in particular the development of mass production processes, the dispensing process relied less and less on the extemporaneous production of medicines and became a 'packing down' operation. Original pack dispensing further simplified the process and automation, in the guise of robotic dispensing units, has more recently been introduced in a limited number of pharmacies.[192]

Improvements in information technology have assisted the dispensing process, with systems which store patient records, provide clinical prompts, produce patient information leaflets, manage stock inventories and support administration becoming usual practice. The electronic prescription service, which is currently being introduced across the UK, enables electronic transmission of prescriptions from the GP to the pharmacy and removes much of the requirement for data entry from the dispensing process.[193]

A progressive formalisation of pharmacy support roles saw accredited training for dispensing assistant roles become mandatory in 2005,[194] and the professionalisation of the pharmacy technician role in 2011.[195] At this point registration with the GPhC became a pre-requisite for those wishing to practice as a pharmacy technician, for

whom standards of practice which mirrored those applied to pharmacists were adopted. This upskilling of support staff has enabled them to complete various technical aspects of pharmacy work with, for example, some community pharmacies employing accredited checking technicians (ACTs) who are able to assume responsibility for the accuracy of dispensed prescriptions.[196]

Simplification of the dispensing process by the introduction of information technology, electronic prescribing and the provision of medicines in original packs, and the development of pharmacy support roles and professionalisation of pharmacy technicians has resulted in the supply function of the community pharmacist becoming a largely technical role.

2.4 Community pharmacy's professional status

As a result of the diminishment of the community pharmacist's involvement in their traditional compounding and supply role their professional status has been questioned.[197]

A profession has been defined by Cruess *et al.* as:

> "An occupation whose core element is work based upon the mastery of a complex body of knowledge and skills. It is a vocation in which knowledge of some department of science or learning or the practice of an art founded upon it is used in the service of others. Its members are governed by codes of ethics and profess a commitment to competence, integrity and morality, altruism, and the promotion of the public good within their domain. These commitments form the basis of a social contract between a profession and society, which in return grants the profession a monopoly over the use of its knowledge base, the right to considerable autonomy in practice and the privilege of self-regulation. Professions and their members are accountable to those served and to society."[198]

On this basis it has been argued that the deskilling of the community pharmacist's role has threatened its professional status.[199] In what has been described as a "bid for survival"[200] the profession has had to adopt a more patient centred approach as it has become increasingly more difficult to claim "mastery of a complex body of knowledge and skills" as a requirement of the dispensing process.

The profession's strategy to define a new role for itself and reaffirm its professional status has been aligned with the opportunities presented by a series of government policies introduced with the aim of more effectively utilising their abilities.

2.5 Government policies

Pharmacy became a graduate-entry profession in 1967, but with little evidence of community pharmacists using the full range of their knowledge and skills their role first came into question during the 1970s.[191]

At the 1981 British Pharmaceutical Conference the future of the community pharmacist was questioned by the Minister for Health. The National Pharmaceutical Association responded with its 'Ask Your Pharmacist' campaign in 1982, which aimed to raise awareness of the pharmacist's role and to make them more conspicuous.[201]

In 1984 the Nuffield Foundation Pharmacy Inquiry was set up to review pharmacy across all its sectors and to consider the contribution it could make to healthcare. The resulting Nuffield report, published in 1986, dealt mainly with community pharmacy making 26 recommendations for this sector of the profession after finding that community pharmacists were not making the contribution to healthcare in their communities that their education and training would suggest was possible.[1] Recommendations included that there should be closer working with GPs to increase the effectiveness and reduce the costs of prescribing and that pharmacists should develop their role in providing advice on using medicines, highlighting the elderly and those with chronic conditions as groups who would benefit most from this.

A number of recommendations included in the report were aimed at facilitating these changes. Restructuring of the NHS contract to reduce payment for dispensing and include separate payments for other professional activities such as advice to patients, collaboration with GPs, long term patient care and health education was recommended to reduce the conflict between professional and commercial interests. The report also highlighted the need for appropriate training and education and recommended that undergraduate teaching of pharmacy should extend beyond its traditional science basis to include therapeutics, behavioural and social sciences to support its aims. The following year the government recognised the role pharmacy could play in delivering health education messages to the public in the White Paper 'Promoting Better Health.'[202]

Throughout the 1990s, pharmacy's role in health promotion and advice increased through involvement in delivering services and public health messages such as smoking cessation and sensible alcohol limits. Although there was limited recognition of this in the 1992 White Paper 'Health of the Nation',[203] the 1998 White Paper 'Our Healthier Nation' identified 22 pharmaceutical health roles which could be provided by community pharmacy.[204] It was at this time that the four year MPharm degree was introduced (see *Undergraduate education*, page 3). The change of government in 1997

and political devolution that followed resulted in the 1998 White Paper and all subsequent Department of Health policy documents applying solely to England.

In 2004, 'Choosing Health: Making Healthy Choices Easier' recognised that the location of community pharmacies ideally positioned them to support individuals and communities in managing their health needs.[205] This was followed by 'Choosing Health Through Pharmacy', which provided a framework for pharmacy to contribute to improving health and reducing health inequalities, and recognised pharmacists as part of the wider public health workforce.[206]

The 2008 White Paper for pharmacy identified community pharmacy as underutilised and with the potential to make a greater contribution to patient care by providing additional services and support to meet local population health needs, particularly in the treatment of minor ailments and management of long term conditions. Promotion of closer working between GPs and pharmacists was recommended to help deliver better care for patients and a number of changes to education and training were proposed to equip pharmacists to deliver the types of services needed in the future. This included consideration of whether the undergraduate degree could be integrated with pre-registration training to ensure "meaningful clinical context and experience."[207]

'Equity and Excellence: Liberating the NHS' was published by the coalition government shortly after their formation in 2010. This repeated the messages of previous governments that community pharmacy could be further utilised, stating that "pharmacists, working with doctors and other health professionals, have an important and expanding role in optimising the use of medicines and in supporting better health."[208]

During the same period in which their supply role has been transformed, government policies have acknowledged that community pharmacists could provide a much greater role in public health and supporting patients with the management of their medicines.

2.6 Societal expectations of healthcare professionals

Whilst the role of the community pharmacist has changed and their professional status has been questioned, a number of high profile scandals within the health sector have damaged public confidence in healthcare professionals as a whole and led to recommendations aimed at ensuring that standards of competence and performance are upheld.[10,185,209]

The terms competence and performance are often used interchangeably[210,211] which is unhelpful when considering the implications of any recommendations made about

them. Competence has been defined as “the ability to carry out a job or task”, a competency is a quality or characteristic of a person required for effective delivery of a job or task and a competency framework lists the competencies which in combination define competence to deliver a specific job or task.[101] Therefore competence can be assessed in “controlled representations of professional practice”,[210] whereas performance is a measure of how a practitioner’s competence is demonstrated in their practice. Competence is an important predictor of performance,[210,212] however a number of other factors have been identified which may impact on performance, including individual-related factors (e.g. health, relationships), system-related factors (e.g. workload, work environment) and personal characteristics (e.g. gender, personality, attitudes).[210,213,214] Using these definitions, poor performance may be demonstrated by those who are competent and therefore performance should be assessed by measuring what is done in actual practice.[210]

Events such as those at the Bristol Royal Infirmary and the Alder Hey Children’s Hospital, and the murders committed by Harold Shipman, received extensive media coverage, eroded public trust and led to greater scrutiny of how healthcare professionals perform and are regulated.[10,185,209]

Concerns regarding high mortality rates in children undergoing complex cardiac surgery at the Bristol Royal Infirmary led to a public inquiry tasked with investigating the causes and making recommendations to help obtain high quality care across the NHS. Recommendations included “broadening the notion of professional competence” through greater emphasis of communication skills (with both patients and colleagues), management, leadership, teamwork, shared learning across professional boundaries, clinical audit and reflective practice in education and training.[10]

The inquiry set up following Harold Shipman’s conviction for murdering 15 of his patients during the 1990s led to an inquiry tasked with recommending changes to safeguard patients from such unlawful activities by medical professionals. Many of the inquiry’s recommendations were focussed on the procedures and responsibilities of various organisations within the healthcare structure, and emphasised the consideration of performance and not only competence of teams and individuals when reviewing clinical processes or investigating complaints and concerns; Shipman was not an incompetent doctor and the inquiry concluded that had such safeguards been in place he may have been detected earlier or even deterred from his actions.[185]

The RPSGB, as it became known in 1988, had up to now maintained its dual role as the regulatory and professional representative body for pharmacists. However, on the recommendation of the Bristol Royal Infirmary Inquiry, the Council for Healthcare

Regulatory Excellence (CHRE) was established in 2002 with a remit to promote best practice and consistency in the regulation of healthcare professionals by nine regulatory bodies including the RPSGB.[10]

This was followed in 2007 by the White Paper 'Trust, Assurance and Safety – the Regulation of Health Professionals in the 21st Century', which recommended that the RPSGB be divided into two organisations separating its regulatory and representative functions.[29] As a result of this and subsequent legislation,[11,215] the General Pharmaceutical Council (GPhC) was established in 2010 as the independent regulatory body for pharmacy, accountable to parliament. Its role is "to protect, promote and maintain the health, safety and wellbeing of members of the public by upholding standards and public trust in pharmacy," including standards for education and training, and standards for safe and effective practice.[11,216] The RPSGB retained its representative role and changed its name to the Royal Pharmaceutical Society (RPS).

Development of the community pharmacist role has occurred in an era during which they, in common with other healthcare professionals, have come under greater public scrutiny. Therefore, in addition to adopting new roles in public health (as described below in Section 2.7), community pharmacists have had to demonstrate their continuing right to do so.

2.7 Widening the community pharmacist role

Successive governments have recognised that the skills of community pharmacists and accessibility of their pharmacies could allow them to play a greater role in public health. Changes to the pharmacy contract have been made in an effort to facilitate this and resulted in the development of a number of public health focussed pharmacy services which can be delivered from community pharmacies. Legislative changes introduced with the aim of widening access to medicines have brought mixed results.

2.7.1 Community pharmacy contracted services

Local Pharmaceutical Services (LPS) contracts were introduced in 2002 and designed to encourage innovation in community pharmacy.[217] Many of the services developed via this route were included in the 2005 NHS pharmacy contract, the introduction of which provided an opportunity for community pharmacists to deliver a wider public health role and address concerns regarding medicines wastage and patient non-adherence by providing focussed services. The contract, which remains the funding model for community pharmacy today, consists of three different levels of service: essential services, which must be provided by all contractors; advanced services,

which can be provided by any contractor providing they have met the accreditation requirements; and locally commissioned services (formerly enhanced services), which are commissioned by Primary Care Organisations (PCOs) and local authorities in response to the health needs of the local population.[28] Payments for essential and advanced services are agreed at a national level, whereas those for locally commissioned services are negotiated locally and may face competition from other healthcare providers who tender competitive bids. Box 2.1 summarises the services included within each level of the contract.

Essential services	Advanced services	Locally commissioned services (examples)
• Dispensing medicines • Dispensing appliances • Repeat dispensing • Disposal of unwanted medicines • Public health • Signposting • Support for self-care • Clinical governance	• Medicines use review and prescription intervention • Appliance use review • Stoma appliances customisation • New medicines service	• Supervised administration • Needle and syringe exchange • Stop smoking • Minor ailments • Chlamydia screening and treatment • EHC • Health check

Box 2.1 Summary of community pharmacy services.[28]

Although the pharmacy contract presents an opportunity for community pharmacy to deliver a number of patient focussed services, many can be delivered by other healthcare professionals ("any willing provider").[208] Within this competitive environment the requirement for community pharmacists to demonstrate safe and effective delivery of services is paramount.

2.7.2 Widening access to medicines

Changes in medicines related legislation have also contributed to the development of the community pharmacist role. In the United Kingdom there are three legal categories of medicines: General Sales List (GSL) medicines, the majority of which can be sold or supplied through any retail outlet; Pharmacy (P) medicines, which can only be sold or supplied in pharmacies under the supervision of a pharmacist; and Prescription Only Medicines (POM), which are usually only supplied on the prescription of a medical practitioner or other authorised prescriber. There has been a trend over the last 20 years to deregulate medicines so that those previously requiring a prescription have become available for sale or supply through pharmacies. These 'POM to P' switches have removed the need for patients to visit their GP for these products. Instead they

have been able to obtain the advice they need from the pharmacy, with some of these products initially requiring the direct involvement of the pharmacist in their sale (e.g. the emergency hormonal contraceptive Levonelle®), although as safe supply from the pharmacy setting has been demonstrated further relaxation of legislation and/or product licences has occurred (e.g. thrush treatments such as Canesten®).

Another route to supplying POMs is Patient Group Directions (PGDs). Under a PGD POMs can be supplied to patients for specific indications without the need for an individual prescription, subject to certain conditions being met. This includes the relevant training of the healthcare professional operating the PGD to ensure that they operate within its framework. In community pharmacy this has presented another opportunity for pharmacists to contribute to patient care. They can be funded as an NHS locally commissioned service (e.g. chlamydia treatment and seasonal influenza vaccinations)[28] and this is another area in which community pharmacists can face competition from other healthcare professionals. PGDs can also be offered privately, where the patient pays a fee for the service. These private PGDs have tended to be for the supply of 'lifestyle drugs'[218] (e.g. erectile dysfunction and weight management treatments)[219,220] which may not be available to certain patient groups via the NHS.

The deregulation of some medicines and the introduction of PGDs have increased the community pharmacist's inventory thereby enabling them to undertake a greater role in public health and supporting patient self-care.

2.7.3 Legal responsibilities

A further change in legislation aimed at enabling a wider role saw the introduction of the responsible pharmacist regulations in 2009.[221] This replaced the requirement for a registered pharmacy to be under the 'personal control' of a pharmacist and replaced it with a new requirement that the pharmacy must have a responsible pharmacist in charge of its business relating to the sale and supply of medicines. 'Personal control' had been interpreted to mean the physical presence of the pharmacist; the majority of pharmacists work as sole pharmacists within a community pharmacy which resulted in the pharmacy closing for the sale or supply of medicines during any pharmacist absence.

One intention of the new regulations was to allow the pharmacist to be absent from the pharmacy premises for up to 2 hours during the working day provided they ensured safe and effective operation of the pharmacy continued during their absence.[222] In theory this could facilitate their wider involvement within the primary care team, for example their attendance at local GP practice meetings, without the need to close the

pharmacy. However, the fact that the medicines legislation requirements for pharmacist supervision[223] and the NHS contractual requirement for a pharmacist to be present at all times that pharmaceutical services are provided[28] remain unchanged, limits any benefits provided by this change. In fact it seems to have increased stress, clouded responsibilities, and has generally been poorly received by community pharmacists concerned about issues such as their inability to take rest breaks and their accountability for work undertaken by support staff.[224,225] To enable community pharmacists to leave the pharmacy it is a change in supervision law that is required. Even if this were to occur, community pharmacists may be reluctant to leave their premises; a recent study which investigated the current arrangements for supervision and explored views on potential changes revealed community pharmacists' reluctance to delegate to support staff in their absence and their belief that their presence was required to ensure patient safety.[226]

2.8 Uptake and delivery of pharmacy services

The picture of pharmacy services delivery since the introduction of the 2005 NHS pharmacy contract is a mixed one.

A survey of PCTs conducted shortly after the new pharmacy contract was introduced demonstrated that the provision of enhanced services from community pharmacies varied greatly between individual services. Some services, such as stop smoking support services (provided by 36% of pharmacies) and supervised administration (31%) were shown to be fairly widely available, but many other services had not been embraced. For example anticoagulant monitoring was provided by 0.1% of pharmacies and screening services by 0.7%.[227] A national evaluation of the contract in 2007 revealed a significant variation in the provision of these services between pharmacies, with 13% not providing any enhanced services and 25% providing 4 or more.[118] More recent data shows there has been a steady year on year increase in the number of pharmacies providing enhanced services and that the most frequent of these were consistently stop smoking support, supervised administration, minor ailment schemes and supply of EHC via PGD[228]; it is notable that these are all services where demand would be expected to be patient or prescriber led.

In marked contrast to the numbers providing locally commissioned services, 86% of community pharmacies in England provided MURs in 2009/10, completing an average of 186 each.[228] The pharmacy contract limits the number of MURs each pharmacy can claim for payment to 400 per year and rates of MUR provision by multiple pharmacies have been shown to be almost twice that of independent pharmacies.[229]

2.8.1 Drivers and barriers

A literature review by Brown *et al*. demonstrated a growing evidence base for the role of community pharmacies in delivering a range of services[230] and a number of factors which influence the provision of these services have been identified. These include the pharmacy contract and other funding mechanisms; inter-professional relationships; workload and workplace pressures; pharmacist attitudes, confidence and skills; and availability of trained support staff, all of which can act as drivers or barriers depending on circumstances.

Bradley *et al.* distributed a self-completion questionnaire in 2006 to the community pharmacy commissioning leads at PCTs in England. This listed a number of factors and asked respondents to identify which they considered to be drivers or barriers to their commissioning of services. Responses were obtained from 216 (74%) PCTs. The newly introduced pharmacy contract was the main driver to commissioning, with the relationship with the LPC also seen as an important factor. Attitudes of local community pharmacists were viewed as another driver, although some respondents' free text responses were critical of community pharmacists for not being more proactive in developing service ideas. Access to funding and GP support were identified as major barriers.[231]

A mixed methods evaluation of LPS pilots conducted in 2003 and 2004, shortly after the introduction of the LPS contract, suggests that good working relationships between community pharmacists and GPs may be another important factor in the successful delivery of enhanced pharmacy services, particularly those services where the GP can make patient referrals.[232] However, a number of focus groups conducted separately with community pharmacists and GPs in 2001 identified the 'shopkeeper image' of the community pharmacist as a potential barrier between the two professions, as were GP fears about boundary encroachment.[233] More recent findings suggest the introduction of more enhanced services and the pharmacy contract have done little to change these views.

A formative evaluation conducted in 2004/5 during the early stages of a minor ailments scheme in Nottingham used semi-structured interviews to capture participating pharmacists' perspectives.[234] An objective of the scheme was to enhance relationships between pharmacists and GPs. Perhaps because of this, improvements in relationships with GPs were anticipated by some pharmacists. However, most said they had few interactions with their surrounding GPs and that this had not changed as a result of the scheme. Approximately half of those interviewed thought that the scheme would benefit GPs by reducing their workload and saving them time, but it was

not clear to them how it would achieve its objective of improving relationships. As part of a multi-method evaluation of the same scheme,[235] interviews were conducted with various stakeholders (26 community pharmacists, 7 GPs and 7 service commissioners). Service commissioners felt that the scheme helped to incorporate community pharmacists into the healthcare professional team; the views of community pharmacists and GPs on this were not reported.

In a 2006 survey of all PCOs in England regarding the implementation of MURs, 62% of respondents perceived the greatest barrier to be a lack of support from GPs. As part of the same study in-depth interviews were conducted with purposively sampled stakeholders at 10 PCOs. This included PCO representatives responsible for service commissioning, LPC representatives and community pharmacists from each PCO area selected. Interviewees raised poor communication between community pharmacists and GPs as an issue.[229]

The same year, 167 (60%) pharmacists responded to a questionnaire distributed to a convenience sample of 280 MUR accredited community pharmacists from one UK pharmacy chain aimed to identify the factors that influenced the frequency with which they provided the service and their attitudes towards it. Of these, 93% felt the service presented an opportunity for an extended role. Concerns regarding GPs opinions of the service were captured with only 23% believing GPs saw MURs as making a valuable contribution to patient care.[236]

A later study interviewed 49 community pharmacists who, although based in only two regions of England, were drawn from a variety of different employments which included independent pharmacies (including proprietors), multiple pharmacies and locums. This provided similar findings, revealing most participants welcomed the opportunity to extend their role.[237] Busy working environments and pressure from management to deliver the maximum permitted 400 MURs per year resulted in a service that was sometimes rushed or selected less complicated cases as candidates. Bradley *et al*. had previously suggested that MUR activity was driven by management pressure within multiple pharmacies in some PCO areas,[229] whereas this study also found the same situation with some independents. Concerns were raised by community pharmacists that relationships with GPs were undermined by the resulting completion of MURs of little or no value. A snowballing technique was used to recruit to the study which increased the potential for bias, as those with negative views on MURs may have been more likely to volunteer. Notably, two recent cases have seen pharmacists suspended from the GPhC register for falsifying MUR records due to employer pressure to meet targets, with no direct financial gain made by the individual in either instance.[238,239]

Improving working relationships between community pharmacists and GPs was a key recommendation made in the 2007 national evaluation of the community pharmacy contract.[118] Community pharmacists who had experience of working in GP practices were better placed to establish relationships which enabled the successful delivery of services, however in general only a small impact on working relationships between the two had been noted by PCOs; where relationships were strong they remained strong while others remained non-existent. The report concluded that there was "little evidence that the contract had so far led to greater integration between community pharmacy and general practice." Suggested actions included investment in evidence-based local support mechanisms for change management and for community pharmacists to engage "more proactively with local GPs, thinking collectively and working in groups where that reflects how a practice's patients are served."

Successive governments have attempted to promote closer working between community pharmacists and GPs; however there is little evidence to suggest relationships have improved. The recent White Paper[208] for the NHS set out plans to devolve power and responsibility for commissioning services to GP consortia, meaning these relationships will become even more important if community pharmacists are to achieve their potential for contributing to patient care.

Lack of confidence amongst pharmacists may also be a barrier to the implementation of pharmacy services. In their survey of PCOs, Bradley *et al*. were surprised to find that pharmacists' confidence to perform MURs was reported as a barrier.[229] A postal questionnaire regarding advice provision, knowledge and views on alcohol issues, was sent for the attention of the community pharmacist with the most client contact at all (1098) community pharmacies in Scotland. The 497 (45%) responses received revealed that although knowledge of alcohol intake limits was high there was a lack of confidence in providing alcohol brief interventions, which reflected not only a lack of knowledge required for service delivery but also of the communication skills, such as behavioural change techniques, required to work with this patient group.[240] Qualitative interviews conducted in 2008 with 40 community pharmacists in England and New Zealand also reported a lack of confidence as a barrier to providing a alcohol brief intervention service for similar reasons.[241]

Interviews with community pharmacists that had participated in a trial of a medication review service in New Zealand revealed a lack of confidence underpinned by a feeling of inadequacy concerning their own clinical skills.[242] Specific details regarding these skills were not published. A systematic review of pharmacist and consumer views of public health delivered from community pharmacies conducted in 2011 searched for articles published in English between 2001 and 2010. 63 studies were identified and

attitudes were found to have remained broadly consistent over the 10 year period covered. Pharmacist confidence to provide such services was identified as being generally average to low due to a perceived lack of knowledge regarding the service and/or skills required to influence behavioural change.[243]

Another reason for the lack of uptake of pharmacy services may be the continued increase in prescription volumes. The average pharmacy dispensed 6339 prescription items per month in 2009/10 compared with 4351 in 2000/01, a 46% increase.[228] Consequently, it is unsurprising that Eades *et al*. found a lack of time was a common barrier to the provision of pharmacy services.[243] Effective use of support staff, including pharmacy technicians accredited to accuracy check prescriptions, may help pharmacists to better manage the dispensing process and release time for them to engage more in services. Unfortunately the legal requirement for supervision means that the absence of the pharmacist from the dispensary to provide many of these services may still have a detrimental effect on the prescription service offered unless a second pharmacist is employed. However, many of the technical aspects of these services can be undertaken by appropriately trained support staff. Pharmacy managers, albeit at one multiple in one region of the UK, felt that more trained staff would support them in expanding their role, but no mention was given to how these staff could best be deployed other than in dispensing,[244] and community pharmacists' difficulties with delegation have been cited by employers as a barrier to their strategies for preventing or managing workplace stress.[245]

The increase in prescription volumes has not been accompanied by a proportionate increase in revenue for pharmacy contractors. A number of factors have contributed to the downward trend in prescription fees, including the fact that NHS pharmacy services are paid for out of the same pharmacy funding budget (the 'global sum'). Whilst remuneration of community pharmacy is still primarily based on dispensing, contractors have had the option of implementing pharmacy services to support their incomes. Profitability has been a factor in these decisions,[243] particularly as these services may be more time consuming and potentially take time away from the primary revenue activity.

The change in the remuneration model has produced a mixed picture with respect to both the uptake of services and their quality. Whilst some services have worsened inter-professional relationships in the face of calls for these to be improved, the evidence for patient benefit has also been questioned. The change in expectations with respect to services provided by community pharmacists has highlighted deficiencies in communication and management skills training. Furthermore, the

traditional professional isolation experienced by community pharmacists[93] is now a potential barrier to the delivery of effective patient focussed services.

2.9 Parallel developments in hospital pharmacy

In the hospital setting a dramatic shift in the role of the pharmacist has already taken place. As a result of the large increase in the availability of new drugs in the 1960s a working party was commissioned to review hospital pharmaceutical services and recommended extension of the hospital pharmacist's role into clinical activities.[246] A 1979 paper discussed the emergence of these new clinical roles and how they had extended into areas previously seen as the role of the medical profession, such as medication history taking, monitoring and counselling.[247] Since then hospital pharmacists have worked to gain acceptance within the medical team[248] and have established their role in clinical areas such as medication error reduction and medicines management.[249] As a measure of their success in achieving this the proportion of pharmacists working in hospitals has more than doubled from around 10% in 1976[247] to 21% in 2008.[250]

Hospital pharmacists have been at the forefront of developments which aim to maximise the efficient use of NHS resources, which have become increasingly under pressure due to a number of factors including an increasing availability of medicines, treatable conditions and the ageing population. The transformation already seen in hospital pharmacy mirrors the current developments in the community sector. Furthermore, the factors which have increased pressure on NHS resources have contributed to a culture in which patients are seen in primary care and hospitalisation is prevented, thus providing opportunities for greater community pharmacist involvement in care.

2.10 Conclusions from Chapters 1 and 2

The expectation of the role of the community pharmacist has changed from a medicines supply focus to a patient focus. The inclusion of pharmacy services within the NHS pharmacy contract and some recent regulatory changes have presented the opportunity for an extended role for community pharmacists in which it is believed they can make a greater contribution to public health and medicines optimisation. This role has yet to be completely fulfilled, with a mixed picture of uptake and delivery of community pharmacy services.

A number of factors have contributed to this, including community pharmacists' lack of confidence, skills and knowledge, and ineffective relationships with GPs. Where

services are delivered their quality may be questionable if community pharmacists' concerns regarding sub-optimal delivery are vindicated. Reasons for their concerns include a lack of time and/or commercial pressures to meet targets.

The education provided prior to registration as a pharmacist is widely recognised as inadequate for current and future pharmacy practice. This is evidenced by the planned reforms of the undergraduate degree and to a lesser extent the requirements of additional mandatory training for delivery of some services in community pharmacy. In hospital pharmacy additional postgraduate training is required before pharmacists can progress to roles in which they practice independently.

Whilst registered pharmacists must complete CPD to maintain and develop their capability, this is self-directed with limited or no assessment. Its ineffectiveness is compounded in community pharmacy where support, whether in the form of protected time or through mentoring and peer interaction, is limited. The current plans for introducing revalidation recognise the inadequacies of CPD alone as a means of ensuring continuing fitness to practise. However, revalidation is a process and therefore support will be required to ensure practitioners are able to meet the standards.

The RPS has introduced its Faculty as a move to support the development needs of pharmacists and prepare them for future revalidation. While undoubtedly it has some strengths in the form of its development framework, professional curricula, mentoring system and incentivisation through the rewarding of post-nominals, it emphasises assessment rather than support of development and does not address the issue of establishing effective learning environments.

A number of postgraduate diplomas exist which may provide the additional education and support required by community pharmacists. Although they can introduce practitioners to topics that they would not necessarily identify for themselves, they may not offer the learner flexibility in determining those which are most personally relevant. There is no evidence to suggest such courses improve practice and that their impact may be limited by similar issues to those which restrict the effectiveness of CPD. These include concerns regarding learner support, protected time, the learning environment and the appropriateness of both learning and assessment.

Evidence from supplementary prescribing courses for pharmacists suggests that observation, case discussions and feedback from an experienced and knowledgeable mentor are perceived as important factors in ensuring development. The CME literature reinforces a need for adult learning approaches with groups such as healthcare

professionals and that multifaceted educational interventions are the most likely to improve and change practice.

In education generally, the gap between theory and practice is recognised[251] and pharmacy postgraduate education is no exception. Throughout the literature the role of learning theory in developing or assessing educational interventions for pharmacists and the wider healthcare professions is not readily apparent. A review of these theories suggests a WBL approach underpinned by andragogical principles would be beneficial. This would require significant support in identifying, providing and capitalising on learning opportunities particularly with regard to social learning. The community pharmacy environment exacerbates this need for support.

The planned educational reforms should address these issues during initial training if the resulting undergraduate courses truly integrate WBL and thus produce pharmacists who are better prepared for modern practice. In the meantime a distinction may appear in the quality of practice between products of the old and the new systems and this may further highlight the importance of having suitable postgraduate interventions available for existing pharmacists. Furthermore, pharmacists qualifying through the new system will require effective postgraduate support to ensure the continued development of their practice.

In the hospital setting recognition that the needs of practitioners and their employers were not being met by the array of diplomas available led to the formation of the JPB collaboration and development of a diploma to meet the needs of both parties. UEA's adaptation of its JPB hospital pharmacy diploma for community pharmacists provided an opportunity to investigate whether there is a role for a workplace based diploma in the development of community pharmacists.

2.11 Aims and objectives of this PhD

As stated above the primary aim of this PhD is to investigate whether there is a role for a workplace based diploma in the development of community pharmacists. Decisions on the provision and support of postgraduate development will be considered via the underpinning learning theories relevant to WBL. Supporting objectives are to:

- quantify and describe the effect of undertaking the diploma on practice, employee retention, job satisfaction, and approaches to learning and CPD;
- quantify changes in patient satisfaction with the service provided by community pharmacies employing pharmacists enrolled on the diploma;
- explore pharmacists' experiences of undertaking the diploma and the factors affecting these;

- explore the factors influencing community pharmacy employers' decisions on pharmacist education and development;
- evaluate the utility of WBL in community pharmacist postgraduate education.

In order to meet these objectives the following will be undertaken:

- an annual survey of pharmacist service provision, employment, job satisfaction and attitudes and approaches to CPD conducted for the duration of the diploma;
- a patient satisfaction survey conducted once at the outset and again at the conclusion of the diploma;
- interviews with diploma pharmacists after one year of the course and repeated as the course concluded;
- interviews with the senior managers responsible for pharmacist education and development at selected multiple community pharmacy employers.

Chapter 3

Methods

3.1 Introduction

The primary aim of this research project was to investigate whether there is a role for a workplace based postgraduate diploma in the development of community pharmacists. It set out to explore the effects on community pharmacists' practice, their attitudes and approaches to learning, employer retention and job satisfaction, and the effects on patient satisfaction with the level of pharmaceutical care provided by these pharmacists. The views of community pharmacy employers' on pharmacist education and development were also sought.

3.2 Research design

The research design employed a mixed methods approach. Mixed methods has been defined as 'the use of two or more methods in a single research project (or research programme),'[252] and can include either a mix of qualitative and quantitative methods, or two or more different qualitative or quantitative methods. This research deployed both qualitative and quantitative methods as it was felt that both could contribute in different ways. Quantitative components could be used to measure service provision, pharmacist attitudes to CPD and job satisfaction, and patient satisfaction levels, whereas qualitative methods could be used to explore and understand the experiences, beliefs and opinions of pharmacists and their employers. This approach facilitated triangulation (e.g. job satisfaction and service provision from the pharmacy) and complementarity (e.g. pharmacist and employer views on the role of diplomas in pharmacist development) of different aspects of the research as described by Greene *et al*.[253] The different components were conducted in parallel[252] with each designed, conducted and analysed separately. Box 3.1 summarises the different components.

The Surveys	Service provision Employment and attitudes to CPD Patient satisfaction
The Interviews	Postgraduate pharmacists Employers

Box 3.1 Research design outline.

Figure 3.1 shows the order in which they were conducted and their timing in relation to key milestones within the diploma timetable.

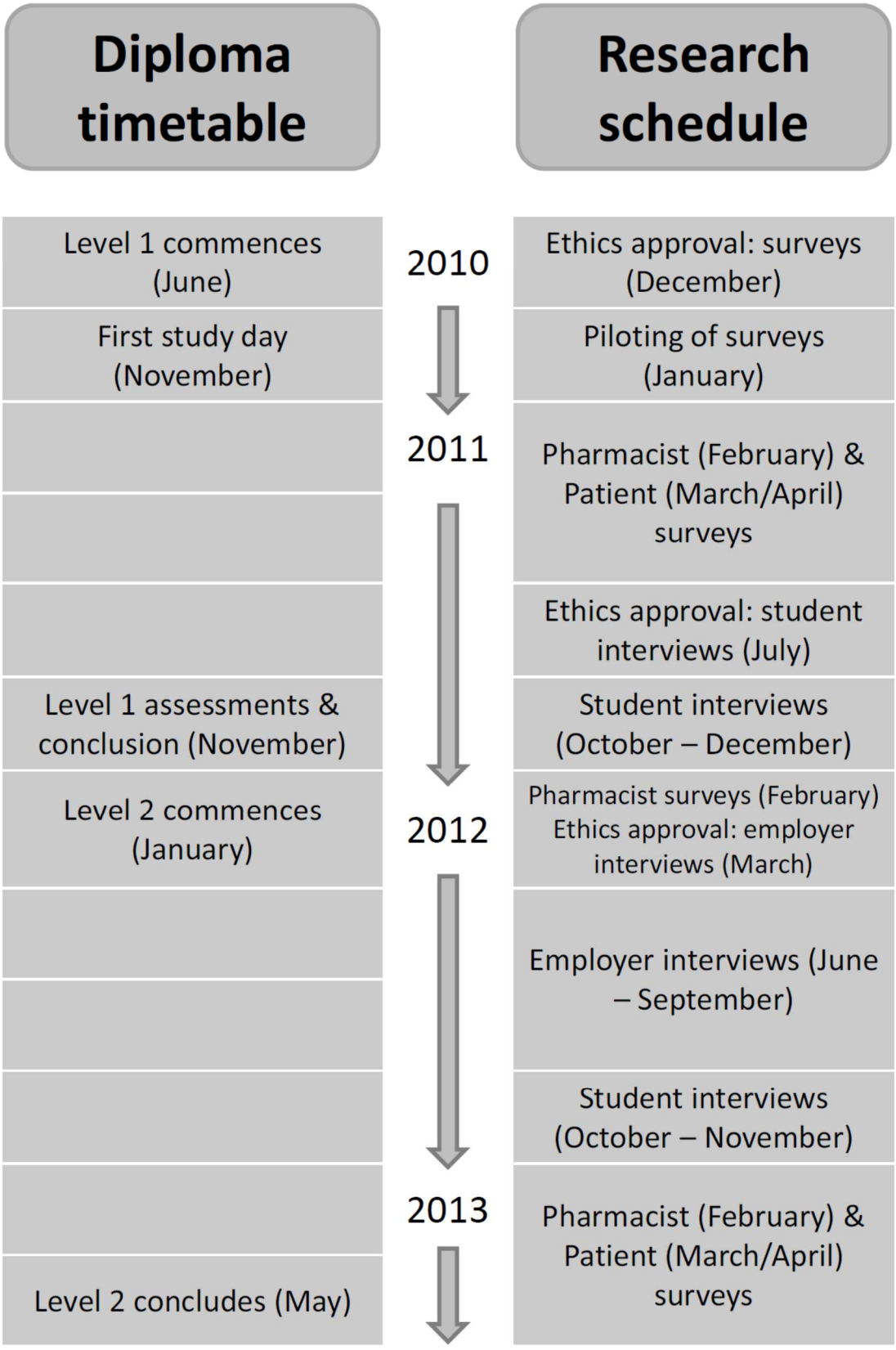


Figure 3.1 Flowchart showing the research project schedule in relation to the diploma timetable.

3.3 Ethical approval

Research ethics approval was obtained from the UEA's Faculty of Health Research Ethics Committee for each component of the study (Appendix 9). National Research Ethics Service approval was not required because the research was outside of the scope of the UK Health Departments' Governance Arrangements for Research Ethics Committees.[254]

3.4 Role of the researcher

It is important to describe the role of the researcher to provide context. The author, a community pharmacist in a teacher practitioner role, was recruited to a project support role funded by the SHA grant described in Chapter 2. The key responsibilities of the role were to support the delivery of the diploma (i.e. liaising with course staff to facilitate assembly of course materials) and to undertake its evaluation. The course design was established before the author was recruited and the role did not involve face to face teaching or assessment, nor did it involve recruitment or selection on to the course. The support elements of the role were not revealed to the diploma students for whom the author was described as an independent evaluator undertaking a research project. This was done in an attempt to minimise 'faking good' or socially desirable responses in which participants answer questions in the way they believe the researcher desires.[255]

3.5 Participants

Fifty-seven community pharmacists applied for a fully funded place and an initial selection of 30 was made by the Course Director to ensure geographical distribution across the eastern region with a range of employers and employment types (e.g. locums, proprietors and employees from a wide range of companies) included to meet the funding requirements of the SHA. Individual ability to complete the diploma was not assessed. Agreement to participate in the evaluation of the diploma was included within the application process.

Thirty-nine community pharmacists eventually commenced the course; this consisted of the initial 30 plus a further 9 who were able to take the place of 9 students who withdrew from the course at an early stage (students had the opportunity to withdraw without financial penalty after hearing the course workload expectations at their induction day). These 39 community pharmacists comprised the intervention group; all 39 were included in this group on an intention to treat basis. The 18 remaining community pharmacists formed a comparison group. It was deemed that this was a

potentially fair comparison because the Course Director had not considered individual ability to complete a diploma as part of the selection process and they had demonstrated a desire for personal development through the act of applying for a place on the diploma. The author was not involved in the selection process.

Locum pharmacists and pharmacists employed by independent pharmacies were asked to seek permission from their employer to participate in the quantitative elements of the evaluation. Permission was sought from the multiple pharmacy employers for their pharmacists to participate and those that agreed were asked to complete a permission form (see Protocol 1, Appendix 10). It was the senior learning and development managers at these companies that were later approached to participate in the employer interviews.

3.6 The surveys

3.6.1 Protocol

The protocol developed for the surveys and approved by UEA's Faculty of Health Research Ethics Committee is included in Appendix 10. Copies of the questionnaires, letters and participant information sheets can be found within the separate appendices of this document.

3.6.2 Service provision, employment and attitudes and approaches to CPD surveys

The objectives of this research included describing changes in the practice of pharmacists that had enrolled onto the diploma compared with those that had been unsuccessful in their application and the effect of undertaking the diploma on employee retention, approaches to CPD and job satisfaction. A quantitative approach was deemed most appropriate for this.

A survey methodology was chosen as this would provide an efficient solution to collecting and quantifying the data sought. A meta-analysis comparing response rates of email versus paper surveys demonstrated response rates 20% superior in the latter, although this difference reduced to 1% when considering the responses of university populations.[256] The authors argued that this was not unexpected because of this group's routine use of internet technology when compared to other groups. The online survey tool SurveyMonkey® was utilised to host a questionnaire as it was felt that by a similar argument this would be an effective method of reaching this study's intended population of working professionals, whom it could be reasonably expected to have access to a computer both at home and at work, and for whom email addresses had

already been supplied during the diploma's application process. Furthermore, using an online process would remove the costs associated with printing and postage.

