# University teachers' views of interprofessional learning and their role in achieving outcomes: A qualitative study

**Susanne Lindqvist**, Senior Lecturer, University of East Anglia and Molde University College
**Frøydis Vasset**, Associate Professor, Norwegian University of Science and Technology
**Hans Petter Iversen**, Associate professor, Molde University College
**Synnøve Hofseth Almås**, Professor, Norwegian University of Science and Technology
**Elizabeth Willumsen**, Professor, University of Stavanger and Molde University College
**Atle Ødegård**, Professor, Molde University College and University of Stavanger

**Correspondence to:** Susanne Lindqvist, Centre for Interprofessional Practice,
Faculty of Medicine and Health Sciences, University of East Anglia, Norwich, NR4 7TJ, UK.
Email: s.lindqvist@uea.ac.uk.
Tel: 01603 591274

## Abstract

Over the past decade, there has been a rapid increase in higher education institutions offering opportunities for interprofessional learning (IPL) to their students. The literature presents a number of factors that contribute to effective IPL, including having trained facilitators that help optimise the learning process. Many of these IPL facilitators are university teachers and the literature provides us with some insight into their views of IPL. However, little is known about university teachers' views about IPL and their role in supporting students in achieving outcomes linked to IPL during their own teaching; this paper explores these areas. University teachers, working with students in Norway and England who contribute to patients' care pathway were purposively invited to join focus groups. Data collected from the teachers' conversations during these focus groups were analysed to elicit the main themes. Findings show that university teachers have a wide range of views about IPL, its potential to enhance collaborative practice and care, and their role in helping students achieve outcomes linked to IPL. A key challenge appears to be whether IPL is "worth the struggle," which emphasises the need for strong leadership in order to align pedagogical approaches in education and practice that strive to achieve agreed outcomes

## Introduction

There is a general consensus for the need of health and social care professionals to collaborate efficiently in order to provide safe and values-based care (Institute of Medicine, 2015; World Health Organization, 2010). The main purpose of

interprofessional learning (IPL) is to improve collaborative practice in order to ultimately increase the quality and safety of care (CAIPE, 2002). Social innovation has been launched as a theoretical framework to enhance positive outcomes for service users (Hean, 2015). According to Murray, Calulier-Grice and Mulgan (2010, p. 3), social innovation can be defined as, "… new ideas, products, services and models that simultaneously meet social needs and create new social relationships, or collaborations". In the context of this paper, social innovation relates to educators' joint efforts to improve pedagogical approaches in higher education that increase the likelihood that students will collaborate successfully with other professionals once in practice.

Empirical evidence has started to emerge, which shows that students introduced to IPL at pre-qualification level can: develop positive attitudes to each other's professions (Hawkes, Nunney & Lindqvist, 2013); and improve their collaborative knowledge and skills (Pollard, Miers & Rickaby, 2012). In addition, there is a limited – yet growing – evidence base also supporting changes in behavior and practice that have real benefits on patient care (Brandt, Luftiyya, King & Chioreso, 2014; Hammick, Freeth, Koppel, Reeves & Barr, 2007; Reeves et al., 2016a). As Reeves (2016b) points out, it is difficult to generalise IPL outcomes, since research in this field is characterized by heterogeneity – with relatively few studies being defined as having high scientific quality.

Given that IPL by its very nature encompasses the values of numerous professions whose field of study and practice will be underpinned by their subject-specific theoretical paradigms, the challenge of creating interprofessional education (IPE) that is evidence-based increases. There are a variety of theories that can be drawn upon when designing and delivering IPL opportunities, including social capital and adult learning theories. Hean, Craddock and Hammick (2012) explore a 'tool box' approach to choosing a theoretical underpinning to IPE and point out the overlap in many of the theories explored to date. They suggest that the key to strengthening and defending any IPE element of the curriculum is to gain clarity and knowledge of how the theoretical approach to IPL will help students achieve the intended outcomes. The comprehensive curriculum therefore needs to be designed to connect the links between the theory and practice of any IPE. This is where teachers play a key role in ensuring effective delivery of IPE, as evidenced in the metha-ethnography published by Reeves et al. (2016c).

The literature presents a number of factors that contribute to making IPL effective (Abu-Rich et al., 2012), including trained IPL facilitators who can help optimize the learning process (e.g. Anderson, Cox & Thorpe, 2010; Freeman, Wright & Lindqvist, 2012; Hall & Zieler, 2015; Howkins & Bray, 2008; Watts, Lindqvist, Pearce & Richardson, 2007). As with any other teaching, positive rolemodelling and a commitment to the topic are key components for successful facilitation of IPL (Freeth, Hammick, Reeves, Koppel & Barr, 2005). This is supported by empirical data presented by Giordano, Umland and Lyons (2012) who draw the conclusion that

negative attitudes amongst staff towards IPE will make any IPL intervention extremely difficult. In reviewing the literature, Rees and Johnson (2007) identified attitudinal barriers to IPE amongst staff involved in IPL. A study by Curran, Sharpe and Forristall (2007) suggests that teachers with previous experience of IPL are more keen to support the concept of IPE, a finding backed by Olenick and Allen (2013). The study by Olenick and Allen (2013) also shows that staff demonstrate positive attitudes toward IPE, especially if this was thought to be something they "should do" by senior management. These authors state that engaging in IPE is not an individual decision, but that it requires system-wide changes and organisational support.

Earlier work by Olenick, Allen and Smego (2010) describes IPL as an interactive, experiential and socialisation process, which is underpinned by adult learning principles and enhanced by facilitators who support students in reaching the desired outcomes. In 2017, a set of IPL outcomes was endosed by a group of global experts to guide, not only IPL facilitators but all teachers involved in educating our future workforce (Rogers et al., 2017). Further to being directly involved in IPL as facilitators, university teachers can create learning opportunities during their own uni-professional teaching, where students can learn about: the role and responsibilities of different professions; ways to overcome challenges linked to collaboration; and how patients can benefit from different professions working together. According to Barr and Coyle (2012), teachers often approach such learning from psychological, or sociological perspectives as they encourage students to address similarities and differences between their own and other professions. However, as teachers involved in health

and social care have a wide range of different backgrounds, their theoretical lens and view of collaborative practice and IPL is likely to differ. Since IPL needs to be underpinned by an appropriate range of theories to be effective, as mentioned above, students are therefore likely to also benefit from teachers having a similar theoretical approach to how they support students to achieve outcomes related to collaborative practice during their uni-professional teaching.

