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An evaluation of the student experience on Master's level interprofessional programmes

in one institution in the south-east of England

Sean Kearns, Jane Parr and Jane Harvey

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1 Introduction

The introduction considers various concepts and terms in relation to discipline and multi-disciplinarity and will make links to the related concepts in health and social care. These terms are developed in later sections and are introduced here to aid clarity.

There is currently a plethora of ill-defined terminology in relation to shared learning or interprofessional learning in the health and social care setting. Glen and Leiba (2004, p. 4) refer to this as "conceptual confusion" with Leathard (1994, p. 5) referring to the same phenomenon as a "terminological quagmire". Terminologies will be considered briefly in order to establish what the term interprofessional means in relation to this study.

There has been no abating in the pace of change within the National Health Service (NHS). Technology continues to develop across the NHS with complex equipment, technology and procedures. Service users' expectations have increased. NHS staff provide care for service users by acquiring more complicated and specialised knowledge. Immersion in a specialism can itself lead to a narrow set of highly discipline-specific skills which are practised in a confined area of health and social care. This can give rise to exclusivity and perceived elitism between and among professions involved in service-user care.

The notion of "discipline" engenders a sense of an identifiable branch of learning with concomitant special professional language, literature and identity (Canning 2005). This concept of discipline relates well to and is evident in the health and social care environment. It is compounded by specialisation. Canning (2005) also says that members of a discipline will preserve their boundaries and exercise "boundary control", a concept which is evident in health and social care.

A Health Service of All the Talents (DOH 2000a) echoes the notion of separate disciplines within the health and social care setting, where there is marked differentiation between professional groups in terms of identity, education, domains of practice and spheres of influence. It clearly specifies that one aim is to do "away with barriers" that stipulate only certain professions can provide a particular type, or types, of care. It also states that education should provide staff with "the skills needed to work in a complex, changing NHS" and to promote "teamworking across professional and organisational boundaries" (DOH 2000a, p. 7).

With developments in care provision and technology it is likely that there will be those within the NHS with clear skills and that within and between professions there will be a great variety of skills and skill levels. Glen and Leiba take this further by saying that "healthcare *teams* in the future are also likely to comprise a greater variety of skill levels" (2004, p. 2).

In her discussion of multidisciplinary engagement, Strober (2006) suggests that specialisation inhibits development of broader intellectual expertise. It is a truism to say about educators that "few faculty staff engage in research or teaching outside their own field" (Strober 2006, p. 316). The diverse disciplines within the NHS have, until recently, been educated using a mono-technic approach which reinforces divisions within and between service provision. With specialisation comes fragmentation of health and social care service provision and discrete boundaries within professions and between professions. Fragmentation of services across agencies and specialities causes delay, duplication and setbacks in service-user care and treatment, as often communication between professions, departments or agencies can be lacking or indeed absent (Sikora 1995).

As D'Amour and Oandasan state (2005, p. 9): "Professionals come from different disciplines and from different health care organizations, each carrying different conceptualizations of the client, of the clients' needs, and the type of response needed to address the clients' numerous and complex health care situations." One response to fragmentation is interprofessionality. The notion of interprofessional working has been around for some time; the World Health Organisation (WHO) recognised some thirty years ago that collaborative working was the way forward for health and social care (WHO 1988). Interprofessional working is about professions working collaboratively for the benefit of the service user; this is discussed in more detail later on in the study.

The Government stresses the need to provide seamless care as set out in the white papers *The New NHS: modern, dependable* (DOH 1997) and *Modernising Social Services* (DOH 1998). These documents recognise the need for and importance of joint working between and within professions irrespective of profession. Interprofessional working is therefore promoted as a means of co-operative action across professions to enhance the service-user experience. Other drivers to advance multi-agency interprofessional effort are the National Service Frameworks (NSFs). These set out the minimum standard of care a service user can expect from the NHS. They are put together through multi-agency collaboration and include a service user in their compilation. NSFs are inclusive, encouraging a multi-disciplinary approach to health and social care provision.

Following the Bristol Royal Infirmary inquiry (DOH 2001b), the impetus for interprofessional collaboration grew in momentum. This was in response to the domination of one professional group, resulting in a lack of communication between professions to the detriment of service users. The Victoria Climbie Inquiry report recommended training bodies "to demonstrate that effective joint working between [...] professional groups features in their national training programmes" (DOH 2003, part 17, paragraph 14). These and other incidents were factors contributing to generation of a lifelong learning strategy (*New NHS Lifelong Learning Framework*, DOH 2001) which set out the foundations for the need to implement interprofessional learning as the basis for collaboration between professions.

Increasingly in health and social care the need for collaboration between professions and agencies has been identified. It is perceived that co-operation between professions will improve the provision of care for those who use the National Health Service.

In relation to medical careers the publication *Modernising Medical Careers* (DOH 2004), stated that "reform had been long overdue and was driven by the need for care based in more effective teamwork, a multi-disciplinary approach and more flexible training pathways tailored to meet service and personal development needs" (DOH 2004, p. 1).

The Department of Health (DOH) has worked to break down barriers between professions and to promote multi-agency working to improve service user provision. *The NHS in England: the operating framework for 2007-08* (DOH 2006) states that service users can expect that health and social care professions will "work in partnership with others to ensure a seamless service for patients" (DOH 2006).

> Health care professionals are required to work collaboratively to prevent fragmented care and improve the quality of the patient's journey. The drive for multi-professional and inter-professional education is aimed at nurturing

> collaboration by engaging in joint educational initiatives. Although many United Kingdom (UK) policy documents endorse multi-professional and inter-professional initiatives, few seek to address the significant challenges inherent within these ventures. (Lorente *et al.* 2006, p. 290)

All pre-registration health and social care education programmes across the UK contain interprofessional elements to promote not only shared learning, but to encourage pre-registration learners to learn from each other and to have a greater understanding of the roles and responsibilities of other professions.

There has been a great deal of literature in relation to pre-registration learners. Little has been written about postgraduate learners. Pirrie *et al.* (1998) state that there is evidence indicating that multidisciplinary education is perceived to have more impact upon practice at post-registration or postgraduate level than at pre-registration or undergraduate level. Watts *et al.* (2007) undertook a study of post-registration teamwork in the clinical setting and found that there was a perceived improvement in collaboration between health-care professions following interprofessional working in practice. The issue of when interprofessional education/learning is best placed is discussed in more depth later in the study.

So far there has been no clear definition of terms in relation to collaborative learning/collaborative education. From the literature, two overarching terms seem to be in use: interprofessional education (IPE) and interprofessional learning (IPL); these appear to refer to the same thing. For this study interprofessional learning is the predominant term used as this is the term used at our institution. We take the Centre for the Advancement of Interprofessional Education (CAIPE) definition as the central definition:

> Interprofessional Education occurs when two or more professions learn with, from and about each other to improve collaboration and the quality of care. (CAIPE 2002)

Although this relates to education rather than learning, the terms interprofessional learning and interprofessional education represent the same concept and relate to the aforesaid definition from CAIPE. The context of IPL at the institution where this study is based emphasises the notion of learning "from and about each other" as part of the learning experience.
In 2001, the Department of Health reaffirmed its commitment to the development of "common learning programmes" by stating that all health professionals should expect their education and training to include common learning with other professionals at every stage from pre-registration courses through to continuing professional development.

In response to both political and educational drivers, the higher education institution in which the research is based has introduced interprofessional learning into both its pre- and post-registration courses. There are currently three Master's courses being delivered interprofessionally in the Faculty of Health, Wellbeing and Science. These are the MA in Interprofessional Health Care Education, the MA in Leadership and Innovation in Health and Social Care and the MA in Clinical Practice. The MA in Interprofessional Health Care Education has been running for five years whilst the other two Master's courses have been running since September 2006. There are over sixty students enrolled on these courses, representing a range of health and social care professions. The students are also at differing stages on the course, which should offer a broad range of data due to their length of experience in the HE institution.

It is envisaged that undertaking some rigorous evaluation of the current interprofessional education provision offers a wonderful opportunity to scrutinise current practice and elicit whether or not there are any opportunities to enhance, share or adopt innovative ways of working within the interprofessional and HE arena.

The aim of the study is to evaluate the student experience on Master's level interprofessional programmes in one institution in the south-east of England.

Objectives:

1. To explore the students' experience of IPL in terms of:
    a. course organisation
    b. student support.
2. To identify the students' attitudes to IPL.
3. To ascertain the students' perceptions of IPL.

2 Literature Review

2.1 History and policy drivers

As long ago as 1962, the Minister for Health Enoch Powell put forward a "hospital plan" which acknowledged that co-operation between agencies and professionals would lead to a more holistic approach to the provision of health care (Forman and Nyatanga 1999). This was the precursor to more recent developments in health and social care made more acute by the current health status of many people in the UK.

An ageing population and the rising prevalence of associated chronic disease has compelled the modern health-care agenda within the UK to shift its traditional emphasis away from models of care and to focus attention on developing systems which address the controlling of patient symptoms, their levels of functioning and quality of life (Hall and Weaver 2001). Integral to this shift, emphasis has been placed on the movement of resources devoted to long-term patients away from the overburdened and crowded hospital centres and into the community-based care sector (Secretary of State for Social Services 1989). This movement from hospital to community, however, has created its own set of problems. No single profession can hope to meet all the complex needs of the many highly dependent and often vulnerable patients now living in the community. Health care is provided to these patients by a variety of professions - general practitioners, community nurses, psychiatric nurses, social workers and others. As these professions came together, however, rivalries and misconceptions over their respective roles and responsibilities appeared (Barr et al. 1999).

Increasing specialisation within the health and social sciences has been identified as a particular root cause of the difficulties encountered by the professions when attempting to provide collective care for the complex needs of their patients (Oandasan and Reeves 2005a). Medicine in particular has developed increasingly specialised fields in response to the growth of scientific knowledge and technological advances. Over time, each specialist field has become increasingly entrenched in the realm of their own specialised discipline, communicating with their own specialist vocabulary, approaching problem solving and research within their own profession-specific parameters, and consequently devoting their energies to the maintenance of working relations within their profession at the expense of relations with others (Hall and Weaver 2001; Barr 2001). In this way, specialisation has acted as an obstacle to interdisciplinary exchange by creating prejudices and negative stereotyping between the professions (Barr et al. 1999).

It became evident that the old demarcations and hierarchical relations between professions that had existed in the traditional hospital setting were not appropriate in the community environment (Barr et al. 1999; Secretary of State for Social Services 1989). If the needs of the various patient groups dispersed within the community were to be dealt with effectively, new methods of collaboration and teamwork between the health-care professions would have to be developed. Nyatanga (2002) discusses professional identity as "professional ethnocentricity", where professionals see their profession as superior. It is typified by the need to set boundaries to shield the profession from outside influence. He also suggests that this leads to "disharmony" between professions (Nyatanga 2002, p. 316).
The need for new ways of working which required collective action, collaboration and teamwork has focused attention on the way in which health-care professionals are educated and trained (Scholes and Vaughan 2002). While separate education allows in-depth exploration of important health and social care issues, and is correctly lauded for accelerating the pace of scientific advance, it nevertheless is seen to reinforce the demarcations and hierarchical relations

within and between the separate clinical professions (Hall and Weaver 2001). Learning together, however, has been promoted as a means by which the different professions could gain a better understanding of each other and so overcome ignorance, prejudice and negative stereotypes. "By learning together the professions would work more effectively together and thereby improve the quality of care for patients" (Barr 2001, p. 10).