An online survey of community pharmacists' service provision, employment and attitudes and approaches to CPD was undertaken in February 2011 and repeated in February 2012 and February 2013.

3.6.2.1 Data collection

Initially the survey was divided into two separate online questionnaires which could be accessed independently. Both were designed and hosted on the SurveyMonkey® website and administered at the same time.

3.6.2.2 Service provision survey

A questionnaire divided into three sections, covering service provision, workplace and personal information was used in this survey. An initial pre-survey question was used to exclude pharmacists not currently employed in a community pharmacy as they would not be delivering community pharmacy services as part of their role.

Services included in section 1 of the questionnaire were subdivided into three sections; enhanced services, advanced services and other services. Enhanced and advanced services were included based on those included in the Pharmacy Contract section of the Pharmaceutical Services Negotiating Committee (PSNC) website.[257] To minimise the size of the questionnaire, the most commonly delivered services[228] were covered in the most detail (questions 1-8), while those less commonly encountered were either included more briefly (questions 9-11) or omitted. PGDs were omitted as an individual question because they are an instrument for providing a service rather than a service per se. Supplementary and independent prescribing were included in the 'personal information' section for the same reasons.

Section 2 of the questionnaire included questions designed to obtain a picture of the working environment of the pharmacist completing the survey. Several of the questions were taken from those found in the Pharmacy Workforce Census 2008[a].[250] The pre-survey screening question was also based on a question in this census. The questions regarding the number of items dispensed and the staff hours employed related to the minimum requirements pharmacy contractors had to meet in order to receive the full practice payment available to them from the NHS.[258]

[a] Permission for this use was sought and received from Professor Karen Hassell.

Finally, section 3 included questions designed to obtain personal information about the pharmacist and their career.

3.6.2.3 Employment and attitudes and approaches to CPD survey

The questionnaire was divided into three sections, covering personal and employment information, attitudes and approaches to CPD and job satisfaction.

Section 1 included questions designed to obtain personal information about the pharmacist, their work including their level of engagement with their local GP(s) and patients, and their education. The question relating to current work used the categories found in the Pharmacy Workforce Census 2008[b].[250]

Section 2 consisted of a series of statements regarding approaches and attitudes to CPD, which the pharmacist had to indicate their opinion against, followed by separate questions about CPD activities and learning needs. Statements 1 to 6 and 14 and 15 are adapted from a previous study,[259] for which permission was obtained (Appendix 11). Other statements reflected the RPSGB's guidance on CPD.[260]

Section 3 contained questions related to the pharmacist's levels of job satisfaction. These questions were copied or based on questions in various Pharmacy Workforce Census reports[c].[250,261,262]

Construct validity was difficult to establish because there was no other measure available as a comparison at the outset. To mitigate for this measures from previously published questionnaires were included where appropriate as described above. Three measures were taken in an attempt to establish content validity. Two members of the supervisory team with community pharmacy experience were consulted throughout the development process. The diploma steering group was consulted before the development of the questionnaires and was asked to comment as they were developed. Although the steering group included practising community pharmacists this was not the main role of anyone within the steering group, and so the final draft of each questionnaire was piloted with members of UEA's pharmacy practice team. Face validity checks were included as part of the process described. To obtain a different view both questionnaires were piloted with the diploma tutors after amendments had been made following feedback from the members of UEA's practice team. Minor amendments were made as necessary.

[b, c] Permission for this use was sought and received from Professor Karen Hassell.

3.6.2.4 Participant recruitment

Due to the small size of the population studied all members of the intervention and comparison groups were invited to participate. Each of these pharmacists was sent a letter and a participant information sheet explaining the study and detailing how to access the online questionnaires.

To increase response rates a follow-up reminder was sent to those pharmacists that had not completed the questionnaires within two weeks of the initial request. A further reminder was sent after four weeks when necessary.[263]

No incentive was offered for completion of the questionnaires, although the invitation to participate was combined with a request to allow the patient satisfaction survey to be undertaken at the recipient's main workplace, and this part of the study did offer an incentive. However, it was possible to participate in this incentivised element alone. Completion of the questionnaires was deemed as consent to participate.

3.6.2.5 Amendments to protocol

Minor amendments were made to the content of the online questionnaires for the second distribution to reflect relevant changes in pharmacy and the lessons learned from the experience of the first distribution.

For the February 2013 survey both questionnaires were combined and condensed into one questionnaire, with several further amendments made to reflect relevant changes in pharmacy, lessons learned from the second distribution and feedback from participants.

Box 3.2 summarises the structure of the 2013 questionnaire and how its content differed from the previous years' questionnaires.

The amended questionnaires were piloted with members of UEA's pharmacy practice team. Approval was obtained from UEA's Faculty of Health Research Ethics Committee for these amendments (Appendix 9).

Questionnaire sections	Content
Introductory	**Additional material:** • Reference to an incentive for questionnaire completion
1: Job satisfaction	**Additional material:** • The following questions were added: o "Have you changed your main employer since September 2010?" o "Who did you work for before?" o "And for how long did you work for them?"
2: CPD	**Removed material:** • The following attitudinal statements were removed: o CPD should be undertaken in the pharmacist's own time o Employers should provide time for their pharmacists to undertake CPD o The emphasis of CPD should be on quality over quantity o I am able to identify my own learning needs o I use a variety of different methods to learn o My learning is linked to my current practice or development needs o Keeping a portfolio is the best way of recording CPD activities o I only complete CPD for subjects that interest me o Completing CPD will help me to achieve my career objectives o Completing CPD is stressful o All my CPD learning contributes to the quality or development of my practice o CPD is about developing knowledge o CPD is about developing behaviour • The following question was removed: o "Please indicate how many times you have undertaken each of the following activities in the last year"

Box 3.2 Structure and amendments to the 2013 student online questionnaire (continued overleaf).

Questionnaire sections (continued)	Content (continued)
3: Service Provision	**Additional material:** • Definition of 'main workplace' • List of services updated to reflect those currently available • Closed answer responses added to "What are the current barriers to you offering this service?" • Examples of 'other services' • A confidence scale for working with GPs • The following question was added: o "In the last 2 years have you changed the amount and/or types of work that you delegate to your staff?" **Removed material:** • Availability of PCT funding as a potential barrier to offering services • The following questions were removed: o "Have you been involved in developing a new service?" o "How were you involved in developing the service?" o "Have your read your PCTs Pharmaceutical Needs Assessment?" o "Please enter the name of your local Practice Based Commissioning group below" o "Please enter the first part of postcode of your main workplace?" o "In which area is [your main workplace] based?" o "Approximately how many items per month does this pharmacy dispense" o "Approximately how many dispensing staff hours does this pharmacy employ per week?" o "Does this pharmacy employ a permanent pharmacist?" o "Approximately what percentage of the time is the pharmacy operated without the permanent pharmacist(s)?" o "Does this pharmacy employ an Accredited Checking Technician (ACT)?" o "How many full time equivalent ACTs are employed?" o "Approximately what percentage of prescriptions are checked by the ACT?"

Box 3.2 Structure and amendments to the 2013 student online questionnaire (continued overleaf).

Questionnaire sections (continued)	Content (continued)
4: Demographics	**Questions from the original questionnaires combined to remove duplication** **Additional material:** • Main pharmacist (non-management) added to list of job role options • The following question was added: o "Have you obtained any further qualifications at postgraduate certificate level or higher since qualifying?" **Removed material:** • The following questions were removed: o "Do you have any postgraduate qualifications?"; "Please describe the subject/field of this qualification?" o "Are you currently studying for any of the following postgraduate qualifications?"; "Please describe the subject/field of this qualification?"
5: Thank You	**Additional material:** • Redirection to a separate survey for collecting details to enable incentive payment

Box 3.2 Structure and amendments to the 2013 student online questionnaire (continued from previous page).

The introductory section included a reference to an incentive for completion of the questionnaire. The response rate decreased for the 2012 surveys so an Amazon £5 gift voucher was offered, to be payable on completion of the questionnaire. Using a monetary incentive rather than non-monetary rewards and providing incentives after completion rather than in advance have both been previously demonstrated to be effective in improving response rates to postal questionnaires[263] and it is not unreasonable to suppose that the same would apply using an online delivery method.

Section 1 of the questionnaire covered job satisfaction and added the questions listed in Box 3.2 to those that appeared previously. These additions were made to ensure changes in participants' employment since the outset of the study were captured.

Similarly section 2 covered CPD and included the majority of the questions from previous years. A reduction was made to the number of attitudinal questions to include only those that had been used in a previous study[259] because of concerns regarding the construct validity of the questions designed to reflect the RPSGB's CPD guidance.

The question concerning the frequency of CPD activities was also removed as previous responses suggested that participants could not readily recall this information.

In section 3 a definition of ‘main workplace’ was included for clarity as a couple of participants had asked for this in the previous year. Similarly, examples of ‘other services’ were provided as responses in previous years had included answers that would not be considered a service for the purposes of this study (e.g. prescription collection).The list of pharmacy services was updated to include only those available through community pharmacies at the time of the survey, and the open question, “what are the current barriers to you offering this service?” was amended to include closed options based on the most common responses received previously; because of this the separate question regarding availability of PCT funding was removed and included as a closed option for this question.

A confidence scale for working with GPs was added below the GP contact question, and the question, “in the last 2 years have you changed the amount and/or types of work that you delegate to your staff?” was added to explore potential changes in practice since the onset of the study.

Several questions were removed (as listed in Box 3.2) because they tested the knowledge of participants, providing answers of questionable validity as they either relied on respondent honesty or could have been looked up for the purposes of answering the questionnaire alone.

Demographic questions from the original questionnaires remained largely the same although they were combined into one section (section 4) to remove duplication. Qualifications questions were simplified because the answers received previously could be obtained without the complexity of the original questions. An additional job role, ‘main pharmacist (non-management)’ was added as variations on this were a common response in the ‘other’ field of the original questionnaires.

On completion participants were redirected from section 5 to a separate questionnaire where they could enter their details if they wished to receive the incentive. This ensured that their identifying details remained separate from the data collected in this survey and maintained anonymity.

The invitation letters and accompanying participant information sheet reflected the amendments made, emphasising the incentive and that the questionnaires had been combined and condensed into one that it was anticipated would take them less time to complete. Furthermore, the letter to members of the comparison group included the additional line, “pharmacists such as you, that are not undertaking the diploma, have

an important contribution to make to the evaluation process" as attrition rates were greatest within this group and several had queried why they had been sent the questionnaire in 2012.

3.6.2.6 Data analysis

Statistical tests were not routinely applied because of the small number of participants and the deterioration in responses as the study progressed. In cases where results warranted further comparison PASW® statistics 18 was used to perform chi-squared analysis, t-tests or their non-parametric alternatives as appropriate.

Results are presented in three sections: CPD; job satisfaction; and practice, which includes the services and other practice indicators included in the service provision section of the questionnaires.

Where there was missing data, due to non-response to individual questions, the numbers actually completed are reported, together with a valid percentage where appropriate.

Responses in two areas were adjusted before results were calculated. MURs provided from the main workplace in the last working week were adjusted to account for those reporting zero as they had already reached the maximum threshold of 400. In these cases an adjusted figure of 8 was substituted. Chlamydia screening and treatment results were combined from the responses to the individual questions given in 2011 and 2012.

The data gathered was stored in an anonymised form on a password protected database to which only the researcher had access.

3.6.3 Patient satisfaction survey

A further objective of this research was to quantify patient satisfaction, comparing those community pharmacies that employed pharmacists in the intervention group with those in the comparison group and to measure changes in these opinions over time. It was felt that this would identify whether there was a difference in how those in the intervention group influenced the practices of their workplaces. Again a quantitative approach was deemed most appropriate.

A survey methodology using a paper-based questionnaire distributed by the researcher was chosen to enable access to the population studied and increase the likelihood of a good response rate.

A community pharmacy patient satisfaction survey was undertaken during March and April 2011, and repeated in March and April 2013.

3.6.3.1 Data collection

A paper-based self-completion questionnaire was designed. An introductory section gave relevant background information explaining the study and instructions on how to complete the questionnaire. The first section of the patient questionnaire was adapted from a previously validated instrument, in which patients record their responses to twenty statements concerning their satisfaction with pharmaceutical care on a 5-point 'excellent to poor' rating scale.[264] Permission was obtained to use the questionnaire in this way (Appendix 12). A brief final section gathered non-identifying patient demographic details, included space for comments and thanked people for their help.

The questionnaire was printed in colour on A3 paper and folded to form an A4 sized booklet. The UEA and East of England SHA logos were included to give a professional appearance, and an identifying code for each pharmacy was included on the front page. There is evidence that all of these design features improve response rates.[263] The short length of the questionnaire is also beneficial in this respect.

A high degree of internal construct validity was established by the developers of the original questionnaire in their work grouping responses to individual statements into two dimensions of pharmaceutical care.[264] 'Friendly Explanation' had good internal consistency, with a Cronbach alpha coefficient of 0.957 reported. In this study the Cronbach alpha coefficient was 0.947. Similarly, a Cronbach alpha coefficient of 0.962 was reported for 'Managing Therapy', and in this study the value was 0.963. A statistically significant ($p<0.001$) difference between respondent's scores for the two dimensions was demonstrated using a paired samples t-test and this result was repeated in this study. This suggests the adaptations made did not impact upon construct validity.

Content validity had been previously identified by the developers of the questionnaire using an expert panel consisting of pharmacy faculty members at two American colleges of Pharmacy.[264] However, patients or patient groups were not consulted to establish the important elements of pharmaceutical care from their perspective; therefore face validity was not established. A pilot in three pharmacies unconnected with the diploma was undertaken. 20 questionnaires were distributed at each to determine the response rate and the distribution time. However, this pilot did not capture any misunderstanding of questions.

3.6.3.2 Participant recruitment

Permission to undertake this survey was combined in to one process with the recruitment for the online surveys in 2011 and 2013. The letter and participant information sheet detailing how to access the online questionnaires also advised that the researcher would make contact to arrange a suitable time for undertaking the patient satisfaction survey.

A convenient time was arranged for the researcher to visit each pharmacist whilst they were practising at their workplace. During this visit member(s) of the pharmacy's staff sought verbal consent from all members of the public that were accessing services at the pharmacy to be approached by the researcher. Pharmacy staff were briefed to use the phrase "we have a researcher from the University of East Anglia here today, would you mind if he spoke to you about a questionnaire he would like to give you?" If consent was given the researcher asked "would you consider yourself a regular customer of this pharmacy?" Questionnaires were distributed by the researcher to the first 20 patients who answered affirmatively and who then consented to take part at each of the pharmacies included. Due to time constraints if after 3 hours less than 20 questionnaires had been distributed, distribution was halted and the number distributed recorded.

Participants could opt to complete the questionnaire whilst waiting in the pharmacy or take it away for completion later. In both cases a freepost brown envelope was provided to allow anonymous return to the researcher at the School of Pharmacy. It has previously been identified that these measures improve response rates.[263] Furthermore, submitting responses to an independent researcher rather than to the pharmacy in question may permit respondents to be more open in their responses.

If a participant consented but was unable to complete the questionnaire (e.g. because they were illiterate) the researcher offered to read the questions to them and record their answers.

At the repeated survey in 2013 the additional question, "have you completed this questionnaire before" was asked of consenting customers by the researcher. Those answering affirmatively were excluded from participating. This was because it was felt that previous participation may have increased awareness of the role of the pharmacist thereby raising expectations. This is similar to the phenomenon Choi and Pak described as 'respondent's learning', although this concerned subsequent responses being influenced by learning from earlier questions within the same questionnaire.[255]

To encourage access to pharmacies to enable distribution of the questionnaires an individualised report based on an analysis of returned questionnaires was made available to participating pharmacists. No incentive was offered to patients. Completion of the questionnaire was deemed as consent to participate.

3.6.3.3 Data analysis

A mean overall satisfaction score was calculated from each patient by scoring an 'excellent' rating as 5 through to 'poor' as 1. In addition responses were grouped into two dimensions of pharmaceutical care, 'Friendly Explanation' and 'Managing Therapy', as described by the questionnaire's authors.[264] For each dimension a patient's mean score was calculated by summing their responses within each scale and dividing by the number of items in that scale that they answered. PASW® statistics 18 was used to perform independent (ISTT) and paired samples t-tests (PSTT) as appropriate.

The data gathered from the questionnaire was stored in an anonymised form on a password protected database to which only the researcher had access. Hard copies were stored in a locked filing cabinet within the School of Pharmacy.

3.6.3.4 Amendments to protocol

Because of the decreased response rate to the 2012 online survey and in anticipation that a similar effect would be seen when requesting access to pharmacies to distribute the 2013 patient satisfaction questionnaires, a £25 Marks and Spencer gift voucher was offered to the pharmacist as an incentive.

Approval was obtained from UEA's Faculty of Health Research Ethics Committee for this amendment (Appendix 9).

3.7 The interviews

3.7.1 Protocols

The protocols approved by UEA's Faculty of Health Research Ethics Committee for the postgraduate pharmacist and employer interviews are included in Appendix 13 and Appendix 14 respectively. Copies of the various letters, forms, questionnaires, participant information sheets and topic guide summaries can be found within the separate appendices of these documents.

3.7.2 Choice of method

The postgraduate pharmacist interviews sought to explore pharmacists' experiences of undertaking the diploma, the factors affecting these experiences and establish changes in practice as a result of these experiences. In the employer interviews the decisions of community pharmacy employers' on pharmacist education and development, and the influences affecting these decisions, were to be explored. In both cases participants' responses could not be predetermined and therefore a qualitative approach provided the most appropriate method.[265]

Two methods of data collection were considered; interviews and focus groups. The advantages and disadvantages of each are summarised in Box 3.3.

	Interviews	**Focus Groups**
Advantages	• Allows for in-depth discussion • Exploration of personal experiences • Exploration of private/sensitive issues • Arranged at a time and location convenient to the participant	• Group dynamics may stimulate discussion • Highlights differences between participants • Less expensive than interviews • Less time consuming for the researcher
Disadvantages	• Responses may be inhibited by the status of the interviewer • Responses may be adapted to what the participant believes the interviewer requires/desires • Cost • Time consuming (travel and number of interviews)	• Responses may be inhibited by fellow participants • Participants may adapt responses to appear acceptable to others • Discussion may be dominated by one or more individuals • Requires participants to travel • Requires all participants to be available at the same time

Box 3.3 Advantages and disadvantages of interviews and focus groups.[266,267]

Interviews were chosen as the data collection tool for the research with the students. The strengths of this method could facilitate a depth of focus and understanding of personal perspectives and experiences, without the risk of inhibition or adaptation of responses to remain within the individually perceived boundaries of acceptability to other participants, which may occur in a focus group environment. Although this risk may also be present in a one to one interview because of the status of the interviewer, provision was made to minimise this; interviews were undertaken by the researcher, who as previously described had been introduced to the students as an independent

evaluator undertaking a research project. By taking this approach it was hoped that students would be more likely to share any negative views regarding their experience of the diploma than if they had been interviewed by a member of the School of Pharmacy team. Students were also aware that the researcher was a community pharmacist and while it can be surmised that this may have encouraged a more open discussion based on the common occupational identity shared by the two parties, it may also have inhibited some responses, for example if the student withheld information because they assumed the interviewer already had knowledge of a subject, or where issues around the student's practice were discussed, particularly if they felt their practice was below standard. Schostak argues that "individuals do not...construct their identities according to a single structural position constructed by gender, or race, or sexuality alone" and that a rapport between two individuals can develop in unexpected ways,[268] and by this same argument barriers can also appear. Therefore, despite the measures taken to minimise the issues arising from status when interviewing it is impossible for these to be removed altogether and important for the researcher to be aware of this both when interviewing and when analysing the subsequent data.

For the employers interviews were chosen because they could facilitate an in-depth discussion and exploration of the approach taken by each individual within their role, without the risk of inhibition or adaptation of responses which may have occurred in a focus group environment due to potential commercial sensitivities and/or rivalries. Again the role of the researcher cannot be dismissed in that their background as a community pharmacist and their role in academia positioned them in a way that could in some cases and for some topics encourage discussion and in others inhibit it.

A further strength of using interviews was that they could be conducted at a time and place convenient to participants making them more accessible to the population studied[266] which was made up of busy professionals, geographically dispersed across the eastern region of England in the case of the postgraduate pharmacist interviews and across the whole country in the case of the employer interviews.

3.7.3 Types of interview

The main difference between the different types of interview technique that can be employed is the degree of flexibility that the researcher has. The most standardised form of interview resembles a questionnaire in that detailed questions and follow-up questions are prepared, which are usually closed questions which can be answered with a short response, or from a limited number of responses. For example these can include multiple choice questions and the use of Likert scales. These questions are

asked of each participant in an identical manner and their answers recorded in a predetermined manner. This differs from simply reading out a questionnaire to an interviewee only in that the interviewer may probe and seek clarification of some responses, but even this can be part of an agreed set of instructions.[252]

A less standardised form of interview is the in-depth interview in which the interviewer has a formal conversation with the interviewee. Open questions are used which allow the interviewee to respond with as brief or as detailed an answer as they choose. This helps to position the interviewer as someone who can be trusted, allowing the interviewee to 'open-up' their responses, by separating the process from that of an interrogation.[268] As the interview progresses the questions asked are guided by the responses obtained allowing the interviewer to clarify details and follow-up areas of interest as they emerge. In the least standardised form of in-depth interview the interviewee is unconstrained by the interviewer and encouraged to set the agenda for the interview.[268] However, the interviewer is likely to have a number of topic areas they wish to cover, and therefore some form of standardisation is appropriate. In these cases a pre-prepared topic guide containing open questions and/or topics to explore can be used to guide the interview. In reality a spectrum of in-depth interviewing exists between the least standardised approach and those which use a topic guide, with common features being the flexibility and interactivity of the approach.[266]

Standardised interviews were not considered for either the postgraduate pharmacist or employer interviews as they do not lend themselves to the exploratory approach required. As this research had pre-defined objectives to achieve, in-depth interviews, using a prepared topic guide, were deemed to be the most appropriate method in each case. This topic guide included the main questions, written as open questions and designed to address the objectives of the study. Suggested prompts and probes were included for the interviewer. Prompts are questions that direct the interviewee to discuss areas of interest to the interviewer which have not been answered in response to open questions,[266] thus the interviewer must decide during the interview if and when to use them. Probes are questions used to obtain further depth to participants initial answers, explore meanings, request explanations or seek clarification.[266] As the type of probe used is dependent on the responses given by the participant during the interview, the interviewer was free to use alternative probes to those suggested in the topic guide as appropriate.

3.7.4 Sampling options

Unlike quantitative research where large probability samples are used in an effort to ensure a proportional representation of the population studied, in qualitative research

non-probability samples are selected to ensure that the features deemed important by the researcher are represented. The main types of non-probability sampling used in qualitative research are purposive sampling, convenience sampling and opportunistic sampling.[266] In purposive sampling participants are selected to meet and represent criteria which the researcher believes will support their enquiry, whereas convenience sampling lacks such a structure and is conducted on the basis of accessibility to prospective participants. Opportunistic sampling differs in that it involves requesting participation in the study as opportunities present themselves.

For the postgraduate pharmacist interviews, opportunistic sampling was not an appropriate method as a cohort of diploma students was in place for this study. Convenience sampling may not have met the criteria required to ensure the study had the required breadth, therefore a purposive sampling method was chosen. For the employer interviews a convenience sample was used based on the existing accessibility to prospective participants who had already consented to their companies' employees participating in the project.

3.7.5 Postgraduate pharmacist interviews

The researcher conducted a first round of postgraduate pharmacist interviews during a two month period beginning October 2011. This was approximately one year since completion of the first study day (Patient assessment and Working in the NHS). A second round of interviews was conducted approximately one year later as the course reached its conclusion.

3.7.5.1 Participant recruitment

Community pharmacists enrolled on the UEA Postgraduate Diploma in General Pharmacy Practice (Community Pharmacy) as of July 2011 were invited to participate in this study. A covering letter was sent out to these pharmacists inviting them to participate. This was accompanied by a participant information sheet, basic demographic questionnaire, withdrawal postcard and a pre-paid envelope addressed for return to the researcher. After two weeks, any pharmacists that had not returned the demographic questionnaire or the withdrawal postcard were contacted to confirm whether they wished to participate.

A £25 Marks and Spencer voucher was provided as an incentive to participate. This was felt to be an appropriate compensation for the amount of time participants would be asked to forgo.

3.7.5.2 Sampling

In order to do justice to the detail obtained from the interviews the sample size was kept to a reasonably small scale to ensure the study remained manageable.[266] An initial sample of 15 participants was selected from the 25 who consented to participate, as this is considered to be sufficient to obtain rich and extensive data.[269] To ensure a diverse representation the following criteria obtained from the basic demographic questionnaire were used:

- Gender
- Age group
- Employer
- Pharmacy location
- Qualification
- UK community pharmacy experience
- Nationality

To simplify the process an initial sample was selected by the researcher and verified by the supervisory team to ensure representation across gender, employer and pharmacy location. Once this sample was obtained checks were made to ensure the remaining criteria were represented and adjustments made as necessary. In addition to the criteria listed above the researcher also checked that all three regional study groups were represented and that an intercalating student was included. The demographic composition of the sample is outlined in Box 3.4 alongside the identifier used for each participant in subsequent chapters. UK community pharmacy experience and nationality are not presented as their inclusion could compromise participant anonymity.

Identifier	Gender	Age group	Employer	Pharmacy location	Qualification	Additional comments
1F	Female	20-35	Large Multiple	Town centre	UK	Intercalating at time of second interview
2M	Male	20-35	Large multiple	Medical centre	Non-UK	
3F	Female	20-35	Self-employed	Town centre	UK	
4F	Female	20-35	Large multiple	Suburban	Non-UK	
5M	Male	20-35	Large multiple	Edge of town	UK	Intercalating at time of first interview
6M	Male	36-50	Independent	Town centre	UK	
7F	Female	51-65	Large multiple	Town centre	UK	Moved to independent pharmacy based in medical centre at time of second interview
8F	Female	20-35	Large multiple	Suburban	UK	Exited course at certificate level
9M	Male	36-50	Independent	Suburban	Non-UK	Intercalating at time of second interview
10M	Male	20-35	Self-employed	Suburban	UK	
11F	Female	36-50	Large multiple	Medical centre	Non-UK	Exited course at certificate level
12F	Female	36-50	Self-employed	Various	Non-UK	
13M	Male	20-35	Large multiple	Rural	Non-UK	
14F	Female	36-50	Independent	Medical centre	Non-UK	
15M	Male	36-50	Self-employed	Suburban	Non-UK	

Box 3.4 Postgraduate pharmacist participants' demographic details.

The same 15 participants were approached for a second interview during October to November 2012. A covering letter was sent out to these pharmacists inviting them to participate. This was accompanied by a revised participant information sheet, acceptance form, withdrawal postcard and a pre-paid envelope for return to the researcher. After two weeks, any pharmacists that had not returned the demographic questionnaire or the withdrawal postcard were contacted to confirm whether they wished to participate. Fourteen participants agreed to the second interview, the exception being participant 11F who did not respond to the requests.

3.7.5.3 Data Collection

Interviews were conducted by the researcher who contacted each student selected to arrange a convenient time and location for the interview to take place. The majority of interviews were undertaken at the student's workplace. Other locations included university offices, cafes and students' homes. As a risk reduction measure these details were shared with the supervisory team, and telephone contact made by the researcher at the end of each interview.

Participants were informed that their interview would last for up to one hour. However, a minimum of an additional thirty minutes was built into the researcher's schedule to ensure any opportunities for further discussion could be capitalised upon. All participants were required to sign a consent form on the day of the interview in order to participate and a copy was given to them for their records.

Interviews were recorded using two Olympus® WS-750M digital voice recorders (one as the primary recorder and the other as an insurance policy against equipment malfunction). Additionally a notebook was kept by the researcher to record details regarding the interview locations and environment, and any information volunteered before and/or after the interviews by participants. Points raised by the interviewee during the interview were also captured to facilitate follow-up later in the interview.

To guide the researcher during the first round of interviews a topic guide was prepared consisting of a number of questions which could be adapted as the interview progressed. These were grouped into the following sections: introduction; background; main questions; and conclusion.

The introduction did not form part of the interview as such but contained reminders for the researcher to introduce and explain the study to the participant, answer any questions and gain their consent.

To put the participant at ease straightforward questions concerning their role and experience were included in the background section at the start of the interview. In addition to their underlying purpose these questions can gather useful information about the participant which set their other answers in context. This was followed by the main questions designed to answer the objectives of the study; how have you approached learning since qualifying, what made you decide to do a diploma, how have you found the diploma so far, and has it made a difference to your practice? Each was accompanied by a list of suggested prompts for the researcher.

Finally the conclusion section allowed the participant to add any additional information that they felt had been missed and the question, "what would you say has been the

greatest benefit of doing the diploma so far?" which allowed participants to reflect on the preceding discussion and aimed to ensure the interview concluded on a positive note.

The first two interviews were reviewed by the supervisory team to provide feedback on interview technique and consider whether amendments to the interview topic guide were required. Interview technique was deemed to be appropriate and no changes were identified for the topic guide. However, an amended version of the topic guide was devised for the intercalating student. This was to include an additional background question concerning the participant's current status regarding the diploma and a couple of questions following the main questions about their reasons for intercalating and prospects for their return.

A revised topic guide was prepared for the second interviews. Again the introduction did not form part of the interview as such but contained reminders for the researcher to introduce and explain the study to the participant, answer any questions and gain their consent.

The background section was altered so that any changes in employment circumstances since the first interview were captured. To facilitate this, the basic demographic questionnaire completed previously was reviewed with the participant. The main questions focussed on perceived changes in practice since undertaking the course and what contribution, if any, the diploma had made to these changes. Participants were also asked about their future plans. The interviews were concluded using the same format as in the earlier interviews.

At this stage a number of students were intercalating or had exited the course and an amended topic guide was used for their interviews. As with the first interviews this included an additional background question regarding the participant's current status regarding the diploma, and also explored whether any changes in practice attributable to the diploma had been maintained since leaving.

3.7.5.4 Data analysis

Interviews were transcribed verbatim. In addition to verbal content, non-verbal context was also noted in the transcripts within square brackets (e.g. laughter or pauses by the interviewee). The recordings were either transcribed manually by the researcher and checked for accuracy by a colleague within the School of Pharmacy's Medicines Management Team, or transcribed manually by an external agency and checked for accuracy by the researcher. Both the data gathered from the basic demographic questionnaire and the interview transcripts (and corresponding audio files) were stored

in an anonymised form on a password protected computer to which only the researcher had access. Hard copies were stored in a locked filing cabinet within the School of Pharmacy.

Each set of interviews was thematically analysed. Thematic analysis[270] is a method for identifying, analysing and reporting patterns within data. Advantages of thematic analysis that support its use here include that it can generate unanticipated insights and highlight similarities and differences within a data set. It can be used deductively or inductively. A deductive approach is favoured when a detailed analysis of pre-determined aspects of the data is required.[271] An inductive approach generates themes which are not pre-determined by the theoretical interests of the researcher[272] and is preferable when some interpretation is required.[270] Themes derived in this way represent the whole data set and may not be closely related to the questions asked in the interviews. The latter approach was used in this study to facilitate a broad analysis of the experiences, opinions and perspectives of participants.

By following a process of 6 phases of analysis data is minimally organised and described in rich detail. The phases of analysis described by Braun *et al.*[270] are summarised below:

1. Data familiarisation

Data familiarisation is achieved through transcribing, reading and re-reading the transcripts. During this process the researcher should captured their initial thoughts and ideas. This is a time consuming process which should not be hurried or bypassed and is a reason why small samples are used in qualitative research.

2. Initial coding

Initial codes identify any features of potential interest within the data and support the organising of interview data into meaningful groups or categories.

3. Development of potential themes

This phase involves collation of the codes and categories developed from analysis of the complete data set to form broader themes. Visual representations may be used to support this process. Relationships between themes and different levels of themes (i.e. main themes and sub-themes) are explored. Some codes may remain uncategorised at this stage.

4. Review of themes

Themes are reviewed to ensure they work at the level of the codes and categories they represent and that they reflect the content of the data set as a whole. As a result some themes may be discarded, some subdivided further into separate themes, whilst others may be combined together.

5. Defining and naming of themes

Analysis continues to produce a clear definition for each theme. As part of this phase an appropriate label is chosen for each theme.

6. Writing the themes

Writing up of the themes provides a final opportunity for analysis. Examples are sought from the data to illustrate the descriptions and concepts presented. This may lead to a further modification or organisation of the themes.

Braun and Clarke[270] recognise that the approach taken to the analysis will not be a linear one, describing an expectation that a movement up and down the 6 phases is likely to be required. The rest of this section describes what happened in practice in this study.

Data familiarisation was achieved first through the process of transcribing the interviews or reviewing those that were externally transcribed, and then by repeated reading of the transcripts. This reading was undertaken in an active fashion with some initial ideas noted.

An initial coding of the data set utilised both open and closed coding techniques.[273] Open coding of the first two interviews was undertaken by the researcher. This involved a line by line coding of the transcript. These codes captured points of interest in the data using the interviewees own words or words which represent their meaning or interpretation. Agreement was reached with a member of the supervisory team on the coding of these first interviews. These codes were then collated and categorised into broad themes and agreement was again reached with the same member of the supervisory team after discussion. These collated codes and categories were used to analyse the remaining first round interviews using a more formal closed coding technique. Areas of interest within the data that did not fit the existing closed codes were coded separately and following the analysis of each subsequent interview the collated codes and categories were reviewed and revised.

To facilitate the coding and categorisation process of the first round interviews a ‘scissors and paste’ technique was employed. For each interview the transcript was

produced in tabular form in a MS Word® document; columns with space for notes and coding were included in addition to the columns containing the interview data. A printed copy of the transcript was then augmented by handwritten notes and codes which were then typed up. These codes were copied and pasted into a separate table, which was printed and cut up so that each code appeared on a separate piece of paper, thus enabling organisation and re-organisation into categories or potential themes. Each code had a unique reference number so that it could be linked back to its original data source if a wider context was required to support the analytical process.

After coding of the final interview the process of reviewing and developing these themes was embarked upon. This involved a refinement through the process of re-examining and reorganisation of the initial themes, whilst referring back to the original transcripts, codes and notes. A short description of each theme was developed together with a working title. Following this the process of writing up the themes for this thesis commenced. Data extracts were used to demonstrate the properties of each theme, either in the form of direct quotations from the interviewees or by summarising or paraphrasing their views if this was required for clarity. Sufficient evidence was sought to demonstrate the prevalence of the various themes. Some modifications of the themes occurred during this last phase as the process of writing solidified some ideas and led to the questioning of others.

Throughout the coding process the researcher made notes on each interview under the headings ‘variables’, ‘questions raised’ and ‘questions answered’. ‘Variables’ captured information regarding the interviewee and their circumstances that could inform the final analysis; for example details concerning their family life, the nature of their role, the types of services offered through their pharmacy and existing relationships. ‘Questions raised’ were literally questions or ideas that occurred to the researcher whilst reading and coding the interviews, and at times in between, which were recorded to support the process of analysis and potential discussion points. ‘Questions answered’ were the direct answers provided by interviewees in response to the main questions listed in the topic guides. These were ‘copied and pasted’ into a MS Word® document for reference during the analysis. The supervisory team were consulted regularly throughout the analysis, provided guidance on the process, and discussed and agreed the themes as they were developed.

To add diversity, if the data had been convergent or if no clear themes had emerged, then further interviews would have been arranged with students not included in the initial sample. No more interviews were conducted as neither scenario occurred. At this point pharmacists that had returned the basic demographic detail questionnaire but were not selected for interview were sent a letter informing them of this.

For the second round of interviews NVivo 9® was used to support the same analytical process described above. Codes are added to transcripts which are held within the program and these can be manipulated using the principles of the 'scissors and paste' technique described above. The software's 'memos' facility was used to record 'Questions raised' and 'nodes' created to capture 'Variables' and 'Questions answered.'

3.7.6 Employer interviews

The researcher conducted interviews during the four month period beginning June 2012 with the senior managers responsible for pharmacist education and development at selected multiple community pharmacy employers.

3.7.6.1 Participant Recruitment

The senior manager responsible for pharmacist education and development at each of the five large multiple community pharmacies with employees enrolled on the UEA Postgraduate Diploma in General Pharmacy Practice (Community Pharmacy) was invited to participate. The seniority of the managers targeted was such that they had no line management responsibility for the community pharmacists whose education and development they were responsible for. A covering letter was sent out to these senior managers inviting them to participate. This was accompanied by a participant information sheet, acceptance form, withdrawal postcard and a pre-paid envelope addressed to the principal investigator. After two weeks, representatives that had not returned the acceptance form or the withdrawal postcard were contacted to confirm whether they wished to participate.

A £25 Marks and Spencer voucher was provided as an incentive to participate. This was felt to be an appropriate compensation for the amount of time participants would be asked to forgo.

3.7.6.2 Sampling

A convenience sample consisting of the four responding representatives of the multiple community pharmacies with employees enrolled on the UEA Postgraduate Diploma in General Pharmacy Practice (Community Pharmacy) was used. The demographic composition of the sample is outlined in Box 3.5 alongside the identifier used for each participant in Chapter 8. Individual job titles and employer details are not presented as their inclusion could compromise participant anonymity.

Identifier	Gender	Pharmacist
E1	Female	Yes
E2	Female	Yes
E3	Female	Yes
E4	Female	No

Box 3.5 Employer participants' demographic details

3.7.6.3 Data Collection

Interviews were conducted by the researcher who contacted each senior manager to arrange a convenient time and location for the interview to take place. All participants were interviewed at their workplace. Participants were informed that their interview would last for up to one hour. However, a minimum of an additional thirty minutes was built into the researcher's schedule to ensure any opportunities for further discussion were not forsaken. All participants were required to sign a consent form on the day of the interview in order to participate and a copy was given to participants for their records.

As with the postgraduate pharmacist interviews these interviews were recorded using two Olympus® WS-750M digital voice recorders and the same notebook used to record details about the interview locations and environment, and any information volunteered before and/or after the interviews by participants. Points raised by the interviewee during the interview were also captured to facilitate follow-up later in the interview.

A topic guide was prepared to facilitate the interviews using the same structure as described for the postgraduate pharmacist interviews. The main questions used were; could you describe your approach to postgraduate pharmacist education and development, what are the barriers to delivery of your approach, and what are your perceptions of postgraduate diplomas and their role within your approach? Each interview was reviewed by the supervisory team to consider whether amendments to the interview topic guide were required. The main questions were unchanged but additional prompts were added to support the exploration of topics which emerged as the interviews progressed.

3.7.6.4 Data analysis

The recordings were transcribed verbatim by an external agency and checked for accuracy by the researcher. The interview transcripts (and corresponding audio files) were stored in an anonymised form on a password protected computer to which only

the researcher had access. Hard copies were stored in a locked filing cabinet within the School of Pharmacy.

NVivo 9® was used to support the thematic analysis process which mirrored that used for the follow-up postgraduate pharmacist interviews. The supervisory team were involved throughout and advised as required.