Students' perceptions of IPL have been extensively researched (Hammick et al., 2007; Johnson, 2003; Winer, Nakagawa, Conrad, Brown, & Wilke, 2015) and although some studies have investigated university teachers' perceptions of IPL per se, there is a lack of understanding of teachers' views of their role in achieving its intended outcomes during their uni-professional teaching. Baker, Egan-Lee, Leslie, Silver and Reeves (2010) show that the background and experience of educators significantly impacts IPL outcomes, which suggests that their views on the potential of IPL to enhance collaborative practice and care are likely to play an instrumental part in how they help enhance the IPL process within their own teaching. Biggs (1993) argues that educators often focus on one sub-system of education and therefore do not always see all elements in the learning process and how they each impact the overall learning outcomes. Hence, a raised awareness of such views amongst educators and how they may impact the wider learning outcomes – together with sharing best teaching practice – can be expected to generate a better understanding of how teachers can help students achieve the desired learning outcomes, for IPL and generally.

The aim of this study is to investigate university teachers' perceptions of IPL, and their role in achieving outcomes linked to IPL, at three different universities (U) situated in Norway (U1 & U2) and England (U3), by exploring the following objectives: (i) teachers' views of IPL delivered at their own institution; (ii) teachers' views on the potential for IPL to enhance collaborative practice and care; and (iii) teachers' views of their role in helping students achieve outcomes linked to IPL.

## Methods

This study employed an exploratory qualitative approach to gather focus group data from three universities in Norway and England.

### *Study setting*

Molde University College (U1) is a public university established in 1994, in Molde, Norway, specializing in logistics. IPL opportunities have been offered to nurses and social educators (Defined here as: health and social worker profession, aimed at working with children and adults in need of help and support due to physical, mental and social difficulties/challenges) during the last ten years. At the time of writing this paper, U1 offers IPL to ~ 650 students at bachelor and master levels. Norwegian University of Science and Technology (U2) is a university established 1994 in Ålesund, Norway. The first IPL pilot took place with nursing and biomedical laboratory science students in 2009. At the time of writing this paper, U2 offers three different levels of IPL to 540 nursing and biomedical laboratory science students. University of East Anglia (U3) is a public university established in 1963 in Norwich, East Anglia, England.

IPL opportunities have been offered to occupational therapy and physiotherapy students from the 1990s. Alongside the university delivering more courses, the IPL provision increased. At the time of writing this paper, U3 offers five different levels of IPL to ~ 3000 students from 12 different courses at bachelor level.

The rationale for selecting the three universities was the outcome of a long-standing collaboration between the sites that justified our collective knowledge about their similarities and differences. Similarities include: many years experience of delivering IPL, each site has adopted the same definition of IPL (CAIPE, 2002) and uses trained facilitators to support IPL. The main differences include: the number of students involved in IPL and the number of professions available to participate in IPL, which also impacts on the range of teachers' professional background. Another difference is who is responsible for IPL delivery as outlined in Table 1. The Health and Social Work department is responsible for delivering IPL at U1, the Health Sciences and the Department of Biological Sciences at U2, and at U3 IPL is delivered by the Centre for Interprofessional Practice (CIPP). Table 1 also outlines the professional background and number of student participants involved in IPL at each of the universities. Although IPL is mandatory at each site, it is more integrated within the courses at U1 and U2. At U3, some courses offer intergrated IPL, throughout whereas for many students it is offered as standalone events once a year.

**Table 1.** Overview of IPL at each university showing: students involved; key content; and department(s) responsible for IPL delivery.

| | **Norway (U1)** | **Norway (U2)** | **England (U3)** |
|---|---|---|---|
| **Students involved** | *Social educators, nurses | Biomedical laboratory scientists (BMLS), nurses | Doctors, nurses, pharmacists, occupational therapists, physiotherapists, speech and language therapists, midwives, operating department practitioners, paramedic scientists, clinical psychologists, teachers, social workers |
| **Key content** | **Year One** | | |
| | • Ethics<br>• Identity and roles | • Communication<br>• Placements (BMLS)<br>• Identity and roles | • Teamworking |
| | **Year Two** | | |
| | • Teamworking | • Placements<br>• Shadowing | • Interprofessional teamworking<br>• Shadowing |
| | **Year Three** | | **Years 3, 4 and 5** |
| | • Individual Care Planning | • Social sciences<br>• Shadowing<br>• Simulation | • Conference – learning and working with people with lived experience of care.<br>• Workshops – dealing with complex and sensitive issues<br>• Simulation |
| **Responsibility for IPL delivery:** | Health and Social Work Department | Departments of Health Sciences & Biological Sciences | Centre for Interprofessional Practice (CIPP) |

* Social educators (in Norwegian: vernepleire): a health and social worker profession, aimed at working with children and adults in need of help and support due to physical, mental and social difficulties/challenges.

*Sample*

All university teachers who were teaching students who had completed IPL were sent an initial invitation to take part in this study via email. As part of this email, staff were asked to answer two questions in order to facilitate the sampling process:
i) whether they had experience of facilitating IPL, or not; and ii) which professional group of students they predominantly teach. Teachers included in this study had worked at either of the three universities for a minimum of six months. They all provided teaching to students from at least one of the professions involved in IPL. Half had facilitated IPL and the other half had not.

In total, 24 university teachers were purposively chosen to participate in order to explore the views of teachers from a range of professions and experience of IPL. U1 and U2 recruited six participants each and U3 recruited 12. Table 2 shows the professional background of the teachers participating in this study, at which university they teach, the number of teachers with experience of actively facilitating IPL at their university within each professional group, and which uni-professional student group they predominately teach.

**Table 2**. The professional background of teachers taking part in this study, together with information about which university they teach, whether they have experience of IPL facilitation, and the main student cohort that they teach during their uni-professional teaching.

| **Professional background** (no. of participants) | **University 1, 2 or 3** (no. of participants with experience of IPL facilitation) | **Students mainly taught during uni-professional teaching** |
|---|---|---|
| psychologist (1) | U1 | nursing, *social educators |
| *social educators (4) | U1 | nursing, *social educators |
| nursing (7) | U1, U2 & U3 (1 IPL) | nursing |
| biomedical laboratory scientists (2) | U2 (IPL) & U3 (IPL) | nursing |
| occupational therapy (1) | U3 (IPL) | occupational therapy |
| medicine (2) | U3 (1 IPL) | medicine |
| physiotherapy (1) | U3 | physiotherapy |
| speech and language therapy (1) | U3 (IPL) | speech and language therapy |
| midwifery (2) | U3 (1 IPL) | midwifery |
| sociology (1) | U3 (IPL) | medicine |
| pharmacy (2) | U3 (1 IPL) | pharmacy |
| **Total: 24** | | |

*Social educators (in Norwegian: vernepleire): a health and social worker profession, aimed at working with children and adults in need of help and support due to physical, mental and social difficulties/challenges.