The UK experience is not unique. As early as 1973, an expert committee of the World Health Organisation, reviewing medical education in the WHO European region, saw interprofessional and uniprofessional programmes of medical education as being complementary. Its members believed that interprofessional education would improve job satisfaction, increase public appreciation of the health-care team and encourage holistic approaches to patient needs (Barr 2000a).

Indeed, the journey of the UK health professions and successive governments towards embracing IPE as a means to improve communication between professions and thereby improve the quality of care for the patient owes much to the influence of the WHO (Tope and Thomas 2007). An interprofessional approach to health education has gradually become entrenched in the WHO strategy. In 1988, the WHO advocated an interprofessional approach to health and social care education which would include "a group of students (or workers) from different health-related occupations with different educational backgrounds, learning together [...] with interaction as an important goal, to collaborate in providing promotive, preventative, curative, rehabilitative and other related services" (WHO 1988, p. 6-7).

More recently, in its seminal *Health 21* document the WHO states: "Working alone with no regular exchanges of experience for mutual improvement can no longer be considered professionally satisfactory." Working as teams enables the professional to solve "complex health problems that cannot adequately be dealt with by one profession alone" (WHO 1999).

With the election of the Labour Government in 1997, the lead taken by the WHO became highly influential to UK health-care policy. Collaboration between the professions became central to the achievement of government plans: "the pendulum swung towards collaboration, collaboration that seemingly knew no boundaries and was pregnant with implications for interprofessional education" (Barr 2000 cited in Kirkpatrick and Taylor 2004). Over the next four years there followed a sequence of policy documents outlining how integrated care, partnerships and collaborative working across health authorities, local authorities, voluntary organisations and the private sector would replace the internal market systems created by the previous Conservative Government (DOH 1997, DOH 2000a, DOH 2000b, DOH 2001a).

The NHS Plan (DOH 2000b) highlighted the now accepted understanding that effective collaboration between the various health-care agencies was essential to effective patient care:

> The NHS will develop partnerships and co-operation at all levels of care – between patients, their carers and families and NHS staff; between the health and social care sector; between different Government departments; between public sector, voluntary organisations and private providers in the provision of NHS services – to ensure a patient-centred service. (p. 5)

In addition, government guidance acknowledged that education and training were central to the achievement of these collaborative goals: "it is suggested that giving integrated patient care

would rely on models of training and education giving staff clear understanding of how their own roles fit with those of others within both health and social care professions" (DOH 1997).

It was also made clear that the delivery of interprofessional models of education and training would require a complete overhaul of the existing systems. Central to the government plan was a clear vision for educational reform – the development and introduction of common learning programmes for all health professionals. This should be based around core skills and would be designed to be more flexible to provide easier roles and opportunities for individuals wishing to transfer between education and training programmes in order to maximise their future career pathways (DOH 2001a).

The drive for reform has not been limited to government policy initiatives. In recent years, the UK has experienced several high-profile examples of the health-care system tragically failing its patients as a result of poor communication between agencies. Without exception, the inquiries and reports that followed have championed collaborative methods of education, in one form or another, as a means to redress these failings and prevent their repetition:

- The Bristol Royal Infirmary inquiry (DOH 2001b) focused on the poor quality of children's heart surgery and the consequent high mortality rates at the Bristol Royal Infirmary between 1984-95. In its conclusions, poor teamwork, poor relations between the various professional groups and a clear lack of clinical leadership were at the heart of the problems encountered. The inquiry's recommendations 60 and 61 stated: "communication skills must also include the ability to engage with and respect the views of fellow healthcare professionals" and "education, training and continuing professional development of all healthcare professionals should include joint courses between the professions" (DOH 2001b).

- The inquiry into the death of Victoria Climbie (DOH 2003) conducted by Lord Laming reported there was "poor co-ordination; a failure to share information; the absence of anyone with a strong sense of accountability; and front line workers trying to cope with staff vacancies, poor management and a lack of effective training". Laming recommended multi-agency training: "Each of the training bodies covering the services provided by doctors, nurss, teachers, police officers, officers working in housing departments, and social workers (are) to demonstrate that effective joint working between each of these professional groups features in their national training programmes."

- More recently, the Harold Shipman inquiry noted "the importance of ensuring that all members of staff within a GP practice – including the most junior – feel that their views are of value" and that GPs should "introduce a less hierarchical structure within practices, whereby junior members of staff did not regard doctors as "untouchable" but, instead, felt able to exchange opinion with them" (Report 5, Chapter 9 section 110, *The Shipman Report* (2001), www.the-shipman-inquiry.org.uk).

2.2 Educational theory: drivers, motives, practice

Given the complexity of health-care provision, collaborative teamwork has become an essential element of professional practice. Effective health-care provision requires that each member of the health-care team not only contributes his or her own profession-specific knowledge and skills, but does so with regard to and in support of the contribution made by other professions within the team. Experience has shown, however, that when professions come together to

address a common problem conflicts arise as a result of acquired professional prejudices, ignorance and negative stereotyping. The "socialisation" process inherent in traditional methods of education is seen as a significant determinant in the formation of these antagonistic perceptions (Oandasan and Reeves 2005b; Craddock *et al.* 2006). "Socialisation" can be described as "the process whereby attitudes and behaviours are transferred from established members of a community to new entrants" (Oandasan and Reeves 2005b, p. 47). Such a process induces the creation of profession-specific attitudes, knowledge and behaviours amongst the members of a specific group. Traditional didactic, profession-specific methods of education which provide little opportunity or incentive for formal or informal interaction between professions can encourage the creation of homogenous professional "communities" with strictly defined professional roles and boundaries, and an underdeveloped appreciation of the roles and responsibilities of other professions (Hall and Weaver 2001).

The hindrance to interprofessional teamwork inherent in traditional educational methods becomes manifest in practice when the professions are required to operate beyond their professional boundaries in collaboration with other professional groups. The outcome is often a failure by one professional group to appreciate the potential contribution of other groups and to underutilise their expertise as a result. This lack of appreciation can give rise to resentment between team members. Communication suffers as a consequence, and, in the final analysis, effective patient care may be compromised (Parsell *et al.* 1998).

Forman and Nyatanga (1999, p. 495) criticise the current approach to interprofessional co-operation as having a lack of strategy in key areas which they outline as:

- change of attitude and interdisciplinary perceptions;
- change of value systems and beliefs about other disciplines;
- change towards mutual trust and less territoriality;
- change towards valuing the knowledge and skills of other disciplines.

The need to produce practitioners who are adaptable, flexible and collaborative team workers has focused attention on interprofessional education, which aims to reduce prejudices between professional groups by bringing them together to learn with and from each other in ways which enhance the understanding of other professional roles and develop the skills needed for effective teamwork (Parsell *et al.* 1998).

Adult learning theories, with their emphasis on interactive methods of learning, have come to dominate approaches to IPE. Small group learning, problem-based learning, work-based learning and reflection on practice, amongst others, are learning methods used extensively within adult learning strategies. Their specific objectives are to encourage the development of interpersonal skills, an awareness of group emotions and feelings, and the need for sensitivity when dealing with others. They have been adopted widely by IPE as a consequence (Parsell *et al.*1998).

Small group learning formats, for example, often employing case presentations as the stimulus to learning, require students to share tasks, encouraging the participants to listen to each other and learn from one another with due respect for the combined expertise, experience and individual perspectives of each member of the group in a collaborative effort to resolve a given set of problems (Parsell *et al.* 1998; Oandasan and Reeves 2005a; Hall and Weaver 2001).

Problem-based learning pays homage to the theory that adult learners learn more deeply and permanently when engaged in problem-solving tasks that have a direct application to practice

(Parsell *et al.* 1998). Rather than focus on profession-specific problems, the strategy employed in problem-based learning is to identify a clear and recognisable idea or problem that is of pertinence to all participants within a group, thus promoting an inclusive team effort approach to understanding and resolving the issue at hand (Hall and Weaver 2001, Craddock *et al.* 2006).

Work-based learning places participants in the clinical setting where they are faced with real clinical problems. The patient now becomes the centre of the health-care team's focus, and the various professions involved must necessarily exercise collaborative methods for effective care to be delivered (Hall and Weaver 2001).

Reflective practice theory, a strategy employed extensively in adult education (Craddock *et al.* 2006), has done much to enhance IPE as it considers the relationship between experience and knowledge. Students are encouraged to take time out to reflect on their experiences of working with other professions and to consider not just the values and strengths of their own profession, but also the merit of the diverse perspectives and expertise that other professions bring to the collaborative effort (Parsell *et al.* 1998).

Adult learning theory has proved a valuable resource in providing learning models that are appropriate to promoting the collaborative learning objectives of IPE. However, for teachers and facilitators charged with implementing IPE initiatives, adult learning theory fails to fully illuminate the complex social dynamics at work within group interactions which can conspire against a positive collaborative experience (Barr *et al.* 2005). Recent IPE literature (Cooper *et al.* 2005; Hean and Dickenson 2005; Craddock *et al.* 2006) has recognised this shortcoming and has drawn on social psychological studies of group behaviour (e.g. conflict theory (Sherif 1966); contact hypothesis (Allport 1979); social identity theory (Luhtanen and Crocker 1992)) in recognition that students working interactively within an IPE context demonstrate the same prejudicial behaviours observed by social psychologists in studies of other interacting social groups (Hean and Dickinson 2005).

It is proposed that reference to such studies and the counsel they impart will augment the established methods of learning used in IPE, and strengthen the robustness of its underpinning theories (Barr and Ross 2006). Hean and Dickinson (2005), for example, offer food for thought for any faculty member struggling to develop a positive collaborative experience for his or her students by referencing Allport's contact hypothesis (Allport 1979) which stipulates a set of conditions which are required to reduce negative intergroup attitudes and stereotypes:

> These conditions included that in each grouping the contact situation should have equal status, experience a co-operative atmosphere, be working on common goals, have the support of the authorities (institutional support), be made aware of group similarities and differences, have positive expectations and that the members of the conflicting groups perceive each other as typical members of their group. (Hean and Dickinson 2005, p. 481)

Beattie (1995) suggests that an integrated curriculum can alleviate some of the issues around tribalism associated with health professionals. This is further discussed by Illingworth and Chelvanayagam (2007) who say that learning and teaching should be aligned with clear programme objectives. The programmes offered by the institution in the study are explicitly interprofessional. Interprofessionality is expressed in each module and is also reflected in programme assessment.

2.3 Debates in the educational arena

There is no clear consensus on when is the most appropriate time to introduce students (or workers) to IPE. Some authors (e.g. Dombeck 1997; Pirrie 1998) recommend that IPE is best left until after qualification, arguing that pre-qualification individuals lack the maturity and professional experience required to cope with the demands of collaborative learning and must, therefore, be allowed time to gain experience in their own profession before they can be expected to confidently and effectively share their professional knowledge in a collaborative effort. Surveys carried out in North America and Europe appear to suggest that post-qualification IPE has, in the past, been the accepted convention, with some studies showing post-qualification IPE programmes outnumbering pre-qualification initiatives by up to three to one, and work-based examples outnumbering university-based by as much as two to one (Barr and Waterton 1996; Freeth *et al.* 2002).

However, there are also authors who argue that IPE should be introduced at the pre-qualification stage (e.g. Areskog 1994; Wahlström *et al.* 1997). The argument runs that leaving IPE experiences until after qualification allows the cultivation of negative stereotypes during professional socialisation. These prejudices can be difficult (if not impossible) to break down once they have evolved. Introducing students to shared learning initiatives early in their education, however, can promote positive attitudes and behaviours between the professions and thus curtail the development of negative professional socialisation.