3.7.7 Trustworthiness

Measures were taken to ensure the trustworthiness of the findings from both sets of interviews. Prior to commencing the first set of interviews the researcher attended a one day training course entitled 'Introduction to Qualitative Interviewing' at the University of Surrey. This provided an opportunity to develop a topic guide and be observed undertaking a practice interview. In addition to this, and as previously described (see page 86), the researcher's first two interviews were reviewed by the supervisory team.

During the analytical process preliminary results were shared with the supervisory team in an attempt to ensure the results accurately reflected the content of the interviews. The analysis itself involved a process of constantly checking the emerging themes against different parts of the data (i.e. within individual interview transcripts and across different participants). Outlying cases were described where they occurred, and reasons identified for this where possible, as a further measure to ensure the credibility of the results.

Students were purposively sampled from within the diploma student population against previously described criteria to reduce possible biases within the sample frame. However, these were all pharmacists that had self-selected to undertake the diploma and therefore there is an inherent bias within this group, and because of this the results cannot be generalised beyond this group without caution. With the employer interviews a convenience sample was used, with all those interviewed employed at separate large multiple pharmacy chains. Therefore, the results obtained cannot be easily generalised to other community pharmacy employers.

The interplay between the researcher's status and role and those of the interviewee's could not be removed but was considered at each stage of the process.

Chapter 4

Survey Results

4.1 Introduction

Surveys of service provision, employment and attitudes and approaches to CPD were conducted with intervention and comparison group pharmacists on an annual basis. A patient satisfaction survey was conducted in the main workplace of these pharmacists at the outset of the diploma course and repeated as the course concluded.

4.2 Changes since study commenced

Since this study commenced a number of changes have been made to the pharmacy contract. Target patient groups have now been introduced for MURs in an effort to ensure that they are completed for those patients that will benefit most, thereby optimising resource utilisation. A new advanced service, the New Medicines Service (NMS), was introduced at the same time; notably this service was initially commissioned on a short-term basis, further continuation being subject to value for the NHS being demonstrated.[274]

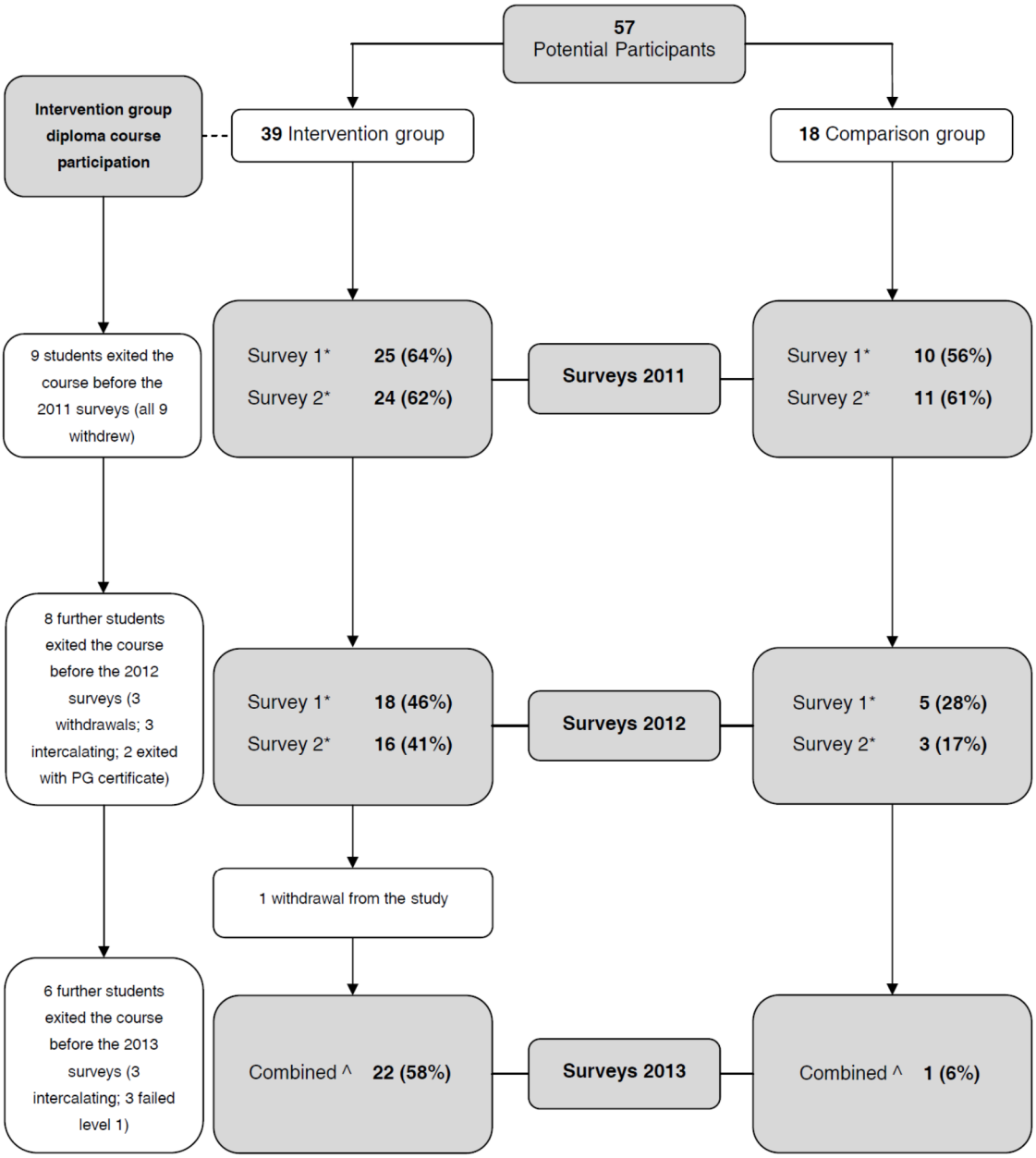
The year on year increase in the number of pharmacies providing locally commissioned services since the introduction of the current pharmacy contract ended in 2011/12 when a fall of 5% was seen.[275] This is potentially due to uncertainty concerning changes in the commissioning arrangements for these new services following the introduction of the Health and Social Care Act 2012, which abolished PCTs and replaced them with GP-led clinical commissioning groups (CCGs).[276]

4.3 Service provision, employment and attitudes and approaches to CPD survey results

4.3.1 Participants

The intervention group (N=39) and comparison group (N=18) described in Chapter 3 were invited to participate in the surveys when they were first conducted in February 2011. Figure 4.1 demonstrates the progress of participants through this study alongside details of course participation within the intervention group.

The response rate achieved for the 2011 surveys from the intervention and comparison groups was 64% and 61% respectively. Rates declined in 2012 to 46% and 28% respectively. In 2013 response rates fell to just 6% in the comparison group, however there was a slight improvement in the intervention group to 58%. The number of students exiting from the course meant that by the time of the 2013 survey the intervention group contained only 16 students who were actively enrolled on the diploma.



* Survey 1 = Service provision and Survey 2 = Employment and attitudes to CPD surveys.

^ The results of surveys 1 and 2 were combined for analysis purposes. In 2013 a single survey which combined the previous surveys was distributed to participants (see Chapter 3 for further detail and explanation).

Figure 4.1 Participation in surveys 2011 to 2013.

Questionnaire(s) were distributed to all potential participants each year with the exception of the one participant who withdrew in 2013. This included those that had not previously responded in an attempt to maximise the potential usefulness of the results. Table 4.1 provides a breakdown of the number of participants that responded to the survey in 2011 and went on to respond in both 2012 and 2013, together with the number that responded in at least 2011 and 2013. Because of the poor response rates,

results presented are limited to a paired-samples comparison of the intervention group at 2011 and 2013.

	Intervention group	Comparison group
2011	25	11
2011 and 2012	17	4
All three surveys	13	1
2011 and 2013	16	1

Table 4.1 Numbers participating in the surveys across the study timeframe.

4.3.1.1 Demography of participants

Some missing data: * N=24

Table 4.2 demonstrates that the 16 intervention group members who participated in the surveys in both 2011 and 2013 had a similar demography to the wider group, although a greater proportion had postgraduate qualifications. During the two years between surveys there was little change in employment with one participant moving from a large multiple to an independent and another leaving active employment in community pharmacy. Similarly no significant changes were seen in working patterns, although the proportion working without the support of a second pharmacist increased from 37.5% to 60.0%.

	Intervention group, complete sample N=25	Intervention group members completing 2011 and 2013 surveys N=16
Male	14 (56.0)	8 (50.0)
Age (years) Mean (SD)	36.04 (8.8)	35.9 (8.5)
Work experience: Mean (SD)		
Years in current post	3.7 (4.0)*	4.2 (0.5)
Years worked as a pharmacist	10.2 (8.0)	8.8 (7.0)
Years in community pharmacy	8.8 (6.9)	0.3 (1.0)
Years in hospital pharmacy	0.3 (0.1)	0
Years in PCT	0.02 (0.1)	0.1 (0.5)
Years in industry	0.1 (0.4)	0.3 (1.3)
Years in other	1.0 (3.4)*	0.9 (2.6)
Postgraduate qualifications	7 (29.2)*	7 (43.8)
Main workplace type:		
Independent	6 (24.0)	4 (25.0)
Large multiple (>25)	15 (60.0)	10 (62.5)
Medium multiple (5-25)	2 (8.0)	0 (0)
Small chain (2-4)	1 (4.0)	1 (6.3)
Supermarket	1 (4.0)	1 (6.3)
Main workplace location:		
Edge of town retail park	2 (8.0)	2 (12.5)
Medical centre	7 (28.0)	3 (18.8)
Rural	3 (12.0)	2 (12.5)
Suburban/Residential	8 (32.0)	5 (31.3)
Town centre	5 (20.0)	4 (25.0)
Role at main workplace:		
Manager/owner	15 (60.0)	8 (50.0)
Locum/relief	1 (4.0)	1 (6.3)
Regular pharmacist (non-management)	9 (36.0)	7 (43.8)
Hours worked at main workplace:		
Less than 10	0 (0)	0 (0)
10-19	0 (0)	0 (0)
20 to 29	4 (16.0)	4 (25.0)
30 to 39	4 (16.0)	1 (6.3)
More than 39	17 (68.0)	11 (68.8)
Hours worked with second pharmacist :		
No second pharmacist	11 (44.0)	6 (37.5)
Less than 10	7 (28.0)	4 (25.0)
10-19	2 (8.0)	2 (12.5)
20 to 29	1 (4.0)	1 (6.3)
30 to 39	3 (12.0)	2 (12.5)
More than 39	1 (4.0)	1 (6.3)

Some missing data: * N=24

Table 4.2 Comparison of the baseline demographic data of the intervention group members who participated in the surveys in 2011 and 2013 with the complete sample (N (%) unless otherwise stated).

4.3.2 Comparison of 2011 and 2013 results

Results are shown for members of the intervention group (n=16) who participated in the study in both 2011 and 2013.

4.3.2.1 Learning

Figure 4.2 compares how attitudes to CPD changed within the intervention group. Participants were more able to access resources (p=0.01, PSTT) and find the time for completing CPD (p=0.007, PSTT), and more likely to disagree that pharmacists can remain competent without undertaking CPD (p=0.003, PSTT). They were less in agreement with the view that CPD should be undertaken without additional payment (p=0.002, PSTT).

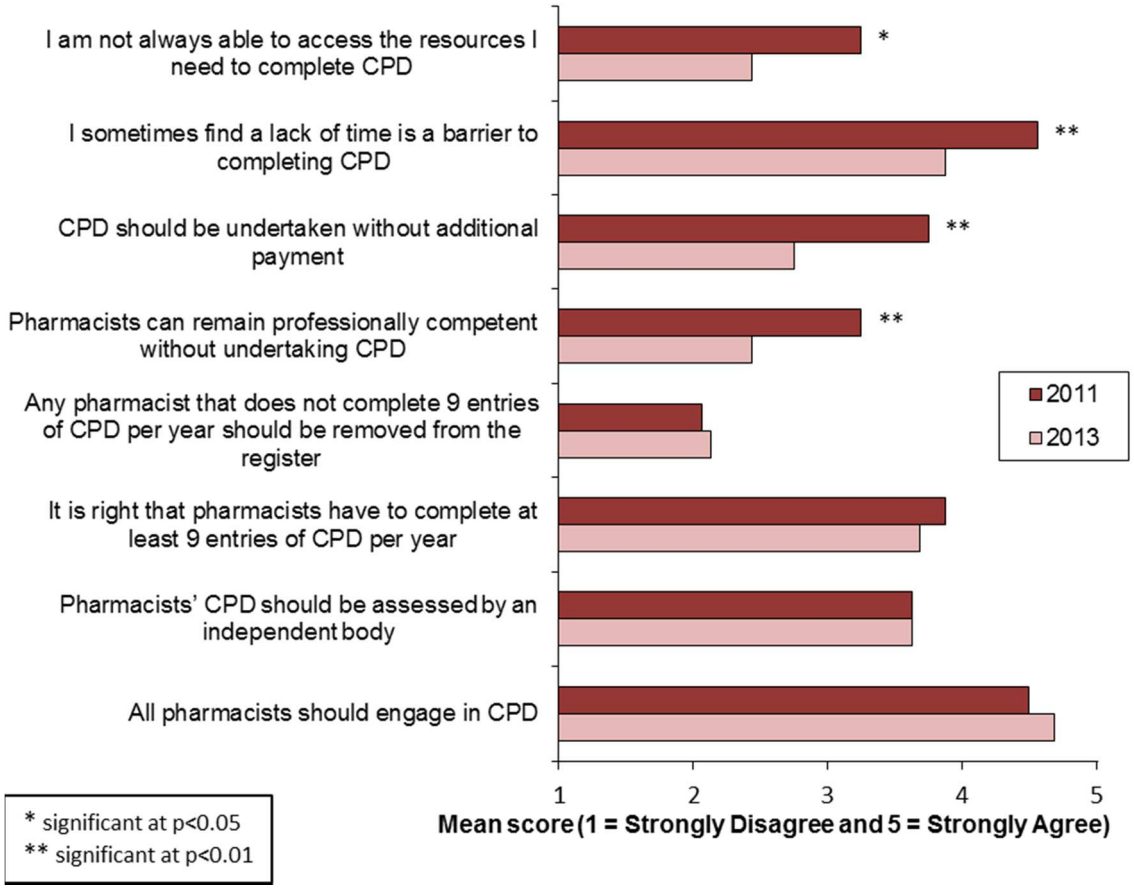


Figure 4.2 Change in attitudes to CPD within intervention group (n=16).

The methods that participants used to identify their learning needs are shown in Table 4.3. Similar results were obtained in both years, with personal interest and reading journals remaining common. None of the other changes since 2011 were statistically significant.

The majority of participants (68.8%) still began their CPD records at reflection with no significant change between 2011 and 2013 (p=1.000, McNemar's test).

	2011 N (%)	2013 N (%)	P value McNemar's test
Competences	15 (93.8)	12 (75.0)	0.375
Personal interest	14 (87.5)	16 (100.0)	-
Critical incidents	12 (75.0)	11 (68.8)	1.000
Feedback from users of services/products	12 (75.0)	8 (50.0)	0.219
Reading journals	12 (75.0)	11 (68.8)	1.000
Self evaluation	11 (68.8)	11 (68.8)	1.000
Talking to colleagues/peers	10 (62.5)	11 (68.8)	1.000
Feedback from colleagues	8 (50.0)	7 (43.8)	1.000
Appraisal	7 (43.8)	7 (43.8)	1.000
Reflecting on other learning	7 (43.8)	8 (50.0)	1.000
Audit	6 (37.5)	6 (37.5)	1.000
Other	1 (6.3)	1 (6.3)	1.000

Table 4.3 Change in methods used for identifying learning needs (n=16).

4.3.2.2 Job satisfaction

A difference in the strength of desire to practise was not found within the intervention group. In 2011, 93.8% of participants expressed a strong or very strong desire to practise compared with 81.3% in 2013 (p=0.500, McNemar's test).

Changes in participants' satisfaction with their main employment are shown in Figure 4.3. The greatest level of satisfaction remained with patient contact and with colleagues and fellow workers. There was a change in the area of least satisfaction from remuneration to the amount of responsibility given. Overall satisfaction levels remained similar but there was a significant increase in satisfaction with recognition for good work (p=0.025, PSTT) and hours of work (p=0.041, PSTT).

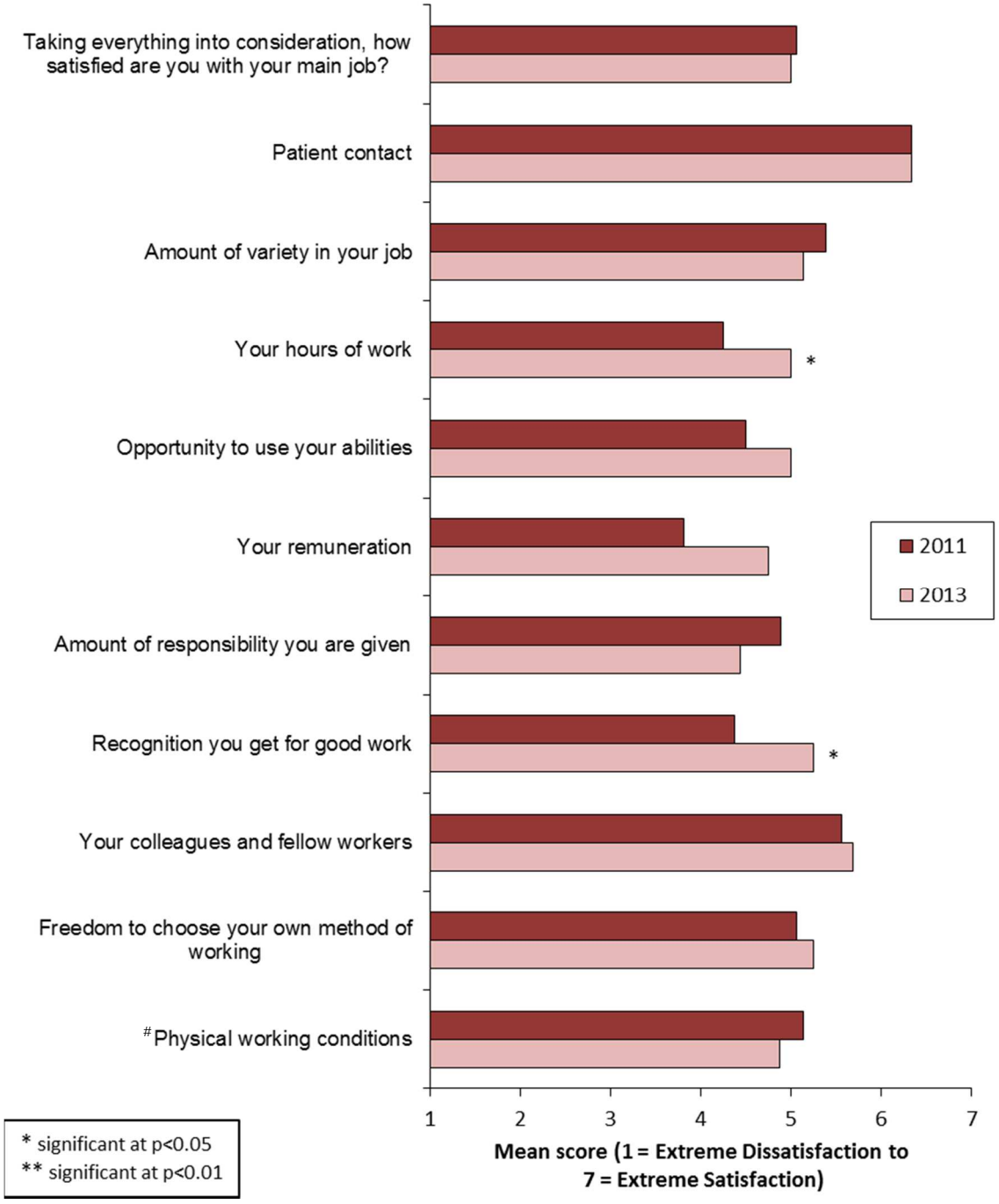


Figure 4.3 Changes in job satisfaction within intervention group (n=16).

Some missing data: # N=15.

When asked to rate future employment intentions on a scale of 1 to 5 where 1 equalled no likelihood and 5 equalled a high likelihood, a Wilcoxon signed-rank test (WSRT) indicated that the median (IQR) likelihood of leaving the employer had increased to 2.50 (1.25, 4.75) in 2013 from 2.00 (1.00, 3.00) two years previously (p=0.013). Likelihood of leaving the sector increased to 2.50 (1.00, 3.00) from 1.50 (1.00, 2.00). This difference was not significant (p=0.056, WSRT). Likelihood of leaving the profession remained unchanged at 1.00 (1.00, 2.00).

4.3.2.3 Practice

One member of the intervention group that participated in both the 2011 and 2013 surveys was not in active employment at the time of the 2013 survey, therefore N=15 for the following practice related results.

4.3.2.3.1 Advanced services

In 2011, 15 (100%) participants offered the MUR service and this decreased to 14 (93.3%) in 2013 because one participant had moved to a newly opened pharmacy which had not commenced the service at the time of the survey. Table 4.4 demonstrates that there were no significant changes in the provision of MURs.

	Measure	2011	2013	P value
400 MURs completed in last financial year	N%	5 (35.7)	3 (23.1) ^	0.625*
MURs (adjusted) provided from main workplace in last working week #	Mean (SD)	6.71 (5.09)	7.36 (3.63)	0.619^{+}

* McNemar's test, $^{+}$ PSTT Some missing data ^ N=13, # N=14.

Table 4.4 Changes in MUR service provision (n=15).

NMS was introduced after the 2011 survey at the end of that year. Participants were asked about their provision of this service in subsequent surveys and therefore the 2012 results are used as the comparator. Fourteen participants in the intervention group completed both surveys and all were providing the service. The mean number of times the service was provided in the last working work was 5.21 (SD 4.74) in 2012 and 4.07 (SD 2.92) in 2013. This difference was not statistically significant (p=0.263, PSTT).

4.3.2.3.2 Enhanced services

Table 4.5 shows how the availability of enhanced services changed between 2011 and 2013. No significant differences were seen in the extent to which services were available. Supervised administration and stop smoking services remained widely available, and there was an increase in the provision of sexual health services.

Enhanced service	2011 N (%)	2013 N (%)	P value McNemar's test
Supervised administration	14 (93.3)	14 (93.3)	1.000
Stop smoking	11 (73.3)	12 (80.0)	1.000
Needle and syringe exchange	9 (60.0)	9 (60.0)	1.000
EHC via PGD	9 (60.0)	12 (80.0)	0.250
Chlamydia screening and treatment	8 (53.3)	10 (66.7)	0.625
NHS health check	5 (33.3)	4 (26.7)	1.000
Minor ailments	3 (20.0)	2 (13.3)	1.000

Table 4.5 Changes in enhanced services offered (n=15).

Figure 4.4 compares changes in the frequency with which these services were provided. None of the changes were statistically significant.

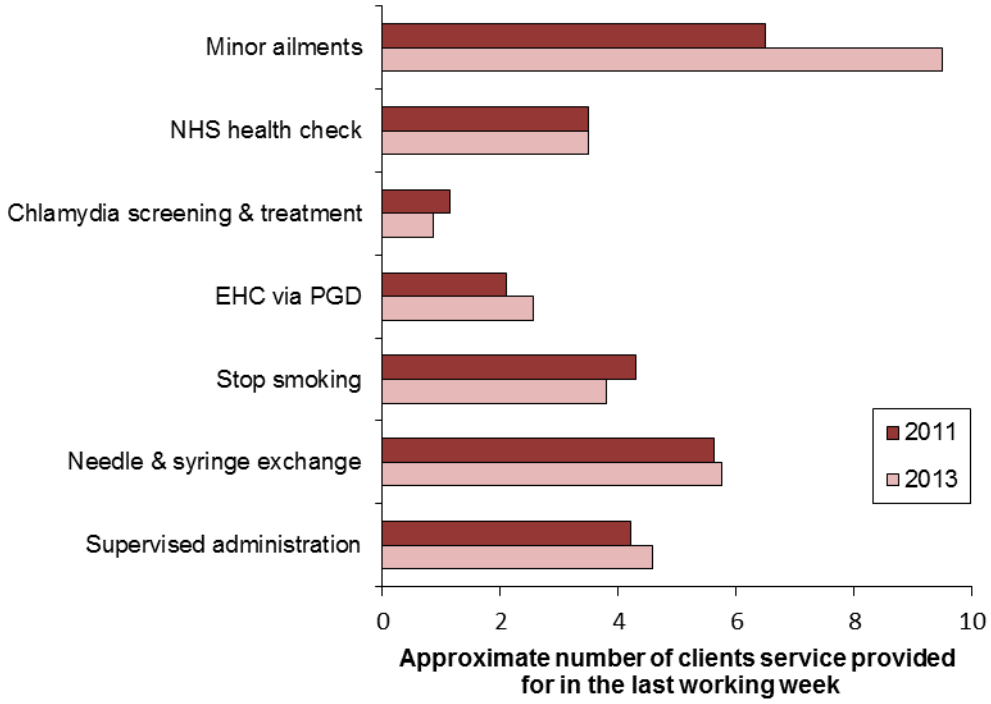


Figure 4.4 Change in enhanced service provision frequency.

4.3.2.3.3 Other services

Eleven (73.3%) participants offered other services in 2013 compared with 7 (46.7%) in 2011. These included the same mix of services stated in 2011 including health checks, influenza immunisation, hair retention, erectile dysfunction and travel health services. Participants were also asked whether there were any other services that they thought should be made available through community pharmacies. Examples included INR testing, thyroid function testing, medicines reconciliation after hospital discharge, and alcohol abuse screening.

4.3.2.3.4 Other practice indicators

Changes in the other practice indicators measured are summarised in Table 4.6.

All 15 participants had use of a consultation room at their main workplace at both time points and there was no significant change in the frequency with which they were used for delivering services. Similarly there was no significant change in the number of contacts with GPs. A statistically significant increase was seen in the number of patients known by name.

	2011 (Mean, SD)	**2013 (Mean, SD)**	**P value** PSTT
Number of times consultation room used in last working week*	11.33 (8.17)	10.87 (5.46)	0.868
Percentage of patients known by name	33.17 (23.99)	45.40 (29.32)	0.045
Number of times contact had with GPs in the last working week ^	10.00 (11.03)	7.93 (6.80)	0.378

* Excludes supervised consumption

Some missing data ^ N=14

Table 4.6 Changes in other practice indicators (n=15).

In 2013 a couple of additional practice questions were asked about confidence with dealing with GPs and delegation of work to staff. Twenty-one intervention group participants responded.

Mean confidence at dealing with GP enquiries was 8.29 (SD 1.35) on a scale of 1 to 10 where 10 indicated fully confident.

Seventeen (81%) felt they had changed the amount and/or types of work that they delegated to staff in the last 2 years. Participants were asked to describe how this had been achieved and their reasons included:

- Improved communication with staff
- Staff training
- Staff coaching
- Empowering staff
- Introducing staff development plans
- Reviewing pharmacy skill mix
- Delegating technical elements of pharmacy services
- Delegating paperwork

4.4 Patient satisfaction survey results

4.4.1 Participants

This survey involved two types of participants: members of the intervention and comparison groups described in Chapter 3; and regular patients at the main workplaces of these participants.

Figure 4.5 demonstrates progress of intervention and comparison group participants through this study alongside details of diploma course participation within the intervention group.

A participation rate of 79% was achieved in 2011 from the intervention group. Participation from the comparison group was lower at 47%. Both rates declined in 2013 to 56% and 6% respectively. Because of the attrition in participant numbers, the results presented are limited to a comparison of the intervention group only at 2011 and 2013. To reduce workplace effects this second comparison was limited to those 12 participants that had taken part in both years and remained at the same workplace (the 'paired intervention group').

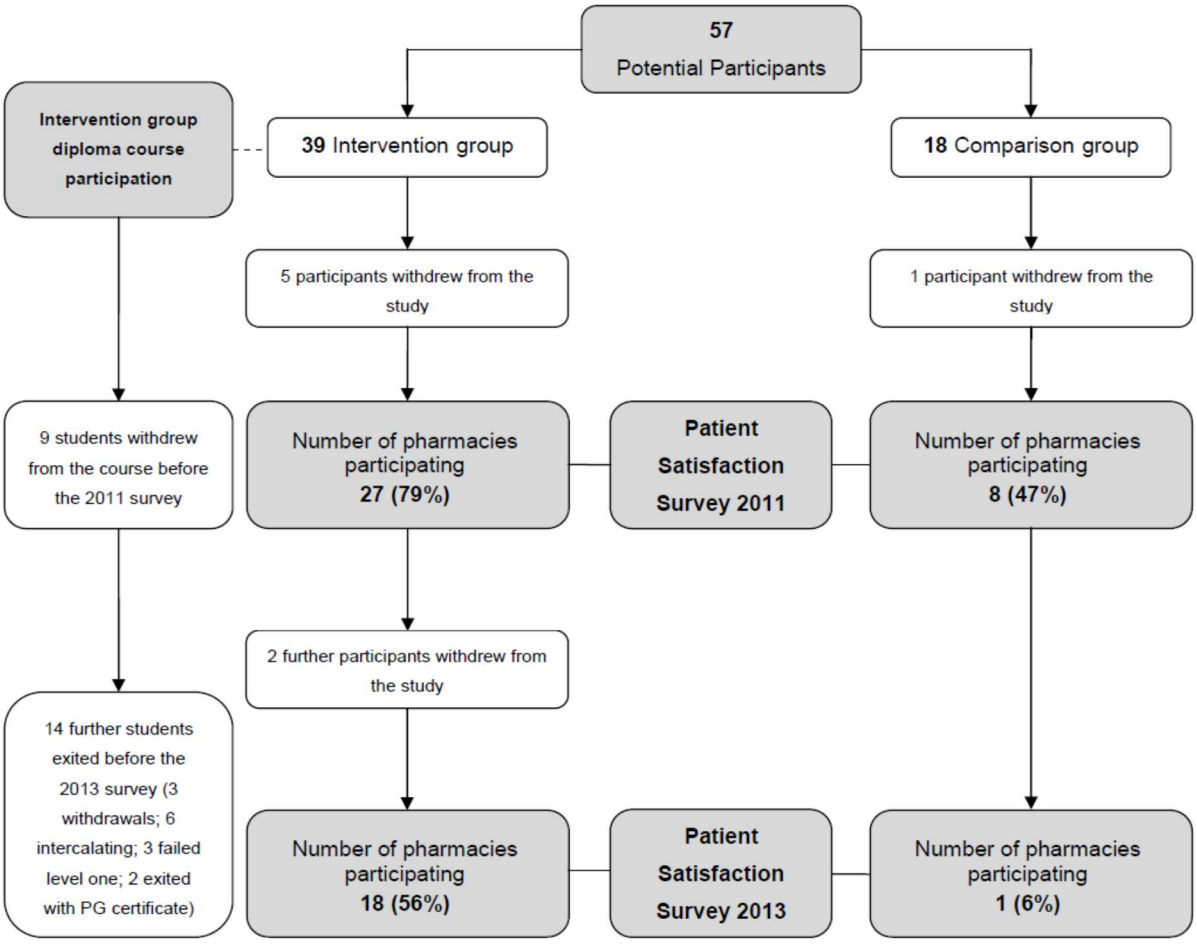


Figure 4.5 Participation in patient satisfaction surveys 2011and 2013.

Patient satisfaction questionnaires were distributed at the main workplaces of all consenting intervention and comparison group members. In 2011, 434 (83%) of 523 questionnaires were returned, decreasing slightly in 2013 to 194 (74%) of 263.

4.4.1.1 Analysis of individual satisfaction measure responses

There was a difference in the proportion of non-responses for the statements included in the two dimensions of pharmaceutical care 'Friendly Explanation' and 'Managing Therapy'.

A total of 628 questionnaires were returned during the period of this study. 'Friendly Explanation' comprised 11 statements therefore 6,908 separate responses were possible, however 270 (3.9%) were returned unanswered. 'Managing Therapy' was comprised of the remaining 9 statements and 784 (13.9%) of the 5,652 possible responses were returned unanswered.

4.4.1.2 Demography of participants

4.4.1.2.1 Intervention group members

Table 4.7 demonstrates that the 12 members of the paired intervention group were of similar demography to the wider participating intervention group.

	Intervention group, complete sample **N (%)** N=27	**Paired intervention group** **N (%)** N=12
Male	16 (59.3)	8 (66.7)
Main workplace type:		
Independent	7 (22.2)	4 (33.3)
Large multiple (>25)	16 (59.3)	5(41.7)
Medium multiple (5-25)	1 (3.7)	1 (8.3)
Small chain (2-4)	2 (7.4)	1 (8.3)
Supermarket	2 (7.4)	1 (8.3)
Main workplace location:		
Edge of town retail park	2 (7.4)	1 (8.3)
Medical centre	5 (18.5)	2 (16.7)
Rural	3 (11.1)	2 (16.7)
Suburban/Residential	9 (33.3)	4 (33.3)
Town centre	8 (29.6)	3 (25.0)

Table 4.7 Comparison of the demographic data for the paired intervention group with the complete sample.

4.4.1.2.2 Regular patients

Table 4.8 compares the demographic information for regular patients completing questionnaires for the 12 paired intervention group pharmacies in 2011 with 2013. This shows that a similar proportion of men participated in both years and that the reasons

for visiting the pharmacy were also similar. In 2013 a greater proportion of respondents were in the older age bands.

	2011 **N (%)** N=156	2013 **N (%)** N=127
Male	63 (41.2)^	58 (46.4)~
Age band:		
18-45	47 (30.3)#	15 (12.0)~
46-65	44 (28.4)#	37 (29.6)~
≥ 65	64 (41.3)#	73 (58.4)~
Reason for visit*:		
Prescription hand-in or collection	134 (86.5)#	113 (90.4)~
Advice about symptoms	7 (4.5)#	4 (3.2)~
OTC purchase	17 (11.0)#	15 (12.0)~
Other/prefer not to stay	7 (4.5)#	2 (1.6)~

* Totals exceed 100% due to multiple reasons stated in some cases.

Some missing data: ^ N=153, # N=155, ~ N=125

Table 4.8 Comparison of patients participating in the survey at the main workplaces of the paired intervention group in 2011 and 2013.

4.4.2 Comparison of 2011 and 2013 results

Figure 4.6 shows results for members of the paired intervention group (n=12) who participated in the study in both 2011 and 2013. Scores improved slightly for each measure but a paired samples t-test showed that these increases were not statistically significant (overall satisfaction, p=0.503; 'Managing Therapy', p=0.416; 'Friendly Explanation', p=0.594).

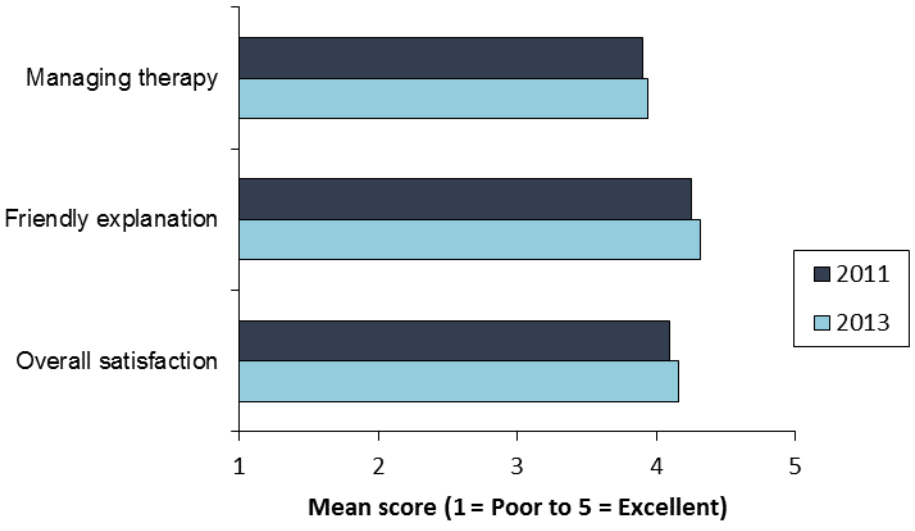


Figure 4.6 Change in patient satisfaction.

4.5 Summary

The results of the surveys conducted with pharmacists and their patients have been presented in this chapter. The next three chapters describe the experience of undertaking the diploma as expressed by selected members of the intervention group during their interviews.

Chapter 5

Themes from the First Set of Student Interviews (Part 1)

5.1 Introduction

Interviews were conducted with postgraduate pharmacists after one year of the diploma course to explore their experiences of undertaking the diploma and the factors affecting these experiences. Participants' demographic details can be found in Box 3.4, page 84.

5.2 Theme descriptions

The main themes identified were awareness of the bigger picture, motivation, confidence, relationships and learning. A full description of the first four themes, grounded in the evidence obtained from the interviews, is presented below. The fifth theme, learning, is described in Chapter 6.

5.2.1 Awareness of the bigger picture

Awareness of the bigger picture encompasses students' awareness of national and government healthcare agendas and how they can contribute to them through addressing the health needs of their local populations, an increased awareness of their own role, and an awareness of the role of other healthcare professionals and how they can work together more effectively. It contains four sub-themes: lack of awareness as a reason for taking the diploma; increased awareness due to the diploma; effects of improved awareness; and student reflections which evidence a wider awareness.

5.2.1.1 Lack of awareness as a reason for taking the diploma

Some students had recognised their own lack of awareness before beginning the course and cited this as a reason for undertaking the diploma. For example, 11F attributed this to her non-UK qualification:

> "I'm an overseas pharmacist so I didn't actually graduate over here so in some respects you can say I had no clue when I started here."

Whereas 1F, a UK qualified pharmacist employed by a large multiple felt it was because she did not have any involvement in selecting which services were provided from her pharmacy. For her the course provided an opportunity to learn more about the services available.

5.2.1.2 Increased awareness due to the diploma

Students described how different elements of the course had increased their awareness of local initiatives.

The ‘Working in the NHS’ study day session required students to consider the service they provided in light of national and local health agendas. Students began to examine the services they offered to their patients, as 8F expressed “you don’t think, ‘ah well what services are we working on,’ and probably [you] should.” 10M described how this session, along with the enhanced services sessions, had helped his discussions with his local GPs:

> “...we’ve learnt a bit about the structure of the health authority and PCT and who’s involved with what and through that I’ve been able to then have discussions on that level with other doctors as well...whereas before I had absolutely no idea about any of that.”

Students were surprised at how interesting they found the session and its associated coursework, including 7F for whom this was an area she had previously avoided:

> “I’d no idea why we were doing all these things and that’s the sort of thing in the Journal you skip over because it’s political and whatever and actually I really enjoyed that and that set the scene for me...”

Using expert facilitators from a range of healthcare backgrounds to deliver study day sessions introduced new perspectives and provided an opportunity to better understand their role:

> “...if you just speak to pharmacists you get the pharmacist point of view and it’s not always the full picture because you’re not a nurse and you’re not a doctor you’re not a, you know, specialist in alcohol services or drugs and whatever. So really it’s kind of enclosed in just pharmacy but if you get other speakers to come in I think it gives a bigger picture and you understand more what their job is rather than what you think it is and I think it gives you confidence to be able to contact them as well.” 3F

Some tutors also helped improve their students’ awareness by discussing pharmacy issues with them.