*Data collection*

Focus groups were used to gather qualitative data. This was felt to be the most appropriate method for this study as the interaction between participants often triggers a more in-depth conversation (Barbour, 2007), which in this case was considered essential, since participants are likely to have a different stance. It is important to note that focus groups are not a way to seek consensus, but for participants to share experiences and opinions in a safe environment (Krüeger & Casey, 2009). Each focus

group comprised six participants, which is considered an optimum number for a focus group, as it allows for different perspectives to be explored with a manageable number of people (Krüeger & Casey, 2009). Focus groups included two researchers at each university – one acting lead and another acting observer and note taker of body langauge (Polit & Beck, 2013). Participants received an explanation of the process and signed a consent form prior to the start of the focus group, which lasted for a maximum of one hour. Each focus group was held in the native language of the participants and recorded using a dictaphone. Each lead at the three different universities followed the same agreed focus group guide, which was developed by all of the authors of this paper, through email communication, for use in each of the four focus groups to address the objectives of this study. The main questions of this guide can be accessed online (see supplementary file).

*Data analysis*

Recorded focus groups were transcribed verbatim and analysed independently by researchers from each institution adopting principles of thematic analysis (Grbich, 2007) and using the framework below constituting three main phases. First, the interview scripts from each focus group were sent to participants of each respective group over email to allow members to check and validate the content for accuracy. Each participant could at this point remove data linked to them should they wish, and/or add clarification to their input during the focus group they were part of. Second, verified and anonymised script(s) were read through by the research lead at each university, key phrases relevant to the study aim and objectives were highlighted, and

a code was given to each phrase. As this process generated a large number of codes, a second cycle of coding took place to reduce data into more manageable units (Miles, Huberman & Saldaña, 2014). Finally, codes were grouped together into preliminary themes by looking at relationships between units of codes. Preliminary themes were compared across the three universities, a process that elicited three main themes, which will be presented in this paper.

*Ethical considerations*

Ethical approval was sought and granted at each university/country. Participants gave their written consent after reading a participant information sheet and learning about the focus group structure before the actual group interview. Their rights were considered throughout the study and participants were made aware that they could withdraw after the focus group at the first stage of the analysis process (see phase 1 of data analysis above). For the purpose of this study and to ensure anonymity, quotes will only be identified by the university to which they were linked and a number to demonstrate breadth of findings.

## Results

Three main themes emerged from the data collated from the four focus groups across the three universities (U1, U2 and U3) and the two countries (Norway and England): views about IPL; interprofessional collaborative competence; and learning opportunities. A summary of the findings are presented under each theme, together with quotes, to represent extracts from the complete data set. Quotes from U1 and

U2 have been translated to English in order to be accessible to the wider audience. Where possible, notes are added to describe participants' body language and expressions , e.g. nodding, or shaking of heads, in an attempt to illustrate the overall recations to comments made during the focus groups.

*Views of interprofessional learning*

IPL was seen by most as a good way for students to develop skills and knowledge they will need as future professionals who are equipped to work in collaboration with others. Teachers highlighted the importance of reducing hierarchy and preventing stereotypes from forming. Several agreed that IPL provided an opportunity for this to happen, but many teachers at each university were not convinced that learning will translate into practice as indicted by the following quotes:

> Students say that they are very positive about the IPE. But, in their written work I can see that it is their own profession that comes to the fore… I can see a bit stereotype and prejudice to other professions. (U1:1) (nodding amongst others)
>
> I wonder sometimes… that we put too much store on the IPL thinking that it really is making a difference… if they're working with somebody out in practice, who is disrespectful and doesn't recognise the value that another professional has, that's what they tend to come away with… I do wonder how much impact we really have. (U3:1)
>
> … Mmm… (U3:4) (others nod in agreement)

Some teachers queried the presence of rolemodels in the practice setting and therefore, highlighted the importance of students developing confidence so that they can actively engage with and promote interprofessional collaborative practice. Such views were linked with thoughts around the timing of IPL – early versus later in the

course – and what was best for students in terms of their professional development and preparedness for practice. Although there were mixed views about the timing of IPL, teachers in this study tended to lean towards the earlier introduction of IPL:

> I think the rolemodels are not necessarily out there… what we need is to equip our students with skills that aren't out there in the workplace. (U3:2) (others nod in agreement)
>
> … The problem is that if you don't have that [IPL], you never then talk to anyone else and don't have the confidence in practice to go and do it. (U3:3)
>
> … It [IPL] is essential from year one. It is too late to start in year two once they have already fallen into some of the stereotypes. (U3:2) (some nod, but not everyone looks convinced)
>
> I mean, they can start early and - at least - get to know another profession. Then, they can build on that during the three bachelor years. (U1:2)
>
> Because we launch this already now, this might reduce conflict, hierarchy and such… (U2:1)

Some teachers were deliberating whether IPL would be better placed in later years when students have formed their own professional identity.

> You - in some way - have to be safe "in your own" before you can collaborate with others… Or, do you get safe when you are challenged to collaborate with others? (U2:2)
>
> What do they need initially? Surely, they must know what it is to be a X first. (U1:3) (mixed response amongst others in group)
>
> ... It is about building a little identity before "going hard" into IPL and collaborative learning... They should get some time in the beginning to build their own identity... they have enough to find their own self (U1:4) (not everyone seems to agree)

Others expressed the importance of balancing different types of teaching and learning opportunities so that students are able to develop their own professional identity alongside working with others:

> It is getting that balance… that professionals need to be able to work collaboratively and understand each other to be effective. But, there is a real strong… need for professional identity for the professions within the course. (U3:4)

Participants expressed that many students do not prioritise IPL, but recognised that many teachers do not either. From the teachers' points of view, these comments were often associated with the lack of clarity around learning outcomes, and little or no direction from senior management, which filtered down to staff – many of whom felt ambivalent to IPL as a result. Hence, there was a sense of lack of leadership, which was mentioned as a vital element to truly incorporate IPL in the curriculum by encouraging teachers to embrace IPL and support the learning outcomes as part of their day-to-day teaching:

> IPE is included within our curriculum, but we haven't co-ordinated the curriculums of the two bachelor's degree programs that we offer (U1:4) (others nod in agreement)

> It is large groups across the programmes that are going to collaborate, in a short time… I wonder what kind of learning outcomes the students will acquire? …prioritising this [IPL] is difficult. …nursing students must first finish what they have to do in their course, and social educator students need to finish with theirs. Then, they can meet to do something in common - if they have time. (U1:1)

> … it is not entirely rooted in the leadership and there is not enough time set aside… It would be better if it [IPL] was anchored in the leadership. (U1:5) (people nodding)

> … the curriculum is undermined by the school from the start, in terms of timetable space… It [IPL] is clashing with a key exam… or it [IPL] isn't even there [in the timetable] at all…(others nod in agreement) they've got to choose not to do something else to go to an IPL session. There's a very very strong message that's already undermining the curriculum from the start. I think that that's something that I've noticed with regard to IPL… it's been made difficult for students or, um, you know, set up to fail in some way, and I've been bothered by that… (U3:5)

More ownership of the IPL development and teaching innovation was called for – both by staff and students. At U3, some teachers felt that that IPL currently was separate from their own uni-professional teaching as it is delivered by CIPP, but questioned their reasoning for this as articulated by one teacher:

> When I think about it, I see CIPP as interprofessional learning, and I see it as a separate thing to my programme. My programme, the […] programme, and it shouldn't be the case should it? (U3:4) (some shake their heads in agreement)

Data from U2 highlighted a clear divide between care settings, suggesting that professionals based in the community were much more supportive of creating opportunities for IPL than those working in hospital settings.

> Yes, it was in the community… I think that the students have a completely different understanding of what this [IPL] is now… I think this [IPL] brings respect for the other professions. (U2:4) (others nod)

> … it [mental health in the community] is an area where they get this [IPL] very clearly… Within the same environment they have daily treatment meetings involving a: psychologist, psychiatrist, social worker, physiotherapist - yes many [professions]. In practice, they see why it [effective collaboration] is important. (U2:5)

Examples of IPL in the classroom setting that teachers showed full support for across the sites were those simulating IPL. During these exercises, students from different

professions were given a chance to practice skills together – simulating situations where interprofessional collaboration is necessary:

> Yes, it [the simulation IPL exercise] is very good. It closes the loop in an acute scenario. For instance, the doctor says "give 5 mg morphine" – then the nurse says "I give…". When they [nurses] train together with doctors, they get more confident about their role. (U2:6)

> The students really benefit from these [clinical IPL simulation exercises]… they actually do a task together… they really value getting the clinical skills… (U3.6) (general agreement in group)

Another way to bring reality into the classroom was the involvement of service users (i.e. people with experiences of care) in IPL. Teachers at the U3 had very positive views of this, since it allows for students get to grips with how people have benefitted from professionals collaborating interprofessionally:

> When there has been real involvement of service users and the small group has tried to work out how they'd help that person… then it [the importance of IPL] comes alive… it's really impressive. (U3:7) (everyone nods)

*Views of interprofessional collaborative competence*

Teachers involved in this study said they were quite clear about what skills and behavior students need in order to collaborate effectively. Examples given related to inter-personal skills, such as situational awareness, communication, teamworking and leadership, but also self-preservation skills including: resilience, self-awareness and confidence in applying those skills:

> They need some grasp of that [interprofessional collaboration]… some basic skills that they can always work with and adjust. … so it's about confidence… introducing those ideas and skills, and helping explore and develop them

> personally, but not being quite so role focussed. (U3:8) (others nod in agreement)

Teachers also emphasised the need for knowledge exchange in relation to their respective roles and responsibilities in order to clarify and gain a mutual understanding and recognition of how different professions best collaborate to provide high standard care. They highlighted the importance for students to appreciate that care rarely involves one profession, and to learn how to explore innovative ways of doing things by developing trust and sharing best practice:

> Communication and ethics are important, but to share knowledge with each other to achieve an understanding of each other's profession – I think is just as important. U2:3

> A long time ago, where we didn't have any formal IPL… particularly for students who come into their programmes with no real experience of healthcare, they don't have any idea about teamworking in a healthcare context, about how to talk to another healthcare professional, respecting other healthcare professionals' contribution and role… so I think it's all about that. It's not particularly about understanding the clinical role of others, but it is how you can work together to make sure the person you're looking after has the best care. (U3:9) (general agreement)

> They need to not only rely on themselves, but able to listen to the views of others [members of other professions]. It can be difficult, right? … Personally, I think this is the greatest challenge to achieving interprofessional collaboration. (U1:5)

Teachers described collaborative competence as someone who demonstrates a holistic view of care, who is confident and respects their colleagues' contribution to care. The rapid changing need of patients and expectations of the workforce were highlighted as a challenge for future education. Teachers were unanimous that they can contribute to this development by helping students understand the true meaning

of collaboration and why it is important, thus helping students identify the potential for creativity and innovation in delivering a better service.

> It's about giving users a better offer. Real collaboration… So that different professions not only share tasks, but actually have a dialogue that enables them to see each other's perspective so that they actually can give a better offer. (U1:5) (others nod in agreement)

> … And, actually, it [IPL] offers an opportunity to look at sustainability within health and social care… what are those true things that we need to develop in order that we can maintain an effective and efficient service. That is our job as well [as teachers]… We need to be creating these guides to sustain future practice… they need to be creative, they need to be… (U3:10)

Teachers were in agreement that, on graduation, students are closer to achieving collaborative competence, but were unsure of where students actually left off in terms of what further learning they may need as graduates:

> In […], on graduation, they write about their collaborative competence. They give examples both from placements, their collaborative experiences with other professionals and with students. So, they feel better equipped than before the education… However, how equipped are they? (U1:4) (some shrug their shoulders)

According to teachers, components underpinning successful IPL included making it clinically relevant and that the process needs to be supported by trained facilitators. Whether IPL actually helps students develop the necessary skills and behaviors was not clear to some teachers, who stated that students may develop these better, or as well, during their uni-professional teaching whilst on placement. This – for some – highlighted a key role for teachers. As one participant noted:

> … they [the nursing students] can learn the interprofessionalism during their placement. (U1:4). (Some nod in agreement, whereas others do not seem to agree)

*Learning opportunities*

There was a general consensus that IPL could potentially have great impact, and that teachers could contribute more effectively to this process. Teachers suggested that they could do this by helping students see links between theory and practice and by truly incorporating IPL outcomes as part of their own teaching, which was thought to help students understand the benefits of learning with, from and about others. A range of learning opportunities were described, which had taken place as students worked within their own courses – sometimes involving other professionals, directly and indirectly, and with various levels of success:

> I am teaching PBL… there's often a learning outcome that is related to the multi-disciplinary team… [once] they presented the case, came back the following week and there was a report from the physio in the additional information… it was great because we read it out and they had no idea what it said. They had to think, "OK, so this is the type of thing you are going to get"… how do you then work with that? So, it was almost IPL in practice, but in a classroom. (U3:11)

> We have this "point of practice day" where [nursing] students shadow for example a physiotherapist to see how they work. (U1:4)
> … It becomes much "Fronter-based" [online learning platform] teaching at the school. Students work together and distribute tasks. They collaborate about who should do what, but not about the content. Later, they get together again to discuss and correct the work, and upload it onto Fronter. … they complete different parts and there is little discussion. (U1:4) (some nod in agreement)

There was general interest amongst teachers across each university to engage with the development of IPL. But, it was also suggested that further exchange of teaching staff to make sure that students are taught by teachers from different professional background would be another way for students to learn about the role of other professions. Teachers expressed a desire to advance existing IPL models to beyond the university confines. In particular, they showed interest in involving and training

practice educators in order to optimise opportunities in which students can learn about interprofessional collaboration and its benefits:

> When it comes to criticism of IPL, do not think that it must be "put down", think more of how it can be improved. (U1:1) (some, but not all, nod in agreement)

> They [the students] often have teachers from a different professional background to them. …They will - regardless [of whether they engage in IPL or not] - get to know other professions. (U1:2) (some do not agree with this)

> … what's important with IPL - surely - is what they do in secondary care and in primary care. … what we should be trying to do, is to reach the GPs and the hospital doctors that they [the students] deal with, all of whom work in teams, all of whom work with nurses, and… - you know - SLTs, and many of whom work with midwives and all the rest of it… Get the practice teachers that we have, to point out… "look at this"… "I am now liaising with the community midwife", or "I am now talking to the pharmacist", or I am now referring to the SLT - so that the students sit up and go "oh yeah"… you know… "this GP is treating the nurse as his partner"… We don't do that enough… (U3:12) (some show agreement and others seem to ponder this)

*The overall picture*

Overall, our findings suggest that university teachers have a wide range of views towards IPL, its potential to enhance interprofessional collaborative practice and care, and their role in helping students achieve outcomes linked to IPL. A key challenge common to all themes is the underlying doubt as to whether IPL is "worth the struggle", i.e. will IPL translate into relevant and valuable input in the practice setting – for service users, professionals and the community? Such doubt is linked with a perception that some of their work will be undone in the practice setting because of the lack of rolemodels and missed opportunities for IPL. This highlights the importance of teachers to rolemodel best interprofessional collaborative practice in their own

teaching where possible and also to promote IPL in practice. Figure 1 illustrates this overall picture of the three main themes emerging from the data along with the key challenge conveyed by the teachers involved in this study.

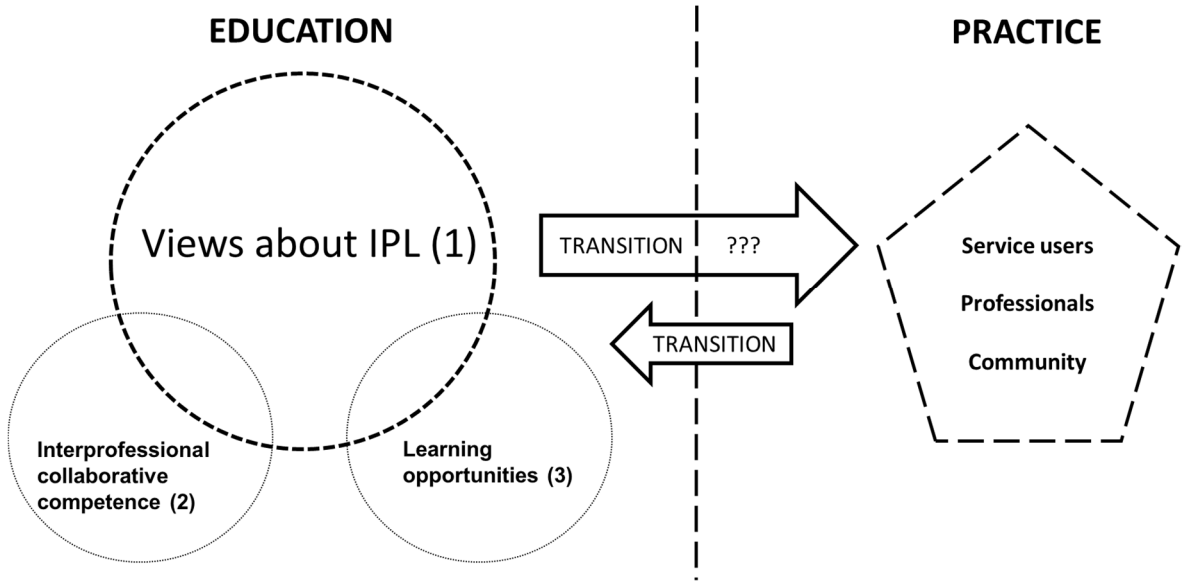


**Figure 1.** Three main themes emerged from teachers' discussing their perceived role in supporting outcomes related to IPL. A key challenge for teachers centred around whether their efforts will be worth it. I.e. will IPL in the classroom translate into the workplace regardless of what students learn and experience in practice, which – regardless of whether it is positive or negative - will affect students' development into competent interprofessional collaborators.

## Discussion

Findings from this study indicate that university teachers in this study have different opinions about the value and impact of IPL currently delivered at their university and of their role in supporting outcomes linked to IPL. Three main themes emerged from the data: i) views about IPL; ii) interprofessional collaborative competence; iii) learning opportunities.