Clearly, these two theories are antithetical. A third school of thought, however, makes concessions to both these assertions, recommending a "continuum" of learning in which IPE is integrated into uniprofessional and multiprofessional education at the pre-qualifying stage and pursued throughout lifelong continuing professional development post-qualification at university and in the workplace (Freeth *et al.* 2005). This approach proposes that IPE has a role to play at all stages in the education and training of health professionals, but that the objectives of IPE can be modified with regard to the capabilities and relative experience of the students in question. Thus, for example, the objectives of pre-qualifying IPE could be to limit the development of negative stereotypes, while post-qualifying IPE objectives could include effecting change in the workplace through, for example, continuous quality-improvement collaborations amongst differing professions sharing a common set of problems (Barr and Ross 2006).

Within the UK, the provision of opportunities for IPE at both the post-qualifying and pre-qualifying stage is gathering pace, although the historical preponderance of the former over the latter is predicted to change (Craddock *et al.* 2006). The current Labour Government, in what could be seen as a nod to the proponents of early and continuous exposure to IPE, have clearly stated that pre-qualification courses for all entrants to health and social care should include interprofessional learning:

> ….we will work with others to develop new common learning programmes within a framework which means that:
>
> - All health professionals should expect their education and training to include common learning with other professions;
> - Common learning should run from undergraduate and pre-registration programmes through to continuing professional development. (DOH 2001a, p. 42)

2.4 Evaluating the current evidence

In an age of evidence-based practice, there are growing demands for evidence-based education, and the assertion that IPE promotes collaboration in practice may no longer be taken on trust (Barr 2000b). There are many evaluations of IPE programmes in the literature and a number of reviews of these evaluations have followed.

A first systematic review of evaluations of IPE was undertaken by the Interprofessional Education Joint Evaluation Team (JET) (Zwarenstein *et al.* 1999). The objectives of the review were "to assess the effects of IPE interventions on collaborative working between different professionals, and on the quality and outcomes of care provided to patients/clients" (Zwarenstein *et al.* 1999, p. 417). Conducted under the auspices of the Cochrane Review Group, the review was confined to evaluations based upon randomised controlled trials, controlled before and after studies or interrupted time series studies, and outcomes that directly affected the organisation and delivery of care for patients. Of the 95 full texts reviewed, however, the consensus was that none of the evaluations were eligible for inclusion as they failed to meet the methodological criteria laid down by the Cochrane Review Group. Nevertheless, the authors stressed that "our finding of no evidence of effectiveness does not imply that there is evidence of *in*effectiveness of IPE, simply that no such evidence *currently* exists" (Zwarenstein *et al.* 1999, p. 422).

A subsequent critical review of evaluations of IPE by JET considered "what kinds of IPE should be encouraged and how best to evaluate the impact of these" (Freeth *et al.* 2002, p. 8). This second review revised the inclusion criteria of the first review to include qualitative studies, quasi-experimental studies with or without controls, and cost-benefit analyses. 217 eligible evaluations were identified; however, the authors note that the quality of the studies was quite variable and, consequently, in-depth analysis was given to only 53 higher-quality evaluations. Positive outcomes were recorded in a number of key areas: learners' reactions, changes in attitude or perception, changes in knowledge and skills, behavioural changes, changes in organisation in delivering care, and benefits to patients or clients. The authors accepted, however, that there was no clear evidence to link these positive outcomes directly to an IPE intervention, and concluded that "convincingly demonstrating cause and effect remains a problem for many studies" (Freeth *et al.* 2002, p. 54-5).

A further review by JET to assess the empirical evidence of the effectiveness of IPE in health and social care, and designed as an extension to the first two reviews, identified 353 eligible evaluations of IPE and carried out a detailed analysis of 107 higher-quality studies (Barr *et al.* 2005). The review noted that the vast majority (nearly 80%) of these studies related to post-qualification IPE, and that "many of the post-qualifying initiatives reported beneficial changes in the organisation and delivery of services" (Barr *et al.* 2006, p. 75). Whilst acknowledging that the level of eligible pre-qualifying studies was low, the authors reported that "pre-qualifying IPE typically delivered preparatory or interim outcomes, i.e. modification of reciprocal attitudes between students of different professions and acquisition of knowledge relevant to collaborative practice" (Barr *et al.* 2006, p. 75).

More recently, however, a Cochrane Review of the evaluations of the empirical evidence of the effectiveness of pre-licensure IPE and post-licensure collaborative interventions concluded that:

> their use of wide inclusion criteria in relation to methodology and outcomes means that the quality of these studies is open to question…. One can argue

> that these reviews provide only a limited understanding of the effectiveness of IPE and collaboration. We conclude that the existing reviews do not contribute information which can judge the effectiveness of IPE and collaborative interventions. (Zwarenstein *et al.* 2005, p. 152)

Once again, the authors stressed that "although we could find no reliable evidence on the effectiveness of IPE, the absence of evidence is not in itself evidence that intervention is ineffective. It may simply mean that the intervention is difficult to evaluate..." (Zwarenstein *et al.* 2005, p. 153).

Clearly, evaluating the effectiveness of IPE is a complex and difficult process, and providing evidence to show a clear, linear link between IPE interventions and their outcome in collaborative practice has proved elusive. Some authors have questioned whether the "gold standard" of randomised controlled trials for evaluating clinical interventions is the most appropriate tool for evaluating the efficacy of IPE interventions, not least because it would be a formidable logistical barrier to conduct a randomised or controlled trial to assess the effectiveness of IPE across a large number of health schools with an intervention group and a control group. These authors suggest that well-tried evaluative methods more often used in education be considered as legitimate alternatives (e.g. Zwarenstein *et al.* 2005; Barr and Ross 2006). Furthermore, judging the effectiveness of IPE on the basis of benefits to patients or clients may be going a step too far. While IPE may provide students with the motivation and capability, collaboration in practice is highly dependent on conditions and opportunities in the workplace. It is, therefore, perhaps more realistic to assess the effectiveness of IPE in terms of laying the foundations for collaborative practice rather than on the ultimate goal of improving patient outcomes (Barr *et al.* 1999). In addition, the authors of the second and third reviews above note that the data set was largely North American and caution against over reliance on evidence drawn from a value system which operates in a different social and political context from the United Kingdom, warning that "review findings must be treated with care, as they may not be directly applicable to other health and social care education systems" (Barr *et al.* 2005, p. 48).

Whilst there remains debate as to the quality and appropriateness of evaluations to date, there is agreement that more and better quality studies are needed if IPE is to become a truly informed practice (Craddock *et al.* 2006). Arguably, the current evidence base surrounding IPE is still in its infancy, a fact which several authors have attributed, in part, to its largely atheoretical status. In one systematic review conducted to summarise the evidence for IPE of undergraduate health-profession students, the authors note that "in the majority of interventions (73%) there was no evidence of links to underlying theory, neither in the description of the method nor in the choice of process or outcome measures" (Cooper *et al.* 2001, p. 231). Freeth *et al.* (2002) give support to this observation, noting "it was unusual for the studies to indicate that a particular educational philosophy has underpinned the design of the interprofessional learning opportunity" (p. 36-7).

Given that IPE is a complex intervention, the challenge facing its proponents is to make the hypotheses and assumptions underpinning complex interventions more explicit (Cooper *et al.* 2005). Encouragingly, some recent studies appear to be addressing this issue. In a critical review of the literature exploring the range and variety of theoretical application to IPE initiatives in the UK the authors note that the theoretical base for IPE is evolving rapidly (Craddock *et al.* 2006). Educational theories linked to adult learning theory and reflective practitioner theory, and theories derived from social psychological studies of group behaviour and teamwork such as

contact theory, social identity theory, realistic conflict theory, systems theory and activity theory have all been used to inform and validate IPE interventions (Craddock *et al.* 2006). Nevertheless, despite these efforts the authors conclude that "an examination of the theoretical frameworks underpinning the models of interprofessional education adopted in different institutions reveals a regrettable lack of both coherence and evidence" (Craddock *et al.* 2006, p. 237).

While IPE interventions chosen on theoretical grounds with validated outcome measures can enhance the development, implementation and evaluation of an IPE initiative, "greater conceptual clarity, empirical evidence and integrative theoretical development are clearly required before a unifying paradigm can be expected to emerge" (Craddock *et al.* 2006, p. 237).

2.5 Definitions

It can already be seen that the literature on IPE appears to demonstrate a lack of cohesion with regard to the terminology used to define and explain its concepts. Terms such as "multidisciplinary", "multiprofessional" and "interprofessional" are used interchangeably, often without explicit definition or careful consideration of their precise meanings, exposing these concepts to differing interpretations (Craddock *et al.* 2006).

Twenty years ago the WHO stated that "the educational experience shared by members of different health professions should be called 'multi-professional' education", and that multi-professional education is "the process by which a group of students or workers from health (and social) occupations with different educational backgrounds learn together during certain periods of their education, with interaction as an important goal, to collaborate in providing promotive, preventative, curative, rehabilitative and other health related services" (WHO 1988, p. 5). Clearly, for the WHO, the concept of "multiprofessional education" assumed not just that professions would learn side by side, but that this process would be interactive and collaborative.

In the 20 years since, however, the terminology used in the literature to describe the fundamental process of two or more groups of professionals learning or working together has evolved and enlarged in what appears, disconcertingly, to be an often indiscriminate, even arbitrary fashion. Typically, academic studies marry different prefixes such as "multi", "inter", "cross", and "trans" with the adjectives "disciplinary" and "professional", which in turn are linked to nouns such as "education", "training", "learning" and "study" (Barr *et al.* 1999). Policy makers, however, have tended to use terms such as "joint training", "shared learning" or "common studies" (Barr 2001).

Illingworth and Chelvanayagam (2007, p. 121) produced a table of the terms that have been used when describing IPE:

- joint training
- shared learning
- interagency training
- interagency education
- interprofessional education
- interprofessional training
- multiagency training

- multidisciplinary training
- multidisciplinary education
- multiprofessional education
- multiprofessional training

The terms illustrate Glen and Leiba's (2004) "conceptual confusion" and Leathard's (1994) "terminological quagmire" relating to what it is that higher education institutions (HEIs) are delivering in the name of collaborative and co-operative education for learners.

Choi and Pak define multi-disciplinarity as drawing "on knowledge from different disciplines but stay[ing] within their boundaries" (2006, p. 351). This definition is too limiting in the context of this research and in relation to the Government's intentions for collaborative learning/education in health and social care. Interdisciplinarity brings together knowledge from disciplines or specialities by synthesis to form a coherent whole. In health and social care education, interprofessionalism or interdisciplinarity are associated with the characterisation that CAIPE places on the terms.

Closer examination of the meanings of these terms, however, cautions against using them interchangeably. For example, a "discipline" can be defined as a "subject that is taught", or a "field of study", whereas a "profession" can be described as "a calling requiring specialised knowledge and often long and intensive academic preparation" (Neufeldt 1990 cited in Oandasan and Reeves 2005a, p. 23). Thus, in the field of medicine, there may be multiple disciplines within one profession (e.g. doctors, nurses and radiographers) and so a "multidisciplinary" initiative could be confined to a single profession, whereas the term "multiprofessional" refers to the inclusion of individuals from a number of different professions (e.g. doctors, social workers and police officers) (Oandasan and Reeves 2005a). Despite the definition given by the WHO (WHO 1988), which assumes that multiprofessional education involves interaction and collaboration between the professions, the prefix "multi" can refer to partners working side by side yet independently towards a purpose without necessarily interacting. The prefix "inter" arguably more accurately reflects the intent of the WHO, as it signifies a partnership in which members from different backgrounds work collaboratively towards a common purpose, with interaction as an important objective.