5.2.1.3 Effects of improved awareness

As a result of their improved awareness many students gave examples of where they had made or planned changes in their approach to work.

4F, a pharmacy manager for a large multiple, described how attending the ‘Working in the NHS’ session and completing the ‘Critical Review of Pharmacy Service’ essay inspired her to think about the nature of one of the services her pharmacy was offering

and whether it was being delivered in the most appropriate way to meet government targets and the needs of her local population:

> "I thought...it will be really beneficial for [the] population where I live 'cause at the moment that service for me doesn't make sense what we do, randomly check blood pressure, but if we've got like a population we need to screen and refer to GP and then we've got feedback from their GP, then obviously it makes sense to our work as well."

She described her thoughts on how she could change this:

> "...I need to speak with [employer], because we provide at the moment blood pressure measuring service in our pharmacy, and after doing this critical review [coursework essay] I thought it would be good to put in place some proper project, for example to speak with the GPs and to say that we can screen actually the population between 35-50 years old, obese people, and to check every for example 3, 6 months their blood pressure…"

Similarly, 10M, a pharmacist working for an independent pharmacy chain described how his superintendent pharmacist had indicated the services he would like to see offered through the company's pharmacies. He explained that the course had helped him successfully argue against implementing these when he felt there would be no demand locally. It also enabled him to propose more appropriate services.

An intercalating student felt that he was more proactive than his colleagues with regard to pharmacy services because of his time on the course:

> "I've found other people actually sort of slightly preventative with trying to help get things done but I really want to actively push the things that we should..." 5M

15M, owner of an independent pharmacy, described how his thinking about the future direction of his business into more pharmacy services had been supported, and how recent decisions had been influenced:

> "...looking at services, looking at how to diversify, looking at…you know I did 'flu' jabs this year, so that's changed my practice, I didn't do it last year but being on the course made me think OK, I might think there's no need for it, [but] there might be a need out there. 36 'flu' jabs later obviously there was a need."

5.2.1.4 Student reflections which demonstrate their wider awareness

Student reflections on the impact the course had had on them demonstrated a wider awareness.

Some students described how their focus had been on ensuring safe practice for patients and that the course had reminded them of the wider clinical role required. 8F captured this when describing how her approach to MURs had changed:

> "…just thinking about the patients in more detail and looking into whether their medication fits in with the guidelines and that kind of thing, because I think you start to forget that that's actually part of what you're supposed to be doing or at least I did, so it would be, 'ah that's a safe dose, that will be fine,' but not actually necessarily looking at it and making sure it made sense so that would be the thing, just thinking more about what you're doing and remembering why it is that you're there."

13M was one of several students that had reflected on their place within the wider healthcare team. He felt that he had a better understanding of his role, the roles of other healthcare professionals and of the "sort of help I can provide to GPs and nurses or receptionists." 2M described his approach as "working to achieve local healthcare objectives within the framework of the national picture," and 7F simply stated that it helped her understand how her role fitted in:

> "I know the bigger picture now so I can see where my bit comes in."

Increased awareness also helped make the role more interesting. 3F explained:

> "I'd probably be more bored in community now than I am currently by doing the diploma...not only are you thinking about what's immediately there like the dispensing and the stuff and the communication with patients...you're thinking about other things like how SOPs are made and behind the scenes...and risk management and more sort of the management side of things."

5.2.2 Motivation

Students described their motivation for undertaking postgraduate education and the UEA community pharmacy diploma; they also described how the course had contributed to their motivation to develop themselves, their role and/or career.

Motivation contains three sub-themes: professional development; employability; and career and job satisfaction.

5.2.2.1 Professional development

A key motivation for undertaking the course was professional development, including the enhancement of existing skills and the refreshing of skills and knowledge that had

deteriorated since qualifying. Some students expressed how they were thinking ahead to future revalidation requirements.

Students described the skills they believed the diploma would help them to develop at the time of their application. Unsurprisingly, for some this reflected the promotional materials distributed at the launch of the diploma. One student revealed that until he received this information from UEA he had not considered undertaking one as he thought they were for hospital pharmacists. The fact there was no cost helped his decision:

> "Enhancing your communication skills, able to deal with the GP practices, and obviously at the end of it enhancing your clinical skills as well....I mean obviously it had a lot more there, but those three ones did it for me...and two, it was free!" 2M

15M explained how he felt the course aligned itself to his own thoughts regarding his personal development. "When I read...the whole outline of the course, it sort of ticked a lot of boxes of what I'd been thinking of." Several overseas qualified pharmacists felt it provided an opportunity to develop beyond the stated learning outcomes of the course, including 4F who said:

> "Well because first of all I am from [country] so I wanted to improve my English; second of all it's a completely different scheme of study and you know community pharmacy in [country] looks completely different."

Students described how the nature of much of their work as community pharmacists meant that they began to lose some of the knowledge and skills they had acquired through their undergraduate training and this was a reason for undertaking the diploma. 3F was typical:

> "…I think with community pharmacy it's so routine that you forget a lot...there's a whole background that you have learnt once upon a time but it just kind of fades into the background and I didn't want to lose that so I thought, you know, a good way to prevent that is do the diploma…You just don't use it and you lose it."

Those that had qualified outside the UK described similar experiences, including 4F:

> "We got a lot of theory in [country] but we cannot use this in practice in the end."

Some students described how the course was increasing their motivation. For example 14F said:

> "I think this course is helping because the more things you get involved with the more you're learning and the more you know and it's really good. If you just carry

on working doing the same job every day checking and just doing your job I think you...you don't, I don't know, I don't know how to explain it but I think it's very easy just to stagnate, just stay where you are."

There was evidence that some students had considered how the diploma could support their CPD as well as the potential revalidation requirements for the profession. This included 7F who said:

"I also realised with compulsory CPD when you start to do it properly you realise there's massive gaps in [your] knowledge and also I knew, my husband's a GP and is involved in all the revalidation for GPs, and I know that that's coming and that I would have scored appallingly."

For one experienced student the structured learning provided by the diploma to support her CPD was more important than achieving a qualification per se.

"It's a way of doing this [CPD]...and going to a goal that is at the end you are more satisfied than just filling a few CPDs online… No I'm not interested in [a] qualification by now." 12F

5.2.2.2 Employability

Many students commented that the diploma was a way to differentiate themselves from their peers. This was important because of a perceived reduction in employment opportunities which they attributed to the increased numbers of entrants into the profession and the current economic climate. These were mostly younger pharmacists who were less established in their careers. 10M represented this view:

"...especially now it's hard to get jobs anything you've got on your CV that makes you better than other people or shows that you're willing to try to do things to improve your standing amongst other people, it's always going to benefit you…"

Student 3F, a locum, had experienced a decrease in demand for her role and so being able to differentiate herself was particularly important:

"My mentality has been it helps to have something extra and to be good at what you do and that way people get more for their money and I get booked."

7F also perceived a shift in the employment situation for pharmacists and so felt that it was important to keep her skills updated:

"… I realised that I hadn't really done any formal skills for a long, long time hence my reason for doing the course. I needed to come up to date and make sure that I

was equipped to deal with the changing environment that's facing pharmacy, that I had the best skills, so that…I mean we're lucky at the moment that there's no unemployment but I think that will come."

5.2.2.3 Career and job satisfaction

Students talked about their ambitions for the future and how completion of the diploma would support these aims. Some described how they had considered moving away from the community pharmacist role and how the diploma had influenced their views; others described how it could and was already enhancing their current roles for the benefit of their local communities and their own job satisfaction.

5.2.2.3.1 Consideration of other roles

One student (1F) felt that the diploma "is going to be my sort of stepping stone...to go into hospital." However, she envisaged herself staying in community pharmacy if she could follow the diploma with a prescribing qualification:

"My long term ambition in life would be to do something like a prescribing pharmacist...because I like the patient interaction...and that's why I think I [applied for] the diploma because I think it's gonna be a nice way, a stepping stone to go on to prescribing pharmacy."

Student 3F described how she had completed her pre-registration year within the hospital setting and had then started work as a community locum for financial reasons. She had enrolled on the diploma because she too believed it would make it easier for her to return to hospital practice at some point in the future and that "one of the benefits of doing the diploma is that you can go in at a higher banding so for me that was a big positive." However, she had now started to think about remaining in community pharmacy, which she attributed to the course:

"I think it's made me more likely [to remain in community pharmacy], you know, in a weird sort of way because the diploma helps you build foundations to be a good pharmacist in the community, but it also gives you scope to what else you could do and what else you could build on."

She was another that mentioned prescribing as a future possibility, but she also felt the course had given her the confidence to move from a locuming role into a more permanent management position. 12F, also a locum, described how the course had led her to consider moving into a more permanent managerial position because this would allow her to have more influence over her work and the types of services she delivered.

Several other students said that they would have preferred a career in hospital pharmacy if it were not for its financial disadvantages. 10M explained “my ideal situation would have been if I’d stayed in hospital and then worked my way through it, but it’s not as financially rewarding.” Participation in the diploma was causing him to reconsider staying in community pharmacy and “to do prescribing as well.”

Student 14F had enjoyed her work as a hospital pharmacist before coming to the UK and explained how her increasing dissatisfaction with her role in community pharmacy had led her to look for a hospital position here:

> “I prefer the clinical side to the business side and [large multiple B] was getting more and more and more corporate in their ways...whereas [large multiple A] you could actually be a store manager but it’s still very pharmacy orientated...but...they also became very, very more business orientated and I think it was just losing focus from the customers, so I decided that I should change…”

However, she decided to remain in community pharmacy, leaving the large multiple pharmacy for a position with a GP-owned practice-based pharmacy. Again remuneration was a consideration, as well as concerns she had regarding her ability to return to a hospital role:

> “I chose this one because the pay cut that I would have had to take was quite huge...not only that but I thought this was...it was closer to what I was used to because the hospital...would be completely different.”

One student (8F) had already left the community pharmacist role (and exited from the course as a result of this) for a position in the pharmaceutical industry. She described her reasons:

> “I think it was just a bit of frustration at like exactly what you can do being in community pharmacy. So at university you’re led to believe that you have a lot more say in the patient’s care and I think that’s very dependent on where you are, so certainly when I was working at [large multiple B] you were lucky if the doctors even picked up the phone to you. When I went to [large multiple E] it was a bit different in that the doctors’ surgeries were quite helpful and they would call me and ask me for advice which was something which was completely new to me… and I guess in hospital that depends again on the team that you’re working in as to whether or not you have any kind of say or input into the patient’s care but I just started to find it a bit frustrating that you spend all of the time at university studying for something and don’t really use all of that information again.”

She acknowledged that things had begun to improve as a result of her participation in the diploma. This followed her approach to the local surgeries to support her with her coursework:

> "They were actually quite receptive to my questions and as a result one of the patient's medication was actually changed and for the better and he'd tried to change it previously and hadn't had any luck so it was quite good to be able to have that effect."

5.2.2.3.2 Enhancing current roles

Many students spoke of how the diploma would help them deliver a better community pharmacy service in their existing roles. 4F explained:

> "I just would just like to really develop a lot of services for the population I work with…I would like to provide more services...better quality of the services to the public."

12F referred to the prescription-checking focus of her role and how the course had contributed to her feeling that she wanted to do more by "...trying to develop service[s]...with more interaction with patients" rather than signing her name on dispensing labels "a thousand times in a day." 2M echoed her comments:

> "In terms of the future, I'm seeing myself as...not only a...a checking pharmacist, but a pharmacist that can actually provide services."

Some stated that they wanted to stay in community pharmacy but to work more closely with GPs. For example 13M said "...I would like to work in association with GPs like a bit like nurses do...reviewing medications for patients..." He felt that progress towards this was making the role more rewarding:

> "I think definitely the fact that the pharmacist is moving to a more clinical role that gives more professionality [sic] to the position, to the, to the job satisfaction…my motivation has increased in practising as a pharmacist."

Taking an active role in the training of others was mentioned by a few students. This would be in addition to current roles, for example as a course tutor.

15M explained how the diploma had influenced his plans for his business and that becoming a prescriber was now a part of this:

"…again that's something which on this course I'm realising with all the knowledge I'm learning that, it will be basically, it would be a sin for me not to go on and do prescribing afterwards. So again now that's in my plan for the next five years."

5.2.3 Confidence

Students described different elements of their experience which affected both their confidence (i.e. belief in their abilities) and the confidence of others in them. They also described how the course improved confidence and the effects of this, which included increasing their own willingness to act and the readiness of others to trust their abilities.

Confidence contained four sub-themes: practice validation; professional image; knowledge and skills; and working with others.

5.2.3.1 Practice validation

Many of those interviewed said they lacked confidence in their competence, mainly around their communication and consultation skills, attributing this to the fact that they had not been independently assessed since registration.

A recently qualified pharmacist described the benefits of receiving feedback on her practice as part of the course:

"...I think it's a way of checking that I'm doing things right as well because you've been taught the theory but you haven't…been sort of taught through how you're actually meant to practice it...I think 'cause you've spent 5 years learning about pharmacy and trying to get it right it's good to know whether you've done it right or not or, you know, how you can improve…' 3F

A more experienced pharmacist shared a similar view when describing her reasons for choosing the course:

"…I don't know if my MURs were any good, I mean I hope they were, I mean you get better at doing them but whether I was doing them correctly…I mean you do these theoretical courses and then the practical implementation of them nobody ever tells you whether it's right or wrong and it's becoming such an important part of our job and so I wanted to have some feedback on it." 7F

One overseas qualified pharmacist, 9M, similarly felt that the course would improve his confidence by helping him know that he was delivering pharmacy services correctly. Another described her uncertainty around delivering MURs before starting the course, and how this had improved:

"…I wasn't sure if I was doing them right; what should I say to the patient, how to approach, and consultation skills and communication skills as well...I remember when I started to provide them I was so clinical that patients were looking at me thinking what am I talking about. So I think now I am much more aware what [the] patient expects from me..." 4F

11F, another overseas pharmacist, also used MURs as an example:

"…so you've got the accreditation, so you're supposed to perform your first MUR and you'd be there with your first patient and you wouldn't know where to start from…

"What have I learnt? Well obviously I've learnt how to perform an MUR properly…you've found all the information, you gather all the information and sometimes it's very important, so yes that's one thing and then like I said I do feel more confident in the way I'm sort of talking to patients."

Students described how the feedback they received on the course increased their confidence in their practice. This included feedback from the course staff, as 1F explained that "after you qualify, no one actually evaluates you and no one actually tells you that, you know, 'how you did this' or 'what are you doing there' and 'how you...' So this is a way of someone evaluating you and telling you, 'this is how you do it, and you're doing the right sort of things.'" Interaction with fellow students was also beneficial to some. 8F said "knowing whether or not you're doing the right thing is quite difficult to know sometimes and just having someone to bounce it off is quite helpful."

One student, 12F, expressed the view that although her communication skills had improved it was her lack of confidence in her clinical skills that was stopping her progressing. She hoped the second part of the course would improve her knowledge because "I need to really have a good clinical knowledge to be able to move."

5.2.3.2 Professional image

Many students described their perception of how they were viewed by others, including other healthcare professionals and their own staff. Participation in the course seemed to change these perceptions.

1F described how since starting the diploma she had begun to receive an increasing number of clinical queries from the dispensers she worked with in addition to the legal and operational queries she was used to. However, she attributed this change to the fact the dispensers knew she was undertaking the diploma and that they therefore

assumed she had increased clinical abilities, rather than suggesting that they would have noticed a change in her performance:

> "I think the dispensers look up to me a little bit more because they think you've probably got very much more knowledge now because you're doing the diploma."

13M felt that his staff compared him favourably with other pharmacists, such as the locums that covered his days off, saying "they value my skills more than other pharmacists now." He also felt that the views of some patients had changed as a result of successful interactions:

> "I've made positive outcomes from consultations and you know...they see me like a more like…closer to a doctor than a pharmacist."

3F believed her manager's view of her had changed:

> "I think it's also given him the confidence in me that you know I'm carrying on learning, that I know my stuff."

Several students spoke about how GPs had begun to view them differently as a result of the successful interventions they had made which had helped build trust. The example given by 10M was typical:

> "He's a nice doctor as it is but there was just one or two occasions where I picked up on something, gave him a call and then after that he'd just phone up randomly and say, 'oh [10M] you know what, I'm really glad you're over there,' and things like that, really cheesy, but it's one of those things that gives you a bit more confidence."

11F described how the nurses that worked in the GP practice where her pharmacy was sited had needed her to demonstrate her abilities before putting their trust in her. Once this was established the practice asked if she would organise monthly training sessions for their staff. This was something that she had mixed feelings about:

> "They couldn't quite understand why I'm there and what's my role and how can I change anything...after proving myself worthy, if you want, then they...they could change their mind and they become more...they would always come to me if they'd got a question...they said we should have...a sort of a training session, so they would let me know in advance what sort of subject they want to, me to prepare...I'm quite excited...I'm really scared."

Students sometimes revealed a lack of self-confidence. Unfavourable comparisons with hospital pharmacists were made. One student, 1F, felt that hospital pharmacists

had better clinical knowledge, and hoped that she would have reached a similar standard on completion of the course. 10M felt that the course was already helping him to achieve this:

> "It's something I admired a lot of the hospital pharmacists for was being able to say, 'well actually the evidence says,' and then say something, and that's something I learnt through the course as well. So when you say that to a doctor, the doctor all of a sudden says 'alright this isn't someone who just counts tablets.'"

Several students spoke of how participation in the course had increased their confidence in their own abilities. 1F was typical of this:

> "It's made me a bit more confident about myself and that I do know what I'm talking about, it's not just nothing."

14F described how she was becoming more confident and that as she did so she was working more closely with the GPs at her practice-based pharmacy, which increased her confidence further:

> "I definitely think I am more confident in my role than what I was when I started and I yes, I mean anything even slightly pharmacy or any queries they [the GPs] have with the hospital they...involve me very much in it and consider me as part of their clinical team...and the more, the more confident I am, obviously the more I engage and the more I ask, it's like a positive circle shall we say."

However, she still lacked the confidence to share some of her work from the course with the practice GPs:

> "I haven't showed the doctors the pharmaceutical care plans of the ones that I've done. Part of me would like to show them but… because we've done them for the course, I haven't done them for the surgery so to speak, part of me would like to show them to get their feedback on it and I'm probably…next year I will be more confident in doing that and saying you know I've done this for this patient…"

Student 15M felt that the course gave him the confidence to meet the expectations of the role:

> "We always say we are the expert on drugs, we should be the expert on drugs."

5.2.3.3 Knowledge and skills

An increase in knowledge and skills improved confidence for some. For example improved knowledge of enhanced services was mentioned by a couple of students, including 4F who said:

> "…I've much more confidence to provide services, I know how to put [a] business plan in place...how to talk to GPs about this, how to talk to head office about it and to put my points in place [about] why I want to provide some service."

She also felt that her improved knowledge of clinical guidance helped:

> "Because I've read the NICE guidelines I think I've got more established knowledge now, more up to date as well, so think I…that one made me more confident."

One student described how his improved knowledge increased his confidence:

> "Just feeling that your knowledge base is improving as well gives you more confidence in your own ability and when it comes to making your own judgement you feel backed up by your knowledge as well." 10M

A newly qualified pharmacist felt improved confidence in her own ability was a benefit of undertaking the course, comparing her own knowledge and skills with those of other pharmacists:

> "Confidence in myself and knowing that I can do things and just because I'm new I've still got the skills and the knowledge or I can improve on the skills and the knowledge because I know what they're meant to be at to be as good as any other pharmacist." 3F

A more experienced pharmacist explained how her increased knowledge gave her the confidence to practice more proactively:

> "[I] probably have [a] more clear mind and be a little more confident too because I know a little more, I'm able to do more…and be more proactive, if you are not…you feel that you are not going to be able to give good advice and you don't try to go out of the normal territory that you know because it is dangerous." 12F

5.2.3.4 Working with others

Several students mentioned that awareness of the role of other healthcare professionals and how they could work together more effectively contributed to an increased confidence.

3F described how, as a result of a study session which covered providing Cerazette® via a PGD, she worked with her PCT on developing a similar PGD in her area. This gave her the confidence to work with the PCT on other issues. She also described how the study day had increased her confidence in dealing with the local GUM clinic "because speaking to the sexual health nurse [who had facilitated the study session] I feel more confident that I can call up the GUM clinic and I know what they're doing and I know what they're capable of..."

Students described how the course had given them the confidence to challenge the clinical decisions of other healthcare professionals. 8F provided a typical example:

> "...I picked up a few cases where things weren't necessarily following the guidelines and there didn't seem to be a good reason for that and gave me the confidence to actually initiate that conversation with the doctors...and initiate it in a way that didn't make them feel like I was having a go at them or saying this is all wrong. I think it just made me think more about how I approach things and getting all the information first and not being scared to ask the questions."

3F also described how her confidence in dealing with her staff had improved:

> "...if there's something that they're not sure or they're doing wrong then I feel that I'm confident enough and it's my position to be able to step in and say this that and the other or say how to do it or this is the answer...so it's given me confidence and knowledge."

5.2.4 Relationships

Students described how different types of relationships affected their experience of their practice and the course, and how these relationships had changed. These included relationships with their peers, other healthcare professionals and employers. The experience of isolation in the role was also described.

Relationships contained four sub-themes: isolation; peer relationships; relationships with other healthcare professionals; and relationships with employers.

5.2.4.1 Isolation

Some students described how they felt professionally isolated in the community pharmacist role and provided a variety of reasons for this.

The fact that community pharmacists tend to work without other pharmacists was pointed out by some, including 4F who said "I've never worked with [a] second

pharmacist, always on my own." This could contribute to the feelings of isolation described by 8F:

> "...it's actually quite lonely if you're working by yourself, especially if you're newly qualified as well. It's quite hard to know who to ask 'cause you have so many questions…"

Commercial rivalries between community pharmacists could cause difficulties in establishing supportive peer relationships, as a recently qualified pharmacist (5M) explained:

> "Once the whole pre-reg aspect and everything had finished it was difficult to have other people to talk to about things...it's still something that's quite bad in the profession; there's not enough colleague interaction...I still think it is quite tribal with regards to different stores and different pharmacists looking after their own shops and places...it's within the company just as much if not more than it is outside the company...I think there's still very much a commercial target driven between managers and pharmacist...and I do think that drives a bit of a wedge between us professionally for how we can do and support each other in different ways."

He also explained his reluctance to seek the support of his peers:

> "...it can be difficult to pick up the phone and just have discussions with other pharmacists...and I don't think it's just me that feels like that. It's not necessarily…because I know there are some people I can pick up the phone to and everything, but it would just seem…I wouldn't say rude, but unusual to ring several times about certain things and things you're unsure about, just to talk about standard things really."

Responsible pharmacist legislation, coupled with long opening hours also made it difficult for pharmacists to establish face to face contact with other healthcare professionals and external bodies such as the PCTs:

> "...you're open when everyone else is closed, so sometimes it gets as late as half seven and we close. So you can't really go after work, can't go before work because we open at 8.45 and we don't close for lunch, so it's just a case of you've got to take a chance and go [to visit the local GP practice during opening hours]." 10M

Additionally a few community pharmacists did not feel supported by their employers, either in their work or their studies. 7F shared her experience:

> "All the managers at [large multiple A], like a lot of the pharmaceutical companies, they're not pharmacists so they're absolutely of no use whatsoever. They just hit you with a target and tell you to get on with it and hit you with a big stick when you don't achieve it. They don't actually give you any guidance or support or training to achieve those goals; they assume you've done it all and that's a massive mistake."

5.2.4.2 Peer relationships

Not all students expressed difficulties in establishing relationships with their peers with some descriptions of pre-existing relationships provided. However, for others the chance to meet other pharmacists was a reason for choosing the diploma and examples were provided of where these relationships had developed.

Some students explained that they had an existing support network of pharmacist colleagues for mutual support. This could be amongst workplace colleagues or with other pharmacists that worked locally. 4F explained how she and her compatriot pharmacists working in the UK supported each other:

> "...so if you've got any problems how to approach [a] problem in pharmacy over the phone you know…just talk about it."

Several students explained that meeting up with other pharmacists on the diploma was a consideration when deciding to apply as it could provide an opportunity to share ideas about practice and discuss problems. They described how this had been achieved on the diploma study days. 7F's description reflected these views:

> "Oh you can just exchange ideas and when you're having a really sort of crap time at work there's lots of other people who are independent who are not within the work place, because if you talk to line managers not only a) they are not pharmacists and b) they've got a hidden agenda and they're coming from a different direction, so it was really nice to meet with pharmacists where we're all facing similar pressures and discuss it and look at the way things, how we've handled, how people have handled various situations... you can share learning and it was really good, the exchange of ideas and I've got to know them all in my group, it was really good."

A couple of students explained how they had developed relationships which provided support beyond the conversations shared at the study days. This included 8F who said:

> "I think it was nice just building up that kind of network of contacts within the area. It was nice actually talking to [4F] quite a lot about staff issues and how to get the best from your staff...and that was really helpful to realise that it wasn't just me that

was the only one that had difficult staff, sometimes that other people had it too and didn't always find it easy to deal with."

Where students shared a tutor this could provide a further opportunity to build relationships:

"We tend to meet sometimes in a supermarket, yeah the late night ones anyway, and I think the last two we've actually, I think we met in a pub. Yeah where we just...arrange ourselves [in] one corner, and just talk about how, what we've done so far..." 2M

15M had tried to arrange additional meetings with his fellow tutees but without as much success as he would have liked:

"Personally I would really have liked to organise a bit more interaction between the colleagues. Now I did try to organise that but as usual people find it very hard..."

5.2.4.3 Other healthcare professionals

Students described their pre-existing relationships with other healthcare professionals, how the course had supported development of these relationships and the subsequent benefits. Very little evidence of relationships with healthcare professionals other than GPs was provided.

Interaction with GPs tended to be of a reactive nature, for example to address prescription queries, as described by 6M:

"I think there's still a false picture of pharmacists. One of the things that we always do is we always phone the surgery when there's a problem so whenever a pharmacist rings a surgery it's always to do with an 'issue' as I call it."

He explained how he had established better relationships during previous courses he had undertaken:

"On the first course I did, which was the diabetic course, I met doctors from another surgery and they and our relationship has built up from there...I took on a...prescribing course with that in mind, having worked on the relationship with one of the GP's because you need to have a mentor, and they were quite happy to kind of support, so that was a twofold positive because one I was learning to be an independent prescriber, but also I was getting a better relationship, working relationship with the GP."

One student felt she had a good relationship with her GP practices, but she did not believe this included the GPs that worked within them:

> "…I think the GP's are really in the distance to be honest, because I would like to attend meetings when the GPs have meetings because if I go to speak with [the] practice manager...I don't think she passes all the ideas and issues [on to the GPs]." 4F

Explanations provided for existing good relationships included proximity of the pharmacy to the GP practice:

> "I've had a bit of interaction...with the other healthcare professionals [GPs and nurses].I think that's because I'm actually based in the surgery." 2M

7F's pharmacy had recently relocated further away from a GP practice and she had noticed a difference:

> "I do think it's about location and it's about building up a good relationship...but yes we used to do all the palliative care scripts because the nurse used to open her back door and come into our back door and so we did a lot of palliative care…and since we've moved we haven't seen a palliative care script at all..."

However, 11Fs experience demonstrated that location within a GP practice was no guarantee of a good relationship:

> "Well let's just say it was no relationship with the actual surgery, the prescribers, things were quite difficult at the time. I mean it was quite embarrassing because you're there in the surgery and if you had a problem on the prescription you couldn't just ring the doctor or just pop upstairs or...'cause they wouldn't see you..."

She attributed this to events in the past and the fact that nobody had ever sought to improve matters:

> "Well I think there was a sort of, I don't know, not problems but misunderstandings or something like that…between [large multiple B] and the surgery, disagreement somewhere…and yes I think nobody did anything to fix it. It wasn't a very nice atmosphere and every time, you know, something happened, you know something was going wrong with a prescription, with a patient, even if the fault was not ours or entirely ours, the surgery would try to put all the blame on us..."

3F suggested that relationships with doctors take time to develop:

> "At [independent C] a lot of doctors ring up but they ring up but mainly because they know [X] who is the other pharmacist there and he's been there for 14 years…so they know him and they trust him and they can rely on him."

Other reasons suggested for a lack of strong relationships between pharmacists and their local GPs and other healthcare professionals were captured by this comment from 5M:

> "We don't have the interaction, knowledge or even confidence to go and speak to other healthcare professionals...in their environment."

Students described how the course had provided "a vehicle to engage with other healthcare professionals" (9M) and how this supported improved relationships with their local GP practices.

Course requirements for access to GP practice-held patient notes and other activities such as observation of GP patient consultations acted as a catalyst for some students to make an approach. This included 1F who said:

> "I have been more proactive in going to meet the GPs and meet the practice nurses whereas before doing the diploma I didn't, but I did once I started the diploma so that they could be more receptive to any requests or anything like seeing the patient records and things like that...I'd have never done that before, while working as a community pharmacist."

Similarly 11F described how course requirements had given her the impetus to address the previously described difficult relationship with her GP practice.

Asking practices to support their educational needs was a strategy used by many students. The supporting documentation provided by the University which the students could use to introduce themselves to GP practices helped make this task easier for some, including 15M:

> "...the forms that were given to us...yes, just opened the door. I had free range, whatever I wanted, and every surgery I've gone to has been the same."

Once in the practice, confidence in dealing with GPs grew:

> "By being there [at the surgery to view patient notes] more I get more opportunity to talk to the doctors and I feel more confident talking to them and giving then information." 3F

Increased *awareness of the bigger picture* (see page 109), in terms of healthcare agendas and understanding of roles, supported students to build relationships with their local GP practices, as did their increased *confidence* (see page 118).

The benefits of these improved relationships were that pharmacists felt more trusted and a part of the wider healthcare team:

> "I think by them knowing that I'm doing a diploma and educating myself I have knowledge that they can use and skills that they can use so in that sense I think they find me more credible." 3F

Students described a two-way relationship in place of the reactive relationship that existed before, with GPs and nurses approaching them with queries and acting on their recommendations. This had a positive effect on pharmacist confidence and made elements of their work easier. 11F explained how it was hard work at the beginning, perhaps because of the existing poor relationship, but how she had persisted in making suggestions to the GPs. Over time they had begun to trust her skills and judgements and act on her decisions to the extent that they had asked her to deliver regular training sessions for their staff.

15M also described how trust had grown over time:

> "The GP's, it took time, some of the older GPs, to actually go with what I'm suggesting, but touchwood to date, everything I've suggested has slowly, slowly come through and eventually turned out to be a benefit to the patient and the GPs realise that and therefore you know the next time they're a bit more likely to do anything like it..."

GPs were felt to be more likely to refer patients for pharmacy services because of these improved relationships:

> "So like with the 'flu' vaccine, we...I went and told them about that as well, so they remembered you from coming out previously and then go, 'oh yeah you were doing that course. How's it going? Is it OK? Yeah we'll refer the 'flu' vaccines now to you, the ones...' So they've been referring quite a few 'flu' people." 1F

Several students also explained how it helped them introduce new services to GP practices, including 7F:

> "I have built up a relationship with the practice manager and I know if there were any issues or I needed their support or help in delivering something then they would back me...I went to them the other day when I had to do the NMS presentation to them, and I was the only pharmacist that they've had, that went and did it."

5.2.4.3.1 Exceptions

A couple of students encountered barriers that they could not overcome when trying to establish relationships with their local GPs. For one this was with one particular GP who was dismissive of community pharmacy and appeared threatened by the prospect of having his patients' records reviewed, whereas 12F found it hard to establish links with any surgery, which she attributed to her locum role. Fortunately her tutor was able to use an established relationship with one GP practice to facilitate her coursework.

5.2.4.4 Employers

Students tended to describe their relationship with their employer in terms of the level of support they received for undertaking the course (see *learning*, Chapter 6).

Students did not describe any change in their approach to their relationships with their employer. However, some felt that their employer recognised changes in the way they worked and that this had a positive impact on the relationship.

5.3 Summary

This chapter presented the first four themes developed from the first set of postgraduate pharmacist interviews. The remaining theme identified, learning, is described in Chapter 6.

Chapter 6

Themes from the First Set of Student Interviews (Part 2)

6.1 Introduction

A description of the fifth theme identified from the interviews conducted with postgraduate pharmacists after one year of the diploma course is presented in this chapter.

6.1.1 Learning

Students described how they combined learning with their existing roles and responsibilities, and the enablers and disablers of learning. Perceived changes in knowledge, skills and behaviours as a result of participation in the course were described. Examples of the benefits of these were provided.

Learning contained four sub-themes: accommodating learning; enablers and disablers of learning; learning approach; and practice benefits.

6.1.1.1 Accommodating learning

Students described the issues they faced in incorporating the course into their already busy lives. The majority considered the workload associated with the course to be high, and described how they struggled to balance this with their regular commitments, both at work and at home. This was contrasted with the undergraduate experience which was considered easier. 2M explained that this was “because I’ve got all the things begging for attentions as well, because I’ve got to have to combine this diploma with what I’m doing at the moment, at the moment anyway. So I’ve got family issues, I’ve got obviously working as a full-time, I mean not only as a pharmacist but also as a manager as well. So...it was actually very late before I started...before I adjusted to the whole thing.” 8F described how she had “completely underestimated how hard it would be to do that [coursework] on top of your everyday job.”

In addition to regular commitments, unexpected or unplanned events also added to the pressures individuals could face. Student 9M explained how he had considered withdrawing from the course due to personal events; he also explained how support from the course director persuaded him to continue.

Students described their approaches to accommodating the course around their existing commitments. These included timetabling coursework with other activities such as housework and family responsibilities. Changes to working patterns were the solution for a few, including 10M who described how the flexibility he had as a locum helped:

> "Because I'm a locum I still take my time off whenever I want it as well and plus it wasn't really affecting my job…I was working the number of hours I was doing, it was still up to me. I could still do the diploma, it didn't mean I had to take particular time out of my job other than the study days which were to benefit me."

However, a full-time role in addition to a long commute were the reasons given by 5M for deciding to intercalate:

> "So I've currently paused where I am in the course...I was finding that commuting back and forth to [town N] with the hours that I was doing...I was quite tired and struggling to keep up with the commitments of the course…"

Working full-time in a quiet pharmacy meant that student 13M could undertake some coursework during business hours:

> "I'm lucky because I'm not in a too busy pharmacy so I will save some time to do my things there when I was a bit quiet."

Even so, there was still a large time commitment outside of this and a preference for reducing working hours whilst doing the course, if other factors allowed, was expressed. 7F believed that adapting to the course would have been a tougher proposition if she was working full-time:

> "I've only got one [child] home now. If I had been working full-time there is no way I would have managed this course. The workload is phenomenal if you want to do it at the level I want to do it at which was put 110% in…"

She also commented on the difficulties faced when returning to education and thought it may have been easier for those that had more recently completed their undergraduate studies "because it's so long since I've done anything, I mean my learning curve was huge so I don't know what people who feel, I don't know what the new university undergraduate course is like, but if you do it [the diploma] when you first qualified you may have covered quite a lot of that stuff, I don't know, and therefore they might have found it repetitive. For me it was great and new." However, a couple of the more recently qualified pharmacists also found the return to studies a challenge, including 8F who commented "writing essays again, it was quite a shock to the brain!"

3F, who had found the course and it's workload a daunting prospect at the outset, suggested regular reminders from the course team would help keep students on track:

> "I think prompts would probably help quite a bit for people to get their, to get themselves into gear…I think it would help for me as well to be honest, even though I've just done education recently you kind of…because there's so much going on in

your life generally you forget or you kind of put it in your list of priorities, but time passes and that priority gets more and more important and you kind of don't realise until the last minute that oh my god that needs to be done and that kind of thing. So I think reminders and prompts would help."

6.1.1.2 Enablers and disablers of learning

A number of enablers and disablers to the learning process were identified. The nature of the tutor relationship was important, as was the impact of employer and GP practice relationships. Comments were made regarding the role of study days and their associated pre and post course work in the learning process. Benefits of using the work-based assessment tools were described by some, although at this stage the majority were focused on their practicalities. Language issues or a lack of practice opportunities presented problems for a few.

6.1.1.2.1 Tutor relationship

Each student had a work-based tutor to support them during the course. The term work-based is loosely applied because the tutor did not actually work alongside the student and was only 'work-based' when visiting the student for a support visit. The tutor role was seen as enabler of learning by the majority of students. The nature of the relationship with the tutor seemed to depend on several important factors from a student perspective. These were:

- Clear role expectations
- Flexibility
- Tutor competence
- Support

Clear role expectations

The relationship seemed to work best where the student was clear that they were accountable for their own development. As 4F said "…it's my course and I should...put the most effort to go through and to learn as much as I can." This included taking responsibility for organising meetings with the tutor. Empathy from the student concerning the demands on the tutor and the fact that this was not their only role also helped:

"… I think it's an awful lot to ask of the tutors on top of their workload. I mean she was great, she always came to the workplace." 7F

Flexibility

The nature of the roles and work environments of both parties meant that a flexible approach was required. This could involve using other pharmacists to support assessment of the student, for example:

> "I had one [MRCF] done by a colleague who, we've worked together several times…another pharmacist yes, yes and my tutor knows him and she trusted him." 11F

It could also involve adapting meeting times to facilitate a better result. 7F explained how she arranged for her tutor to visit her pharmacy on her day off to observe some planned MUR consultations "so it didn't interfere with the workload at all...so we could do it in isolation."

Using technology to reduce the number of face to face meetings was a strategy adopted on some occasions. This included submitting coursework for review by email. 15M explained why he began video recording patient consultations to send to his tutor:

> "I think twice she came in and it just didn't happen in terms of people coming in so that she could observe me…we were struggling to get the mini-CEXs 'cause we needed 10 mini-CEXs, then I thought you know how can I, I think somebody, it might have been on the course, somebody mentioned a recorder...I thought actually I've got a camera, I could, as long as I ask the patients each time, and that's when I started."

Tutor competence

Students expressed views that demonstrated their respect for the capability of their tutors. Several gave examples of how their tutors had shared their knowledge and experience with them and/or their staff. If the tutor did not know the answer to a query students remained satisfied provided they were signposted to the answer or the tutor followed their query up:

> "...if he's not sure himself, he goes on to look at it...sends us an email: 'this is what your meant to do, this is what this means.' Yeah, he's done that a couple of times actually." 2M

Support

Students appreciated the support and encouragement from their tutor described by 5M:

> "I did actually really enjoy it and get a lot from those sessions [tutor meetings]. It was all very supportive and encouraging and, 'go away, look at these type of things, have you considered this element to the disease and these things and talk to patients and include these type of things.'"