The words ‘hierarchy’ and ‘stereotypes’ were mentioned in all focus groups, showing awareness of their existence within healthcare in both countries. Teachers in this study agree that a purpose of IPL is to prevent hierarchies and stereotypes from forming, but they are not convinced that the IPL provided at their institution is effective in achieving this aim. This is despite evidence in the literature suggesting that IPL does have a positive effect on interprofessional attitudes (Hawkes et al., 2013). Since attitudes are a significant predictor of behavioural intent (O’Keefe, 1990), it seems reasonable to presume that positive attitudes towards professions will enhance collaboration with real benefits to patient care. As mentioned previously, data are starting to emerge to support such assumptions (Reeves et al., 2016a). However, it is clear that regardless of increasing the evidence-base for the value of IPL in this respect, many teachers in this study fear that their hard work to support IPL during students’ education will be undone in practice (see Figure 1), primarily due to the lack of rolemodels. It appears to be a ‘chicken and egg scenario’, since other teachers say that it is their responsibility to equip the students for the workplace, to be rolemodels themselves and to educate practice educators so that they can support students’ learning during placements. Such findings resonate with those presented by Higgins (2014) who highlights the importance of practice educators bridging the gap between theory and practice. According to this study, a possible factor impeding this process stems from skepticism amongst teachers about the value of IPL. Another factor appears to be a lack of confidence, or appreciation, of how much impact teachers can have on students’ development into interprofessional collaborative practitioners by supporting learning outcomes linked to IPL in their own teaching. Given the fact that

we know that negative attitudes amongst staff towards IPE will make any IPL intervention extremely difficult (Giordano et al., 2012) it is imperative that such feelings are addressed rather than suppressed.

Several studies point out that trained IPL facilitators play a key role in the actual process of IPL (Anderson et al., 2010; Freeman et al., 2012; Howkins & Bray, 2008; Reeves et al., 2016c; Watts et al., 2007). However, there may not have been enough emphasis on how these trained IPL facilitators can foster a culture that embraces interprofessional practice beyond IPL - from the outset and throughout students' education as they teach their students and interact with colleagues who are not facilitators. As culture change takes time, it seems sensible to start this process as early as possible, ideally by introducing IPL at the earliest opportunity. This was something not all teachers in this study agreed on, despite recent recommendations provided to educators in the literature stating that IPL should be introduced early (e.g. Barr, Gray, Helme, Low & Reeves; 2016; Brandt et al., 2014; Olenick et al., 2010; Reeves et al., 2016a).

In this study, the most common rationale underpinning views favouring a later introduction to IPL is that students need to begin to form their own professional identity before they can engage effectively with IPL and that they do this best together with their own professional peer group. The challenge here may involve educators attempting to re-define 'self' and 'professional identity'. This is where social innovation comes to the fore (Murray, Calulier-Grice & Mulgan, 2010), as it focusses on

professional relational development where educators support students' exploration of similarities and differences, with respect to how each profession contribute to patients' individual care pathways. Teachers' ability to identify and clarify such interfaces can stimulate reflexivity and novel thinking around how students can overcome challenges associated with interprofessional collaborative practice. Since time is one of the key challenges to interprofessional communication in practice, as discussed by (Lindqvist, 2016), professionals are rarely afforded the opportunity to engage in IPL, again justifying early introduction of IPL prior to qualification. A reason for the apparent dissonance in this study could be that teachers are not aware of recent evidence presented in the IPE literature, since they may be coversed in the evidence linked to their own profession. This highlights the importance of educators to share best evidence-based practice across courses, which is a way of working that can be facilitated by strong and supportive leadership. In this study, teachers expressed concerns about the lack of leadership and that IPL was not seen as a priority in the curricula.

As presented by Hall and Weaver (2015), findings of this study highlight the need for top-down support and a joint IPE vision within Schools, but also importantly across courses, Faculties and practice educators to ensure effective transition of IPL into the workplace (Figure 1). This links with the need for a comprehensive curriculum that connects the theory and practice of any IPL, as alluded to earlier in this paper. Teachers play a vital role in this process, but this study clearly shows that, unless they see the long-term value of IPL during education, they are unlikely to support it in a

conducive way. As discussed by Mullins (2016), transformational leaders are called for – who have the ability to create a vision for change that appeals to the values of the followers, so that there is no ambiguity for teachers about their role in achieving successful IPL outcomes. Despite U3 having a designated interprofessional centre, which designs and delivers IPL – involving all stakeholders – many teachers still do not feel ownership of IPL, which emphasises the additional need for support from senior management.

In line with social innovation, if teachers agree that IPL is more effective in equipping students for their future role as interprofessional collaborative practitioners than teaching methods previously used, they will most certainly help students to achieve outcomes linked to IPL in their own uni-professional teaching. This study shows examples of IPL that teachers already engage with e.g. those: taking place in the practice setting; simulating real scenarios in the classroom; or involving service users. The common denominator for teachers in this study is that they want students to apply their skills in an environment that is as close to reality as possible, which resonates with existing evidence in the literature (Reeves et al., 2016a).

Findings from this study suggest that teachers, in both countries and across the three sites, are clear about what skills and behaviors students need in order to collaborate effectively to meet the needs of patients. They all agree that effective communication and resilience describe elements of interprofessional collaborative competence. Interestingly, resilience is not mentioned in some of the recent work presented on core

competencies around collaborative practice (IPEC, 2016), which warrants further exploration. In line with IPEC (2016), teachers in this study pointed out the importance of such competence including confidence levels. However, some dichotomy became evident as some teachers are not convinced that they can make a real impact on students' development into interprofessional collaborative practitioners. In order to 'model the model', as described by Freeth et al. (2005), educators need to be confident that they can make a difference. A challenge for many teachers, however, may be linked to their increased distance from practice, which otherwise would help them define the different aspects of this complex competency. By engaging in reflection and empathising with the students, educators will be reminded of some of the common obstacles linked to interprofessional collaboration.

Many teachers feel that IPL is more effectively conducted exclusively in the practice setting during students' placement. Although this resonates with recent findings presented by Reeves et al. (2016a), this may unveil a potential issue with the majority of teachers being primarily based in the university setting. In order to bridge the theory practice gap, by engaging with the social innovation approach proposed here, IPL opportunities need to be fully and appropriately integrated at all levels of education. Furthermore, in order to enable students to work towards interprofessional collaborative competency, IPL outcomes need to be specific, genuinely useful and attainable only through true interprofessional activity, as discussed by Thistlethwaite et al. (2014).