In an effort to provide some clarity amidst the semantic confusion evident in the various terms used within the literature, the Centre for the Advancement of Interprofessional Education (CAIPE) have rendered a distinction between "multiprofessional" and "interprofessional" education with the following definitions:

- multiprofessional education: occasions when two or more professions learn side by side for whatever reason
- interprofessional education: occasions when two or more professions learn from and about one another to promote collaborative practice. (CAIPE 1997)

Defined thus, interprofessional education is a subset of multiprofessional education and is distinguished both by its purpose and by the methods it utilises to achieve interaction and collaboration. Multiprofessional education that delivers common content to large numbers of learners requires limited interaction, but by bringing together in the same "space" individuals from different professions, it can still contribute to understanding the priorities, roles and responsibilities of the professions in multiprofessional teams. Interprofessional education, however, goes further by promoting learning *with* and *from* other professions and provides the

highest level of interaction, encouraging participants to actively practice the skills that are required for collaborative professional practice (Freeth and Reeves 2004).

Nevertheless, as helpful as these definitions may be, they have yet to gain common currency within the literature. The Department of Health, for example, has preferred the term "common learning" to describe both multiprofessional and interprofessional education (e.g. DOH 2000a). The inference is that health and social care students, regardless of their professions, should follow common curricula, but the degree to which such common learning should be interactive, if at all, remains open to question (Barr and Ross 2006). Similarly, *The NHS Plan* (DOH 2000b), while promoting the government policy emphasis on HEIs working in partnership with the NHS to deliver post-qualification outcomes, lacks a clear definition of the desired "interprofessional" working practices. As a result, it is unclear whether the objectives of government policy are to produce health professionals who: 1) simply "know about" the roles of other professional groups; 2) are able to "work with" other professionals as part of a team; 3) are able to "substitute for" roles traditionally played by other professionals; or 4) have greater flexibility in career routes (Finch 2000). Herein lies the challenge for IPE activists, educators and policy makers alike, namely the creation of a coherent language of IPE which clearly defines its objectives and which endorses the appropriate pedagogical approaches to achieve these objectives.

3 Methodology

This study examines the experiences of postgraduate students on health and social care programmes at Master's level at one institution in the south-east of England. The institution offers three interprofessional Master's programmes at present in the Faculty of Health, Wellbeing and Science. There are currently 62 active students at various stages of study. The three programmes included in the study espouse an interprofessional approach to the curriculum.

The purpose of the study was to identify the effect interprofessional learning has at Master's level on those who participate in this type of learning. Three key areas were explored: course organisation; student support; and the students' perceptions and attitudes towards IPL.

A range of health-care professionals were surveyed. Some participants were based in a practice or clinical setting, while others were based in the educational or academic setting. All participants were mature health-care professionals.

Programmes included in the study were:

- MA in Leadership and Innovation: this programme is aimed at health-care professionals with a leadership or management role and those who are working towards becoming a manager with leadership responsibilities.

- MA in Clinical Practice: this programme is aimed at health-care professionals who wish to enhance an area of their practice, for example nurses who prescribe medication or allied health professionals who are advanced practitioners in a specialist area.

- MA in Interprofessional Health Care Education: this programme is aimed at those who teach in the health-care environment, for example nurses and midwives or allied health professionals such as radiographers, physiotherapists, occupational therapists, and paramedics. The programme is aimed at those based in the clinical setting and in the higher education setting. The programme leads to Higher Education Academy status and to the Nursing and Midwifery Recordable Teaching Qualification for those nurses and midwives required to register a recognised teaching qualification with their regulatory body.

All programmes are interprofessional and recruit from a range of health-care professions. All are taught by interprofessional teams of lecturers drawn from across the faculty, with guest speakers from specialist areas.

3.1 Methodological approach

This study used both quantitative and qualitative approaches. Each approach has its advantages. A qualitative approach allows the researcher to examine and explore certain situations. It seeks to understand a particular phenomenon by analysing and evaluating the subject's thoughts, feeling and actions (Parahoo 2006). It is thought to have a significant amount of validity, though this is countered by concerns over its lack of reliability as often the techniques are adapted to each individual and are not standardised (Kirby *et al.* 2000). Qualitative research can add to the study by allowing participants in the research to expand on experiences and allowing the researcher to ascertain beliefs and feelings that may be present. Qualitative research has a focus

on the words people use and attempts to centre on the person rather than on the subject matter (Burnard and Morrison 1994).

The quantitative approach, on the other hand, is an objective and factual approach to research. It is thought that by studying subjects objectively, through taking measurements and analysing them, that understanding of measurements and relationships between them can be achieved (Parahoo 2006).

In order to fulfill the objectives of this study a combination of both quantitative and qualitative approaches were employed. This allowed the quantitative presentation and comparison of some quantitative data in order that measurements of knowledge and understanding could be made. In addition, the qualitative approach allowed the analysis of the subjects' attitudes to and perceptions of IPL.

3.2 Research design

Due to its exploratory and descriptive nature the research design was a cross-sectional saturation survey (Sarantakos 1993). Due to student numbers, the differential attendance patterns of each course, and the geographical spread of students, it was decided that a survey would be the best method by which to capture a wide range of data.

Surveys can be used to retrieve data at a particular point in time to allow the researcher to determine existing conditions such as the opinions, attitudes, beliefs and preferences of the respondents (Cohen *et al.* 2003; Denscombe 2003). This made the survey approach to this research appropriate in that the project seeks to evaluate the students' experience of interprofessional learning at Master's level.

3.3 Population and sampling issues

The total population for this study consisted of all active students across the three interprofessional Master's courses at an HE institution in the south-east of England, totalling 62 students. A sampling framework was not required as in a saturation survey the target population forms the total population (Sarantakos 1993).

3.4 Research method

3.4.1 Literature review

A literature search was undertaken in order to provide a thorough understanding of the concepts around interprofessional learning and to assist in the development of the primary research tool.

3.4.2 Self-completion questionnaire

The primary research tool selected for use in this project was a postal questionnaire. There are several reasons as to why this approach was selected:

- low financial and time costs for the researcher
- low cost of processing
- less pressure on respondents as it can be completed at their own convenience
- analysis is relatively straightforward due to standardisation of questions

- ability to reach respondents who are widely geographically dispersed
- minimises researcher bias
- anonymity can be assured. (Gillham 2000; Cohen *et al.* 2003)

However, there are also a number of disadvantages to the use of this type of tool:

- data quality – completeness and accuracy
- potential low response rates
- no opportunity to correct misunderstanding – needs careful wording
- possible researcher bias in question wording
- respondents' uncertainty as to what happens to data could influence truthfulness of answers. (Gillham 2000)

Taking into account student numbers and the aims and objectives of the study it was felt that although the disadvantages of the questionnaire cannot be ignored, a postal questionnaire was the most viable research tool for this project. In order to overcome some of the disadvantages, the questionnaire was piloted, a carefully constructed letter of invitation and an information/consent form accompanied the questionnaire, and a stamped addressed envelope was enclosed with each questionnaire.

The questionnaire asked students about their experiences. Some questions were based on findings from the literature on IPL. Other questions were generated from issues that some students identify during their course of study.

The questionnaire was divided into three sections:

i. General information
This section contained questions relating to demographics and previous experience and qualifications. This information was collected to aid comparison of responses.

ii. Likert scale response questions
The questionnaire collected data on a range of topics using a rating scale. Opinions of and attitudes to learners' experience were sought – these have an intensity as does any opinion. In order to gain an indication of their magnitude a rating scale was used.

The purpose of the questions in this section was to elicit factual, attitudinal opinion and feelings about the IPL experience. This allowed the collation of quantitative data, permitting some cross referencing (Oppenheim 2003). The questions focussed on three important areas in line with the objectives of the study. They were:

- student support
- students' perceptions of and attitudes towards IPL
- course organisation.

iii. Open question with ranking
The purpose of this section was to allow the respondent to identify the strengths and weaknesses of the course without any prior guidance. The respondent was asked to rank each strength and weakness identified in order of importance. This allowed the student to

put an emphasis on how important each one was to them personally. This allowed some qualitative data to be collected and enabled some thematic analysis to be undertaken.

3.5 Pilot phase

It is essential that once designed, a questionnaire is reviewed and piloted prior to its final distribution. This assists not only in minimising researcher bias but also enhances the validity and reliability of the questionnaire (Oppenheim 2003).

The questionnaire was sent out at the pilot stage to six past students on the MSc Interprofessional Health Care Education programme. The letter of invitation, an information sheet and a consent form accompanied the questionnaire and the participants were asked to comment on all associated documents.

With particular reference to the questionnaire, the participants were asked to consider the time taken to complete the questionnaire, its general layout, the understandability and clarity of questions, the question format and order.

In light of the comments received, changes were made to the letter of invitation and the information sheet and consent form were combined. All participants indicated that it took 15-20 minutes to complete the questionnaire and that there was some ambiguity regarding two of the questions. Changes were subsequently made to these questions and the order of questions was also reviewed. A final copy of the questionnaire can be found in Appendix I.

3.6 Questionnaire distribution and collection

The questionnaire was posted during the week commencing 16 July 2007, accompanied by a stamped addressed envelope. The closing date for the return of the questionnaire was 31 July 2007.

On receipt of the returned questionnaires, an independent person detached the consent form from the questionnaire and placed this securely in a separate storage area to assure anonymity. The questionnaire was then forwarded to the researchers who coded the questionnaire and entered the data into a spreadsheet for analysis.

3.7 Ethical considerations

Informed consent is a vital element of the research process, as is confidentiality of the resultant data (Gregory 2003). The ethical issues were addressed as follows:

- Approval for the project was sought from the Faculty of Health, Wellbeing and Science's ethical committee. Formal approval to proceed was given at the end of June 2007.
- Each questionnaire was distributed with an information sheet and consent form which on return was detached and retained by an independent person.
- The questionnaire was designed and analysed in such a way as to ensure that anonymity was maintained.
- All completed questionnaires were coded, the data entered into a spreadsheet and then securely stored.

3.8 Data analysis

3.8.1 Quantitative data

All responses were entered into Microsoft Excel 2003 and analysed using descriptive statistics. As Reid (1993) argues, "descriptive analysis may also be invaluable in a research report by giving the reader a picture of the form and structure of the data" (p. 71) and "analysis through pictorial and graphical representation is suitable and desirable for all levels of measurement" (p. 82). The data had no interval properties and were not amenable to statistical analysis in terms of sample size and the type of data generated from the questionnaire. Oppenheim (1996) supports this approach to data analysis, "since they (nominal or categorical data) lack interval properties and have no underlying continuum, they cannot be added, multiplied or squared" (p. 157). Oppenheim also says that the researcher can only count the frequencies of certain occurrences, and that it is also reasonable to express some frequencies as percentages. An uncomplicated approach was taken to data analysis to maintain a holistic perspective.

3.8.2 Qualitative statements

All qualitative statements were categorised using content analysis (Jackson and Furnham 2000). This method was chosen as it enables narrative statements to be categorised under themes, from which quantitative measurements can be established for analytical purposes (Polit and Hungler 1997).

4 Results and discussion

The main focus of the research was to explore the student experience of interprofessional learning, taking into account their perception of and attitudes towards IPL, student support and course organisation.

Sixty-two postal questionnaires were distributed to active students enrolled on the three interprofessional Master's programmes at University Campus Suffolk. Nineteen questionnaires were returned, giving a response rate of 30.6%. A full set of the results can be found in Appendix II.