Constructive feedback from the tutor was also welcomed:

> "…the feedback was always constructive. It was never like, 'oh that was really good [10M] or that was really poor,' it was always things that were going to benefit me." 10M

In a small number of cases less positive experiences were described and these could be linked to a number of deficiencies aligned to the factors described above. Difficulties were encountered if **role expectations** were not clear. For example in the accountability for organising meetings:

> "I didn't know that I'm the one that had to ask the tutor to come…so I never asked because I was expecting that she was coming and she get [sic] fed up because I was not asking." 12F

Without a **flexible** approach problems could arise:

> "...every time I've planned something it's gone horribly wrong because she's come back to say that 'oh I can't make it now on this day,' so all the planning has sort of gone down the drain if that makes sense...then I'd be like oh I'm not going to bother planning anything because she'll just cancel last minute and then she turns up...so when she came here it wasn't that productive as it could've been…I said OK fine instead of meeting in the pharmacy lets meet at home and we'll discuss the other things that we need to at home. And even then when she came home it was like...it sounded like it was a very big...it was a very big chore for her to come all that way." 1F

A few students questioned their **tutor's competence**, including 6M who said:

> "I'm not sure what skills the tutor had and I think you know, so fellow professional, I don't know the background about that professional, so if they've got like a crib sheet where they just, you know, 'yes you must have this, yes you must have that, no you've not got this,' then I'm not sure of the benefit…"

1F was frustrated by the level of tutor **support** she received when she was struggling, stating that the tutor's standard response was to "just look it up." 8F did not enjoy the dynamics of the relationship with her tutor:

> "I felt a lot of the time like I was being treated like a child and found that quite difficult. I think it's difficult, it's always difficult to go back into learning when you've kind of been through the process and you're qualified and you're a pharmacist and you know you're a professional in your own right but...I think she struggled with that and knowing where to kind of draw the line between helping to give deadlines and asking for things to be done in a certain time, which is fair enough because she has got her own work to do as well, but kind of drawing a line between that and basically mothering us and being...like sending quite nasty emails which were quite stressful to receive. So it was an interesting experience, one I've learnt a lot from [laughs]."

6.1.1.2.2 Employer

Students described the level of support they received from their employer. Support was forthcoming when the employer recognised potential business benefits that the course could deliver:

> "…my previous store manager...he was really enthusiastic and he said 'look I'll give you half your study [days]...this is going to be our gateway of getting the PCTs on our side and you can speak to all the PCTs and make all the relationships with your doctors...'"1F

Whether or not their manager was a pharmacist was significant in the view of some students. For example 13M felt that his non-pharmacist managers did not recognise the benefits of the course and consequently "they don't recognise that the pharmacist, that they need to have some time off for studying and training." Support for his application to the course had come from a previous manager who was a pharmacist:

> "I was lucky because that area manager actually was a pharmacist and I spoke with him and he said yes great go for it...certainly if the area manager is a pharmacist they have a greater understanding of what the course is about…"

Pharmacist managers could also provide direct support, for example through student assessment:

> "The previous area manager, yes she helped me. She was doing for me some mini-CEX as well...So she was very supportive." 4F

A locum pharmacist said that the pharmacy chain that he was currently working for were not concerned about his participation in the diploma providing it did not adversely affect their business:

"…so as long as there's nothing going wrong and we're heading in the right direction they're happy." 10M

6.1.1.2.3 GP Practices

Students described how the course had supported improved relationships with their local GP practices (see *relationships*, Chapter 5). This included providing a reason to approach the practice, and increasing student awareness of how they could work best with the practices and their confidence to do so. Students provided examples of how these developing relationships supported learning. For example 2M arranged to sit in on some GP consultations which had given him "an insight into the doctors' consultation styles."

Some students mentioned how being outside of the NHS IT framework was initially a barrier to learning. Good relationships with their local GP practice could help overcome this:

"…the practice manager had to give me access because my NHS card doesn't give me access to all the notes over there...that was the only way of me actually accessing the computer." 10M

Working within a GP practice was seen as an advantage by one student:

"I get all the doctors notes, I get all the test results and that makes it [the coursework] a lot easier than, obviously if you were in retail I wouldn't be able to do what I do here if I was working in [large multiple A or B]." 14F

6.1.1.2.4 Course elements

Different elements of the course were described in terms of how they contributed to learning. Students also highlighted some of the issues they encountered with different aspects of the course. A commonly held view was that the format of the course was difficult to understand at the start:

"I wasn't sure what we had to do and after gradually when I, when I started to do the course, I realised what I had to do and what the course was consisting of." 13M

Study days developed student awareness and were an opportunity to develop relationships with colleagues and gain exposure to other healthcare professionals. The majority enjoyed their interactive nature and a common topic raised was the use of role-plays. 10M would have like more of these and was disappointed on an occasion where they were not used:

"If there were more role-plays that would have been better and I think we would have been better prepared for the OSCEs. We did have quite a few role-plays, but I think there should be more role-plays, in the, because the role-plays some of them like sexual health we didn't even do them…"

15M felt that there was not enough time to complete them on the study day. However, a couple of students felt they had some accountability for this, including 14F who said:

"…you get given 15 minutes to go through a role-play, they [colleagues] spend like 10 minutes discussing one case not thinking well actually there's three of these things we've got to get through and you know and there was like no focus, but the ones towards the end, especially if say you look at the last study day compared to the first one I think it was a completely different situation. Everybody wanted to know exactly what we should be asking and people were a lot more focused 'cause they'd already done the mock [OSCE]."

Taking time out of his business to attend the study days was a benefit for 15M:

"…when you have your own business you just get caught up…the course has helped me get out and be able again to use the time, you know, a bit more effectively rather than just being here [at work] doing bits and bobs, you know just ambling along, there's always stuff to be done anyway. I could stay here till 12 o'clock at night and there'd be stuff to do."

Each study day had associated pre-study day work. Students found this to be beneficial, although many also commented on what they felt was at times an excessive workload:

"Yes I did enjoy the pre-study…they were all very good, took me to different sources I hadn't considered, made me think about things and did truly lead onto the taught sessions…one of the pre-course elements was quite heavy with the amount of work that was involved in it…there was a lot to read through…it was all very good material...but the volume of it to fully read before the sessions was quite difficult with that one." 5M

One student suggested the workload could be reduced by removing duplication:

"A lot of the things you read them and you read another one which says the same thing and then you read another which says the same thing. I think that's a bit frustrating…it would be nice if somebody could just say, 'ok well we don't need those, you know, cut that down.'" 14F

To cope with the workload some chose to be selective, including 2M who said that "most of the time I find that I complete one pack, 'cause you have two packs, isn't it, to prepare for. So, I fully complete one pack, and the other pack maybe I'm half into it, I mean half way into it or I've only just started it…" However, this impacted on other students, including 14F:

> "I made sure I did all the reading and I did everything I needed to do and the first few it was quite obvious that not everybody had done all the work...and I found that...involved us going over the work that we should have done already."

Completion of a portfolio and use of the GLF supported a more structured learning approach for students (see *learning approach*, page 142). However, students did not find this a straightforward process and some appreciated its benefits more than others. 3F was not alone in viewing it as a paper exercise of little value:

> "…the portfolio hasn't played much of a role in learning. It's been more of the pre-study day work and the study day work that's been really involved in the learning. The portfolio has been a lot of paperwork but I understand you've got to do it to get a mark and it would be standardised and all of that, but it's...I think I see it as paperwork."

Some found it difficult to understand what was required, including 12F who said "the portfolio for me is a nightmare…how do you read this evidence? How do you understand the meaning of what can be claimed and what cannot be claimed on a particular task?" Whilst others adapted as they progressed through the course. 14F described how things improved after the portfolio review session:

> "...we had that meeting on in July, our review and that was such a mission. Everyone warned you map it just as you go along, but you don't and then your review comes and then you spend the whole week before doing mapping mapping mapping mapping. So then what I did I tried to map them as I was doing them and then you did get like a pattern of where you need to target, so you do things or you write specific accounts because I was trying to keep a log like a diary of things that I did, just like jot down words so when I typed it out I had like paragraphs of examples and then I mapped those…"

Few comments were made by students regarding the contribution the different assessment and evidence collecting tools made to their learning with their focus at this stage on understanding the requirements of the different tools and the practicalities of using them.

The nature of the students' employment affected how readily they could collect evidence, as the following examples illustrate:

> "…as a locum some of the areas I can't really comment on or cover because I don't experience them so…" 3F

> "I'm not a manager so the managing bit doesn't really apply to me." 11F

The intensity of the pharmacy business where the student worked could have an impact on the ease of use of those tools which assessed elements of patient interaction:

> "I think 5 or whatever meetings we've had with tutor is not enough to do proper mini-CEX during the working hours because sometimes it's very quiet and I don't have anyone to do any proper mini-CEX and sometimes it's very busy so I cannot get proper feedback as well..." 4F

A busy working environment also made it difficult to have constructive conversations with tutors around other elements of the student's work such as the CbDs. A good relationship between the student and the tutor, as described earlier, appeared to be an important factor in facilitating the effective use of these course tools.

A good relationship with GP practices facilitated access to patient notes and therefore was an important factor in helping students benefit fully from activities such as the CbDs and patient profiles.

Several benefits from using the assessment tools were shared. Some students expressed how much they enjoyed using them, particularly the CbDs. These views were captured by 7F's assertion that "…the case based discussions were fab. I loved doing those because that made me look at patients and subjects…I chose patients and areas that I didn't really know much about…"

Students commented on how course requirements had led them to work at a different level of clinical detail than previously. 8F's description was typical:

> "…you had to look at the clinical side of it and the actual disease and the treatments and whether it was correct, whether it was following the guidelines, all of that kind of thing and that was really useful to actually sit down and go through that for that patient, which is not something that you normally get a chance to do in a community pharmacy."

6M expressed concerns that he could not provide all his patients with the in-depth review that he had undertaken for some patients as part of his coursework, although he

did feel that his general practice had benefitted. 14F felt she needed to further develop some of the skills she had acquired before they could become part of her normal practice:

> "…sometimes some of these things take me ages to do like, you know, that pharmaceutical care plan and we had a test and we had to do one in 10 minutes, I said to [UEA staff 2] it takes me like 2 days, I'll spend an entire weekend on one pharmaceutical care plan doing it, looking, so hopefully that will make that more of a normal way of thinking so it doesn't take me so long to do it. I don't think I'll ever be able to do one in 10 minutes, but it would be nice to make that kind of thing more of a norm..."

6.1.1.2.5 Language

English was not the first language of several students and this could present an additional barrier to learning:

> "English is not my first language and the writing is difficult for me." 4F

6.1.1.2.6 Lack of practice opportunities

13M explained how not having the opportunity to put learning into practice was a disadvantage:

> "…you tend to forget some certain points if you don't practice them…Certain services...I don't do them regularly. Like emergency contraception I do once every year or two."

6.1.1.3 Learning approach

6.1.1.3.1 Prior learning approach

Students described their approach to learning prior to commencing the diploma. For the majority this involved accessing combinations of the following to ensure that their professional requirements for CPD were met:

- Completing CPPE open learning resources
- Attending CPPE workshops
- Attending pharmaceutical company sponsored training events
- Attending employer training events
- Attending PCT training events
- Reading the Pharmaceutical Journal

- Reading the Chemist and Druggist
- Reading materials supplied by visiting medical representatives

Most described their approach as being unfocused and based on personal interest and/or convenience. 10M's approach was notable:

> "One thing I did straight away pretty much as soon as I qualified is I went on the [CPPE] website and just ordered and downloaded every single pack there was. Some of them I still haven't managed to get round to doing.
>
> "…basically I lined them all up, I've got a shelf at home with all my books out, lined them out and it was just a case of looking at which one was most interesting to me."

Where there was a focus to learning this was provided by work-based demands. For example in response to patient queries:

> "…whenever someone asked me a question…I was trying to find by myself answers…like normally Google [for] myself." 12F

Pharmacy services' accreditation requirements were another work-based focus:

> "I made sure that I was [accredited for PCT funded services] so that I can go and work anywhere and still have that skill so I've always wanted to keep up to date with my skills and so all the ones that I have been able to take I have, like sexual health and on the condom scheme, Chlamydia treatment, pregnancy testing, the health checks and things, so I've done all the ones that I can, basically…so I don't really discriminate between which ones I choose and which ones I don't." 3F

However, students were not always clear on how to apply this learning or did not receive feedback on whether they were applying it correctly, as described earlier (see *practice validation*, Chapter 5).

6.1.1.3.2 Learning approach during the diploma

Student described how the course helped structure their learning. This was provided by coursework and its associated deadlines. Pre-study day work directed student learning:

> "I like going for the study day[s] and to have modules to prepare because there are a lot of references which I've never had before chance to go through or to look at 'cause it's so many websites and papers and white papers to read so I think it's like a structure..." 4F
>
> And study days provided milestones:

"…going up for the study day made me, gave me a time, a deadline." 7F

Collating a portfolio and using the GLF allowed students to identify gaps in their competence and reflect on their learning needs, and consequently structure their own learning:

"…because I've never done this kind of like work-based evidence and sit down and write down everything again and again and again. However, I think it's very good because then I can reflect on my work, because at work I don't have time sometimes really to sit down and to think what I've done good, what I've done wrong and so this is the good thing." 4F

10M, who had described how he had ordered all the available CPPE packs on qualifying, explained how his approach had changed:

"…the structured way that we've done it in the diploma I'm being a bit more picky as to what I'm ordering and I know what I need to learn. Obviously over the last year and a half it's been whatever's been in our study days but from now on in our second year it will literally be what I need…"

Students also described how the course provided further opportunities for them to reflect upon their competence. This included reflecting on both their own and colleagues' performances in the study day role-plays:

"…you talk to other people and you do the role-plays and you realise what their faults are and what your faults are and how you can improve or you take on board what their strengths are, how they've implemented something that they've said has really worked for them." 3F

15M described the benefit he gained from watching recordings of his own consultations:

"It highlights things that…obviously you're saying confidently things that you know, that yes I know that and then some things…'oh did I say that, oh no, ok.'"

Finally, students noted that much of their learning on the course took place whilst they were at work:

"A lot of it was on the job and with a repeat prescription you do it and just thought, 'ooh I can photocopy this and keep it to one side, will I need it,' so it was just one of those things that everything you learnt as you're going along you're just thinking where does that fit into what I'm learning. So whilst you're working you see the benefits of it." 10M

Student 2M summed up the benefits of this:

> "…that's the way you learn, rather than...I mean most of my undergraduate days, things I've actually read...I've forgotten them...but things that you actually get involved in, and you find out the solutions yourself, they kind of stay more with you than what somebody has given you…"

6.1.1.4 Practice benefits

Many of the practice benefits shared by students have been described earlier in this and the previous chapter. Consultation skills, an area in which the students felt their practice improved substantially is described here in more detail, as is the impact of improved management skills.

6.1.1.4.1 Consultation skills

The introduction of an effective structure to their consultations as a result of the training was an important benefit for many students. For example 1F revealed that her consultations had previously lacked structure:

> "...it's sort of definitely opened my eyes that there is a process out there, it's not just anything you feel like saying…I mean, I used to never introduced myself, I just assumed they would know who I am, but now I go in there and I introduce myself and I say, 'hello my name is [1F], I'm the pharmacist here.'"

15M described how his approach had changed:

> "...when people come in now I'm more likely to bring them in here [consultation room], more likely to sit down and have a structured conversation..."

Students gave examples of how they believed their improved consultation skills affected patients' experiences, including this example from 7F:

> "I've done quite a lot of work with patients on cardiovascular risk because they don't understand why they have to take all this medication, so I've been able to simplify it and I had one patient he wasn't taking…he was very non-compliant on one of his statins and we were doing risk and he said, 'why has nobody ever explained it like this to me before, the GP's never spoken to me about it before, the nurse has never spoken to me about it before, now I understand it, why has it taken this long for someone to explain it in such a simple way that I can understand,' and so, yeah, I've had some really nice feedback..."

6.1.1.4.2 Management skills

Students described changes in the management of their staff that enabled them to manage their time more effectively:

> "...when it's very busy I do delegate to people and also at [independent C] they have a pre-reg student so I'm always delegating stuff to other people for me to be able to carry on and do the most important things that I need to do..." 3F

5M recalled how a discussion of the pre-study day materials at the 'Pharmacy Management' study day caused him to reflect on how he worked:

> "We had to do an audit as part of the pre-work and everything with regards to this every single person did, as a pharmacist, did the audit ourselves and he [the facilitator] turned round and said, 'why didn't you get the rest of your staff to do your audit?' Everyone was a bit like, 'oh,' so certainly different elements of things like that it is, it has made me think of what can I do, I need to be doing this, is there a different member of staff that we can be using more effectively to do different tasks."

He gave an example of where this had been applied to his practice:

> "…it's a case of using the members of the team for what we can use them…and actually making sure and making it clear to my managers and such like, 'no we really want to be training these people to do it because they can do it,' and my manager at the time [said], 'you can get healthcare assistants to do that? I didn't know that, I thought it had to be dispensers,' so that was certainly one element of it which changed the way we did set up elements of our practice…"

Another student provided the following example of how this had helped him when his pharmacy's robotic dispenser broke down:

> "The course has re-emphasised that how important it is to delegate as a manager. I had to just assign various work to various people, you know, not like their normal roles...I had to engage like two, three people just to receive prescription and explain to customers what the situation means…" 9M

6.2 Summary

The main themes identified from the postgraduate pharmacist interviews conducted after one year of the course have been presented in this and the previous chapter. These were, namely, awareness of the bigger picture, motivation, confidence,

relationships and learning. In Chapter 7, the themes identified from the analysis of the interviews conducted with the same group as the course concluded are presented.

Chapter 7

Themes from the Final Set of Student Interviews

7.1 Introduction

Follow-up interviews were conducted with postgraduate pharmacists as the course reached its conclusion to further explore their experiences of undertaking the diploma and the factors affecting these experiences. These were the same participants whose comments are presented in Chapters 5 and 6, with one exception, 11F, who could not be contacted. Their demographic details are detailed in Box 3.4, page 84.

7.2 Theme descriptions

The main themes identified were effects on the individual, effects on practice, role of the diploma in development, role of the workplace and employment in development, and career plans. A full description of each theme grounded in the evidence obtained from the interviews is presented below.

7.2.1 Effects on the individual

Students described the effect undertaking the diploma had had on them. This included developing their knowledge and skills, increasing confidence and sense of self-worth, and greater job satisfaction. Four sub-themes were identified: knowledge and awareness, skills, confidence and self-esteem, and job satisfaction.

7.2.1.1 Knowledge and awareness

There was consensus among students that their clinical knowledge and understanding had increased since they began the diploma. An increased awareness of NHS organisation and the part they could play within this was also reported.

Student 7F felt that she had much more clinical knowledge than she had before, pointing out the fact that she had qualified over 30 years previously. 2M said that not only had he forgotten things since he qualified but also that there had been many developments in clinical practice and that he now felt his knowledge had been updated. 14F described how an improved clinical understanding meant that “when I’m looking at patients’ notes...or doing a presentation, sorting out a query or hospital letter, everything just makes so much more sense.”

Several students described how their awareness of the wider NHS and its priorities had developed, and how this impacted on the way they approached their role. A good example of this is provided by 5M, who although intercalating since part-way through level one could still describe the impact it had on him:

> “I did certainly pick up a few things...so particularly with regards to trying to forge links...the most recent example I can think of was an LPC, local pharmacy evening that was two or three weeks ago and they had a lot of the sort of service providers in there and the colleagues [other pharmacists] that I was with were just sitting down having their dinner, I went out, actually had conversations with I think every group of people that were there, made some links, made some professional contacts. So hopefully setting up something with some Norfolk health trainers and everything in a few weeks time in our store...”

7.2.1.2 Skills

Students described how they felt their skills had developed in two areas: management and communication.

7.2.1.2.1 Management skills

The abilities to write business plans, manage change, implement protocols and coach trainees were some of the management skills mentioned by students. However, the most widely described management skill was delegation to support staff.

It was clear that for many students the first step in utilising their staff more effectively was to provide relevant training. Examples were provided of developing the underpinning knowledge of products sold and services delivered, introducing the business principles behind medicines procurement and supply, and improving communication skills. For example 9M described how he had shared an aspect of his improved communication skills with his staff:

> “Yeah, it has helped and not just me, even those that work under me. I’m able to teach them the technique of gathering information on the phone...Now they can leave precise information for me that I can look through.”

13M similarly described how an improvement in his own awareness of pharmacy services demonstrated that he was in a better position to involve his staff:

> “I mean it’s clearer to me what other members of staff [are] required to do in the pharmacy and hopefully, well you know, I try to also involve them and explain why we are doing this and why we are doing that, but before, because of less awareness of certain services and the outcome of the services, I wasn’t able to explain and to involve my staff appropriately.”

For many students a further step was to then ensure that they deployed their staff more effectively. When describing how they achieved this a recurring theme was that an

increased confidence had enabled them to be more assertive with their staff. 4F explained how focussing on patient outcomes was helping her to achieve this:

> "I think I'm trying to be more assertive now...because I haven't been. Giving them [staff] more responsibilities as well and some specific tasks to do...but my end point and my main issue is just to educate as well like about OTC advice, conditions, because I would like to make sure that our service is the best and the most appropriate for the patients."

15M described how he held a meeting which not only involved the staff in identifying their development needs but which also supported him in identifying the strengths and weaknesses of his pharmacy:

> "...as a result of the course I've actually had a staff meeting which basically has helped me identify some of maybe the deficiencies I've had in the pharmacy and some of the plus points I've had in the pharmacy. It's enabled me to develop a much more robust structure to my staff with regards to their training and their development needs."

5M summed up the importance of using staff effectively when saying his aim was "to make sure we've got the right people, [in] the right place to make sure we can deliver the right services at the right time for our patients."

7.2.1.2.2 Communication skills

Students described a variety of ways in which they felt their communication skills had improved, including communication with staff and with other healthcare professionals. 5M described how his increased knowledge and confidence enabled him to communicate more assertively with his managers.

The area of communication that students most commonly described improvement in was their consultation skills. 4F described how her approach had changed:

> "...my consultations are a little bit different because I do focus not only about just to check medicines but as well taking a little bit more the patient background, family history, medical history, so it's like taking a bigger picture and to treat every patient much more individual..."

3F felt that her consultations were now a structured conversation which allowed her to obtain the information she needed whilst managing her time with patients more effectively:

"I mean the conversation flows...and I think I've been able to ask more directed questions and [be] more concise, to be able to get the information I need from the patient rather than them waffling on and on."

7.2.1.3 Confidence and self-esteem

Students described how their confidence had increased whilst undertaking the diploma and demonstrated an increase in self-esteem. There was a strong link between these changes and the increased knowledge and awareness previously described (see page 149).

1F was one of several students that described an improved confidence in delivering existing services; "I now feel more confident doing all the other services that have been introduced, so like the NMS, the MURs...you have more of an idea of what you were talking about and what you were telling the patient." Others described how they felt more confident to introduce new services. For 3F this was the most important benefit from the diploma; "I think the important thing from this diploma is the fact that...I'm more confident to be able to develop services or take on services."

Some students spoke of how their confidence in their own abilities had increased:

"I'm more like confident now in my own ability as well in terms of when I get a customer request for information I'm able to deal with that and that's because of being involved in the diploma. So it's more like, it's added in to me more knowledge now." 2M

15M was one of several that described how he was now more likely to query a doctor's prescribing:

"...I'm much more confident in dealing with the other members of the healthcare team. I'm talking mainly, talking about relationships with the GP but also the relationships with the hospitals. I suppose pre my course I would say I would very rarely question a hospital prescription. But now I realise that...there can still be some gaps or amendments that I could make that would benefit the patient."

8F described how she was now more likely to intervene when locuming at the weekend:

"It's given me more confidence when I do have to cause chaos on the weekend with things that can't wait until Monday."

The increased confidence experienced by the students seemed to have a positive effect on their self-esteem. "You're definitely a better pharmacist after you've done the

diploma," said 1F. 10M explained this saying "I like finding things out and it's the diploma that's kept my brain ticking over and it's kept me thinking and questioning things and probably why I feel that I'm a better pharmacist for it," adding, "it just makes you feel better and you also amongst your colleagues and your peers you're respected more as well and you feel more like a healthcare professional." Others shared similar feelings of being more respected, including 3F who said "I feel more important, like what I know and the information I can pass on is more valued," adding, "it's given other people confidence in the role of pharmacists."

7.2.1.4 Job satisfaction

There was a wide consensus among students that their job satisfaction had increased as a result of doing the diploma. This was attributed in varying degrees to the increased knowledge, skills and confidence which enabled them to change the nature of their work in a way that had positive repercussions.

The feeling of being able to make a difference to patients' lives was a common theme when discussing improved job satisfaction. In some sense this represented a return to the initial motivation for becoming a community pharmacist:

> "The reason you went into pharmacy was to say, you want to make a difference to somebody's life, a patient's life, but doing this course...it sort of made you realise that you know what, on a day to day basis you do make a difference and it sort of helps you think I have made a difference in somebody's life today...So definitely a lot more job satisfaction." 1F

The chance to diversify away from what several described as the boring checking role into more interesting clinical work, such as service provision, was another important factor in improving job satisfaction. For example 2M explained:

> "Oh yeah it has changed my satisfaction because I'm not just there doing just the odd day to day checking. I can do some services now which I feel that's more a pharmacist's role because most of them are repeat prescriptions anyway or you're just there checking how accurate the dispenser has dispensed it isn't it? So but now you're actually, I mean with the programme that I've been involved with I've developed myself clinically and I am able to provide all the services..."

13M felt similarly, and held an increased sense of value in his role:

> "I think my enjoyment has increased, definitely. I feel like I'm more important to patients and also to GPs...I'm not only seen as somebody that is giving out

medications but as somebody who can dispense also knowledge regarding medications and make a difference in the patient's life."

15M provided an example of how much his job satisfaction had increased:

"Oh God it's tenfold. Tenfold. When you've got people coming back and you know that you took them off a drug that was causing them headaches, you know you've taken them off a drug that has been giving them aches and pains for the last seven years, the statin that they've been on and in three days you've told them to stop taking it and the pain's disappeared and they've been on Voltorol®, diclofenac, Ibugel®, Transvasin®. They've had to move out of the marital bed because of the pains and you're the one by just saying, 'stop taking it for a few days,' it's you know, it's quite, you know I don't think, yeah you can't buy that really."

7.2.2 Effects on practice

Students described the effect of undertaking the diploma on their practice. Improved relationships with other healthcare professionals, particularly GPs, and changes in the provision of pharmacy services, besides other improvements in practice, were recounted. Three sub-themes were identified: relationships, service delivery and all-round practice improvements.

7.2.2.1 Relationships

The majority of students believed that their relationships with other healthcare professionals had improved, providing examples of the benefits this had to their practice, and suggesting how these improvements had arisen.

7.2.2.1.1 Examples of improved relationships

Examples were provided of improved relationships with a variety of healthcare professionals including nurses and providers of PCT funded ancillary services. However, the vast majority of examples related to local GP practices.

An example commonly shared was that of receiving an increased number of queries from the local surgery. 3F's case was typical:

"...they have approached me a lot more about referrals and even, I dunno, things like the hospital requests and finding medication and asking about what they can prescribe, what they can't prescribe and what procedures they should be following..."

Furthermore, it was felt that the responses made to these queries were more likely to be acted upon, as illustrated by 15M:

> "...they're now ringing me more often than they used to. It's not a great deal but it's much more often than they used to. And yeah, when I do make suggestions or recommendations now they're more likely to be acted upon."

Other examples were shared which further provided evidence of improved relationships with GP practices. 2M shared that his nearest surgery had recommended his services to another surgery in the town, which had been acted upon even though he was not their nearest pharmacy. 6M was one of several pharmacists that had been invited to attend clinical meetings with his local GPs, and 15M explained how he was reciprocating his surgery's support for his diploma training:

> "They now feel free to send their GP trainees to me, so like for example this year I've had six GP trainees come to my shop for four hours in the morning and I just go through what goes on in the pharmacy. And the same thing with the nurses, they feel comfortable sending their trainees to me to put them through their paces, really, about pharmacy."

7.2.2.1.2 Practice benefits

Students shared examples of how their practice had benefitted from improved relationships.

One advantage was that it made it easier to resolve problems. 1F explained that having "picked up loads of errors from a particular surgery" she visited them and that the relationship meant "it's just a bit easier to talk to the doctor and they respond to you a lot more."

Students felt more able to query GPs' prescribing. As 10M described:

> "Ask a lot more questions. Query a lot more things. Bring a lot more up with the doctor, but at the same time it's different things to what I used to query previously...So where it be simple things before like quantities or whether someone, say someone has an allergy and you know about it so you get the doctor to change it. Now it's more a case of well so and so is on this inhaler, have you tried this inhaler first..."

Similarly 14F explained "I'm becoming a lot more actively involved in the clinical side...whereas previously I wouldn't have, I would have just done as I was told and just

left it at that. Whereas now I'm identifying gaps and I'm saying why hasn't this been done and should this be done..."

Examples were provided of GPs referring patients for pharmacy services, such as the blood pressure checking service provided at 6M's pharmacy, and several students commented that they hoped to build on these relationships to develop further services in the future.

7.2.2.1.3 Suggested reasons for improved relationships

Students described how their improved knowledge and awareness enabled them to develop the relationships they had with other healthcare professionals. This seemed to be linked with their increased confidence and self-esteem which enabled them to engage on a more equal footing.

2M was one of several students that described how his improved clinical knowledge and awareness of how the NHS worked contributed to him being able to develop relationships with his local GPs:

> "I'm more...knowledgeable about disease conditions now...I know what the doctors are looking at now, in terms of when, in the patient, they try and manage the condition. I know what the clinical guidelines are now...In terms of the practice, the surgery I know what ticks their boxes now in terms of the QOF. And I know how I can be...able to contribute to them achieving the objectives and the target in terms of the QOF as well."

3F explained how this helped her:

> "I'm more confident talking to healthcare professionals. I know where to find...information that's evidence based and more reliable...in order to be able to make recommendations...and I also have more of an idea of how GPs are structured and what they do in their practices and how I can help influence what I want and what they want because I have more information about...things like the QOF points...You know what makes them tick."

6M felt "very empowered" because he could now "talk to the GPs at a similar level." 7F similarly expressed that her relationships with doctors had been strengthened by her improved knowledge which meant she was "starting to talk under more equal terms" with them.

Positive feedback from GPs and successful interventions created a virtuous circle where students became more confident and likely to extend their working relationship

with the GP. 7F's experience was typical; the surgery had told her that they always responded to her requests because they knew that it would be something they should address. 10M felt that his local GP had confidence in him because "things previously which I used to check...every single time, now I've developed a relationship...where he's happy for me to just get on with it and then just notify him afterwards."

Course requirements were fundamental in establishing relationships for some students, as explained by 13M:

> "The fact that sometimes I have to go and see the GP to gather clinical biochemistry results, testing results, for certain patients. I think that at the beginning it was a bit awkward but eventually I improved my relation with a couple of, two or three GPs, and they were actually quite welcoming and willing to explain things to me and provide information and discuss about the care of certain patients and...I think sometimes the GPs have learned themselves things or I've pointed out certain problems in the care of certain patients that they didn't notice."

One student explained how she had used the CbD tool to build relationships with the GPs and how this had further boosted her confidence in dealing with them:

> "I think it's because I am probably just discussing more cases with them...So yeah I think from that point of view I'm a lot more confident." 14F

7.2.2.1.4 A notable exception

One student described a different experience. 12F said she would not feel comfortable offering advice to a surgery about their prescribing practices, other than when a significant clinical intervention was required on a patient's behalf.

7.2.2.2 Service delivery

An increase in the quantity and quality of services provided was described, together with a greater staff involvement in their delivery.

7.2.2.2.1 Increased service provision

Many of the students specified the services they were now offering and explained how this represented an increase on what they had offered prior to commencing the diploma. 2M's comments were typical:

> "Yeah, I mean in terms of the services, before I went into the course I was doing basically the methadone supervision... MURs and the prescription interventions...I wasn't offering smoking [cessation] but now I'm able to offer that and that is based

on the training I've gone through. In terms of Chlamydia I'm able to do that now because I've gone through the training. I've got my certificate and I've made the PCT aware of that so I'm actually a recognised pharmacy that offers Chlamydia testing and also I offer the treatment as well...What I used to do before was to sell EHC over the counter...but now I'm actually able to give it out on PGDs because I've done the training on that and the course has helped me to achieve it as well, so yeah, good stuff."

One student had become involved in developing pharmacy services at the commissioning level:

"I have used and taken the skills that I have picked up on the political environment in which we work in and the wider understanding of the NHS and developed my role...I've been one of the main drivers in [county] to get Champix® as a patient group direction in [county], because smoking cessation is my area of interest...and we're putting together a briefing paper not only for Champix® but also to get QuickMist® on our formulary." 7F

7.2.2.2.2 Improved quality of services

In addition to providing more services, many of the students felt that the quality of their offering had improved. The most commonly used example was the MUR. 6M gave an example of how he believed his MURs were now more 'in-depth':

"[My] MURs are more involved and much more focused on specific conditions... Patients on hypertension, I check the guidelines on NICE, make sure that whenever we do any blood pressure checks we discuss their medication and whether it's in line with recent guidelines."

A couple of students pointed out they were not happy to be "churning them out as quickly as possible" (10M). 12F said that "the main thing going out of this course for me will be being able to do medicine reviews properly, not these cheating things that you do to get the £28 to the pharmacist because...they're slightly greedy." For 10M the satisfaction he derived from providing a thorough MUR service was worth "more than the money that the company will pay for an MUR. So I might not be seeing...the 400 that I'm allowed to, but I feel that I'm making more of a difference to people that I do see. As opposed to just seeing everyone for the sake of meeting targets."

7.2.2.2.3 Support staff utilisation

Students explained how they had trained their staff to be able to deliver the technical aspects of services such as using blood pressure monitors and carbon monoxide

monitors. 6M's example provided a good illustration of how students were utilising their staff to support service delivery:

> "So the staff are trained to do blood pressures now...and we've now gone to the second stage which is to find out a bit more about the lifestyle...previously I would have done the blood pressure check myself and taken the reading whereas now the staff are involved...once the blood pressures have been taken they also take alcohol intake, how much physical activity they do...and then I will...discuss the information that we've got [with the patient]."

10M explained how involving staff in this way increased their job satisfaction "because at the end of the day they want to be part of the health service and not just dispensing...it's a case of getting them involved as well."

7.2.2.3 All-round practice improvements

Students felt that there had been an improvement in their all-round practice. For example 4F said "I think I do more consultations...and I do more interventions as well...even, you know, educating patients, giving some materials to read or giving advice." 15M explained how he felt when discovering patients were not receiving the most appropriate treatment:

> "I have to stand up on the patient's behalf and make sure that the changes are put in place. Whereas previous to the course I might not have done that."

8F was another who thought her practice had changed as a result of her involvement in the diploma:

> "The [methadone] prescription had been written incorrectly and it was to cover a bank holiday. And I had to call the out of hours GPs who kind of washed their hands of it and said, 'we're out of hours GPs we definitely don't prescribe methadone ever, ever, ever.' And I had to call around...kick up a fuss until they promised me that they'd provide me with a prescription...and yeah I like to think that I would have wanted...to have helped the patient in the past anyway, but I think knowing more around kind of the dangers to patients if they don't get it and also what we can do kind of made me push it even further and to make sure I got the answer I wanted or basically told them what I wanted and asked them to do it."

7.2.3 Role of the diploma in development

This theme describes the role the diploma played in the effects on the students and their practice described above. The issues with the diploma identified by the students

are also included within this theme. Four sub-themes were identified: course components, linking learning to practice, influence on learning approach and tutor role.

7.2.3.1 Course components

Students commented on the value of various elements of the diploma, including the study days, portfolio work and assessments.

7.2.3.1.1 Study days

Students felt that the study days helped develop their clinical knowledge and skills in the topics covered. One area highlighted was the introduction to useful resources that the students had either not previously accessed, or had used in only a limited way, as described by 10M:

> "...it's told me which resources to look at and where to get those resources from. So the clinical knowledge summaries, NICE guidance, BTS, SIGN, all these ones that you knew about before and you used them here and there at uni, but it, I don't know, you're just sharper now. So as soon as you want to know something about COPD, if you want to know something about diabetes, you know exactly where to go, where to look for it... And it just means you're better informed of your actual decisions as well."

The input from expert facilitators was particularly valued, as 14F explained, "you can't read that in a book...to take a day off work and go and listen to somebody talk or somebody of that calibre to teach you, any day I would do it...it's just actually invaluable," and she contrasted this with a disappointing experience on one occasion:

> "...this lecturer basically took the information out of perhaps the CPPE pack, converted it in to slides and sat there and went through the slides. And to me that's a waste of my time...if he was a diabetic specialist nurse and he was telling me about really proper clinical situations or situations he's been in or addressing...that would have been so, so much better..."

Study days provided further opportunities for learning through sharing experiences with other students who had different backgrounds and worked in different areas. As 2M put it "you can rub minds with your colleagues." He viewed this as an advantage over distance learning courses where "you're left out there and it's just for you to get on with it." 13M also highlighted this difference:

> "OK, you apply what you have read from the books about pharmacy practice...but another thing is to discuss those issues as well with somebody that has got a higher

knowledge than you and also discuss with other pharmacists so you can see if what you're doing is the right thing."

One student, 14F, expressed a different view, sharing that she did not benefit from learning with her peers and in fact found it frustrating because she felt she sometimes contributed to the sessions without getting anything back from her colleagues in return.

7.2.3.1.2 Portfolio

While a few students were unsure about the usefulness of the portfolio, considering it something that would perhaps be useful later as a reference source or for revalidation purposes, a more prominent view was that it contributed to the learning process.

The various exercises undertaken, including using the assessment tools, linked learning with practice. 1F contrasted her diploma experience with that as an undergraduate:

"...it brought the whole thing together...it's not only studying, whereas university, you're studying, you never apply that knowledge anywhere. So whereas here, it's what you're studying, it's what you're going to apply day to day..."

Although most students found the GLF overly complicated, difficult to use and requiring too much evidence to demonstrate competence, they had begun to find that used in conjunction with the portfolio it helped measure progress, which could then be reflected on and further development needs targeted:

"...by doing a portfolio, and because we need to do this mapping or even writing essays now, always there's the point about the reflection. So I can sit down and think what I've done so far with patients or in that area and then I can, once I've learnt some new things, I can reflect and see what I can do better in the future." 4F

7.2.3.1.3 Assessments

Level one of the diploma concluded with two assessments, the OSCE and an MCQ paper. It was the OSCE that drew most comments from the students and perhaps surprisingly the comments were positive, with a couple of students even expressing that they 'loved' and 'enjoyed' the experience. 1F was one of the students that felt it demonstrated to her the progress she was making. Similarly 10M said that although it was a frightening experience his confidence increased as a result, adding "I thought the OSCE was excellent...the study days and the OSCE, they put this diploma above other diplomas that I've heard about." A couple of students felt that some stations did not reflect their practice, but despite this they had still learned from the experience.

Several students commented knowing they would have the assessments gave a focus to their learning, including 15M who said, “I do need something like that to get me to rise to the occasion.”

7.2.3.2 Linking learning to practice

The work-based nature of the course contributed to the development of students’ by linking the learning they were undertaking with their practice. Students provided examples which illustrated this.

It was common to draw a comparison with the undergraduate experience. 10M captured these views when he said:

> “...you spend 4 years studying at uni, but you never get to find out how that’s relevant to your practice. Whereas when you’re studying and working side by side, you go to a study day one day, the next day you come back and every prescription you look at you think I know why this is this way or this needs to change and just having that become second nature to you and [you are] able to question things more and understand things more.”

Furthermore, it was felt that whereas after first qualifying “you lose a lot of that [clinical knowledge] because you’re not practising all of it and the bits that you lose, you don’t realise that you could actually use” (3F), the close link between learning and practice would enable new practices to continue.

For example 1F said:

> “...there's a few things that I’ve now implemented in my day to day working as a pharmacist, so I think they are skills that will stay with me for life.”