Regardless of some teachers considering the practice setting as a more suitable environment for IPL, they all agree that they could be more pro-active in finding creative ways of promoting interprofessional learning opportunities. However, it was recognised that the interprofessional element is often set aside due to time constraints and a strong focus on learning that is specifically linked to the profession of the practice educator. Indeed, Baker et al. (2010) remind us that the background and experience of educators significantly impacts on the IPL outcomes, which again emphasises the importance of encouraging networking amongst educators. This echoes findings presented in this paper, namely that teachers wish to share best practice and agree with the need for interprofessional collaboration to provide high quality and safe care. However, it seems that they just do not agree on how to get there, which brings the discussion back to the need for educators to take on a leadership role and promote IPL outcomes, both in the classroom and the practice setting. According to this study, one way of nurturing this through social innovation is to encourage joint and active ownership and engage all stakeholders in the development and delivery in IPL so that there is a true partnership.

Because this study is limited to a small number of universities and teachers, collecting qualitative data only and from a small number of teachers, caution needs to be taken in making generalized conclusions that span all university teachers. Focus groups held at U1 and U2 had few professions, with one more dominant profession in terms of numbers. Although the number of participants was ideal, the balance of professions was uneven, which may have skewed the views (Krüeger & Casey, 2009). A wider

structured survey along with further interviews and perhaps conducting observations of teaching practices, both in the classroom and practice setting, thus adopting a mixed-method approach - is likely to provide a more in-depth understanding of teachers' views about their role in supporting lPL outcomes.

**Concluding comments**

This study reveals a genuine uncertainty amongst participating teachers about how students develop a professional identity that is open to interprofessional collaboration. Teachers in each of the three universities, based in Norway and in the UK, express mixed views about the current IPL opportunities offered to their students at their respective universities. Specifically with regard to whether learning will transition into real improvements in practice that make a positive difference to service users, professionals and the community.

Many teachers at each site say that they actively promote IPL within their own uni-professional teaching, but most acknowledge that they could do this more effectively and that they could all be better rolemodels to students. Teachers in this study all stressed the need for organisational support for IPL that spans across the education and practice setting, as without it there is no clear path, or integration, into the curricula. This was a clear message, and teachers in both countries imply that steering and support toward interprofessional collaborative working would make a significant difference to how educators prioritise IPL as part of their teaching.

We suggest that social innovation is the way forward, embracing true collaboration rather than competition. The real competition lies in the challenges we face together. If we learn and work together with students, service users and educators - across settings and countries - we are much more likely to achieve the outcomes for which we are all striving.

## Declaration of interest

The authors report no conflicts of interest. The authors alone are responsible for the writing and content of this article.


## Acknowledgements

Thank you to Drs Michelle Fromage and Hannah Schutt who acted note takers and observers and also supported the study as critical friends at different stages.


## References


Abu-Rich, E., Kim, S., Choe, L., Varpio, L., Malik, E., White, A.A., … Zierler, B. (2012). Current trends in interprofessional education of health sciences students: a literature review. *Journal of Interprofessional Care*, 26(6), 444-451. doi: 10.3109/13561820.2013.806449

Anderson, E. S., Cox D & Thorpe, L. (2009). Preparation of educators involved in interprofessional education. *Journal of Interprofessional Care*, 23(1), 81-94. doi: 10.1080/13561820802565106

Baker, L., Egan-Lee, E., Leslie, K., Silver, I. & Reeves., S. (2010). Exploring an IPE faculty development program using the 3-P model. *Journal of Interprofessional Care*, 24(5), 597-600. doi:10.3109/13561820.2010.481336

Barbour, R. (2007). *Doing Focus Groups.* London, SAGE Publications Ltd.

Barr, H. & Coyle, J. (2012). Facilitating interprofessional learning. In: Loftus, S., Gerzina, T., Higgs, J., Smith, M. & Duffy, E. (Eds). *Educating health professionals: Becoming a University teacher*. Rotterdam: Sense Publishing.

Barr, H., Gray, R., Helme, M., Low, H & Reeves, S. (2016). *Interprofessional Education Guidelines,* UK Centre for the Advancement of Interprofessional Education (CAIPE).

Biggs, J. (1993). From theory to practice: A cognitive systems approach. *Higher Education Research and Development*, 12, 73-85. doi: 10.1080/0729436930120107

Brandt, B., Luftiyya, M.N., King, J.A. & Chioreso, C. (2014). A scoping exercise of interprofessional collaborative practice and education using the lens of the Triple Aim. *Journal of Interprofessional Care*, 28(5), 393-99. doi: 10.3109/13561820.2014.906391

CAIPE (2002). Interprofessional education – a definition. UK Centre for the Advancement of Interprofessional Practice.

Curran, V., Sharpe, D. & Forristall, J. (2007). Attitudes of health sciences faculty members towards interprofessional teamwork and education. *Medical Education*, 41, 892-896. doi:10.1111/j.1365-2923.2007.02823.x

Freeman, S., Wright, A. & Lindqvist, S. (2010). Facilitator training for educators involved in interprofessional learning. *Journal of Interprofessional Care*, 24(4), 375-385. doi: 10.1080/13561820.2016.1181613

Freeth, D., Hammick, M., Reeves, S., Koppel, I. & Barr, H. (2005). *Effective Interprofessional Education: Development, Delivery and Evaluation.* Oxford: Blackwell Publishing.

Giordano, C., Umland, E. & Lyons, K.J. (2012). Attitudes of Faculty and Students in Medicine and the Health Professions Toward Interprofessional Education. *Journal of Allied Health*, 41(1), 21-25. doi: 10.3109/13561820.2014.967337

Grbich, C. (2007). *Qualitative data analysis: An Introduction.* London: Sage Publications.

Hall, L.W. & Zierler, B.K. (2015) Interprofessional Education and Practice Guide No. 1: Developing faculty to effectively facilitate interprofessional education, *Journal of Interprofessional Care*, 29(1), 3-7. doi: 10.3109/13561820.2014.937483

Hammick, H., Freeth, D., Koppel, I., Reeves, S. & Barr, H. (2007). A best evidence systematic review of interprofessional education: BEME Guide no. 9. *Medical Teacher*, 29(8), 735-751. doi: 10.1080/01421590701682576

Hawkes G., Nunney I & Lindqvist S. (2013). Caring for attitudes as a means of caring for patients – improving medical, pharmacy and nursing students' attitudes to each other's professions by engaging them in interprofessional learning. *Medical Teacher*, Web paper e1-e7. doi: 10.3109/0142159X.2013.770129

Hean, S., Craddock, D. & Hammick, M. (2012). Theoretical insights into interprofessional education: AMEE Guide No. 62. *Medical Teacher*, 34(2), 78-101. doi: 10.3109/0142159X.2012.643263

Hean, S. (2015). Strengthening the links between practice and education in the development of collaborative competence frameworks. In: Vyt, A., Pahor, M & Tervaskanto-Maentausta, T. (Eds). *Interprofessional education in Europe: Policy and practice, EIPEN*.