4.1 Demographic data

The demographic data collected by the questionnaire is presented in tabular form below (Tables 1 –6).

	Male	Female
Gender	3	16

Table 1: Gender of respondents (n=19)

	24-33	34-43	44-53	>53
Age (years)	4	2	10	3

Table 2: Age in years of respondents (n=19)

	1	2	3	4	5	6	7
Number of modules completed at this point	1	3	4	2	3	1	1

Table 3: Number of modules respondents have completed at the point of survey (n=15)

	<12	12-24	25-36	>36
How long since you last took accredited study (months)	8	1	5	5

Table 4: Length of time in months since last period of study (n=19)

	Yes	No
Have you studied at undergraduate level previously	15	2

Table 5: Number of respondents who have studied at undergraduate level (n=17)

	Yes	No
Have you studied at postgraduate level previously	10	9

Table 6: Number of respondents who have studied at postgraduate level (n=19)

4.2 Learning interprofessionally

The majority of respondents were female and enrolled on the MA in Interprofessional Health Care Education. 52.6% of students were in the 44-53 years age group and 60% of this group had previously studied at postgraduate level in comparison to 52.6% of the overall respondents. It has been highlighted in the literature that students who study at postgraduate level are more receptive to learning in an interprofessional arena (Pirrie *et al.* 1998). It could therefore be

postulated that if the previous postgraduate study had been interprofessional then this group of students may be more engaged with the concept of interprofessional learning.

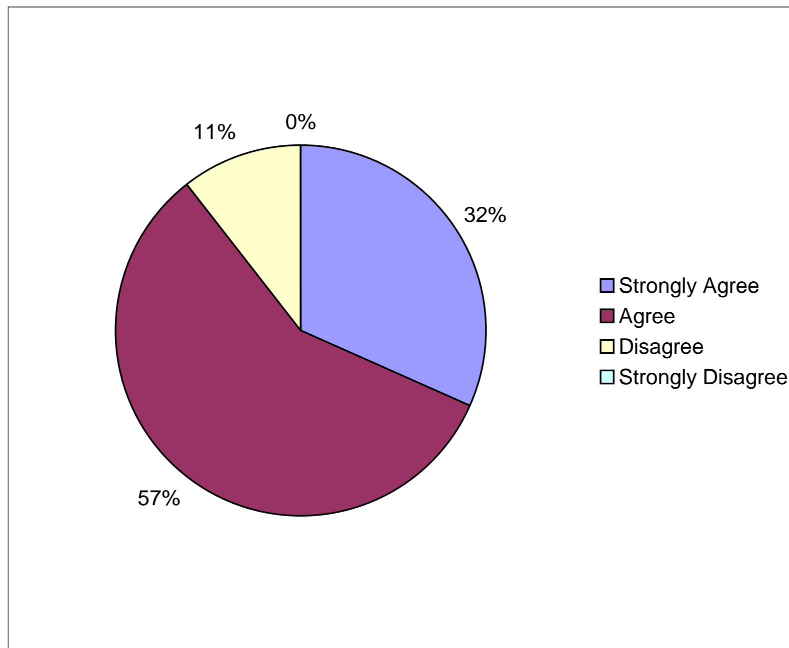

Figure 1: Students' preferences for learning interprofessionally at postgraduate level (n=18)

Figure 1 demonstrates that 89% of students prefer to study interprofessionally at postgraduate level. It was also established that 95% of students felt that learning interprofessionally had enhanced their learning experience. The responses to these questions highlighted the positive attitude of this student group to their learning experience in an interprofessional environment.

Currently, the majority of IPL initiatives in the UK take place post-qualification, but government policy is redressing the balance by promoting pre-qualification IPL in all health and social care courses (DOH 2000a, DOH 2001a).

There are three schools of thought on when is the most appropriate time to introduce IPL. It has been suggested by Petrie (1976) and Mariano (1999) that IPL should be introduced post-qualification as individuals must first be secure in their own discipline and have the profession-specific skills and knowledge which give them the confidence to contribute freely to the interdisciplinary process and function effectively as team members. However, Areskog (1988) and Vanclay (1997) argue that IPL should be introduced early in undergraduate education in order to prevent negative stereotypes developing in the first place. "Junior" students are highly receptive to IPL as they do not carry negative stereotype "baggage" acquired in the workplace. Early development of communication skills, conflict situation-handling skills, group work, etc., can help to diminish later development of negative attitudes.

Conversely, Harden's "spectrum of learning" advocates a mixture of uni/multi/interprofessional education. Course objectives reflect the need to reduce the development of negative stereotypes early in education, but also ensure that role identification and confidence are developed before introducing IPL later in educational programmes (Harden 1998). Harden advocates a staged approach which may fit into the Government's agenda for the introduction of IPL into undergraduate/pre-registration programmes.

It has been acknowledged that there are practical difficulties in organising IPL programmes for large numbers of students. There are several contributory factors, including:

- different professional groups being taught at small university learning centres remote from the main campus (although this can be overcome to some extent with the use of e-learning, see Barrett *et al.* 2003)
- it can be difficult to get the time required for the team process and development
- differences in curriculum between faculties/colleges can cause timetable clashes
- mandatory practice placement attendance or other commitments can make regular academic course attendance difficult.

This tends to be more problematic in undergraduate/pre-registration programmes as the numbers of undergraduate/pre-registration students can be up to four to six times greater.

The data illustrates that the majority of students have been satisfied with the structure and organisation of the programmes (Figures 2 and 3). This is supported by the qualitative comments:

Strengths:

- "*good organisation and flexibility of timetable*"
- "*planning/delivery*"
- *"broadness of content"*.

However, it has to be acknowledged that the delivery of IPL programmes remains challenging with respect to delivery and organisation.

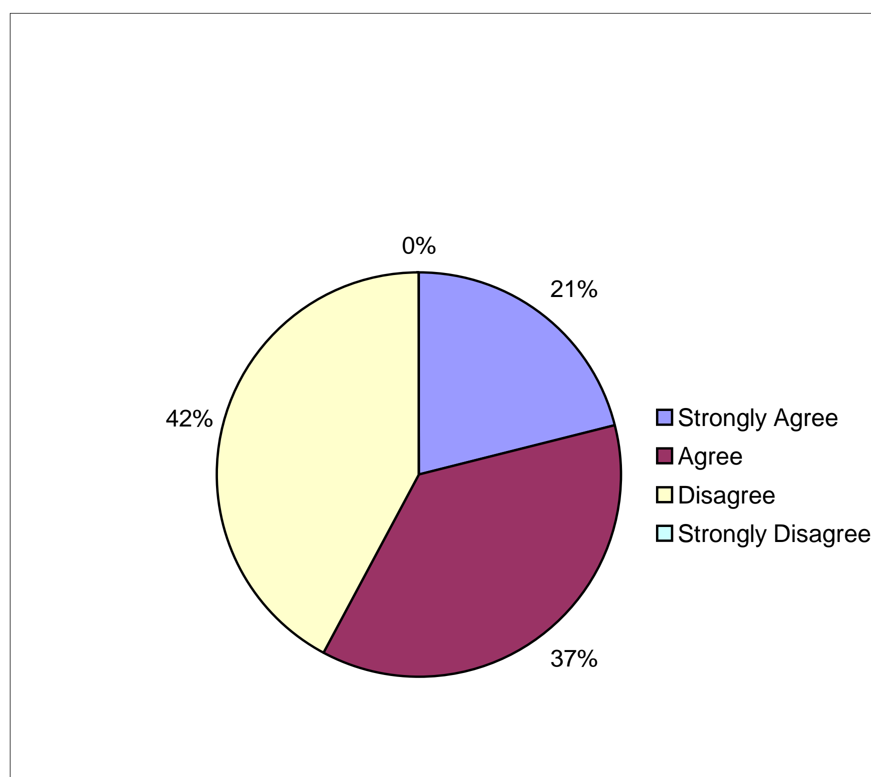

Figure 2: Consistency of teaching across the modules (n=19)

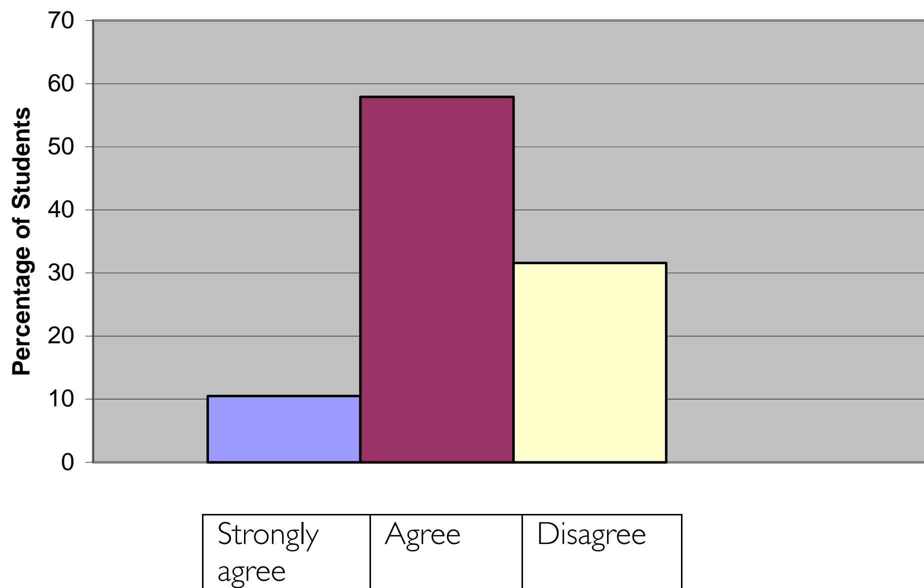

Figure 3: Consistency of module organization (n=19)

Despite the recognition of the perceived logistical problems of organising IPL programmes, the researchers felt it would be valuable to ascertain whether existing students would be interested in expanding their interprofessional learning to a more differentiated group of students (from the Arts, Business and Social Science Faculty). Figure 4 demonstrates that almost half the respondents (45%) did not wish to participate in this potential opportunity.

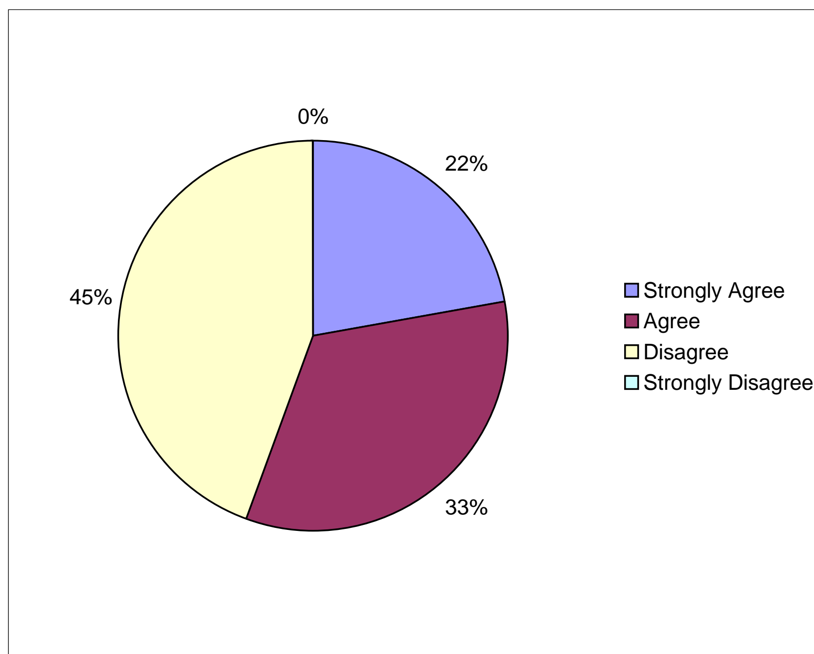

Figure 4: Willingness to meet other postgraduate students from outside the Faculty of Health, Wellbeing and Science (n=16)

Although almost half of these students did not wish to pursue this opportunity, they viewed learning with other students outside of the faculty more favourably.