At the time of interviewing the students were working on their audit projects, and many of them cited this as an example of how coursework was directly linked to changes in practice. These included identifying and resolving an issue with non-adherence of staff to standard operating procedures, introducing a blood pressure monitoring service after identifying a patient need for more support, and the sharing of audit results leading to closer working with GPs.

Other examples of the practical implications of coursework were provided, including the change management work which in one case led to the development of a new service in partnership with the PCT and in another was used by a PCT in developing their case for a varenicline PGD, and the requirement to access patient notes which helped develop relationships with GPs.

7.2.3.3 Influence on learning approach

Several students spoke of how their approach to learning had been influenced. Undertaking the diploma exposed them to topics that they would not necessarily have approached as part of their own CPD and an increased reflective approach was apparent.

Several students compared their approach to learning on the diploma with how they had previously approached CPD, including 3F who said:

> "I think if I wasn't doing the diploma you'd kind of slip into a routine where you only do the CPD because you have to and you'd do the most basic ones to get you through and you wouldn't learn anything and you'd just carry on practice without learning and improvement, whereas this makes you want to learn and makes you want to improve..."

1F explained her previous approach to CPD was "to do them on topics that I know I'm good at" and that now she felt that "I'd just have been comfortable the way I was and being a bit lazy about the whole thing" if she had not participated in the diploma. Her reasoning for this was that "you just become complacent because you think fine, you've finished your degree, you've done all the studying you need to do and now you're doing your job and you're doing your work so you don't need to do anything extra" whereas now "when I look at other people's CPDs and I compare...I think you know what, this is not an up to...standard CPD."

Several students spoke of how they now took a more reflective approach to their personal development. A good example was 5M, who was looking forward to rejoining the course after a period of intercalation. He described how his approach had changed so that he now carried a notebook in which he noted down "any issues, any sort of interactions or anything I've made or any other scenarios...documenting them...taking a more sort of deep interest and thought into...everything." He would then review his notes, asking himself, "[are] there any other follow ups, any other learning needs from any of these scenarios...? But it does drive a certain amount of the CPD and things I do as well, making it a bit more relevant rather than actually just plucking things."

10M described how he had a much more targeted approach now:

> "It's literally a case now of identifying areas that I need to study for...So more concise as opposed to like...before ordering all the CPPE packs and seeing which one you can get through first."

Other students described how working though a structured programme meant they were now exploring topics in more depth and taking a more self-directed approach to learning. For example 7F said:

> "I've now got the skills and understand the depth in which you have to know it. I know where the websites and the sources are and the quality that I'm looking for and the depth and so I'll be looking at the overall picture, the monitoring, all the clinical aspects which I would have done on a very superficial level before."

15M differed from the more common view, saying that he would probably need to enrol on other courses after the diploma to maintain a direction to his learning and development.

7.2.3.4 Tutor role

Students described the value the tutor role held for them. It was useful to have someone "to share ideas with, fall back on and make sure you're going in the right direction." (3F). Most students held their tutor in high regard, such as 2M who saw his tutor as "a role model in terms of [his] understanding, [his] knowledge."

The value of feedback from the tutor was commonly commented upon, particularly the feedback received based on observations of practice, because it not only highlighted areas for improvement but could also provide reassurance that performance was satisfactory. 10M was typical in feeling that part of the value was that the tutor was observing him at work so that "it's not an actor in front of you, it's a real patient."

6M commented that it was important that the feedback was realistic and that sometimes he adjusted his behaviour because his tutor was observing. He gave the example that he would not normally introduce himself to a regular patient whom he was on first name terms with, but he did if he was being observed by his tutor, who had previously marked him down for this.

7.2.4 Role of the workplace and employment in development

Students described how the nature of their workplace and employment affected their progression through the course and the development of their practice. Three sub-themes were identified: pharmacy workload, employment status and external influences.

7.2.4.1 Pharmacy workload

The workload that the student faced in their workplace could have an impact on their experience of the diploma. A quieter environment provided greater flexibility to accommodate coursework within the working day, although it could mean fewer opportunities for work-based activities. Those in busier pharmacies felt this sometimes impeded their development and practice.

A few pharmacists explained how their employment within quiet pharmacies allowed them to undertake some coursework whilst at work. 13M felt lucky because of this and said "I'm not sure if I would have done, if I was able to carry on if I was in a particularly busy pharmacy...that's probably why a lot of people dropped out in the first place." 12F explained the downside of being in this situation saying "…if I don't have clients, I don't have possible case based discussion or MURs or things like that…"

As a locum, 12F also worked in busier pharmacies and faced difficulties here too. "When you are busy you don't have time for really deep questions," she said in explaining the problems she had trying to respond to a GP's queries, adding, "it has to be something that you know [off the top of your head] and I mean some of the questions that she's asking is questions that I mean is more a prescriber question. So I'm not able to be, I don't have time doing like four hundred items." She felt a busier environment also impeded her ability to build relationships with patients saying "I don't have time to build up a relation with the customers and obviously if I go and drag someone into the consulting room, the others get stuck."

A small number of students felt that although the diploma had advanced their practice, a busy work environment made it difficult to achieve all that they wanted to. 6M was one of these:

> "One of the things I need to balance is how can I balance what I would like to do with what I need to do and what is essential. There's always a conflict in my mind with that."

1F admitted that the quality of her practice decreased at busier times:

> "…in my busy periods, like when coming up to Christmas and we're busy, I know I'm going to go back to my ways and just sort of OK, fine, just get this workload done…but when it's a bit of a quieter…then I think I will look at the prescriptions in more detail…"

A couple of students recounted how workload issues had contributed to their exit from the course, including 9M who said:

> “I withdrew…because of the nature of my work and because I’m the only pharmacist there. We deal with a lot of items, deal with a lot of queries…So I had to withdraw.”

7.2.4.2 Employment status

The permanency of a student’s employment, the number of hours worked, and the location of their pharmacy could have an impact on their experience.

In contrast to 3F and 10M, two locums whose experiences of the diploma were positive, 12F was clear that the course was “not set up for a locum”. She felt that she did not have the relationships with surgeries and patients that more permanent employment would have allowed, and this restricted her opportunities for learning. She would have preferred to have been sent theoretical case studies, although she also said the diploma was “lacking in practical stuff.” She did contrast her situation with other students who she believed would have had a better experience based on their employment, giving the example that if you are “working in the middle of a surgery the situation is easier to start to do [things] by yourself.”

The work-based requirements of the course meant that part-time working could make things difficult if not enough opportunities for learning were encountered:

> “...because I worked only two days a week, so I found that a bit difficult, collecting the evidence.” 1F

Location within or adjacent to a GP surgery was usually beneficial, because it fostered closer working with GPs and facilitated access to patient records. 7F offered some words of caution regarding finding oneself in this position:

> “So I’m lucky where I am now, I have access to patient notes...but...I have to remember to work within my competency and what my main job is and sometimes that can cloud your decisions... sometimes I wish that I was just the community pharmacist in the market town without the access, because sometimes you pick up other things that you might be missing, because I’m looking for more detail or have access to more things which then complicates the picture. So I am very mindful of that now, that I’m not trying to do somebody else’s job...”

7.2.4.3 External influences

The bureaucratic processes involved in setting up new services were mentioned by a couple of students. 15M said “it’s about being able to jump through the hoops [put in place by] the PCT or the Clinical Commissioning Group.” 10M said that he was

“struggling a bit to get support from our head office. Not because they don’t want us to do more, but just because they're a bit slow...I’ve been speaking over the last few weeks with the superintendent to get those [new services] up and running.

7.2.5 Career plans

Students described their career intentions. Two sub-themes were identified: development of existing roles and career changes.

7.2.5.1 Development of existing roles

The majority of students wished to remain in community pharmacy and described how they would like their role to develop. A common viewpoint was for a move away from the technical aspects of the role into a wider, more patient focussed role building on closer GP relationships and further self-development such as qualifying as a prescriber.

This desire to move away from technical roles such as dispensing and checking was closely linked with job satisfaction. 4F said “I’m really tired of checking prescriptions, it’s too stressful, it’s too much stuff, so I would like to do more consultations,” and gave an example of where she believed her skills could be better employed; “so far I’ve done a lot of interventions. People don’t use inhalers properly, they are not reviewed on an annual basis, doctors do step-up treatment without checking inhaler technique, or if they do adhere to the treatments I think it’s a lot still to do.” 15M had already begun to make this change and explained why, saying “I see my future more and more as I have done over the last six to eight months...I’m actually moving further and further away from the dispensary bench...the government have been saying it for years; services, services, services...I can’t even harp on about it enough – side effects to drugs, hospital admissions. These are all things which could have been prevented, provided people were having proper full medication review. It’s a no brainer really. It is a no brainer.”

Building on improved GP relationships to develop collaborative working was a view commonly expressed by students. 6M demonstrated he was already thinking about improving collaboration with his GPs:

> “...one of the things I’m looking at at the moment is an MUR form with QOFs on the left-hand side so that it adds value to the GP...”

4F had similar plans:

> "My next plan is to go to [the surgery] and to speak about the QOF points and how we, by doing MURs or other interventions, help to look after the population. So maybe they would like me to collect some specific data about the patient, maybe they would like me to do some special consultation about epilepsy, pregnant women or blood pressure awareness..."

Several students felt that obtaining a prescribing qualification would further support their aims to develop their clinical role and envisaged undertaking clinics with the co-operation of the GP surgeries.

5M, who would shortly be rejoining the diploma after a period of intercalation, said he was doing this so that he could develop a more clinical role for himself.

7.2.5.2 Career changes

Some of the students described how they might look for different roles in the future. For most this would be in addition to their community pharmacy work. A smaller number were unsure how they would progress their careers whilst utilising the skills they had gained on the diploma.

The opinion that the diploma would benefit careers was widely held, as exemplified by 13M:

> "I hope to finish this diploma...and that's something that will put myself to a better position also for future employment and also for perhaps even a career change in future. So I feel like that I can, yes, I've got more opportunities now than if I didn't do this course."

A teaching role, such as a teacher practitioner or CPPE tutor, was an ambition for a couple of the students, such as 1F who commented that the diploma "just sort of opened my eyes to what you can do. It's not just other people who do it; it's possible for you to do it as well."

For some of those looking for additional roles it was because of a desire to have more control of their work. For example it was for this reason that 3F would consider going into a managerial role:

> "...I wouldn't be afraid to go into management...it's definitely given me the confidence to be able to manage staff and develop services, work to a high standard, have my own patients that I can look after and have good relationships with the GP surgeries. It's given me a basis to be able to do that so I think in the future it would probably lead that way."

It was for similar reasons that a couple of the students were contemplating purchasing a community pharmacy business, including 10M who said “I would like to own my own pharmacy to be able to put all this that I’ve learnt, have the power to be able to put those services out there myself and not relying on anyone else.” He did add that if finances prevented this then he would look to move away from community pharmacy, perhaps at a role in the pharmaceutical industry, because as an employee community pharmacist “you’re either driven by targets to deliver services, which aren’t always relevant and aren’t patient centred or you don’t have the support that you need.”

A couple of students were uncertain whether the diploma would help them progress their careers, but for different reasons. 14F appeared overwhelmed by the possibilities:

> “I can see areas where I can be used, like for example like Parkinson’s [disease] yesterday. I can see that that’s an area where a pharmacist could further develop. I suppose I don’t really know how to go about if I wanted to get more involved in a specific disease. I suppose I don’t really know how to go about it. But I did think I would need to sit down with [Dr K], who is my boss, and say discuss with him what we’re going to do with me. But I don’t actually know.”

In contrast 12F felt demotivated by her diploma experience and said she did not know how the diploma would help her career, giving the example “working in a surgery doing medicine reviews, I really don’t find that I’m up to the right standards.”

7.3 Summary

This chapter presented the main themes identified from the follow-up interviews conducted with the postgraduate pharmacists. These were effects on the individual, effects on practice, role of the diploma in development, role of the workplace and employment in development, and career plans. The next chapter describes the findings from the interviews conducted with the senior managers responsible for the education and development at the multiple community pharmacy companies whom some of these postgraduate pharmacists were employed with.

Chapter 8

Themes from the Employer Interviews

8.1 Introduction

Interviews were conducted with the senior managers responsible for pharmacist education and development at four multiple community pharmacy companies to explore the factors influencing their decisions on pharmacist education and development. Brief demographic details of participants can be found in Box 3.5, page 91.

8.2 Theme descriptions

Two main themes, effects of changes in the profession and responding to changes in the profession, were identified. The minor theme, changes within the profession, provides context for the main themes. A full description of each theme grounded in the evidence obtained from the interviews is presented below.

8.2.1 Changes within the profession

The approach of the large multiples to the development of their pharmacist workforce described by participants reflects the changes within the profession over the last 5-10 years, in particular the increased focus on service delivery and the requirement for the profession to support national and local health agendas.

Participants shared the view expressed by E2 that “the way pharmacy’s changed, we’ve obviously got a greater clinical focus, particularly because of the service provision” and that “we’re not asking pharmacists to dispense, we’re asking pharmacists to spend the time with their patients actually giving out medicines and giving advice.”

E3’s comment emphasised that this was a recent change:

> “I think up until recently, I think the last 5 or 6 years, people, community pharmacists, probably haven’t had to use their clinical skills in the way that they’ve probably brought them from university. It has very much been a supply process.”

Concerns regarding future developments, especially in light of the current financial climate and changes in NHS structuring were raised by E1 who said, “if we’re looking at commissioning and what will that focus on next year, I think it’s a little bit of a guessing game for us at the moment,” adding “if the DoH take a lot more money out of the whole pharmacy dispensing process then we’re gonna start running into risk ‘cause actually...and that’ll be, won’t be just for a multiple, that’ll be right across the board.” Uncertainty about what this meant for development of the pharmacy workforce was expressed by E3 who said "I recognise that there will be a need for development.

Obviously we will have the implementation of Local Education Training Boards; I don't know how that will work with national multiple organisations." Nevertheless future development needs were already being considered because of the potential impact on these businesses. E4's comment captured this thinking:

> "If pharmacists start to take on more and more roles from a healthcare professional point of view as opposed to just dispensing, then we would want to make sure that our pharmacists are equipped to do that, because, you know, presumably because there'll be a benefit, there'll be a revenue stream for us."

E2 anticipated an increased demand from her pharmacists for postgraduate education in the future "because their job role's changed."

According to E1 the proposed introduction of an integrated MPharm degree would mean that "we're going to have a legacy workforce left that will have a different skill set to what the new pipeline pharmacists coming through will have." She felt that this would further increase demands on the employer to provide training for the first group and to ensure that there were appropriate roles which utilised the skills of new graduates.

The need to work with national healthcare agendas was reflected in the business approach of these companies. For example, E1 explained "our current business strategy...is around making our customers feel good about themselves, recognising we've got an ageing population." It was recognised that these agendas needed to be driven at a local level as well and that this was the role of local management.

8.2.2 Effects of changes in the profession

Participants described the effects of changes in the profession on their businesses. Two sub-themes were identified: pharmacist skills gap and pharmacist demands for development.

8.2.2.1 Pharmacist skills gap

Employers have specific requirements of the community pharmacist role within their organisations which reflect the changes in the profession previously outlined. A common theme was that training and development was required beyond that delivered by the MPharm and the pre-registration performance standards to enable pharmacists to perform to the required standard.

E3 said that "management of people has become a far more important part of being a manager, of pharmacy practice, for our pharmacy managers in our business, more so now than it has been in the past." Therefore, management skills were a focus of

additional training requirements because “from a newly qualified’s point of view, we have confidence that clinically and professionally they’re competent and part of the pre-reg year is about developing that professional and clinical competence, but actually their first year in practice is really where they need that management development support.”

A distinction was drawn between the clinical skills of newly qualified pharmacists and their more experienced colleagues, as highlighted by E3:

> “We’ve done a training needs analysis recently around some clinical conditions and our newly qualifieds are in a far better place clinically than perhaps some people that have been in the business for some time.”

E1 told a similar tale:

> “When we’ve looked at MURs or we’ve looked at NMS, and some of the hurdles people face and what the concerns are, there are a smallish, and I won’t say it’s a massive cohort of people, who have been out of Schools of Pharmacy for a while now, and actually don’t have a confidence, so actually if I’m talking to a type 2 diabetes [sic] I can give them some lifestyle advice but what else I’m I saying to them? What is the difference between some of the historical medication and the new drugs that have come out?”

Some common development needs were identified. E1 gave the example that when a new service is introduced “there needs to be a level of up-skilling and development associated with all of those who implement a service, but that is very much focussed on building some clinical depth to back those PGDs.” A further common area of development was identified when “we actually realised the skill that was missing from our pharmacists wasn’t the clinical depth of knowledge because obviously they’ve covered that in their undergraduate courses. It was actually the softer skills.” The importance of developing such skills was identified by E2 who said “it’s all well and good for people to be very clinically sound and have great practice-based research but if they can’t communicate that information to their patients or their peers or other healthcare professionals to gain the respect they deserve then for me that’s a big loss.” E4 underlined the business perspective:

> “So looking at how they can drive targets, how they can build better relationships with the GP surgeries in order to grow their business. So it’s very much kind of looking at their role as a manager who can really sort of own the results of their branch from a commercial perspective.”

8.2.2.2 Pharmacist demands for development

There was a feeling that most pharmacists recognised that change was happening and that they needed to be able to work differently. Therefore, they wanted to ensure they had the necessary development. As E1 said, “I think they’ve got that, they’ve got that actually there will be...more services happening locally.” E3 commented that “we have pharmacists that are involved in delivering a specific service, or want to get involved in delivering a specific service and they want to understand how they get the development for that...”

E1 believed these changes had brought about a shift in the views of pharmacists towards the company’s development days:

> “The feedback we get...is overwhelmingly positive to the extent that we used to deliver them at external venues and actually the pharmacists are saying to us ‘just in case somebody changes their mind about doing these days can we just bring them in-house, don’t give us any lunch, we just want to come out and have the experience of the learning experience.’ And that’s them coming back, recognising the current climate and actually putting solutions in place themselves, which is great that there’s...it’s a pull, it’s definitely not a push.”

Requests for external training such as postgraduate diplomas were also common, as shared by E2. “We’re getting people who are enthusiastic about it, want to be there, have done the research about whichever course they’re doing.” E3 felt that diplomas might be “almost a tick-box exercise for people” adding, “I think it is just seen as sometimes, as ‘something that I can put on my CV,’ as opposed to really understanding ‘OK how will this really benefit my practice, how’s this gonna benefit the patient, how’s this gonna benefit the business, what am I gonna do differently?’ I think it is very much seen as a, ‘right I need to do this, I need to get some funding for it, I need to put it on my CV and see where it takes me.’” E1 felt that a change in the employment situation for community pharmacists was having an impact, describing how she perceived pharmacist opinion after a recent training event:

> “For the first time ever I think I absolutely got a sense of ‘do you know what...this profession is...it is becoming saturated with pharmacists. Actually you’re now saying to me we could do something different, recognising that probably supervision change is around the corner and that could mean that my day-job changes anyway, but actually your almost giving me a career protection by creating this different role for me.’”

Although it was felt that most pharmacists were excited by the changes there was a belief that the attitudes and behaviours of some pharmacists meant that training programmes did not always achieve an improvement in performance.

E1 related this to postgraduate diplomas stating that “once somebody undertakes a qualification it doesn’t necessarily mean that they change their practice” and E4 spoke about the development of management skills:

> “We expect our pharmacists not just to be pharmacists, but to be branch managers ultimately and that’s not what everybody actually wants to do. So sometimes it’s not a skill issue, it’s a will issue.”

As the only non-pharmacist amongst the participants she alone expressed the view that a large minority of pharmacists used their clinical and professional obligations as an excuse:

> “It sometimes can feel as though pharmacists will sort of hold that up as a bit of a barrier to say well I have to operate this way because I’m a pharmacist and I think, you know, that the reality is that as a business like any other community pharmacy business we need to be efficient and therefore we can’t have pharmacists just being pharmacists, you know, and other people being managers.”

8.2.3 Responding to changes in the profession

Responses to the changes identified in the profession and their effect was divided into three sub-themes. These were pharmacist responsibilities for development, company responsibilities for pharmacist development and career opportunities.

8.2.3.1 Pharmacist responsibilities for development

A common view was that pharmacists had an individual responsibility for their own development. E4 felt that clinical development was particularly a personal responsibility and not a priority for the business at this time, acknowledging that a pharmacist in her role may have a different view:

> “...their CPD is also their own personal responsibility. So keeping abreast of the industry and things like that I guess we kind of leave to them at the moment. It is a little bit of a gap, but it’s not been a priority within the business if you like at this stage. It tends to be an area that they will more naturally do for themselves anyway, which is what tends to happen.”

This view was reflected in the employers' approach to supporting pharmacists wanting to undertake postgraduate diplomas, as emphasised by E1:

> "What we do is make it really clear about it will take X number of hours and that is a personal commitment, you're signing up for this."

The role of the regulator in ensuring pharmacists stayed up to date was commented upon by several participants including E1 who said "it isn't down to me as an L & D manager to say whether that is a competent pharmacist in their pharmacy skills, that's through their CPD with the GPhC."

8.2.3.2 Company responsibilities for pharmacist development

Participants felt that as employers they had some responsibilities for supporting pharmacists' development:

> "…we have some responsibilities as an organisation to help plug those gaps, whether that's through off-site delivery, diplomas, signposting, you know, it's just creating that culture of learning." E3

For E1 it was important that the support offered was not purely focussed on helping the company achieve its business targets, instead "making it about their development and absolutely giving them something they walk away with at the end of the day going 'I didn't know that and that's really going to help me.'"

In addition to supporting pharmacists' development, companies needed to ensure the workplace environment allowed them to use their skills because "[pharmacists] need the infrastructure to support them from a support staff perspective to release them to do that [services]. They can't do a dispensing process and do that" (E1). E2 explained that her company was "very much focussing on equipping the pharmacy teams, so making sure the people have got their NVQ level 2, their NVQ level 3, their checking technician roles within the dispensary so it frees the pharmacist up to do the services which the NHS are directing us that we have to do."

Ultimately, from a business perspective, employers needed to ensure they had pharmacists with the right skills and behaviours in the appropriate roles, as expressed by E1:

> "Do they have the right behaviours which are right for our business? And if they're sitting in that top box they would be now going forwards, those we would differentiate and put forward to say these are the ones we want delivering services, because that does require that additional skill set of softer skills."

8.2.3.2.1 Investment decision

Pharmacist development was viewed as a company investment choice. E1 captured this by explaining that she felt she was in a "very lucky place that the business supports and has continued to support and increased support" for pharmacist training and development. The right choices were required to ensure any investment in pharmacist development had a successful business outcome. "[It] is quite an investment actually for the business… there is a realisation that the only way we're all going to be able to deliver what the business wants is to start to up-skill our managers." (E4)

Development requirements have "varied considerably over the last few years" (E3) as business needs have responded to changes in the profession. Decisions were made on a cost versus benefit basis. This influenced the delivery methods used. For example E4 expressed the desire to "secure enough money to do face to face development, because you know some stuff is better done face to face." However, there were difficulties associated with this as explained by E3:

> "Obviously the restrictions around the way pharmacy operates is a barrier so it's really difficult to be able to get pharmacists off site on a more regular basis, so whilst we're a retail environment we're a very different retail environment to somebody that's non-pharmacy based, so we are limited from a cost point of view in terms of how much off-site development that we can do with people, which is why we try and look at other routes, whether it's through distance learning, through signposting to CPPE...and I suppose there's limited time in pharmacy for people, for pharmacists to actually dedicate time to development, so I suppose there is a reliance on the goodwill of people to be able to pick things up in their own time."

E1 described her company's policy to pharmacists' CPD which may have addressed some of this reliance on goodwill:

> "…the business had always had a CPD policy where we gave our pharmacists 2 days' time in-lieu to undertake CPD activities and that was entirely for them to go away and think about what they did do, and then 3 years ago, we decided that one of those days we would actually put a menu of different clinical topics, soft skill topics together and actually invite every single one of our pharmacists out for an off-job study day.

The benefits of developing pharmacists included increasing their confidence to deliver services and lead their support teams effectively. E2 felt the pharmacy's reputation in the community was enhanced by them undergoing continued development and that this would indirectly increase revenue for the business.

E1 gave an example of the risks associated with decisions on pharmacist development by describing an example where the business had not benefitted as a result:

> "Equally we step-changed our policy when independent prescribing came into play…and absolutely put a policy into place to say we want to support independent prescribing and actually invested heavily into a cohort of about 50 people to go through the first tranche, and unfortunately what resulted was lots of motivated, engaged pharmacists with a qualification who then couldn't find a prescribing budget for them to…access and be able to prescribe, unless they actually left community pharmacy and went into work with GP practices etc. or sat with PCTs."

To emphasise that investment in staff development is optional for the employer, E1 sounded a cautionary note:

> "The risk from my perspective as the capability manager is...in the current....well I suppose in any climate, is the business could choose to say at any point we aren't going to invest. It's a nice to do, it's not an essential."

8.2.3.2.2 Company produced training

Internal company training programmes addressed the business need "to help plug those gaps" (E3) identified in the sub-theme *pharmacist skills gap* (see page 172) and maintain some control over pharmacists' development. A variety of delivery methods were employed and participants appeared to take a great deal of pride in the training programmes they were responsible for, as reflected in E1's comment that "one of the things we are absolutely famous for within the community sector is for the training we offer."

Pre-registration training programmes had elements added to them to ensure graduates were prepared for management aspects of the community pharmacist role. E4 explained:

> "... we sort of add in to that anything that we believe we want them to develop. So we've done, made quite a lot of changes to the pre-reg programme in the last couple of years in that we've extended it really...we also cover more of the commercial elements and things like delegating and, you know, dealing with a team in the pharmacy and taking the supervisor responsibility, you know, so dealing with issues and you know challenges and falling out with each other...So at the end of it they should come out what we call ready to hit the ground running as a [company name] pharmacist."

She added that a reduced version of this additional training was also extended to registered pharmacists who were new to the company because they "do need...to understand how we do things in our business."

Company run CPD days or conferences were one approach to tackling the common development needs identified. These allowed the company to keep their pharmacists "abreast of current developments in practice" and "to engage with them around key messages across the business" (E3) at the same time. E1 said that her company were now in their "third year of doing internal CPD development days." A recognised drawback of this approach, which E3 highlighted, was that "you do end up in a situation where you almost sheep dip people, so that can become quite difficult for someone who maybe passionate on the ground, who has specific needs, but actually the business is saying, 'well this is important, therefore we're going to be doing development in this area.'" E4 also referred to this approach as "sheep dip training" and shared the benefits of some leadership training that had been provided to all her pharmacists which had seen improved results for many of them.

Individual development needs which were not covered by this 'sheep dip' training were supported by a variety of learning resources which these companies had at their disposal:

> "…obviously the size of the group [company] means there's lots of online stuff that they can access and different kind of quick reference guides, pocket books and things like that." E4

These individual needs were linked to their CPD requirements and increasingly online resources were being employed:

> "We also use e-learning type things and we use our internet, our pharmacy-internet to load materials onto which might be supportive of their CPD…" E2

E1 explained that the benefit of this approach was that the company could add e-learning modules to their training libraries to match common development needs without adopting a 'sheep dip' approach, giving the example of a diabetes medicines module to support those who lacked confidence to deliver MUR or NMS services to this group of patients.

8.2.3.2.3 External courses

The focus for these individuals was their internally developed company training rather than courses offered by external agencies. Where external courses were considered a number of factors were taken into account. These included the extent to which the

course outcomes aligned to the business needs, costs, potential benefits and pharmacist preferences for development.

Participants were interested in courses that would help address the *pharmacist skills gap* identified earlier (page 172). E2 explained that such a course should build pharmacists confidence "and ultimately their competence in terms of the level at which they deliver a service to the patient, and I'm not talking about customer sales, I'm talking about things like MURs and the New Medicines Service. I think what they will then do is they will more effectively give information on a practice basis to that customer/patient and they'll also be able to communicate more effectively with the GPs, really as an equal I think." She felt that such courses "which are very practice orientated and clinically orientated will be a great opportunity for people."

Pharmacist retention was one reason given for offering support for diplomas, as explained by E1. "One of our selfish reasons was looking at retention, so absolutely it does that." Retention was said to be improved by "the goodwill we get back from individuals" and its benefits included reducing the costs associated with recruiting new staff and "continuity of service to our customers."

Postgraduate diplomas were not necessarily the preferred solution when looking at externally delivered training to fulfil a specific need:

> "…if we decided that all of a sudden we wanted a diabetes expert across our estate then potentially a diploma's going to be too broad for somebody like that. Actually a short modular course that gives them some credits that they can then put towards a portfolio might be a more appropriate solution, it'll be far more tailored to the needs of the individual, it will be a far more flexible approach for the business, it will give people the opportunity to build a development portfolio and pick and choose depending on what their needs are." E3

E1 also provided an example:

> "So for travel health we absolutely support a postgraduate kind of qualification, but a short course, to enable somebody to do, to deliver that service, because that feels, that's right for that service, because of the complexity of the different vaccinations and so on…"

Barriers to offering external courses

One barrier to supporting external courses was the associated costs. This could be simply the cost of paying the course fees and measures were often put in place to mitigate this, as illustrated by E2:

> "We would obviously get people to sign terms and conditions if we were going to give quite a bit of financial support to someone, we would in any course we do, even external courses that people do at head office, we would get them to sign terms and conditions to say that were they to leave the business within say a 3-year period we would ask them to pay back a proportion of that money. And that really is to ensure that we're using our funds wisely and that we're funding someone that's making a commitment; not only to the business but their teams as well."

Releasing individuals to attend face to face training incurred locum costs which "adds a significant cost to the bottom line" (E1) and had other implications as explained by E2:

> "…it's not just financial cost it's the effect on the team because we, it's a very much team approach...we're seen as healthy living pharmacies where you get health and wellbeing advice, so, and we've taken a very much a team approach to providing that support and that information, so the teams work well together and if we don't have that pharmacist for long periods then I think that service really suffers."

Courses which involved less time out of the business by the pharmacist were likely to be viewed more favourably or if required "we might negotiate with the person 'well you take one of those weeks as your own holiday and one can be time from the business.'" (E2)

A feeling that practice did not always change as a result of completing a course was a further barrier as illustrated by E4:

> "Anecdotally people were telling me when I joined the organisation, people like the superintendent and that, 'oh you know we've paid for these things over the years and you know we never get any benefit from them, you know, nobody ever uses them.'"

Some participants indicated that they did not keep records relating to external courses such as diplomas and the pharmacists that had undertaken them. This meant that they did not have an accurate picture of their impact on individuals or the business. There was some evidence that plans were in place to change this. E4 shared her thoughts:

> "Going forwards part of the process is that we've got visibility of people who are applying for and starting these things…in terms of how well they progress. Have they stayed with us, have they left us etc."

The decision making process

The decision whether to invest in an individual undertaking a diploma was based on trying to ensure the above barriers were removed or minimised and assessing the potential benefits in terms of whether practice would change and benefit the business as a result. This tended to be based on the individual pharmacist making a business case for obtaining the company's support.

In the majority of cases local management were responsible for making these decisions. This was because they were the ones "capturing personal development plans and trying to understand what individual's development needs are" (E3) and understood the needs of the business locally, for example in terms of which services could be offered. In the case of E2's company, decisions were made at head office level, although local management had a strong influence, for similar reasons:

> "Each pharmacy manager has a great deal of autonomy locally within their pharmacy and they're set action plans which are not all identical across the board because it's based on what services they can provide locally and how they can build up that collaborative working in their local community. So it's quite individual and that then means then that the approach that we use to requests for postgraduate education is very much tailored to that person, that area as well."

External courses as reward

As previously demonstrated, supporting an individual to undertake an external course involves a cost to the business. For this reason participants shared E2's view that this is "not a core part of development for every pharmacist or an option for every pharmacist in the business."

When making these decisions another consideration was the individual's commitment to the business as demonstrated by their achievements with the company. This perhaps contradicts the view that these courses were used to address the *pharmacist skills gap* (see page 172).

> "We wouldn't use formal competence measures. I'd like to think that what we would do is look at what they have consistently achieved. So managers would be looked at in terms of what's their achievement within the branch, not just in monetary terms but on the basis of have they developed the team and the staff, making sure that all their staff have got their professional qualifications in place and they've done that in a timely manner, so you can see that they've managed a team well. Are they actively involved in delivering services under the contract that they provide. So looking at advanced, enhanced services, have they proactively looked at that as

well. So looking for someone who's shown great commitment, it's more on the basis of that than it would be on competency but competency would be seen and demonstrated if they were providing a broad range of services and had strong working relationships with the local GPs. And each pharmacist has an Area Manager and the Area Manager visits them on a rotational basis once a month, so there would be clear indicators, they all have action plans, all managers have action plans for their branch, their pharmacy to make sure they're meeting targets both on the basis of business targets but also as well in terms of development. So although it's not an actual competency, we would be able to, we'd be able to have evidence to support that that person is clearly committed to the job that they do…" E2

One view was that this meant that the company's support was given as a reward for demonstrating 'good' behaviours:

"You should invest preferentially in people who are going to give something back to the organisation…or reward them for being a good performer already…" E4

E4 recognised this approach led to a risk that individuals who were underperforming because of a developmental need were put "in the wrong bucket and then they don't get the opportunity. I would hope that through their, through the sort of the coaching and the regular performance appraisals that they're having with their managers that those things are identified as skill gaps, rather than, you know, something that's a little bit more serious and needs addressing differently. Could I hand on heart say I'm confident that happens all the time? Probably not."

8.2.3.2.4 Consideration of pharmacist preferences for development

Perceptions of pharmacist preferences were considered when addressing their development needs.

E1 shared that "our pharmacists tell us that actually they prefer distance learning, so our most popular diploma and our pharmacists vote with, you know, kind of their feet when they nominate themselves for a distance learning diploma" and that "they don't like exams. So they suddenly kind of, some of them are, you know in their 30s, 40s, thinking it's a long time since they did an exam…if there's an exam associated with it that seems to put people off. Which probably isn't going to be that onerous, they could probably fly through it, but it's almost, 'I haven't done that for a long time and I can't put myself through it.'"

Courses which offered a modular approach were a preferred option as they provided, in E1's words, "the flexibility around the fact that people are busy." E3 agreed:

> "Not everyone's gonna want to do a diploma. You know if I want to...if there's a certain service that's being commissioned then actually I'd want to really truly ensure that as an individual pharmacist I had expertise in that area. So goes back for me a more modular short course approach rather than here you go 12 to 24 month development package, off you go. You know, so I think more bite sized chunks of development people will get their teeth into, more so than a long, a course that's going to, yeah, potentially could be working through for 12 to 24 months."

E2 simply felt that pharmacists "will definitely choose a course which suits their learning and development style."

8.2.3.2.5 Closer working required with academia

There was a sense that employers and academic institutions should be working together more closely. For example E2 felt that universities offered postgraduate education programmes to pharmacists without engaging with the employers:

> "I've never been approached by anybody to say would you consider any of our postgraduate programmes…universities almost need to…market [themselves] better as a university, you know to the employer, directly, as opposed to the employees...should we raise awareness of the universities, should universities raise awareness to employers as opposed to just employees as to what's available is maybe a consideration."

She felt that if this were to happen it would help her understand which courses would be beneficial to the company and its staff and therefore the company would actively encourage staff to undertake them. E1 explained how a couple of members of her team had been tasked with approaching the universities which offered postgraduate diplomas with the aim of drawing up a shortlist of their various attributes to guide decisions on which diplomas to support.

Other participants spoke of closer working still with the universities to develop bespoke diplomas with content which closely aligned with their business needs. E3 described how the content of such a diploma might be organised:

> "We would obviously be looking for some leadership, management, change management piece, but as a business we would, we have some core areas of focus from a clinical point of view, some of which sits already in some diplomas, but I would imagine from a clinical point of view we would want some bespoke modules aligned with some of the core conditions that are important to the business."

E4 described how her company had been taking this approach with a university “to try and make sure that it had got a balance of clinical and managerial skills in it.” They were also exploring the possibility of accrediting some of their internally produced training which “we’re working to get that accredited with the Institute of Leadership and Management. So we’re trying to I suppose up the ante a little bit around additional development and on-going development, but not just from a clinical perspective.”

8.2.3.3 Career opportunities

Career opportunities within community pharmacy were compared to the situation within hospital pharmacy.

> “Career progression in community pharmacy tends to be quite static because, certainly most community pharmacists start on higher salaries then say hospital would be. I suppose in hospital pharmacy there’s a greater career progression but in community pharmacy...pharmacists would be perhaps graded in terms of their business returns, so they might have slightly different salaries in that way.” E2

E4 felt that not everyone was striving for career progression:

> “Lots of our pharmacists and pharmacy managers get in to their branch and they’re quite happy to stay there for the next 20 years.”

Those that did climb the career ladder tended to move away from patient-facing roles, including those that had undertaken postgraduate clinical qualifications, which E2 described as:

> “...a route for them to go from perhaps being a pharmacy manager to an Area Manager, being responsible for about 25 pharmacies, and in that way then... that’s more of a business focus.”

A lack of opportunities to practice using newly acquired skills and knowledge meant there was a risk that individuals may seek different roles. E1’s personal experience supported this:

> “We’ve invested in diplomas for a good 15, 20 years now, yes we have seen some movers and shakers who get that qualification and absolutely move through, but interestingly they tend to move out of patient-facing roles and I would say I’m one of them, my current line manager here...is another one.”

The consequence of not using newly developed skills was highlighted by E3:

> “There is a risk if [company funded development’s] not utilised people will leave the business.”

However, it was not apparent how companies were addressing this issue. There was one exception, who said her company had “already talked to all our pharmacists about having two levels.” This would allow a clinical career progression to what the company called an ‘Advance Practitioner’ status. However, she stressed that “part of that second level isn’t necessarily a formal qualification, so it’s not about a clinical diploma, it’s about actually the breadth of what you do, and it might be short courses, it might not be...if it’s about softer skills it might not actually be related to pharmacy, but there’s something around how they enhance their customers’ and patients’ experience.”

Chapter 9

Discussion

9.1 Introduction

In this chapter the results of each component of the study are discussed separately before being considered as a whole.

9.2 Service provision, employment and attitudes and approaches to CPD surveys

9.2.1 Main findings

Online surveys were undertaken on an annual basis for the duration of the diploma course. The objective was to quantify the effect of undertaking the diploma on practice, employment, job satisfaction, and attitudes and approaches to CPD.

No significant change was seen in the provision of services as a result of undertaking the diploma.

At the time of the final survey intentions to leave the employer had slightly increased within the intervention group.

Greatest levels of job satisfaction were with the social aspects of the role provided by patient contact and colleagues and fellow workers throughout the study. Amongst the intervention group there was a change in the area of least satisfaction from remuneration to the amount of responsibility given.

There was some change in attitudes to CPD amongst members of the intervention group between the first and final survey. Two potential barriers to CPD, access to resources and time, had become less of an issue. The level of disagreement with the statements that 'pharmacists can remain professionally competent without undertaking CPD' and that 'CPD should be undertaken without additional payment' increased.

9.2.2 Range and extent of service provision

Interestingly, the wide availability and regular use of consultation rooms in the main workplaces of participants demonstrates community pharmacy's transition from a supply-led to a patient focussed profession in recent years.