Higgins, M. (2014). Can practice educators be a 'bridge; between the academy and the practicum? *Journal of Practice Teaching and Learning*, 12(3), 62-78. doi: 10.1921/7802120301.

Howkins, E. & Bray, J. (2008). *Preparing for interprofessional teaching, theory and practice.* Oxford: Radcliffe Publishing.

Institute of Medicine. (2015). *Measuring the Impact of Interprofessional Education on Collaborative Practice and Patient Outcomes.* Washington DC: The National Academies Press.

Interprofessional Education Collaborative. (2016). Core competencies for interprofessional collaborative practice: 2016 update. Washington, DC: Interprofessional Education Collaborative.

Johnson, R. (2003). Exploring students' views of interprofessional education. *International journal of Therapy and Rehabilitation*, 10(7), 314-320.

Krüeger, R. A. & Casey, M. A. (2009). *Focus Groups: A Practical Guide for Applied* Research (4th ed.). California: SAGE Publications Inc.

Lindqvist S. (2016). Interprofessional communication and its challenges. In: Brown, J., Noble, L., Papageorgiou, A. & Kidd, J. (Eds) *Clinical Communication in Medicine* (pp159-167). Chichester: John Wiley & Sons, Ltd.

Miles, M., Huberman, A. & Saldaña, J. (2014). *Qualitative Data Analysis: A Methods Sourcebook* (3rd ed.). Thousand Oaks, CA: Sage Publications.

Mullins, L.J. (2016). Management and Organisational Behaviour (10th ed.). Pearson Publishing.

Murray, R., Calulier-Grice, J. & Mulgan, G. (2010). Open Book of Social Innovation. http://youngfoundation.org/wp-content/uploads/2012/10/The-Open-Book-of-Social-Innovationg.pdf (p 3).

O'Keefe, D. J. (1990). *Persuasion: Theory and Research*. Newbury Park,CA: Sage.

Olenick, M., Allen, L. R & Smego, R. A. (2010). Interprofessional education: a concept analysis. *Journal of Advances in Medical Education and Practice*, 1, 1-10. doi: 10.1016/j.ecns.2014.07.006

Olenick, M & Allen, L.R. (2013). Faculty intent to engage in interprofessional education. *Journal of Multidisciplinary Healthcare,* 6, 149-161. doi: 10.2147/JMDH.S38499

Polit, D.F. & Beck, C.T. (2003). *Study guide for essentials of nursing research: appraising evidence for nursing practice.* China: Wolters Kluwer Health - Lippincott Williams & Wilkins.

Pollard, K.C., Miers, M.E & Rickaby, C. (2012). "Oh why didn't I take more notice?" Professionals' views and perceptions of pre-qualifying preparation for interprofessional working in practice. *Journal of Interprofessional Care*, 26(5), 355-361. doi: 10.3109/13561820.2012.689785

Rees, D. & Johnson, R. (2007). All together now? Staff views and experiences of a pre-qualifying interprofessional curriculum. *Journal of Interprofessional Care*, 21(5), 543-555. doi: 10.1080/13561820701507878

Reeves, S., Fletcher, S., Barr, H., Birch, I., Boet, S., Davies, N., … Kitto, S. (2016a). A BEME systematic review of the effects of interprofessional education: BEME Guide No. 39. *Medical Teacher*, 38(7), 656–66. doi: 10.3109/0142159X.2016.1173663

Reeves, S. (2016b). Tverrprofesjonell utdanning – konsekvenser for samarbeid om brukere I helse- og velferdstjenestene. In Willumsen, E. og Ødegård, A. Tverrprofesjonelt samarbeid – et samfunnsoppdrag, (2 ed). Oslo: Universitetsforlaget.

Reeves, S., Pelone, F., Hendry, J., Lock, N., Marshall, J., Pillay, L. & Wood, R. (2016c). Unsing a meta-ethnographic approach to explore the nature of facilitation and teaching approaches employed in interprofessional education. *Medical Teacher*, 38(12), 1221-1228. doi: 10.1080/0142159X.2016.1210114

Rodger, S. & Hoffman, S. J. (2010). Where in the world is interprofessional education? A global environmental scan. *Journal of Interprofessional Care*, 24(5), 479-491. doi: 10.3109/13561821003721329

Rogers, J.D., Thistlethwaite, J.E., Anderson, E.S., Abrandt Dahlgren, J., Grymonpre, R.E., Moran, M. & Samarasekera, D.D. (2017). International consensus statement on the assessment of interprofessional learning outcomes. *Medical Teacher*, 39(4), 347-359. doi: 10.1080/0142159X.2017.1270441

Thistlethwaite, J., Forman, D., Matthews, L., Rogers, G., Steketee, C. & Yassine, T. (2014). Competencies and Frameworks in Interprofessional Education: A Comparative Analysis. *Academic Medicine*, 89(6), 869-875. doi: 10.1097/ACM.0000000000000249

Watts, F., Lindqvist, S., Pearce, S. & Richardson, B. (2007). Introducing an interprofessional team based learning programme. *Medical Teacher*, 29(5), 443-449. doi: 10.1080/01421590701513706

Winer, J., N., Nakagawa, K., Conrad, P.A., Brown, L. & Wilke, M. (2015). Evaluation of medical and veterinary students' attitudes toward a one health interprofessional curricular exercise. *Journal of Interprofessional Care*, 29(1), 49-54. doi: 10.3109/13561820.2014.940039

WHO (2010). Framework for Action on Interprofessional Education & Collaborative Practice. World Health Organisation report. WHO reference number: WHO/HRH/HPN/10.3

Zwarenstein, M., Goldman, J. & Reeves, S. Interprofessional collaboration: effects of practice-based interventions on professional practice and healthcare outcomes. Cochrane Database of Systematic Reviews 2009, Issue 3. Art. No.: CD000072. doi: 10.1002/14651858.CD000072.pub2