Some topics could be delivered with other postgraduate learners from other faculties at this institution	Strongly Agree	Agree	Disagree	Strongly Disagree
	4	12	3	

Table 7: Willingness to participate in learning with learners from outside the Faculty of Health Wellbeing and Science (n=19).

As long ago as 1962, it was acknowledged that co-operation between care providers would enhance holistic client care (Forman and Nyatanga 1999). Nyatanga further discusses professional ethnocentrism as protecting professional identity and that there are challenges to be faced if co-operation is to succeed. One aspect they cite is "change towards valuing the knowledge and skills of other disciplines" (p. 493). This study found that students felt that lecturers were in favour of IPL. From the qualitative comments from students they felt that their knowledge was valued by other professions in the group.

Strengths:

- *"mutual respect amongst the learners for our individual thoughts and feelings regarding issues"*
- *"I found my knowledge from my profession was appreciated by others which felt good."*

The majority of students - 89% - agreed that the lecturers involved in the modules had an appreciation of each other's roles and also that lecturers are generally in favour of IPL.

Institutional support is required if perceived obstacles are to be overcome. Those who decide on educational policies and allocation of resources can implement changes in course structure and can provide academic incentives to elicit faculty support. In general, students felt well supported on the programme.

Accreditation standardisation by professional bodies and clear objectives from the licensing bodies are important, providing both incentives for HEIs and reassurance to students that IPL is a "worthwhile" and valued discipline to study (Oandasan and Reeves 2005a). (See Mainstreaming IPL below.)

4.3 Adult learning

Of the respondents that indicated their professional background, nursing was the dominant profession. Class sizes across all three programmes tend to be small with numbers less than fifteen students per intake. Small-group learning is a key element of adult learning, as it provides an environment which allows group members to share their learning and collaborate on tasks. When large numbers of students are present, this can threaten the success of small groups in a number of ways:

- Group balance: must be an equal mix of professions; if the balance is skewed it can inhibit interaction and allow the larger group to dominate.
- Group size: 8-10 members per group is considered ideal; any larger and effective interaction may be compromised (Hughes and Lucas 1997).
- Group stability: interaction is enhanced when the group maintains a stable membership and there is little "turnover" of members. Post-qualification groups are most prone to instability as professional workloads may deter/prevent participants from attending regularly. (Freeth *et al.* 2002)

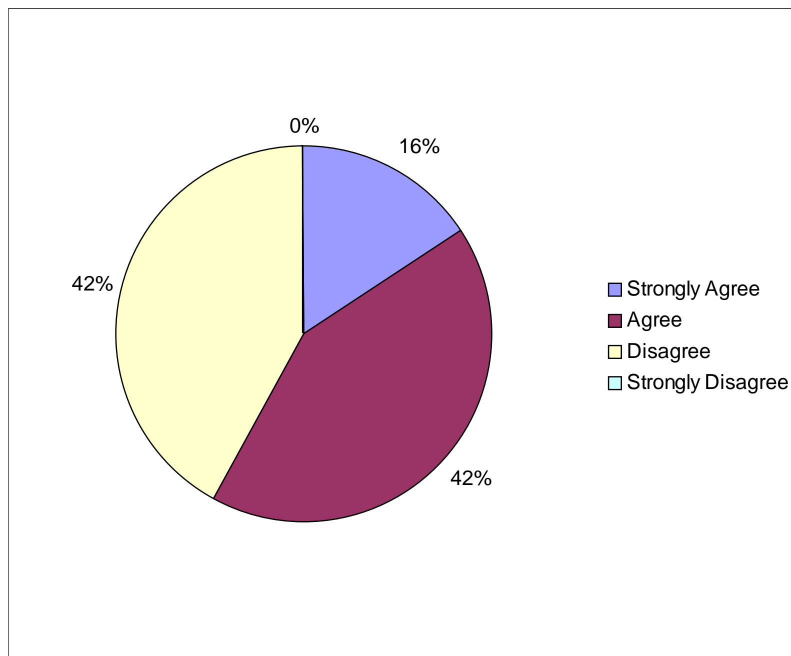

Figure 5: Students' perception of professional domination in groups. (n=19)

This study shows that 58% of students felt that one particular professional group tended to dominate sessions.

Although it is recognized that one professional group tended to dominate teaching sessions, students felt that they had an equal relationship with their peers, with two "disagree" responses (n=19). It is also interesting to note that all but one student felt that that the peer group had provided a valuable learning experience (n=18). The students who disagreed were different students across the two questions, so the two students who disagreed that they had an equal relationship with their peers both agreed that the peer group had provided a valuable learning experience. All but two students agreed that they preferred learning interprofessionally at postgraduate level (n=19).

A key premise of adult learning is that learners' reactions are more favourable when they perceive a direct relevance between their educational experiences and their current or future practices (Oandasan and Reeves 2005a). If the group is large and professionally diverse, it can be difficult to generate IPL learning scenarios and resources that are relevant to all the professional groups represented.

Contact hypothesis (Allport 1979) stipulates that members of conflicting groups must perceive each other as typical members of their group if reduction of negative intergroup attitudes and stereotypes is to be achieved. If members are not perceived as "typical" then changes in attitude achieved in the classroom may not be sustained in the workplace – e.g. "she was a nice woman and easy to get on with but she was not a typical doctor like the ones at work who are difficult to get on with". Therefore, any attitude change achieved by IPL to this particular doctor may not be generalised to the wider population of health-care professionals in the workplace (Pettigrew 1998 cited in Hean and Dickinson 2005). Perhaps larger groups of students, particularly if their involvement is compulsory and not elective, will make it more likely that members of the group are typical of their profession, which could contribute to sustainable attitude change. All students on the Master's programmes are mature practitioners who choose

to attend. Staff from the institution who attend one of the Master's programmes, however, must attend the Interprofessional Health Care Education programme in order to gain a teaching qualification as part of their terms of employment. Allport (1979) and Hewstone and Brown (1986) suggest that for interprofessional learning to occur learners should learn in a cooperative environment, be working towards common goals, have mutual respect for group members, and have institutional support. These themes were reflected in the questionnaire to course participants.

Students were asked about their level of agreement with the statement "I have an equal relationship with my peers in my learning group": 89% agreed that they had an equal relationship, with two respondents disagreeing. Students were asked if they felt respected by people from other health-care professions: all but one student agreed that they felt respected by other students. This indicates that students feel respected and feel that they have an equal relationship. Allport (1979) and Hewstone and Brown (1986) suggest that IPL can occur when these conditions are satisfied.

In relation to institutional support, of the 16 students who answered this question all of them felt that IPL is a strength of postgraduate provision at the institution. All students (100%) agreed that the teaching team works cohesively together (n=17). When students were asked if they felt that lecturers are in favour of IPL 89% agreed with the statement with two disagreeing (n=19). All 19 students agreed with the concept of IPL at Master's level. These results suggest that students on the programmes feel respected by others and feel that the institution supports IPL.

Qualitative data in the form of comments indicates that the students value each other; there were no negative comments related to stereotyping:

- "*Interprofessional learning has enriched my learning experience, enhanced practice and been a positive model for students I both teach and supervise within the clinical area.*"
- *"I found my knowledge from my profession was appreciated by others which felt good."*

The quantitative data also shows that on the Master's programmes in the study students felt they had an equal relationship with their student group and felt respected by others on the same programme. The issue of stereotyping may reduce at Master's level as students are already socialised into their profession and secure in their role.

4.4 Mainstreaming interprofessional learning (IPL)

IPL initiatives are most successful where the "theme" or "ethos" of IPL permeates the whole student programme and is seen to be a mainstream component of the curriculum and not just an "add on" (Barrett *et al.* 2003).

As stated previously, students do feel that there is consistency across modules in terms of teaching and that lecturers are committed to IPL. All students felt that the teaching team worked cohesively, which was reflected across all the programmes as some modules are common to all programmes.

There is evidence that often students do not feel that IPL is as important as their profession-specific learning experiences (Oandasan and Reeves 2005a). All the Master's programmes at the institution are interprofessional, with this element set as an assessment criterion. For

example in the education programmes, students must include an interprofessional component in each of the assessments for all modules. Each of the three Master's programmes have some modules in common. The course teams feel that this further promotes interprofessional learning. If IPL experiences are not assessed in a way that gives them equal weight to other uni-professional courses, the relevance of IPL and students' commitment to it is often brought into question. Whilst this aspect is acknowledged at undergraduate level, it is less of an issue at postgraduate level.

The difficulty in devising relevant and fair assessments was highlighted, for example, by one study in which a multiprofessional group studied anatomy and were assessed by an end of term test. The authors note:

> The proportion of marks that the anatomy test contributed to the overall end of term assessment varied between disciplines, this weighting being outwith the control of the anatomist organising the course. It was significantly less for the nursing and biomedical sciences degree courses than it was for medicine and physiotherapy, possibly accounting for some of the differences in performance. The highest scoring student groups may have perceived the subject area as being more relevant to their subsequent course and professional needs than the lower scoring student groups. (Mitchell *et al.* 2004, p. 746)

To reinforce an IPL ethos, IPL learning outcomes need to be visible, not just in the IPL modules, but in uni/multiprofessional pathways and clinical practice placements as well. However, this can challenge those delivering the uniprofessional modules and there is a danger of curriculum overload leading to resistance to IPL among faculty and a marginalisation of IPL within the curriculum (Areskog 1988). Again, this issue, whilst relevant, is less of an issue at Master's level as all programmes start from an interprofessional premise.

Students may have a positive attitude to IPL, but the question remains as to whether or not they are prepared to sacrifice uniprofessional modules in favour of IPL ones. One study, for example, evaluating the experience of a group of speech and language therapy students in an IPL learning experience noted:

> participants rated sessions positively, but when time constraints were highlighted, were reluctant to sacrifice uniprofessional placements for interprofessional placements. Extending the length of the interprofessional placement would mean reducing another component of the course, a significant dilemma for clinical educators. (Baxter 2004, p. 109)

As all the postgraduate students are in employment this is not something that students have commented upon. Postgraduate interprofessional learning is better accepted by students as they are already in post and have experience in their roles.

Where participation in IPL is purely elective, those taking part will tend to be those who are least prejudiced and most favourable to collaborative practice, whereas those most prejudiced, and arguably those whose attitudes need to be changed the most, are likely to avoid an IPL elective. Where IPL is an embedded and compulsory element of the wider uniprofessional curricula, this issue can be overcome (Pettigrew 1998 cited in Hean and Dickinson 2005).

It is generally agreed in the literature that IPL lacks a unifying educational paradigm, a fact attributable in part to its largely atheoretical status (Cooper *et al.* 2001; Freeth *et al.* 2002; Craddock *et al.* 2006). This lack of unifying theoretical grounding might, in part, be responsible for inconsistencies in teaching methods and standards across faculties or modules. Delivering IPL modules that are informed by a single, apposite theoretical paradigm would make a vital contribution to the educational and scientific consistency between tutors, modules, faculties and colleges, etc.