All participants offered the MUR service, which is ahead of the national picture where 87.9% of contractors offered the service in 2010-11.[277] A wide range of enhanced services were provided and the most frequently available services were similar to those found nationally,[277] although the minor ailments service was under-represented. The minor ailments service tends to be commissioned in areas of social deprivation and

therefore this result may be a consequence of the region in which this study was conducted.

Services where demand could be expected to be prescriber-driven (e.g. supervised administration) or patient-driven (e.g. smoking cessation) to some extent and which are relatively straightforward to implement were widely available. The contribution these services can make to public health has previously been demonstrated[278] and hence these services tend to be widely commissioned.

9.2.3 Changes in service provision

As a result of the response to the follow-up survey completed in 2013 only changes in service provision within the intervention group can be described, and the role of undertaking the diploma in these changes cannot be delineated from other factors.

MURs continued to be widely provided and the NMS service introduced in 2011 was provided by all members of the paired-samples intervention group.

No significant change was seen in the provision of enhanced services, and the addition of the NMS service did not appear to impact on the frequency with which they were delivered. There was a slight increase in the two sexual health services. This is in contrast with the national picture where the number of local enhanced services provided declined for the first time since the contract was introduced.[275] Further work is required to establish whether the training included within the diploma played a role in enabling pharmacists to introduce these services.

An increase was seen in the number of patients known by name and this is likely to be a positive outcome deriving from the employment continuity of participants. Unfortunately without a comparison group no insight can be gained into whether involvement in the course made participants less likely to change employer.

No change was detectable in the number of GP contacts made. This does not necessarily equate to these relationships being unchanged. Increased knowledge and skills could enable the pharmacist to make decisions without consulting the GP and pre-emptive meetings and better understanding of ways of working could result in better relationships without a consequent increase in day to day contact. Participants also indicated a high level of confidence at dealing with GP enquiries, although because this question was not included in the initial survey it is not possible to comment on whether this was affected by participation in the course.

Interestingly many participants reported that they had changed how they delegated to staff since commencing the course. The methods they described for achieving this

included management elements of the course such as coaching and skill mix review. This suggests training is required to help community pharmacists overcome the difficulties employers believe they have with delegating.[226]

9.2.4 Effects on attitudes and approaches to CPD

At the time of the final survey intervention group participants were more able to access the resources they needed for CPD. Participation in the diploma may have contributed to this change through the provision of directed reading which signposted to previously unfamiliar resources, thus addressing one of the principles of adult learning expressed by Knowles.[74] Similarly a more effective learning climate may have been established as a lack of time was reported as less of a barrier to the completion of CPD. The time management training provided by the course may have contributed to this as well as the structure provided by the course for which much of the work undertaken could be recorded as CPD.

The increased level of disagreement with the statement that 'pharmacists can remain professionally competent without undertaking CPD' amongst the intervention group at the time of the final survey possibly reflected feelings of how the course had helped to identify learning needs and how these had been met as a result of the learning experience had by participating on the course. A previous study found that community pharmacists that had participated in medication review training were more likely to identify their competency gaps in this area[48] and it is conceivable that a similar effect is seen here. That is to say a raised awareness enabled individuals to transition from an unconscious incompetence to a conscious incompetence.[279] Interestingly there was an increased level of disagreement that CPD should be taken without additional payment which possibly reflects the amount of personal time and commitment required completing the diploma and undertaking more thorough CPD. It would be useful to explore who participants believe should be responsible for any additional payments and whether this reflects the demands previously expressed by pharmacists for employers to provide protected time for CPD.[19,20]

Personal interest and reading journals were the most commonly used methods for identifying learning needs at baseline and this remained unchanged. This is somewhat surprising as reflection was stated as the most common starting point for CPD cycles and it could be expected that participation in the diploma would move the learner towards a more targeted method of development. It is possible that participants viewed their diploma work as separate from CPD and hence any wider change in learning approach was not captured. That is to say participants may have held and maintained a view that CPD was to be completed to primarily meet the requirements of the

regulator and therefore quick and easy approaches were taken. Alternatively it may reflect that the diploma did not fully meet the andragogical principles[74] that would encourage a deeper learning.

9.2.5 Effects on employee retention

A minimal amount of employment change was seen amongst the intervention group between surveys and this may be because they wanted stability in their work whilst completing a workplace based course.

At the time of the final survey there was a slight increase in intention to leave the employer within the intervention group which may indicate they were ready for a change after completing the diploma or that their confidence in their own abilities had increased. This coupled with the increased intention of leaving their sector may also be suggestive of frustrations around the lack of career progression within community pharmacy and a feeling that completion of the diploma was not likely to advance their career within the sector. However, without a comparison group it is not possible to state whether this is the case or whether this change was due to other issues effecting the wider profession. Previous work has demonstrated that only a small proportion of pharmacists expressing an intention to leave the profession actually do so[280] and it would be interesting to follow up the career progression of these individuals to see if their intentions to leave their community pharmacy and/or their employer are acted upon over the following years.

9.2.6 Effects on job satisfaction

The higher levels of job satisfaction found with the social aspects of the role provided by patient contact and colleagues and fellow workers are not surprising in that in common with other healthcare professions a reason people choose to do pharmacy is because they wish to work as part of a team delivering care to patients. These two items were also ranked highest for satisfaction by community pharmacists when asked as part of the 2005 census.[261]

A change in the area of least satisfaction from remuneration to the amount of responsibility given was seen and may be further indicative of the lack of opportunities for community pharmacists who wish to develop within their role. Conversely this result may reflect an unwanted increase in responsibilities or change in perception about the level of responsibilities held.

The increased satisfaction with recognition for good work may be because of an actual improvement in the work being done or may be due to the amount of feedback

received whilst taking the course, for example through the Mini-PAT assessments and tutor feedback. As no significant change was seen in working hours the increased satisfaction in hours of work may indicate a change in perception due to increased enjoyment in the types of work being done during those hours.

9.2.7 Strengths and Limitations

This study was conducted with community pharmacists working in a range of different pharmacy types and locations, in a variety of roles and with a range of work experiences. The surveys were hosted on an online resource which provided a flexible and convenient means of access for participants and they were distributed at regular times during the diploma thus capturing any changes that occurred.

The surveys were conducted with a small sample of pharmacists based in one region of England. These were all pharmacists that had applied for a place on UEA's postgraduate diploma which introduced a selection bias as it would be expected that these pharmacists would have a greater interest in personal and practice development, although the offer of free training may have removed some of the commitment and consideration required when deciding to invest one's own finances. This view is supported by the number of students that exited the course early, a fact which added the additional limitation that many of the intervention group would not have received the full intervention. A further limitation was that many of the questions relied on participants' abilities to recall recent events within their practice.

Although the initial response rates to the questionnaire were good there was a general decline in subsequent years. Despite the measures taken to reverse this decline the response rate to the final year's survey meant that sensible comparisons between the two groups could not be made. The high number of students exiting the course limits the extent to which any changes measured can be attributed to participation within it.

During the period under which this study was undertaken several developments in community pharmacy occurred, such as changes to the pharmacy contract and to NHS structures and commissioning models,[208] which could reasonably be expected to impact on the results. Without a viable comparison group the effect of these changes could not be controlled for.

If this study were to be repeated there are a number of changes to its delivery which could be of benefit. The main limitation was the participation rate, particularly within the comparison group despite the addition of an incentive for the last survey. An improvement may have been achieved by providing a clearer incentive at the outset, for example offering a discounted place on the course following the conclusion of the

trial. The number of withdrawals from the course within the intervention group may have been reduced by offering the course for a nominal fee rather than for free, although it should be noted that demand for the free offer was less than anticipated. Finally the initial surveys were long and were significantly refined over the period of the study to reduce the completion time. With hindsight wider piloting with community pharmacists rather than university academics and course tutors may have resulted in a more streamlined version being produced from the outset.

9.2.8 Conclusion

The significant limitations identified with this study meant its objectives to quantify the effect on undertaking the diploma on practice, employment, job satisfaction and approaches to CPD attributable to the diploma were only partially met and the results are largely descriptive and indicative of where further work may be required. There was some indication that the students had benefitted from the additional management training and also limited evidence that undertaking the diploma influenced attitudes and approaches to CPD through the adult learning approach espoused.

9.3 Patient satisfaction survey

9.3.1 Main findings

A patient satisfaction survey was undertaken in community pharmacies during the first year of the course and this was repeated as the course concluded. The objective was to quantify changes in patient satisfaction with the service provided by community pharmacies employing pharmacists enrolled on the diploma.

No clear improvement in patient satisfaction could be demonstrated by this study. It was notable that satisfaction with ‘Friendly Explanation’ was greater than with ‘Managing Therapy’ at both time points.

9.3.2 Effects on patients’ satisfaction with the care they received

Consistently greater satisfaction scores for ‘Friendly Explanation’ than ‘Managing Therapy’ may reflect community pharmacy’s relative effectiveness at delivering the traditional elements of the role (e.g. counselling, prompt service, neat appearance) compared to the more clinical aspects (e.g. managing medication and solving problems). The authors of the original questionnaire on which this study was based reported similar findings during its development.[264]

Also participants were regular patients of these pharmacies and would therefore be expected to score highly on the service related items included within 'Friendly Explanation'.

These results may also reflect patient expectations of community pharmacy and a lack of understanding of the role it can take in their healthcare; this is possibly supported by the fact that a greater number of statements within the 'Managing Therapy' domain were left unanswered. A 2004 review of studies which considered patient perceptions on advice and services from community pharmacies found that community pharmacists were perceived as 'drug experts' rather than experts on health and illness[281] and it may be that these views persist despite the changes that have occurred in the last decade. Alternatively, it may be that some patients did not feel able to judge certain technical aspects of the care they received and therefore left these statements unanswered, or that the pharmacist had not intervened in their care in an active way and therefore they were unable to comment. In these cases it has been argued that patient satisfaction is based on the interpersonal and communication skills of the practitioner.[282]

The isolated practice environment community pharmacists work in[93] suggests their patients are the predominant source of feedback on their practice, whether formally (e.g. the customer satisfaction surveys required as part of the NHS pharmacy contract[28]) or informally. Therefore, from a behavioural learning perspective,[97] community pharmacist learning may in part be driven by patient feedback which is not founded on an appreciation of good practice.

The high satisfaction scores obtained at each time point is in common with many previous studies conducted into pharmacy and other healthcare services.[283] Several reasons have been postulated for this other than the face value interpretation that patients are generally highly satisfied with the care they receive. These include low patient expectations and patient self-interest (i.e. there may be a perception that giving a good score will ensure the service used by the patient continues to operate).[282] Even a comparison of the satisfaction scores at individual statement level did not uncover any elements of care provision which required significant improvement. Only five measures scored less than 4 (satisfaction rated as 'very good') with the lowest of these being the privacy of the conversations with the pharmacist which was rated at 3.8. In light of this it is clear that there is a need to develop a tool which more validly captures both the opinions and expectations of patients concerning the care they receive.

9.3.3 Strengths and Limitations

The strengths of this study are the high response rate achieved at patient level, the distribution of the questionnaires by a researcher who was independent of the pharmacies and the fact that the questionnaires were distributed in community pharmacies to patients regularly accessing their services.

A number of limitations, similar to those described for the online surveys, should be considered when interpreting these results. The surveys were conducted in a small number of community pharmacies based in one region of England. Participation declined to the extent that a sensible comparison between the two groups could not be made. To reduce workplace effects the final comparison of the 2011 and 2013 results was limited to members of the intervention group that had remained at the same workplace thus further reducing the number of useful results.

The high number of students exiting the course again limits the extent to which any changes measured can be attributed to it, and changes due to developments in pharmacy cannot be excluded from the interpretation of these results without a comparison group.

Several other limitations were present. Pharmacy staff were directed to invite all patients to speak to the researcher about the survey but it is not possible to know whether they did this; patient views were likely to have been influenced by the service provided by other pharmacists and staff that worked in the same pharmacy; company policies may have changed and had an impact on patient satisfaction; and a high proportion of statements were left unanswered, particularly with respect to the 'Managing Therapy' domain, suggesting that the face validity of the questionnaire was compromised.

A number of changes could be of benefit if this study were to be repeated. As with the online surveys the main limitation was the participation rate, and the modifications previously suggested around incentives and course fees equally apply here. Improvements may have been achieved by recruiting patients independently and by using a patient satisfaction tool that more validly captured patient views on the service provided by the specific pharmacist.

9.3.4 Conclusion

The study's objective was only partially met and indicates that expectations for this work were overly ambitious and unrealistic. Consequently the results are largely descriptive and indicative of where further work may be required. The overall high

satisfaction scores, consistently greater ‘Friendly Explanation’ scores and difficulty some patients had with assessing the ‘Managing Therapy’ domain are notable. This may have implications for learning in the workplace when viewed from a behavioural learning perspective.

9.4 Student interviews

9.4.1 Main findings

Interviews were conducted with diploma students after one year of the course and repeated as the course concluded. The objectives were to explore pharmacists’ experiences of undertaking the diploma and describe the effects on practice, job satisfaction and approaches to learning.

Students’ stated several reasons for undertaking a diploma. These included self-development, particularly of their communication and consultation skills and to replenish diminished knowledge and skills; to structure their CPD and allay concerns regarding future revalidation; to improve their awareness of wider pharmacy issues; to support a potential career change; and to gain an advantage in the employment market. Students chose UEA’s diploma because they felt it met these requirements, it included the opportunity to meet with other pharmacists at study days, the location was convenient for them and their fees were paid. These views were possibly influenced by the fact that they were obtained one year after participants had commenced the course.

Several effects on individuals and their practice were identified. These included improved knowledge and skills, increased confidence, developing better relationships with GPs, more effective delivery of pharmacy services, greater job satisfaction and a willingness to remain in and develop the community pharmacist role.

The learning approach adopted by most students moved from one based on personal interest or reacting to immediate demands to a more considered reflective style which identified gaps in competence and acted to address these. Students described how the structure provided by the course identified learning they would not have determined themselves and how completion of a portfolio and use of the competence framework required them to reflect on their additional needs. The opportunities for interacting with peers and other healthcare professionals were also seen as important. The course workload was considered to be onerous and in particular the requirement to collect evidence across the entire GLF was seen as excessive.

Factors which affected the experience included the nature of the student's employment and working environment. Personal and family commitments also influenced the amount of time students could commit to the course. A successful relationship with the tutor appeared to have a positive impact on the student experience. The prior professional experience of the individual seemed less important, with many of the issues faced and benefits gained common to all.

9.4.2 Reasons for undertaking a diploma/UEA's diploma

It is useful to consider the reasons given by students for undertaking the diploma before discussing the effect it appeared to have on their practice, employment, job satisfaction and approaches to learning.

Students described a range of reasons for deciding to undertake a postgraduate diploma and chose UEA's diploma because they felt it met these requirements whilst providing the opportunity to meet with other pharmacists at study days in convenient locations and without the need to pay fees.

Unsurprisingly self-development was a major motivation for undertaking a postgraduate diploma. Areas highlighted reflected the aims of the course, including improving communication skills and clinical knowledge to enable engagement with the moves within the profession towards a more patient-focussed role. This supports the previous finding that the undergraduate degree may not sufficiently prepare pharmacists for practice.[2]

Although a small number of students suggested that their lack of awareness of the role they could take in contributing to national and local healthcare agendas was a reason for undertaking the course, for most it was participation in the course that introduced them to areas of practice that they had not previously considered or engaged in. Reasons for this lack of awareness included disinterest in wider pharmacy issues beyond their immediate practice, a reliance on their employer to provide information and take decisions on their behalf and non-UK training backgrounds meaning the UK healthcare system was an unfamiliar one.

Some students felt that the structure provided by doing the diploma would support them in meeting the GPhC's CPD requirements, underlining the findings in the literature that pharmacists need such support.[17-20,22] Future revalidation was also mentioned as a concern and some students viewed the diploma as a means to prepare themselves for the anticipated changes.

The nature of their role as community pharmacists and its effect on their knowledge was a further reason for completing the diploma. The deskilling of the traditional community pharmacist role since the end of the 2nd World War owing to advances in technology including mass production and pre-packaging of medicines has been previously described.[197,284] Students explained how the routine nature of their role, with few opportunities to use the knowledge obtained during their initial training, meant they felt their knowledge diminished. This had caused some students to consider other roles which they thought would use their knowledge more effectively and provide greater job satisfaction, including training to be a prescriber or switching to a hospital pharmacy role. There was a belief that the diploma would help them achieve their aims. After one year many participants felt that the diploma was a way of effecting change in their existing role, thereby diminishing the desire to switch roles.

Students appeared to meet several of Knowles' assumptions regarding adult learning[74] before embarking on the course. Their existing experience as community pharmacists meant they recognised that they had some development needs (i.e. the need to know), could see how the diploma was relevant to their practice (i.e. readiness to learn) and that their learning could be applied to new developments in their role (i.e. orientation to learn). Although some external motivations were described (e.g. support for CPD and revalidation), internal factors (e.g. job satisfaction and improved practice) were more prominent.

9.4.3 Effects of undertaking the UEA diploma

An objective of this study was to describe the effect of undertaking the diploma on practice, employment, job satisfaction and approaches to learning in light of the students' experiences. Students described how the diploma had affected them as individuals and how they perceived this influenced their practice. Unsurprisingly they said their knowledge and skills had developed during the course. Practice benefits included perceived improvements in service delivery and in intra and inter-professional relationships. Self-confidence and job satisfaction appeared to increase as a result of these changes and an increased commitment to community pharmacy roles was described.

The diploma aimed to improve awareness of the organisation and structure of healthcare in the UK and of the relevance of both national and local health agendas for community pharmacy. Students described how this was achieved through coursework requirements and exposure to other healthcare professionals, including other pharmacists, during the course study days and other activities undertaken to meet course requirements. Participation in the diploma increased understanding of their role

within the wider healthcare team and helped students to consider how they could work more effectively to improve the health outcomes of their local communities.

During the first set of interviews students described how they felt their communication and management skills had improved and this was repeated at the follow-up stage. Students felt they were able to communicate more effectively with their staff, managers and other healthcare professionals, and this was mainly attributed to the knowledge and confidence they acquired through the course. Consultations were frequently mentioned as improved by the techniques that had been introduced and practised with feedback. Staff were used more effectively by identifying and supporting their development needs and through delegation.

Students described how they benefitted from the practical elements of the study days such as consultation skills training and the role-plays associated with the enhanced services training sessions. This was felt to result in real improvements in communication and consultation skills that would not have occurred if the teaching had been restricted to the pre-study day reading and study day presentations. This is reflective of findings in the CME literature that interactive techniques are most effective at changing practice and patient outcomes.[15,62,63,67,72]

Facilitation by practitioners with expertise in the study day topic was valued as an important contributor to student learning. Such individuals were able to share their practice experiences and this was contrasted with sessions that were delivered by academics without specialist knowledge or practical experience. This is somewhat supportive of Vygotsky's argument that learning is more effective when we interact with more knowledgeable individuals.[112] The CME literature indicates educational interventions using opinion leaders may support changes in practice without clearly describing the role held by these individuals.[64] The findings here suggest having experiences relevant to the role of those receiving the educational intervention may be an important factor.

From the descriptions of their relationships with peers, other healthcare professionals, employers and primary care organisations it was clear that many pharmacists had difficulty establishing effective working relationships because of the isolation they experienced within their role. Community pharmacists' isolation from other healthcare professionals has previously been reported.[56,285,286] Reasons identified here for this included working as the only pharmacist within a pharmacy; commercial rivalries between pharmacies, even those within the same organisation, preventing development of a support network; pharmacy legislation and long working hours; a lack of support from employers; and an anxiety about approaching other pharmacists for

help and support. In the case of these pharmacists the introduction of the responsible pharmacist regulations[222] had not facilitated wider involvement in the healthcare team.

Where students did have existing support from amongst a peer group these were established with colleagues from within the same workplace or company, or through friendships established between overseas pharmacists of shared nationality. Support between other pharmacists appeared to be lacking. As mentioned previously, the opportunity to meet other pharmacists at course study days was a reason for choosing to undertake UEA's diploma for some and the isolation experienced by these pharmacists may have given this greater prominence than would otherwise have been the case. Meeting within the tutor group provided a further opportunity to establish relationships, although only one case was described and another student explained he had tried to organise this but the geographical separation between individuals created difficulties.

Peer mentoring was evident in the learning described from discussions with peers. Some students felt the opportunity to meet with others during the course was an advantage over distance learning courses where studying would be carried out in similar isolation to their practice. This was borne out for those that mentioned the benefits of sharing problems and discussing solutions with their peers on the study days. Vicarious learning, as described by Bandura,[115] appeared to be facilitated and this is supportive of previous work which has suggested that informal interactions provide significant learning opportunities amongst peers.[127,128]

For some students the course provided the opportunity to establish the peer relationships that were absent before. Given the apparent value of these peer interactions to learning and that they have previously been demonstrated to have benefits in the absence of a senior mentor,[287] consideration should be given to how to facilitate peer group support opportunities more widely, particularly in the absence of a formal mentoring system. This would not have to be as part of a diploma or other HEI formal learning programmes. For example, the RPS Faculty could consider incorporating peer learning opportunities within its scope to enhance its support for development. The learning communities programme developed by CPPE encourages pharmacists to develop informal learning groups and may be one way of achieving this.[288] However, many of the reasons identified earlier which prevented these pharmacists developing effective relationships would remain a barrier without a more proactive approach being taken.

Disappointment was expressed because study day activities were not always completed. This was attributed to the fact that during group activities discussions

digressed into other pharmacy related issues, highlighting that the study days presented a rare opportunity for interaction with both peers and expert facilitators. It may be useful if study day facilitators are briefed to ensure planned activities are completed whilst exploring ways to accommodate group discussions during the study days as these provided further learning opportunities. The content and delivery methods used should also be reviewed to maximise group working and interaction with the facilitator. At an early stage students should be encouraged to develop their own networking opportunities by sharing their contact details with each other and by providing and/or promoting online messaging facilities.

The inter-professional relationships described focussed on GPs, with little evidence of relationships with other healthcare professionals provided. Pre-existing GP relationships were reactive and one-sided centring on the pharmacist contacting the GP with prescription queries. This corresponds to the previously reported GP view that their relationships with community pharmacists were purely to do with the exchange of prescriptions.[289] Factors that supported good relationships between the two included the proximity of the surgery to the pharmacy and allowing time for the relationship to develop. This supports previous research which found community pharmacists who had experience of working in GP practices were better placed to establish relationships[118] and that GPs' trust and respect for pharmacists increased as they spent time working closely together.[56,290] A lack of interaction other than to pursue queries, and a lack of knowledge and confidence to work with other healthcare professionals were seen as barriers to forming effective relationships.

During the first set of interviews students described how participating in the diploma had supported them to improve relationships with their local GPs. Course requirements for access to patient notes provided an excuse to make an approach which did not concern a problem prescription or patient issue. A strategy of asking for support with their educational needs was adopted by many and the university-headed letter of introduction made this an easier task. It has previously been suggested that healthcare professionals have an 'over-cautious' attitude to information sharing[291] and GPs have been found to be opposed to pharmacists having access to patient records due to concerns about patient confidentiality.[200] The approach taken here may have allayed any concerns the GPs had. Increased knowledge and confidence in their own abilities supported the students in developing these relationships. Students reported a change in the nature of their relationships with GPs to that of equals, and that they felt more trusted and a part of the wider healthcare team as a result.

Further evidence was obtained at the follow-up interviews of how relationships had improved. More requests for help and advice were received from GP surgeries,

pharmacist recommendations were more likely to be acted upon and some had begun attending clinical meetings with their GPs. This change benefited practice by making it easier to resolve problems and gain support for pharmacy services. Again students attributed this change to their improved knowledge and confidence resulting from course participation and the mechanisms within the course which necessitated closer working. Better clinical knowledge and an awareness of how GPs worked within the NHS meant that these pharmacists felt that were able to converse with them as equals.

Previous research has highlighted the perceived inter-professional barriers between the two professions[233] and successive governments have attempted to promote closer working between community pharmacists and GPs.[207,208] A national evaluation of the pharmacy contract found little evidence of improved relationships,[118] however it would appear that the coursework requirements of the diploma encouraged students to overcome barriers and develop relationships with their local GPs with some success. It may also be that the educational nature of the approach is more acceptable to GPs and although this approach seems to maintain existing hierarchies, pharmacists felt that relationships became more balanced as they progressed through the course. These pharmacists also described how their improved knowledge and confidence enabled these relationships to develop, which suggests that the previous imbalance described may have been justified from a GP perspective.

From a situational learning theory[111] perspective the experience of these students highlights how the nature of their role had resulted in the wider community playing a minimal part in their development prior to their undertaking the diploma. Limited peer interactions and inadequate inter-professional relationships reduced the opportunities for the learning that can occur in communities of practice.[117] The course supported students to overcome this. Study days provided opportunities for learning though social interactions and course requirements for approaching GPs facilitated improved relationships. Lave and Wenger also identified the importance of learning to use the language of the community in developing expertise and in this study students described how the course had prepared them to converse more fluently with GPs. Finally, examples of learning via legitimate peripheral participation were described. The observation of GP consultations undertaken by some students can be viewed as a first step in this process. In another example, some students demonstrated how this had progressed further to active discussions of patient cases and sometimes felt the GPs were learning too. This parallels the reciprocal learning described by pharmacists and their DMPs in a study of SP training.[57]

Many students described how they had lacked confidence in their own abilities as practitioners, predominantly around their communication and consultation skills. An

explanation they gave for this was that their practice had not been independently assessed since qualification and hence they were unsure of whether their performance was acceptable. These views were not limited to one particular group of students, being shared by newly qualified and more experienced pharmacists alike, including those who had qualified outside of the UK. The isolated nature of the role and the dearth of opportunities for social learning explained previously are likely to contribute to their low confidence.

Although the GPhC requires that registered pharmacists demonstrate their professional capability through CPD which covers the full scope of their practice,[14] it is the process of recording the CPD record which is assessed rather than the quality of learning undertaken or quality of resultant practice. Consequently the GPhC's approval of a CPD submission does not equate to an approval of practice or provide assurance to the individual regarding their performance.

Some advanced and enhanced services introduced as part of the NHS pharmacy contract have required additional training and accreditation of pharmacists as a pre-requisite for delivery. However, it is knowledge development rather than performance which tends to be assessed, with the process of accreditation often managed via distance learning and written assessment, an example being MUR training, or, as in the case of NMS, simply requiring self-certification. As with CPD, accreditation for these services does not equate to an approval of practice or provide assurance regarding performance, which may not be at the appropriate level, largely due to unconscious incompetence.

All of this points towards community pharmacists learning in the workplace being predominantly of the behavioural type. That is to say their behaviours are changed or reinforced as a result of external stimuli. This may not always be conducive to developing practice as the feedback may be inappropriate. If taking the example of MURs, patients may not have the technical expertise to judge how effectively the service was delivered and any reinforcing feedback to the pharmacist may be based on speed, friendliness, and so on. The employer may be another source of feedback and this is more likely to be based on achievement of financial targets rather than patient outcomes.[229,237]

The opportunity afforded by the course to have their performance assessed directly in the workplace, and indirectly, for example through study day role-plays and discussing experiences with peers, provided validation of good practice and supported the identification of learning needs. Both of these contributed to an improved confidence in practice. This finding is similar to a recent study which found that assessment and

feedback on smoking cessation counselling for pharmacists in conjunction with distance learning materials improved the confidence and perceived abilities of those receiving it compared with those that only undertook the distance learning components,[292] thereby adding to the arguments for delivering postgraduate training using multifaceted approaches.[59,61,63]

Student perceptions regarding how they were seen by others, including other healthcare professionals, their employers, their staff and their patients, also revealed something about their own confidence and the impact the course had had upon it. Most felt that it was their improved performance that had changed perceptions. Initial interviews provided unfavourable comparisons with colleagues in the hospital sector in relation to clinical competence. This self-perception seemed to be a barrier to working with other healthcare professionals. Unsurprisingly students reported an increase in confidence as their knowledge and skills developed during this first part of the course and this facilitated a greater confidence to work more closely with healthcare professional colleagues. Examples were given of how this was reinforced as these same colleagues began to call upon the newly developed skills and knowledge.

Bandura's theory of self-efficacy[116] suggests the increase in confidence described by students would support the development of their practice. Participation in the diploma provided three of the information sources which, according to Bandura, inform the individual's judgement on their personal capability. These were performance attainments (e.g. performing well in assessments and improved inter-professional relationships), vicarious experiences (e.g. observing role models such as the tutor, GP or study day facilitator) and verbal persuasion (e.g. tutor and peer support).

The tutor relationship played an important role in the development of most students and parallels can be drawn with the educational outreach visits described in the CME literature.[68] Several factors were identified which from a student perspective appeared key to a successful relationship. These included clear role expectations (i.e. the student takes accountability for their learning and recognises the tutor has other commitments); flexibility (i.e. timing and location of meetings, including use of technology); tutor competence (i.e. the tutor is a 'more knowledgeable other'[112]); and support and encouragement (i.e. the tutor provides direction and constructive feedback). One or more of these factors appeared to be missing from the less positive experiences described.

The diploma tutor role was not defined as a mentoring role and hence different tutors may not have approached the role in this way, instead positioning themselves as an education supervisor without providing the supportive elements inherent in mentoring.

Mentoring has been described as the provision of expertise and advice by an experienced professional to facilitate the development and progression of a less experienced mentee.[287] Effective tutors performed a mentoring function which resulted in positive effects on student perceptions of self-efficacy.[116] This raises the question of whether community pharmacists would benefit from some form of mentoring, particularly in the period immediately following qualification when the formal relationship with the pre-registration tutor concludes and the newly qualified pharmacist is expected to perform in their role without supervision. This echoes the recent recommendation for the development of a formal mentoring system for pharmacists post-registration.[37]

The RPS Faculty has established a mentoring database as an optional utility for its members who wish to source a mentor. Within the diploma the tutor role should be more clearly defined as a mentoring role and ways of ensuring the factors listed above are in place should be sought when setting up the student/tutor relationship. Potentially the most appropriate way of achieving this may be for the student to source their own mentor. What will remain a difficulty in the community pharmacy environment is the amount of contact time which can be afforded. This limits the extent to which the mentor can understand the capability of the mentee and therefore identify what they can do independently (their 'zone of actual development') and, importantly, where they need support (their 'zone of proximal development').[112] Furthermore, the isolated nature of the community pharmacist's role limits the opportunities for joint working between the mentor and the mentee. The mentor will usually be a visitor to the mentee's workplace and therefore opportunities for vicarious learning[115] and situated learning[111] are severely limited.

An increase in the variety of pharmacy services provided was described, based on local need rather than driven by targets. The quality of their service provision was believed to have improved. Students had begun utilising their staff more effectively through training and delegation to support the technical aspects of pharmacy work. For example, staff were trained to take blood pressure readings and collect other information relevant to the NHS Health Check service, thus enabling the pharmacist to concentrate on clinical aspects, and discussing the results and their implications with the patient. Effective staff deployment such as this is essential if community pharmacists are to increase their role in delivering public health services as current workloads are a barrier to pharmacists providing these services singlehandedly.[243]

As previously discussed these pharmacists described how the course had improved their confidence, a lack of which has previously been reported as a barrier to delivering pharmacy services by community pharmacists[229] and may explain the variable uptake

of these services.[275] Improved relationships with GPs were also beneficial in this regard, supporting the previous findings of Bradley *et al.*[232] A less than pro-active approach by community pharmacists to the commissioning of new services has also been described[231] and there was some evidence here of greater involvement in the introduction of new services. This again may be due to improved confidence and also the clearer understanding described of NHS organisation and their role within the wider healthcare team. Further work is required to establish the extent to which these pharmacists implement and deliver pharmacy services and whether this effect is sustained.

At the time of the first interviews students expressed greater job satisfaction as a consequence of undertaking the diploma and this was further demonstrated at the follow-up interviews. Increased knowledge, skills, confidence and improved inter-professional relationships all contributed to this change, allowing these pharmacists to change the nature of their work.

Some students described the benefits of diversifying away from the dispensing supply elements of the role into more rewarding clinical work, supporting the previous finding by Edmunds *et al.*[200] that extension of the community pharmacist role away from the basic dispensing function increases job satisfaction.

Feeling a more integral part of the healthcare team whose input was valued also contributed to greater satisfaction with the role. This suggests the diploma had supported the participation of these pharmacists in a wider primary care 'community of practice.'[111] It would be interesting to explore the effect this has on their career decisions as isolation from other healthcare professionals has previously been reported as a reason for pharmacists moving from community to primary care roles.[293]

Pharmacists, particularly those of a younger age, viewed the diploma as an opportunity to differentiate themselves from their peers, not only to obtain work now but to progress in their careers. This may reflect the fact that in recent years there has been an increase in the number of registered pharmacists within Great Britain and consequently the employment market has become more competitive, with reports in the pharmacy media of workforce supply outstripping vacancies and locum rates being cut.[294,295]

After one year of the diploma course students could see a future for themselves remaining in community pharmacy. This was as a result of improved job satisfaction and a raised awareness of the possibilities for development within the role. Even the student that had left for industry had noticed similar benefits before she had moved on.

Interestingly, not only were those students considering leaving community pharmacy at the time of the initial interview motivated to remain, but other students described how the course had led them to consider how they could contribute more in their existing roles. Again students spoke about the routine elements of their role, and how they had moved beyond this to consider the types and quality of services they could deliver for their local communities, how they could work more closely with other healthcare professionals to support this, and how they could become more involved in the training and development of others. At follow-up students described their belief that the diploma had continued to increase their knowledge, skills and confidence and how this had impacted on their career plans. Most students wanted to develop within their role as a community pharmacist, emphasising the patient focussed aspects of the role and reducing their direct involvement in dispensing supply. The fact that so many of these students were keen to further their careers in this way is encouraging in light of the government policy to deliver more patient focussed services from primary care.[208] Those considering career changes spoke of this in terms of being in addition to their community role (e.g. teacher practitioner or moving in to management). It would be useful to undertake further research in the future with these students to discover whether they are successful in achieving these ambitions.

Students described their learning approach prior to commencing the course as unfocussed and based on personal interests or convenience to meet CPD requirements, reacting to situations or to meet the accreditation requirements for delivering various enhanced services. Without receiving feedback on their performance subsequent to completing these activities students were not always sure if they were applying their learning correctly.

At the later interviews some students admitted their CPD choices prior to undertaking the diploma did not always result in significant learning as they chose topics that they found easy or that they already understood, echoing the findings of previous studies on the impact of CPD on pharmacists.[18,22]

The CPD model adopted in pharmacy draws strongly on cognitive theories of learning.[13,106] The findings of this study support the criticisms that these approaches present learning as an unmediated activity which would benefit from additional support, such as role-modelling, mentoring and the identification or provision of new tasks and activities.[296] This support is largely absent from the regular practice of community pharmacists and as seen here may result in low quality learning.

There was evidence that student approaches to learning had changed during the course as a result of the supporting framework presented by the diploma. Coursework

introduced new tasks and activities which structured learning. Collating a portfolio and using the competence framework assisted the students to identify gaps in their competence, reflect on their learning needs and consequently structure their own learning with the support of their tutor. Further opportunities for reflection were provided by feedback on performance and observation of colleagues' performance during study days, feedback from tutors and even watching their own performance on video.

Initially both the portfolio and the competence framework were poorly understood and considered a time consuming 'paperwork' exercise, with some unnecessary repetition, which contributed to the course workload rather than the learning process. Portfolios can be used for both learning and assessment and here the portfolio served both purposes. It has previously been recognised that using portfolios for summative assessment can be unpopular with students and inhibit openness and honesty when selecting material for inclusion,[297] however this does not seem to be the case here once students had developed an understanding of the portfolio's organisation. At the follow-up interviews students described how the competence framework used in conjunction with the portfolio helped them measure their progress, reflect upon this and target further development needs. Despite this the initial reservations regarding the complexity of the competence framework remained. These opinions, coupled with a concern with the behaviourist view that work can be reduced to a catalogue of directly observable behaviours, support the national recommendation to develop a simpler and more generalisable professional development framework for early career pharmacists.[37]

Few comments were made concerning the contribution of the different assessment and evidence collecting tools during the first interviews. Most comments focussed on the practicalities of using the observational tools in the workplace; having a flexible arrangement with the tutor was an important factor in optimising their use. Students described how much they enjoyed using the tools and the contribution they made to the learning process once they were understood. This was through provoking reflection and directing them into areas they would not normally explore. Eraut[27] describes how learning opportunities at work are dependent on how work is organised and allocated and the structure and tutor support provided by the course appears to have facilitated this for these students. By these means the course seems to have supported students to identify areas for reactive learning.[94]

At the end of the course students described how the assessment tools linked their learning and practice. The fact that much of this learning happened in the workplace meant students felt their new practices would continue. This reflects the conclusions of a recent literature review which suggested assessments such as these are a potent

means for altering behaviour.[298] From an adult learning perspective[46] it is unsurprising that learning conducted in and relevant to the students' work would result in sustained changes in practice.

Although most students eventually understood how to use the portfolio and the various assessment tools, consideration should be made as to how they are introduced and explained at the outset of the course. Discussing the role of reflective practice in the development process may expedite their utilisation and avoid some of the initial responses which positioned them almost as a barrier to learning. This is supported by a previous study which found that academic support has an important role in helping pharmacists overcome their initial apprehensions in using portfolios and documenting learning.[299]

Students believed that the prospect of the level 1 OSCE incentivised their learning and its successful completion provided them with a sense of achievement and boosted confidence. A strength of OSCEs is their ability to test communication skills[159] and it is likely that it was this that led to the positive outcomes reported. However, some of the scenarios were said not to reflect usual practice and therefore careful design is required to address this. There has been some criticism in the literature that students perform to ensure they meet an OSCE's assessment criteria rather than reflecting their usual practice in these situations.[160] This compromises the ability of the OSCE to validly assess students' true practice and on this basis it has been argued that workplace assessment (i.e. assessment of practice in the working environment) rather than work-based assessment methods (i.e. assessment based on practice but conducted away from the working environment) should be used.[300] However, if used solely as a test of competence this issue is not a problem if the OSCE is designed well and the assessment criteria exemplify good practice.

The role of the OSCE in postgraduate education should be carefully considered. Their use as a summative assessment here appears to have incentivised learning and provided a source of performance attainment which raised beliefs about self-efficacy. On this basis it can be argued that their use should be considered together with workplace assessment of performance, as they were here, provided that scenarios and assessment criteria are developed which reflect actual practice.

The diploma was considered to have a heavy workload by the students who viewed it as a greater challenge compared with their undergraduate studies because of the increased personal and work commitments they now had. Changes to routines and the devising of personal coursework timetables were introduced by students to

accommodate learning, and it was suggested that more prompts and reminders from the university would help.

Completion of the pre-study day preparatory work was a challenge for some students. The benefits of this work included being better prepared for interactive activities at the subsequent study day and providing an introduction to key resources. The requirement for evidence collection across the GLF was also criticised by some as unnecessary and time-consuming.

Workload issues suggest the diploma was not optimised to encourage deep approaches to learning. A heavy workload and inappropriate assessment have previously been found to be detrimental in this regard. Consideration should therefore be given to the workload associated with each study day as some students were selective in their choice of pre-study activities and this impacted on the value of the study days for other students. Furthermore, a more targeted approach involving the student in identifying and planning their development needs, supported by their tutor, would meet the needs of the adult learner more appropriately.