4.5 Clinical practice

From the qualitative comments from respondents there were no negative comments regarding a workplace or professional experience. This might be a limitation of this study as the questionnaire did not explicitly request information of this type, rather the questionnaire sought remarks from an open ended question which left respondents free to write what was important to them. The workplace experience can impact negatively on post-qualification students attending an IPL course at college. If a training course is part-time, the existent stereotypes that participants held before training may be reinforced by the work situation to which the students regularly return (Barnes *et al.* 2000 cited in Hean and Dickinson 2005). The questionnaire asked students if they felt that IPL had enhanced their professional practice: all but one student (who strongly disagreed) felt that IPL had enhanced their professional practice (Figure 6, n=19). When students were asked if they had found IPL to be a positive experience, all agreed that it had been positive (n=18).

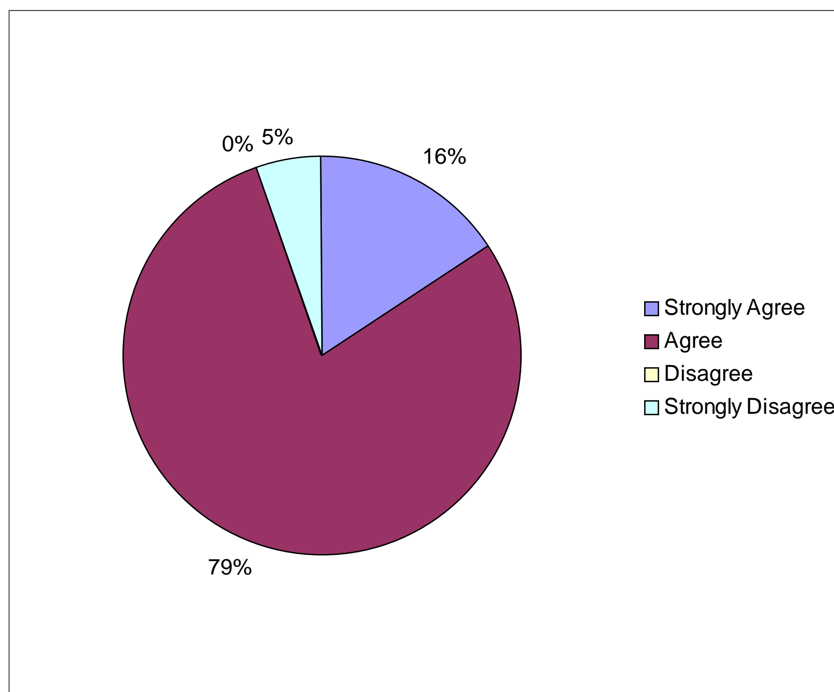

Figure 6: IPL has enhanced my professional practice (n=19)

4.6 Evaluating interprofessional learning (IPL)

It is difficult to establish what students mean when they say that they think IPL has improved their practice. Is it, for example, that they feel better able to collaborate with their work colleagues, or that they feel patient outcomes have improved as a result? Many studies claim that the students valued the experience, but it must be acknowledged that this is only their perception and may not be based on objective evidence (Mitchell *et al.* 2004). The link between IPL in the classroom and its impact on patients or health-care organisations is tenuous; factors such as co-operation from colleagues and support from management also play a part. Real progress could be claimed if, for example, the students, as a direct result of their IPL experience in an HEI, became involved in work-based training or were given authority at their workplace to take on the role of change agents (Barr *et al.* 1999).

One student commented on the difficulty of transferring IPL to the workplace with the simple comment under the open question of challenges to interprofessional learning:

- "*bringing it to the workplace*".

There is also a case for measuring the effectiveness of IPL over time in order to provide evidence of *changes* or *shifts* in attitudes. Pre-post test methodologies tend to consider only immediate change in attitudes and ignore the longer-term impact of an IPL experience. Longitudinal studies could satisfy the need to not only measure the change in attitudes upon completion of the course, but at intervals after students have returned to practice (Freeth *et al.* 2002).

As stated previously, IPL has been well accepted by students on the Master's programme and, in general, their experiences have proved positive. Using the qualitative statements to support the Likert scale questions the following strengths were identified:

- "*Mutual respect amongst the learners for our individual thoughts and feelings regarding issues.*"
- "*Lecturers and students from other professions enriched my learning experience not only within the classroom but also gave me a wider view of the care others deliver.*"
- *"Working with other professionals in the classroom enabled me to look at patients/students needs from a wider perspective."*
- *Respect for other professions.*

There were other similar comments which tend to support the attitudinal questions on the questionnaire.

In terms of the challenges to IPL students identified a number of similar themes:

- "*Joining varied groups intermittently.*"
- "*Joining students established as a learning group limits opportunity to work together as not time to establish relationships with peers limits team/group learning opportunities, raises stress levels trying to undertake project work on course.*"

As there are common modules, some students join other sometimes established groups and then find it problematic to find their place within the group. This aspect has also been highlighted in the institutional module feedback from students.

4.7 Support

When students were asked if they felt that their personal tutor provided adequate support, sixteen of the seventeen students agreed that they were adequately supported. This was reflected in some of the qualitative comments, for example:

- *"The course team have been so supportive and my personal tutor was so helpful and encouraging - it was an absolute privilege."*
- *Another student felt that one of the strengths of IPL was "support mechanisms from teaching team".*
- *"Support from lecturers and support from fellow students".*

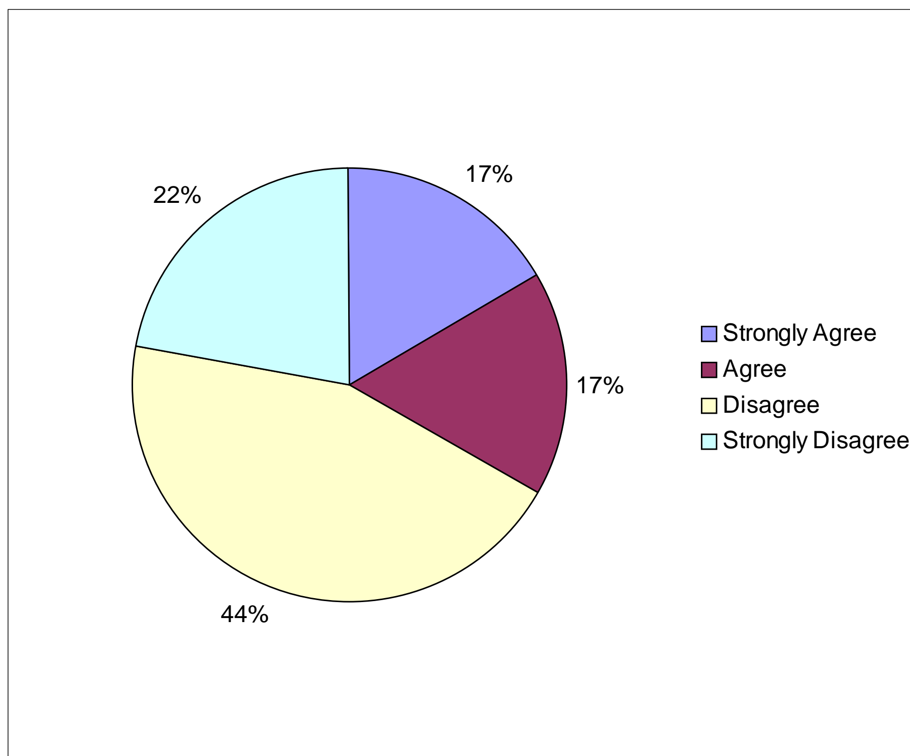

Figure 7: I would prefer my personal tutor to be from my own professional background. (n=18)

Figure 7 indicates that whilst 12 students disagreed with having a personal tutor from their own professional background, six students would prefer to have a personal tutor from their own professional background. Seventeen students agreed that there were sound support mechanisms provided as part of the overall programme, while two disagreed. Students are encouraged to make good use of their personal tutors as all three Master's programmes are part-time and during the interblock period personal tutors are the contact point for students. It can be suggested that in general students are mostly satisfied with the support mechanisms at the institution.

The use of tutors from other professions can provide learners with the opportunity to understand the different perspectives of the various staff involved in IPL, and may also provide some authenticity to the learning experience as they can provide a first-hand insight from their own profession into the process of collaboration (Freeth and Reeves 2004).

The individual "culture" of each professional discipline may have a bearing on the emphasis given to particular aspects of teaching by tutors - some may emphasise the role of their specific discipline within a collaborative effort, while others may be more attuned to IPL *per se*, which in turn will have an impact on the student experience (Mitchell *et al.* 2004).

5 Conclusion and recommendations

The researchers found that the student experience was mostly positive. It appears that at postgraduate level the student experience is similar to the undergraduate experience only in part. There are several qualitative comments that endorse the programmes in terms of organisation and student support. It was demonstrated that students on the Master's programmes were in favour of IPL and that many of the students evidenced this with a wide range of statements which clearly illustrated the positive experience that they had on the IPL programmes.

Many more strengths than challenges were identified in the open response section of the questionnaire. Some of the challenges were very specific and tended to centre around the difficulties of meeting assignment deadlines whilst working full-time and studying part-time. These problems are not isolated to IPL courses but are exceptionally common across all Master's programmes where the student group is often taken from experienced practice staff, often with pressured roles and managerial responsibilities.

The students felt that institutional support was good, that the professions respected each other, and that lecturers supported IPL at this institution. The organisational logistics of providing IPL programmes have been recognised but it is pleasing to see that the respondents in this study did not experience any of the tensions often associated with delivering these programmes.

One of the most surprising yet satisfying outcomes of the study was that a significant number of students felt that their practice had been enhanced as a result of IPL. This was also reinforced by some qualitative statements. Although it has already been acknowledged that at most the link between IPL programmes and professional practice is tenuous, students have readily admitted that they feel that their practice has been enhanced by IPL. This is certainly an area that would benefit from further study in the future.

Despite the overall positive attitude towards IPL from the respondents, it was interesting to note that some students were reluctant to learn with other students from outside of the faculty. It seems that the students are currently working within their comfort zone in the IPL arena but are unwilling to extend that further. This is also an area that would benefit from further study as the literature available on interdisciplinarity would suggest that this could be a very beneficial experience indeed, especially as the university has immense resources and experience available in the Faculty of Arts, Business and Social Science.

In IPL the traditional notion of the "expert teacher" is replaced by the notion of a "facilitator" or "coach" that works with learners, using concepts from behavioural and management sciences, and using the natural group dynamics created by IPL formats as a resource to teach team-working skills (Cooper *et al.* 2005). However, these may be concepts with which physician educators may not be familiar and some faculty members may be unwilling to change their attitudes or learn different teaching methods. This is an essential area for consideration when developing an IPL programme and the value of staff development and support cannot go unrecognised.

In conclusion, the study has shown that at postgraduate level students' experience of interprofessional learning is mainly positive. Some of the challenges identified centre around joining established groups when students undertake modules from another programme that are shared between programmes.

As a result of this study, several areas have been identified for further investigation:

- an evaluation of staff perspectives on IPL at Master's level
- an exploration of student attitudes to multi-disciplinary study, studying with groups of Master's students from outside the faculty
- an evaluation of how students on Master's programmes who are in employment manage their time
- an investigation into the links between IPL and practice to understand if professional practice has been enhanced
- an exploration of the staff development needed to effectively plan, deliver and support IPL programmes.

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Appendix I

Final Copy of Questionnaire

Interprofessional Learning (IPL) at Masters (M) Level

Are you: Male ☐ Female ☐

What is your professional background:	*please specify*			
What is your age: *please circle your response*	24-33 years	34-43 years	44-53 years	54 and above
Name the Masters programme route you are currently undertaking or have recently completed (for example PGC Interprofessional Health Care Education):				
Number of modules completed at this point:				
How long since you last undertook accredited study: *please circle your response*	Within the last year	12 to 24 months	25 to 36 months	more than 3 years
Have you: studied at undergraduate level previously Yes / No studied at post-graduate level previously Yes / No				

	Strongly Agree	Agree	Disagree	Strongly Disagree
	please tick the box that most nearly matches your response			
Interprofessional learning (IPL) helps me to appreciate my own profession				
I feel that the members of the teaching team work cohesively				
My personal tutor provides me with adequate support				
When discussing a topic I like to do this interprofessionally				
I have an equal relationship with my peers in my learning group				
IPL has limited my learning experience				
I feel I am respected by people from other health care professions who are on the same programme				
The programmes are well organised				
My experience of the programme has inspired me about IPL				
In my experience, lecturers are generally in favour of IPL				

	Strongly Agree	Agree	Disagree	Strongly Disagree
IPL is a strength of postgraduate provision at this institution				
I prefer learning interprofessionally at postgraduate level				
The standard of teaching I have experienced is consistent across modules				
I find that learning interprofessionally has resulted in the subject matter being too generic				
The lecturers on the modules have an appreciation of others' professional roles				
Specific professions tend to dominate IPL sessions				
Lecturers give conflicting information based on their own professional background				
I feel that IPL has enhanced my *professional* practice				
Learning interprofessionally has not detracted from the subject matter				
On a personal level, I have found IPL an enriching experience				
The peer group has provided a valuable learning experience				
I prefer to learn from a lecturer with the same professional background				
I prefer learning at postgraduate level in uni-professional groups				
The communication between the teaching team is good				
There are sound support mechanisms provided as part of the overall programme				
I find that learning interprofessionally has resulted in the subject matter not being specific to my needs				
I enjoy learning interprofessionally because lecturers from other professions offer different perspectives				
Learning interprofessionally has enhanced my *learning* experience				
I would prefer my personal tutor to be from my own professional background				

	Strongly Agree	Agree	Disagree	Strongly Disagree
During the course, I have gained an insight into the role of other professions				
Interprofessional learning has enabled me to learn from others				
There is consistency across the modules in terms of organisation				
I would like to meet other postgraduate students from *outside* the Faculty of Health Wellbeing and Science				
I agree with the concept of IPL at M level				
Some topics could be delivered with other postgraduate learners from other faculties at this institution				
Overall I have found IPL a positive experience				

Please list five strengths of the IPL programme that have affected your learning experience: *please then rank them in order of importance starting with 1 for the most important*	Please list five aspects of the IPL programme that you personally have found challenging: *please then rank them in order of importance starting with 1 for the most important*

Please use the space below and overleaf to add any comments regarding the programme or modules that you have studied – this information remains anonymous, respondents cannot be identified from the questionnaire.

Appendix II

Full Copy of Questionnaire Results

Verbatim comments from the questionnaire

1
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Strengths	Challenges
Meeting and learning with other disciplines	Lack of depth at times in sessions
Value of alternative perspectives	Joining varied groups intermittently
The development and on-going reflective critique	

2

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Working with a variety of professions	Balancing workload/deadlines with full time work etc
Having a variety of lecturers from different backgrounds and experiences	Modules divided into segments and delivered over the course of 4 weeks. Personally I would prefer all the teaching regarding specific modules delivered in one week.
Group work with a variety of viewpoints and experiences	Deadline of Assessment and Reflexivity on same day
Broaden and opened up issues otherwise would not discuss	Working at M level for the first time
Mutual respect amongst the learners for our individual thoughts and feelings regarding issues	Sometimes comments were made about my colleagues so I had to distance myself from these conversations

3

Rad

Variety of professional backgrounds of lecturers within modules	Distance learning - accessing resources at college
Good organisation and flexibility of timetable	Reflection stuff in first module
Use of outside guest speakers	Focus at times was very specific to institution, eg regulations for validation, a more general global approach would be good
Small groups	Methodology
Support mechanisms from teaching team	Clinical supervision

4

DN

Lecturers and students from other professions enriched my learning experience not only within the classroom but also gave me a wider view of the care others deliver	Finding the time to do the assignments while working full time and extra hours which meant I needed an extension
Working with other professionals in the classroom enabled me to look at patients/students needs from a wider perspective	
IPL enabled me to gain a deeper understanding of the role of other professionals which has helped me with decisions about how to address patients needs (long term not just while on the course)	

	I found my knowledge from my profession was appreciated by others which felt good	

5	Learning from and about other professions from peers on the course	None
Nursing	Gaining an insight to other professions	
	Being taught by lecturers from other professions	

6	Opportunities and experience to different perspectives	Not enough breadth of IPL students
blank	A better understanding of the differences in professional cultures and socialisation process	The large numbers from a specific discipline and institution completely dominated the learning especially for the first year
	A better understanding of the differences in accreditation standards and processes	Other professions/institutions contributions were not always valued by other students
		Some lecturers were not as good at managing the feedback to promote appreciation of others perspectives
		Sometimes was quite difficult to add the IPL aspect in assignments

7blank		

8	Respect for other professions	Would prefer lecturers to be more from other professions than my own
Rad	Realisation of importance of IPL to facilitate good patient care	Don't have any other issues
	Opportunity to explore issues and appreciate other professions	Personally found IPL an enjoyable and valuable experience
	Draw on strengths and learning of other professions	
	Appreciating that we are all human beings with pretty similar values and goals	

9	Sharing experience with colleagues from other professional backgrounds	Teaching top-heavy from one profession
blank	Learning about the role of colleagues from other backgrounds	The group of students was top-heavy from one profession
	More variety of discussion	Standard of teaching varied across the professions
	More interesting sessions due to variety of discussions	No other issues
	Encouraged me to search and read interprofessional literature	

10	Interprofessional learning has enriched my learning experience, enhanced practice and been a positive model for students I both teach and supervise within the clinical area	Challenging is a positive concept to me, therefore the negative aspects of the program are:
Nurse		Stepping on and off the program creates difficulties updating changes within the programme as a whole which other students are aware of
		Joining students established as a learning group limits opportunity to work together as not time to establish relationships with peers limits team/group learning opportunities, raises stress levels trying to undertake project work on course
11	Learning from peer group enabled me to assess own practice and evaluate areas of weakness	
blank	Safe environment to develop presentation skills	
12	Enhanced awareness of others roles	Not always specific to own needs
blank	Able to look at issues from different perspectives	Differing levels of commitment from individuals
	Enhances motivation with competitiveness	Need to identify aspects relevant to own practice
13	Assists my understanding of other professions	Not found it challenging
Rad Ther	Increases my perspective of other professions	More found it interesting and how it is so important in our profession
	Working with other health professions	
	Makes me think out of my box and more laterally	
	Developing skills mix	
	Congratulations on such a superb course. I have thoroughly enjoyed studying this programme. It has equipped me with new skills and has enhanced my role as a practitioner. The course team have been so supportive and my personal tutor was so helpful and encouraging - it was an absolute privilege. Keep up the good work!	
14	Sharing ideas with the rest of the group	Finding out about my:
blank	Equality among group	Strength and weaknesses (leadership)
	Respect	Making my own decision about my

		assessment topic
	Making decisions about what we are being taught	Bringing it to the workplace
	Work related	Keeping up with the rest of the group
	Although this is an IPL course the people on the course are all of the same profession. However, as we all work in different areas we have different skills and knowledge to share	

15 Nursing	Awareness of other professionals'' issues	Limited understanding of role
	Networking	Organisational structure of the college in relation to PCT
	Peer support	Variation in east west divide
	Similar practical issues as work in own sphere of profession	

16	If implemented well and taken in its context then it should: Provide an insight into various health care professional roles to be able to deliver boundless health service to the population	Unable to form support groups during learning because of competing demands of everybody on the course
Midwife	I wouldn't say that IPL programme affected my learning experience as I was already striving to and had experienced interprofessional working within the NHS	Did not really get the feeling of being an interprofessional learning environment
		Group dynamic was weak
		Very isolated experience during last module

17blank		
18 DN	Gaining insite into others roles	
	Sharing experiences and ways of coping with challenges in practice	
	Raising awareness of academic achievements of other professions and enhancing respect	
	It is difficult to comment as unfortunately the course has become uni-professional. I believe this is because the management of individuals with long term conditions is more closely aligned to the existing district nursing role than to other professions.	
19	Interprofessional perspectives	Role conflict/identity

Midwife	Planning/delivery	Being assessed by what are essentially my peers, but are for a short time, my superiors.
	Broadness of content	
	Support from lecturers	
	Support from fellow students	

Raw data from the questionnaire – frequency counts for each question

	Male	Female
Gender	3	16

	24-33	34-43	44-53	>53
Age (years)	4	2	10	3

	1	2	3	4
Number of modules completed at this point	1	3	4	2
	5	6	7	
	3	1	1	

	<12	12-24	25-36	>36
How long since you last took accredited study (months)	8	1	5	5

	Yes	No
Have you studied at undergraduate level previously	15	2

	Yes	No
Have you studied at post-graduate level previously	10	9

	Strongly Agree	Agree	Disagree	Strongly Disagree
Interprofessional learning (IPL) helps me to appreciate my own profession	5	12	2	0
I feel that the members of the teaching team work cohesively	5	12	0	0
My personal tutor provides me with adequate support	8	8	1	0
When discussing a topic I like to do this interprofessionally	6	11	0	0
I have an equal relationship with my peers in my learning group	8	9	2	0
IPL has limited my learning experience	0	1	9	9
I feel I am respected by people from other health care professions who are on the same programme	9	8	1	0
The programmes are well organised	7	9	2	0
My experience of the programme has inspired me about IPL	3	10	3	1
In my experience, lecturers are generally in favour of IPL	4	13	2	0
IPL is a strength of postgraduate provision at this institution	6	10	0	0
I prefer learning interprofessionally at postgraduate level	6	11	2	0
The standard of teaching I have experienced is consistent across modules	4	7	8	0
I find that learning interprofessionally has resulted in the	1	1	13	3

subject matter being too generic				
The lecturers on the modules have an appreciation of others'' professional roles	2	15	1	0
Specific professions tend to dominate IPL sessions	3	8	8	0
Lecturers give conflicting information based on their own professional background	0	2	13	3
I feel that IPL has enhanced my *professional* practice	3	15	0	1
Learning interprofessionally has not detracted from the subject matter	8	11	0	0
On a personal level, I have found IPL an enriching experience	5	13	1	0
The peer group has provided a valuable learning experience	7	10	0	1
I prefer to learn from a lecturer with the same professional background	0	3	14	2
I prefer learning at postgraduate level in uni-professional groups	0	5	11	3
The communication between the teaching team is good	3	12	2	0
There are sound support mechanisms provided as part of the overall programme	4	13	2	0
I find that learning interprofessionally has resulted in the subject matter not being specific to my needs	0	2	14	3
I enjoy learning interprofessionally because lecturers from other professions offer different perspectives	6	13	0	0
Learning interprofessionally has enhanced my *learning* experience	5	13	1	0
I would prefer my personal tutor to be from my own professional background	3	3	8	4
During the course, I have gained an insight into the role of other professions	7	10	2	0
Interprofessional learning has enabled me to learn from others	6	12	1	0
There is consistency across the modules in terms of organisation	2	11	6	0
I would like to meet other postgraduate students from outside the Faculty of Health Wellbeing and Science	4	6	8	0
I agree with the concept of IPL at M level	10	9	0	0
Some topics could be delivered with other postgraduate learners from other faculties at this institution	4	12	3	0
Overall I have found IPL a positive experience	7	11	0	0

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