9.4.4 Effects of factors such as role, experience and working environment on the experience of the UEA diploma

In the main the benefits described and issues faced in participating in the course were consistent across the sample. However, there were several factors which did appear to impact on the experience. These were mainly workplace related, although personal commitments outside of work were also relevant. The amount of work experience the student had did not seem to have any discernible impact.

Working part-time, in a less busy working environment, or having the flexibility of locum work allowed individuals to manage their course commitments more effectively than their colleagues working full-time in busier pharmacies. However, this could limit the number of opportunities for WBL. Conversely, busier workplaces could limit opportunities for interaction with the tutor during their visits.

The level of support from students' employers was variable. Although employer support was a prerequisite for admission on to the course the requirements were minimal. Where additional support was demonstrated it was in the form of flexibility in allowing time off to attend course study days in company time or a manager actively contributing to coursework assessments. An understanding of the potential benefits of the course was significant and students felt that it was only those managers that were pharmacists that had this understanding and therefore supported them.

Improved relationships with GP practices have already been described and these relationships benefited students as they facilitated several aspects of learning on the course. Those students whose pharmacy was located in close proximity to the GP surgery described closer working and were therefore at an advantage when developing such relationships.

Returning to formal learning presented a challenge to some students and this was not restricted to those that had been out of education for some time, with more recently qualified students commenting on the difficulties of returning to education and combining this with regular work.

The different circumstances of students undertaking postgraduate education should be recognised when providing support, particularly those experiencing difficulties, and ways of supporting non-pharmacist managers to understand the benefits of pharmacist training and how they can better support this should be sought.

9.4.5 Strengths and Limitations

This study was based on a purposive sample of diploma students selected to ensure a diverse representation of participants working in a variety of roles in a range of different pharmacy types and locations. The approach used enabled an in-depth analysis of personal views and experiences at two different time points. This facilitated exploration of the sustainability of initial views and experiences and whether expectations were met. Unfortunately a number of students exited the course early; however these individuals were not excluded from participating in the interviews, therefore the views captured were not limited to those successfully progressing through the course.

The sample could only provide a diverse representation within a group that had self-selected to undertake the diploma and consented to share their views in an interview. This potentially introduced bias as it would be expected that these pharmacists would have a greater interest in personal and practice development and that they may have had an interest in seeing a favourable evaluation of the qualification they were studying for.

Practical considerations meant that the first round of interviews took place after approximately one year of the course. Some aspects of the interviews therefore relied on post-hoc recollections on the part of the interviewees which may have been subsequently influenced by their participation in the course.

Furthermore, as considered in Chapter 3, the interviewer's background in community pharmacy and association with UEA may have influenced the responses received and

their interpretation. However, the inductive approach to the thematic analysis of the transcripts supported the generation of themes which were not pre-determined.

Whilst the findings may be representative of community pharmacists' experiences of UEA's postgraduate diploma they cannot be generalised further, although inferences can be drawn concerning the design and delivery methods used by the course and community pharmacists' approaches to and experiences of development post-registration.

An improvement could have been achieved by conducting the initial round of interviews before participants' commenced the course, thus capturing their reasons for choosing to access a postgraduate diploma and their approaches to learning before the course had any influence.

9.4.6 Conclusion

Pharmacists' experiences of undertaking the diploma and the effects upon them were obtained in these interviews. This study suggests that the WBL approaches adopted by the diploma enhanced learning and development and had a positive influence on practice and job satisfaction. Confidence and inter-professional relationships in particular were seen to develop as a result of participation. However, a number of issues with the diploma's design were uncovered, including its workload, assessment methods and mentoring provision.

At the present time completion of a postgraduate diploma is not mandated for community pharmacists and the findings of this study do not support the imposition of such a measure. They do though suggest that consideration should be given to how WBL approaches are adopted in the provision of community pharmacists' development post-registration. Provision in this case not only referring to formal mechanisms of education but also the everyday working (and hence learning) environment community pharmacists operate within.

9.5 Employer interviews

9.5.1 Main findings

The senior managers responsible for pharmacist education and development at four large community pharmacy multiples were interviewed. The objective was to explore the factors influencing community pharmacy employers' decisions on pharmacist education and development.

Employers' decisions on pharmacist education and development were strongly influenced by the changes they described that had occurred within community pharmacy and a belief that pharmacists needed further training and development post-registration to ensure they could perform effectively in this environment.

Participants believed that the responsibility for meeting these development needs was shared between the employer and the individual. Effective development of the pharmacist workforce helped employers achieve their business objectives but pharmacists also had a professional responsibility to ensure their practice was up to date.

Although employers were influenced by the demands made for development by pharmacists, ultimately decisions were based on the potential impact of any intervention on the business. External courses were not widely supported by these employers as a means of developing pharmacists. Where support was offered it was important that the potential business benefits outweighed the costs. A preference for modular or short courses was expressed. Participants had a lack of clear data on the outcomes of employees taking external courses, and this may have contributed to the belief that the benefits for the employer were questionable with employees not always changing their practice or deciding to move away from patient roles or even leave the company post-completion. This may be why some employers were using external courses as reward for good performance and commitment to the company when a greater gain may have been had by investing in underperforming and less committed employees.

9.5.2 Influences on decisions regarding pharmacist education and development

Employers' decisions on pharmacist education and development were driven by the needs of the workplace as has previously been suggested.[90] They described how an increase in patient focussed services has seen the role change to one requiring a greater use of clinical skills and more time spent 'patient facing'. A need to ensure their pharmacists are equipped to fulfil this role, deliver new services in the future, and work with local commissioners as the funding of the pharmacy contract continues to encourage services to the detriment of payment for dispensing, was recognised. Concerns regarding what developments in the NHS structure mean for the commissioning of services were cause for uncertainty for companies in terms of planning the development of their workforce. Interestingly the role of the NHS in supporting pharmacist development was only touched upon briefly by one participant.

This may reflect employers' wishes to maintain control over WBL as suggested by Evans *et al.*[90]

Participants believed that training and development was required beyond that provided up to registration to enable community pharmacists to perform effectively, thus supporting the current drive to change undergraduate and early career development.[36]

Generally it was felt that there was a need to develop communication and relationship building skills. The MPharm degree is funded as a science degree which has limited the scope for placements which would provide opportunities to develop these skills with real patients and healthcare practitioner colleagues during the training period. The concerns expressed by these employers reflect the findings of previous research. For example, improving working relationships between community pharmacists and general practitioners was a key recommendation made following a national evaluation of the community pharmacy contract[118] and interviews with primary care organisation stakeholders revealed they felt there was a lack of communication regarding MURs between community pharmacists and general practitioners.[229]

Amendments were made to pre-registration programmes by these companies, introducing business and management skills to ensure the pharmacists they produced were able to deliver the role required. Continued development of these skills was seen as a priority for newly qualified pharmacists to enable them to perform effectively. In some cases similar training was provided for experienced pharmacists on recruitment to the company so that they were equipped to deliver the community pharmacist role as defined by their new employer.

The clinical knowledge of newly qualified pharmacists was thought to be superior to that of some of their more experienced colleagues. It is possible that the supply driven nature of the role that the more experienced pharmacists had spent the majority of their careers delivering had resulted in an atrophy of their underused clinical knowledge. If this is the case it strengthens the view that CPD has not had the desired effect of ensuring pharmacists develop their practice and provides some support for the argument for more stringent processes such as the proposals for revalidation.[8,18,22] This may in part be because pharmacists lack the self-assessment skills to identify the types of skills and knowledge they should be developing to enhance their performance.[25] Therefore, an alternative argument is that these pharmacists need more support to achieve the optimal conditions for adult learning[74] and this would seem more appropriate given that revalidation is an assessment rather than a development process.

The fact that community pharmacist career pathways are management focussed with a limited increase in clinical complexity[37] may also explain their comparative lack of clinical ability. As the role becomes more clinical community pharmacy may need to consider adopting a working model similar to that used by GP practices where a practice manager is employed to enable GPs to concentrate on providing patient care.

Participants believed that as employers they had a responsibility to develop their pharmacists so that they could deliver performance which supported the company's business objectives. It was also recognised that developing staff in supporting roles provided pharmacists with more scope to perform effectively. This would of course depend on these pharmacists having the management skills to effectively utilise their staff. Pharmacists were felt to be responsible for their own clinical development and the regulator was seen as accountable for ensuring this happened. This supports the previous finding that in community pharmacy performance is business focussed with clinical performance seen as the individual's responsibility[301] and again illustrates the employers' desire to control WBL.[90]

Despite this, employers were also influenced by pharmacists' demands for development. Pharmacists recognised that their role was changing and they wanted training and development to help them meet the expectations placed upon them. There was some feeling that a changing employment environment for pharmacists contributed to these demands. Recent reports have pointed towards an employment situation in which workforce numbers have started to exceed vacancies and pay rates have fallen[294,295] and it may be that pharmacists see personal development as a means of providing job security.

Requests were received from pharmacists for both internal company training and external courses. Ultimately the decisions on which courses to support were based on an evaluation of the expected benefits versus relative costs. This has resulted in a focus on providing in-house training to allow closer control of pharmacists' development and the costs involved. Whilst this approach may develop community pharmacists in their current role to meet company objectives it can also limit the opportunity for wider development. More than one participant referred to the 'sheep dip' approach of some of their internal training suggesting that it does not always reflect individual needs. Similarly to the experiences described in medical education,[82] the in-house training described here emphasised off-site and off the job activities rather than providing support for the WBL approaches more suited to adult learners.

Community pharmacists are on the frontline when it comes to delivering NHS services which contribute to local and national agendas for healthcare[208] and these agendas

may not always align with those of the employers. For example community pharmacies set in deprived areas may have a greater need for substance misuse services compared with those in more affluent locations. Company training is likely to focus on topics which will be relevant nationally and therefore training to suit specific local agendas may not be provided. Consequently community pharmacists may be unable to respond to new local opportunities. Whilst it is not surprising that the employers focus on activities which improve the performance of their companies, a successful skills development policy should also involve individualised development activities.[302] Furthermore, the NHS should take some responsibility for ensuring training is provided which supports their aims. On this basis it could be argued that other sources of funding should be made available to support the development of community pharmacists. Training and development of hospital pharmacists is funded by the NHS and whilst this may not be wholly appropriate for pharmacists working in a commercial environment in would seem reasonable to suggest that costs are shared between the employer, the NHS and the individual.

9.5.3 Influences on decisions to support postgraduate diplomas

The use of externally provided courses in the development of pharmacists had not been widely supported by these employers. Support was more likely to be offered for courses whose objectives were aligned to those of the business.

Pharmacist retention was seen as an additional benefit for supporting external courses such as postgraduate diplomas. In return for paying course fees companies could stipulate a 'tie-in' period during which the employee would need to return a proportion of this if they resigned. There was also some belief that employees supported in this way would be more likely to remain with the employer. The benefits of pharmacist retention included a reduction in the costs associated with recruitment and the business benefits gained from maintaining continuity of service in the employee's workplace.

The costs of supporting external courses were a further consideration and these were not limited to the payment of course fees. Any requirement for time away from the business was viewed as an additional cost. This included the direct financial cost of providing locum cover for any course attendance requirements and the costs to the business of removing the pharmacist for short periods.

These concerns meant that shorter courses tailored to specific business objectives and delivered by distance learning which the employee could undertake in their own time

were preferred. Pharmacists were perceived as sharing these preferences and previous research has shown that community pharmacists do tend to complete distance learning at home, but this was at least in part due to a lack of opportunities to do so in the workplace.[39] Whilst shorter courses may address a particular need they are unlikely to meet the government's objectives of developing community pharmacists able to build better relationships with GPs and other healthcare professionals.[208] By undertaking distance learning only courses participants may not be supported to engage in the social learning[111-113] which lends itself to the development of communication skills and relationships highlighted as lacking by these employers. Additionally, the literature in CME has demonstrated that interactive and multifaceted techniques are most effective at changing practice and patient outcomes.[15,59,61-63,72] Furthermore, performance in these skills is unlikely to be monitored.

The decision to support postgraduate training tended to be based not only on personal development and local business needs but also on the individual's demonstration of their commitment to the employer through their achievements. Consequently some employers appeared to be using external courses as a reward for good performance when a greater gain may have been obtained by investing in employees that were underperforming and less committed. Providing the course delivered learning outcomes in line with a company's objectives this would counter the argument that the cost of these individuals' absence from the business to attend training outweighs the benefits as they should be better equipped on returning to work to deliver them.

9.5.4 Beliefs about the effects of community pharmacists undertaking postgraduate pharmacy diplomas

Despite the considerable costs associated with investing in external courses participants did not have a clear understanding of the effects of this investment. There was a feeling that the benefits were questionable and that pharmacists participating in such courses did not always change their practice. This may be due to the preference for distance learning courses which are likely to provide increased knowledge rather than improved performance[72] and is also in line with the evidence that postgraduate training for pharmacists has not been optimised for adult learners and may have resulted in surface approaches to learning which have not resulted in improved practice.[40,42]

Although views were expressed regarding the positive impact on retention it is likely that this is only a short-term benefit as there was also a view that completion of a postgraduate qualification resulted in people changing their career, either by moving away from patient-facing roles or leaving the company. This may be due to a lack of

opportunities to utilise newly developed skills in existing community pharmacist roles or for career progression whilst remaining in the community pharmacy. Retention may be better aided by enabling pharmacists to use their new skills and progress their career whilst remaining within a community pharmacy-based role. This could be achieved by giving these individuals greater responsibility for patient safety (e.g. by progressing to a prescribing qualification), education and research, thus facilitating a vertical route through the pharmacist career trajectories summarised by Wright *et al.*[37] A review to inform policy on higher skills development at work suggested workers that performed the same tasks routinely and repetitively did not develop the higher skill set attributed to similarly qualified workers who changed tasks regularly or changed jobs[302] and it would be interesting to explore whether pharmacists that remain in the same role following course completion expand their role or revert to previous levels of performance.

9.5.5 Additional observations

If external postgraduate education is to be more widely supported providers should ensure courses are designed to include the delivery of outcomes which meet employers' needs thus justifying their costs. Interestingly, some participants said that they would like to develop closer relationships with course providers whilst others described how they were already working with academic institutions which enabled them to better understand the courses that were available or to have some input into the design of courses so that they were more closely aligned to their needs.

9.5.6 Strengths and Limitations

The strengths of this study include that access was obtained to senior learning and development managers at several of the major employers of community pharmacists in the UK and the approach used enabled an in-depth exploration of their views. Three of the participants were former community pharmacists whilst the fourth had a non-pharmacy background.

In considering these results a number of limitations should be recognised. Results are based on the opinions of a convenience sample of four individuals and whilst they may be representative of senior learning and development managers at other large multiple community pharmacies they cannot be generalised further. Furthermore, as considered in Chapter 3, the interviewer's background in community pharmacy and academia may have influenced the responses received and their interpretation.

The main limitations of this study were the small sample size and its convenience basis. These may have been overcome by inviting representatives from all the large multiple community pharmacies in the UK to participate and by widening participation to include not only senior learning and development managers but other senior employees involved in making decisions impacting on pharmacist professional development. Depending on the numbers agreeing to participate, a purposive sample could have then been selected.

9.6 Conclusion

Despite the small sample size, the roles held by these participants within four large community pharmacy multiples resulted in interviews which were able to provide an insight into the study's objective to explore the factors influencing their decisions on pharmacist education and development.

Employers' believed that pharmacists required training and development beyond registration. However, an overriding commercial perspective appears to have resulted in a narrow approach aimed at developing community pharmacists to meet current company objectives. This has generally been provided using in-house training and using methods which do not always foster an effective adult learning environment designed to optimise individual learning needs.

Company objectives may not always align with the wider needs of the NHS and government agendas for healthcare. A collaborative approach between the employers, NHS and HEIs, facilitated by the appropriate funding mechanisms, would be an important step in delivering training and development for community pharmacists fit for purpose.

9.7 General discussion

9.7.1 Introduction

The aim of this PhD thesis was to investigate whether there is a role for a workplace based diploma in the development of community pharmacists. On reflection, the work undertaken has not been able to answer this question categorically. However, the findings do contribute to an understanding of the learning and development needs of community pharmacists, from the perspective of the learning theories relevant to WBL.

A mixed methods approach was used to evaluate prospectively the delivery of such a diploma at the UEA, which had been introduced in the context of changes in the community pharmacist's role, government policy and societal expectations. The

different approaches enabled triangulation and complementarity of the different elements. Triangulation was limited between the online surveys and the student interviews because of the nature of the different samples. The interviews were conducted face to face with a purposive sample of students, which meant that reasons for early exit from the course could be explored and later considered during the analysis. In contrast the online survey was anonymous and included those that had exited the course in the overall result on an intention to treat basis. As the first interviews were not conducted until a year into the diploma those that had left before this were not invited to participate. Therefore, a higher proportion of exiting students were represented in the online survey sample.

In retrospect, a number of changes to the project design may have supported answering the study aim more effectively. Several limitations with the individual studies have been identified and discussed earlier in this chapter. In addition, conducting the separate studies in series rather than in parallel may have been more useful, especially those involving the students. For example, the online survey could have been more focussed on learning and utilised existing validated tools such as the ASI,[41] to measure learning approaches, and the CEQ,[45] to measure experiences of the course. The results could have been used to inform the interview topic guides to support a deeper exploration of the underlying experiences of learning and the course.

This leads to some further reflections on the process of completing this PhD. I was recruited into a role at UEA which required me to both support and evaluate the delivery of the diploma. Alongside this the evaluation work contributed to the completion of this PhD.

I encountered difficulties early on where, on reflection, I became overwhelmed by the demands of the steering group. This had a significant impact on the design of the online surveys in which I ended up trying to do too much because I was trying to incorporate all the requests from the group. It is clear now that this resulted in a study which made only a minimal contribution to the thesis aims. Furthermore, due to the small sample size and high attrition rate the final results are of limited value. With hindsight I would still have undertaken the additional evaluation elements required by the steering group but kept them separate from the PhD work. As noted above there are more appropriate tools I would now include within this work. I was also too ambitious in expecting to demonstrate change in patient satisfaction due to diploma participation when a wide variety of other factors can contribute to the results obtained, including patient judgements being based on low expectations.

I did learn from the experience and approached the qualitative work in a different manner, informing the steering group of my plans and progress without involving them in the design process. This was made easier for me as they appeared to have less desire to be involved in this work and in addition attendance at the meetings decreased substantially once the course had begun. Therefore after the initial difficulties I feel I was able to conduct the research for this PhD independently of the demands of the steering group.

Whilst it is not possible to detach oneself from one's knowledge and perspectives, it is important to have an awareness of the effect this can have on one's interactions and interpretations. The nature of my support role on the diploma is described in Chapter 3 (see page 66) and my background as a community pharmacist is also significant in this respect. To mitigate for any potential biases on my part I endeavoured to adopt a reflexive approach whilst undertaking the qualitative work. In addition, my supervisors provided an external check throughout the process. This included reviewing my interview methods and delivery style, and challenging the analysis and development of themes as they progressed.

The work in this thesis discussed the evidence base for postgraduate education of community pharmacists. The absence of protected time in the workplace for CPD completion has been identified as a barrier to its completion. However, the majority of submissions meet the requirements of the regulator and the literature suggests pharmacists adopt a superficial approach to achieve this which does not lead to a development of their practice. The limited evidence on formal postgraduate courses which aim to support the development needs of pharmacists suggest they may similarly encourage a surface approach to learning. The majority of these courses primarily adopt a distance learning delivery method. The CME literature informs us that multifaceted approaches incorporating interactive sessions are more effective at changing behaviours. Evidence from SP courses research supports this, highlighting the mentoring role of the DMP within this.

The findings of this PhD aligned well with the literature. The practical activities and opportunities for feedback appeared to promote development to a greater extent than if delivery had been restricted to distance learning or didactic lectures. Student satisfaction with the study days would appear to contradict employers' perceptions that pharmacists would prefer distance learning courses, although pharmacists may share this perception if they have not experienced the days themselves. Furthermore, the self-selecting nature of this group and high attrition rates cannot be dismissed.

The work undertaken reviewing the learning theories relevant to the development of pharmacists and WBL supported an understanding of the role of the individual and their environment in the learning process. The separate studies undertaken as part of this PhD contribute to an understanding of community pharmacists' learning and development needs from the perspective of these learning theories. The isolation that the community pharmacists in the study experienced appears to be a significant factor in both their learning and the opportunities they have for learning when viewed in this way.

In behavioural terms, isolated working in community pharmacy may result in learning that is driven by feedback from sources that may not always promote the development of good practice. Students described that their practice was not evaluated once qualified. Because of this, patient responses to interactions with the pharmacist are a key source of information in determining future behaviours and yet, as suggested in the literature and reinforced by the results of the patient satisfaction survey, patient responses are not always founded on an appreciation of the technical aspects of good practice. Another source of external stimuli that may influence behaviours includes workplace colleagues. For the community pharmacist this is more likely to come from support staff rather than their peers or other healthcare professionals, so again its role in learning and development is limited.

Behavioural learning may result in the development or perpetuation of bad habits without the active processing of information described by cognitive learning theories. In the professional development of pharmacists, cognitive theories such as experiential learning and reflective practice underpin the CPD process. In medical education, tools such as portfolios, appraisal and development plans have been introduced to support learning in this way. The tools introduced by UEA's diploma appeared to support learning from a cognitive theories' perspective.

Detailed competency frameworks, such as the GLF used in UEA's diploma, are founded upon an understanding of learning from a behavioural perspective. It is questionable whether job performance can be specified so comprehensively in advance. Here, the competency framework was initially reported to be too complex, in parts irrelevant and time-consuming. Although at the later interviews participants recognised its contribution to the learning process, concerns regarding its complexity and relevance remained. The course now adopts an approach more aligned to andragogical principles. It uses a simpler and more generalisable framework, has removed the requirement for sign-off against all competencies and requires completion of a reflective essay in which they consider their progress and development needs, enabling the student to develop a more focussed personal development plan.

The positive comments made by students regarding the inclusion of formal examinations within the course, especially the OSCE, would seem to contradict the views obtained in the employer interviews. Opinions were obtained after the event and it seemed that the experience had changed the views of some who would not have opted for examinations at the outset. Of course, the prospect of undertaking the examinations may have contributed to the attrition rate. This was not determined.

Comments were received about the unrealistic nature of some of the OSCE scenarios. This reflects one of the concerns raised by Hodges[160] that the OSCE is undertaken in an artificial environment which does not reflect practice. The current course has attempted to address this concern by revising the OSCE so that it consists of fewer but longer stations (4 x 30 minutes), thus allowing scope for scenarios that are a more realistic representation of practice. In addition, the criterion-based mark schemes have been replaced by the mini-CEX or MRCF assessment forms, depending on the station, which may address one of the other concerns raised by Hodges[160] that students 'perform' to meet the OSCE assessment criteria in a manner unrepresentative of their usual practice. Students would have preferred more practise role-plays during the study days, however few comments were made about any anxiety caused by the process and so it would appear that the opportunities provided, together with the formative OSCE assessment, were sufficient to overcome some of the examination stress associated with OSCEs reported in the literature.[157,161]

Given that the OSCE assessment appeared to incentivise learning and improve self-efficacy, that their use in this diploma and their subsequent revision seems to address some of the concerns expressed about their use in the literature, and that they provide a means of verifying performance assessed in the workplace thus providing a measure of quality assurance about an individual's practice, their continued use within the course design would seem appropriate. Consideration should therefore be given as to how the benefits of this examination are described when promoting the diploma to community pharmacists and their potential sponsors.

Support and feedback on performance were important for students and the tutor relationship was an important factor in this. Those tutors perceived as being more effective appeared to perform a mentoring role which had a positive effect on student confidence. In SP training the literature demonstrates the importance of the mentoring role of the DMP and in CME, educational outreach visits which take a mentoring approach have been demonstrated to improve practice. Therefore, close attention should be paid to how the diploma tutor role is defined; the current version of the course has removed the requirement for tutors to formally assess work allowing them

to focus on mentoring. The role of mentoring for community pharmacists in general should also be considered.

The cognitive learning models on which the CPD process is founded have been criticised as reliant on learner engagement with their own experiences. UEA's diploma appeared to provide a framework to mediate learner activity in a way that usefully supplemented their development. However, a number of areas for improvement in their design and implementation were identified.

It is when considering the social aspects of learning that the work in this PhD particularly adds to an understanding of community pharmacists' learning experiences. The diploma appeared to address some of the deficiencies in the opportunities for participatory learning whilst highlighting some of the key issues which may be limiting the development of community pharmacists.

Study days facilitated peer interactions which provided opportunities for peer mentoring and vicarious learning. Student views on the study days delivered by expert practitioners described the effective learning that is enabled through interactions with those more knowledgeable. The study days also provided an opportunity for developing relationships with other healthcare professionals, providing a source of learning and support which was lacking for many students prior to commencing the course.

Although tutors were in a position to support student development, this was limited by the transitory nature of their role. Ideally the tutor requires an understanding of the student's capabilities which would enable them to identify what Vygotsky terms the 'zone of proximal development'.[112] This is improved further if the tutor is able to work alongside the student, supporting their development in the areas identified and facilitating legitimate peripheral practice in work of increasing complexity. In community pharmacy there is rarely a figure in the workplace that fulfils this role and for the purposes of the diploma, tutors had to be allocated to students from outside their workplace. Community pharmacist career trajectories tend to take them away from patient-facing roles and this presents an additional difficulty for the profession when considering who is best placed to mentor the development of pharmacists who wish to expand their community-based service focussed roles.

The diploma requirement to work more closely with local GPs gives an insight into what may be achieved through closer working with other healthcare professionals. The course encouraged and prepared students to approach their GPs which facilitated social learning. Some examples of what could be described as legitimate peripheral practice were described. This had benefits beyond the learning of the student including

improved working relationships, student self-efficacy and job satisfaction and possibly reciprocal learning by the GP.

The work undertaken as part of this PhD has progressed an understanding of community pharmacists from a learning theories perspective. The professional isolation experienced by many community pharmacists can result in learning that is underpinned by external stimuli and feedback from unreliable sources. Taking an active approach in one's development, such as that encouraged by CPD can overcome this. However, a lack of support can mean that barriers exist to doing this in an effective manner. UEA's diploma provided a number of tools and support mechanisms to scaffold learner development. While this appeared to be successful in some respects a number of issues were identified in their design and implementation. Furthermore, the partial successes seemingly achieved acted to highlight the limited opportunities for social learning in the profession.

The findings of this PhD can also be considered from the perspective of the beneficiaries of the learning undertaken by community pharmacists. Competing interests can shape the learning and development that occurs. These potentially include those of the individuals themselves, their employers and the NHS.

Stated reasons for undertaking a postgraduate diploma included recognition that their role was becoming more patient focussed and that they required training and development to engage with this change. Although internal motivations appeared more important to the students who were interviewed, concerns about employment stability were a motivation for some. External drivers for learning such as this are less likely to motivate deeper approaches to learning. For example, if an individual believes a qualification per se will increase their employability rather than the skills it endows them with they will be more inclined to choose the easiest route to such a qualification. UEA's diploma required continuous engagement with learning and therefore the high attrition rate is possibly explained if this motivation was more widely held within the cohort.

A number of other factors may have contributed to the diploma's high attrition rate. These included the fact that student fees were paid for them, so the initial decision to participate may have been taken more lightly than if investing their own money and may have removed some of the impetus to persevere during any difficult periods on the course; there were no clear incentives for career progression on course completion; student practice was observed and assessed during the course, a cultural change which some may have found uncomfortable; and the course workload may have been difficult to cope with for those who lacked support within the workplace or whose

personal circumstances limited the amount of coursework they could do at home. Many of these factors are removed for hospital pharmacists, who receive support from a workplace mentor, are permitted study time within their working hours, and whose career progression is dependent on diploma completion. This view is partially corroborated by the opinions of those students who withdrew from the course.

Prior to commencing the course these students lacked confidence in their own abilities as practitioners which in part seemed to result from limited opportunities to receive feedback and assessment on their performance since qualification. A perceived lack of knowledge and skills and uncertainty concerning their role contributed to low confidence and impacted on working relationships, particularly with GPs.

For those who persevered, participation in the diploma addressed development needs and was believed to result in improved practice including stronger relationships with GPs and a wider provision of pharmacy services of better quality. Job satisfaction was said to have increased because of the changes they were able to make to their work and the progress made in integrating into the primary care team.

Students achieved these outcomes through participating in the diploma which introduced them to areas of practice in which they had not previously engaged, and provided support from expert facilitators, tutors and peers. The high attrition rate, however, suggests these outcomes were either not apparent or their value was not sufficient incentive to overcome the demands placed upon them by the course for some. It may also reflect some inconsistencies in the experience between students, for example in workplace and tutor support, and the difficulties in implementing WBL in the professionally isolated community pharmacy environment.

Personal and work pressures were identified as potential barriers to successful participation in the course, which students felt had a high workload. This is perhaps unsurprising given that community pharmacists, particularly those working for the larger multiples or supermarkets, have been shown to be more likely to report work/life balance problems than those working in other sectors, excepting academia.[303] Course design considerations together with additional support from the employer would help facilitate the student journey through the diploma.

Employers believed pharmacists were not fully equipped for the modern role on graduation and considered they held some responsibility to meet pharmacists' development where these were aligned with their companies' objectives.

Externally provided postgraduate education was not widely supported by employers as a means of developing their pharmacist workforce due to concerns regarding costs and

limited evidence available to demonstrate the benefits. This may be due to the preference for distance learning courses which are less likely to result in improved practice. Internally developed training has therefore tended to be favoured because this limits costs whilst retaining control of development. This is in contrast with the hospital sector where postgraduate diplomas have been used as a means of quality assurance; before the pharmacist can become truly autonomous and progress from a band 6 position there is an expectation that they will have successfully completed the diploma[34] providing reassurance that their practice is safe. The NHS trusts maintain an influence over course content to ensure it meets the requirements of their workforce through working closely with course providers, as exemplified by the Joint Programmes Board partnership.[304] This was not the case in this study, where the multiple community pharmacy employers had a limited attendance at the steering group formed to guide and support the development of the community pharmacy diploma.

Employers appeared to be supporting diplomas for the wrong reasons. This included use as reward for good performance and as a short-term retention aid. This view was supported by the initial online survey in which there was a minimal amount of employment change between surveys. However, there was a slight increase in intention to leave at the final survey, together with an increase in intention to leave the community pharmacy sector. Without a comparison group it is difficult to draw any firm conclusion from this. In the interviews the general view amongst students was that they now saw their future remaining in community pharmacy in some form where previously some had considered completion of the diploma would support a career change. It may be that a lack of opportunities with the current employer was responsible for how some members of the intervention group completed the survey.

The diploma appeared to support the development of community pharmacists which would help them meet employer demands and objectives, however employers need to consider how they can provide opportunities for career progression and use of new skills if they are to benefit fully from their investment. Some employers expressed a desire to work more closely with course providers to ensure courses are developed which meet their needs and this should be encouraged.

From an NHS perspective there is a requirement for improved healthcare outcomes to be delivered alongside increased efficiencies. Within the profession it is recognised that community pharmacy can contribute to a greater extent than at present by providing additional services to meet the needs of their local communities and that the engagement required with other professions and organisations to achieve this is poor.[305] The medicines optimisation agenda is an example of a pharmacy-led approach

which requires multidisciplinary teamwork to deliver improved patient care and more efficient use of resources.[306]

To deliver these agendas requires better consultation skills, inter-professional relationships and management skills. Changes to education and training and closer working with GPs and other healthcare professionals have previously been recommended to help deliver better care for patients and equip pharmacists to deliver the types of services needed in the future.[207,208] Although no evidence was obtained for increased delivery of enhanced services, and the anticipated benefit of an increase in patient satisfaction was not identified, pharmacists undertaking this diploma did seem to develop better consultation skills, inter-professional relationships and management skills. This enabled them to improve their practice, including increasing the effectiveness of the services they provided, and improved relationships may lead to opportunities for developing service provision in the future. The results of this study suggest that the diploma supports those that completed the course for the agendas that are shaping the modern NHS.

9.7.2 Conclusion

The work undertaken for this PhD has not achieved its aim to answer whether there is a role for a workplace based diploma in the development of community pharmacists. It has however furthered an understanding of the learning and development needs of community pharmacists, from the perspective of the learning theories relevant to WBL. This enables a broader appraisal of the development requirements of community pharmacists in addition to some recommendations for improving the diploma.

It is clear that the professional isolation experienced by community pharmacists has an impact on the development of their practice. The findings of this PhD identify that the variety of teaching and assessment methods used in UEA's diploma had some success in supporting learning and development. However, it also became clear that it was in the social interactions encouraged or required for their use that the greatest gains were had.

Community pharmacist development can be supported by providing them with the appropriate tools and resources as was seen here to some extent. Participation though, appears to be the key to unlocking not only the potential of the individual but also of the wider community/communities of practice. So for the isolated community pharmacist where are these communities and how can they be accessed?

One community that these pharmacists had access to was their peer group, facilitated by the diploma study days and sometimes their tutor groups. Participants were able to

interact, support and learn from each other's experiences. Study days also allowed interaction with the senior pharmacist facilitators.

Tutors were another senior pharmacist that participants had access to. Their role was a beneficial one in that it supported student learning through discussions and feedback using the learning and assessment tools. However, the fact they were not participating in the workplace of the student limited what could be achieved in terms of social learning. This highlights the difficulty in the community pharmacy setting for pharmacists to learn from more senior colleagues in the workplace on a longitudinal basis.

The educational work completed with the support of the local GP highlighted the potential for learning across professional boundaries for both the individual and the community. Exposure to other healthcare professionals was also achieved through their delivery of some of the study days.

These examples give a tantalising glimpse of what could be achieved if the participation of community pharmacists in their communities of practice was optimised. They also offer an explanation of why the role of the hospital pharmacist has developed more quickly. Hospital pharmacists do not work in isolation from each other or other healthcare professionals. Therefore in the hospital setting opportunities for social learning are ubiquitous. In these circumstances it is clearer how a diploma can work effectively to scaffold the learning of the individual. For example, the JPB model diploma adopts a number of the tools based on cognitive learning theories which provide this scaffolding. In community pharmacy there are more fundamental issues related to social learning that need addressing, as highlighted by this evaluation of UEA's adapted version of the diploma for community pharmacists.

A case for developing community pharmacists using the methods employed by UEA's diploma is made by this work. However the results achieved are largely grounded in the participatory and supportive elements that were facilitated and/or encouraged WBL. Areas for further refinement and development of these methods were identified, some of which have already been actioned. However, some of the changes required go far beyond that which can be achieved through revisions to the design and delivery of a course as they are dependent on the working environment of the community pharmacist. Because of this, engagement is required from across the profession and beyond. In fact it can be argued that the benefits can be delivered without necessitating participation in a diploma, although it may provide a convenient mechanism with which to achieve this. It is also worth noting that proposed changes in the MPharm degree

are unlikely to impact on the long term development of community pharmacists without addressing the participatory barriers created by their professional isolation.

To conclude a number of recommendations are proposed to improve UEA's diploma course, improve postgraduate education of community pharmacists in general and facilitate WBL opportunities for community pharmacists more widely:

UEA's diploma course

1. Within the diploma the tutor role should be more clearly defined as a mentoring role. Further to this, the best way of achieving an effective mentoring relationship may be for the student to source their own mentor.

2. Students should be encouraged to develop their own peer networking opportunities, for example by providing online messaging facilities and increasing the number of activities that require collaborative approaches.

3. In addition to introducing the various assessment tools, the induction process should encourage students to agree with their tutors a plan for using them during the early stages of the course.

4. The pre-course work associated with each study day should be prioritised thereby enabling students to better manage their workload. For example, greater consideration could be given to dividing work into required and optional tasks.

Postgraduate education of community pharmacists

1. Consideration of the current funding model for postgraduate education of community pharmacists is required. Completion of a postgraduate diploma is not mandated and the potential rewards for the individual may not be sufficient to expect them to assume the full burden of the cost. The NHS and the employer each benefit from improving community pharmacists' practice and therefore if wider participation is to be achieved approaches which share the costs between all three parties should be sought. Costs here include time as well as money.

2. Academic institutions should work with employers and NHS stakeholders to ensure their objectives are considered during the development of courses for community pharmacists. This may include utilising existing employer and NHS training and development programmes. This should increase the likelihood of gaining support for sharing costs and may reduce them.

3. Developers of postgraduate courses which aim to improve community pharmacists' practice should use multifaceted approaches which include interactive elements and incorporate WBL.

4. The individual should be involved in identifying and managing their own learning needs in line with andragogical principles.

5. To support the development of inter-professional relationships and social learning opportunities, postgraduate courses should encourage or even require working with other healthcare professionals.

6. Career pathways should be developed which allow community pharmacists to undertake and be recognised for more clinically complex work. This will incentivise community pharmacists' engagement with postgraduate education and allow them to use their new learning which may also support longer-term retention with the employer.

Facilitating WBL opportunities for community pharmacists more widely

1. Community pharmacists are likely to benefit from mentoring by an experienced colleague. The RPS Faculty has developed a mentoring database to facilitate these relationships for its members. Its use should be evaluated and, if proved successful, encouraged and extended. The benefits of mentoring are enhanced if the mentor and the mentee are able to work alongside each other, engaging in meaningful activities. This is a challenge in the current community pharmacy working environment, however stakeholders should be engaged in developing solutions. For example, this could include supporting early career pharmacists to spend protected development time at the workplace of a more experienced colleague. Such visits would need to be structured so that the mentee worked alongside the mentor and had opportunities for feedback and discussion, which could utilise the learning and assessment tools used in UEA's diploma.

2. Consideration should also be given to how to facilitate peer interactions, such as those provided by the diploma study days and CPPE learning communities, more widely. Virtual or online communities may need to be utilised given the difficulties in bringing groups of community pharmacists together. However, resources and support are required to develop and maintain the necessary platforms.

3. Facilitating the participation of community pharmacists in their local primary healthcare teams is also important. This may require support for individuals to develop their self-efficacy and minimise any barriers to participation. Work

should also be undertaken to ensure community pharmacists are actively invited into the wider healthcare communities. The recent joint statement by the RPS and the Royal College of General Practitioners on GP practice based pharmacists[307] is encouraging but involves pharmacists working in a new environment. However these pharmacists could be utilised to bring the two professions closer together.

9.7.3 Further work

Several opportunities for further work have been identified. These include:

1. Utilising the ASI[41] tool to measure the effect of UEA's diploma on the learning approaches of a future cohort, and the CEQ[45] tool to measure their experiences of the course.

2. Qualitative work to explore the virtual communities of practice that community pharmacists participate in. This could be followed by an evaluation to assess how members utilise the technologies identified and the impact of the interactions they facilitate on practitioner development.

3. Focus groups with community pharmacists who have not undertaken a postgraduate diploma or equivalent to explore the enablers and disablers to undertaking postgraduate education and their beliefs regarding the effects of undertaking one.

4. Development of a patient satisfaction tool for users of community pharmacy services which more validly captures both the opinions and expectations of patients concerning the care they receive. As a starting point focus groups could be conducted with community pharmacy service users with the aim of defining what makes a good pharmacy service.

5. Using the patient satisfaction tool developed in point 4 above to demonstrate the impact of postgraduate training of community pharmacists on patients.

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