

**The Influences of a Health and Social Care
Interprofessional Education (IPE) Module on
Students' Attitudes Towards Collaboration**

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Abstract

The focus of this thesis is a module in interprofessional education (IPE) taught at a Higher Education Institution. The objective is to examine the potential within the module to identify new ideas for health and social care educators to consider in this challenging area of curricula as IPE remains a core element of the curricula of contemporary health and social care programmes in Higher Education Institutions. The rationale for the study is that the concept of attitudes in IPE has not previously been fully explored; it has often been suggested that IPE focuses on developing students' knowledge, beliefs and attitudes but it could be thought that 'attitudes' have been recurrently used in very general terms, perhaps without conscious attention. The concepts of 'attitudes' and 'collaboration' are dual foci that have been used as lenses with which to examine the data.

The study evolved from an ontological stance that any reality is based on a range of perceptions, and that with specific regard to IPE, consideration of the range of perceptions across the breadth of those involved is fundamental. As a practitioner, experienced in both healthcare and education, taking only my perceptions of IPE into account was insufficient to allow me to conduct credible research, an aim of which was to gain a greater understanding.

The operational demands of being an IPE module leader are significant and inform the study throughout. Although the size of the student cohort is very large, the primary challenge is in the diversity of the group, as students from twelve different health and social care professions enrol on the module. Timetabling constraints also impact on the way the module is taught. Two unresolved challenges were identified. The first was the requirement to make the module as effective as possible for both staff and students. The second was the polarised feedback received from the student cohort against the background of the National Student Survey (NSS) as an influential driver in higher education.

The research methodology employed has focused on a case study approach in the belief that such an organisational strategy is in concordance with inquiry into an acknowledged complex area of health and social care curricula. This is consistent with my epistemological and ontological

stance that peoples' day to day reality is based on a range of perceptions. The approach has enabled the use of my own knowledge and perceptions as carefully acknowledged influences.

Although the research could have been conducted with a single cohort, the demands of leading this module had the consequence that it was not possible to collect all the data within a single semester. Another relevant rationale was the desire to develop the research iteratively, using previous findings to inform the future direction. Therefore, the case study encompassed successive cohorts over the study period.

The initial tranche of data was collected using two questionnaires that enabled a greater understanding of the students' perceptions of the module. The quantitative data collected was a useful initial foundation on which to build the case study. Analysis of the questionnaire data using descriptive statistics suggested that there was evidence of a need to influence students' attitudes towards both other professions and collaboration

The second element of data collection was based on a drawing activity on the topic of stereotypes and was designed to give some insight into students' implicit attitudes towards other professions, and therefore to collaboration across professional boundaries. A content analysis approach was adopted whereby categorisation and creation of numerical data reduced the complexity of the images. It was evident that students were categorising professions, some with values-based assumptions.

The objective of the third element of data collection was to investigate whether patient narratives had an influence on the students' attitudes towards collaboration. The method of analysis encompassed features of discourse analysis with a detailed examination of the language used. Results demonstrated that the service user should be an integral part and equal partner in teaching and therefore scrutiny of the impact is both timely and an imperative.

To this point the data collection methods had not yet afforded the opportunity for dialogue with either students or members of the teaching team and so, using purposive sampling, focus groups were conducted with staff and students. A model of thematic analysis was used and differing contexts and understandings of key concepts, such as collaboration became evident. Staff and student anxieties, with respect to both IPE and collaborative working, were identified as probable influences on the IPE module.

The final aspect of data collection was individual interviews with students and the adoption of a purposive sampling method created opportunities for greater dialogue and depth of discussion. Using a content analysis strategy, tensions between students maintaining their own self-esteem and being able to equally value the attributes of other professions became apparent. A further challenge for students was that of finding common ground in mixed professional groups, unless conscious attention was paid to the composition of the groups.

In conclusion it seems that the IPE module does influence students' attitudes towards collaboration. Whilst some students experienced IPE as a positive learning experience the findings also showed that for some students and staff the IPE module proved to be a highly problematic and anxiety laden experience. The study suggests that tailoring aspects and activities of the IPE curriculum to the cognitive, affective and behavioural domains of attitude may ameliorate the variety of student experiences of IPE and therefore improve the potential for increased collaborative behaviours in student health and social care professionals.

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I am dedicating this work to my lovely mum, Dr Ann Palfrey. As a doctor, she understood the challenges in successful collaboration between professions and the impact on patients. She was so proud of this undertaking, and it is so sad that she didn’t live quite long enough to see it completed.

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1 Introduction

The objective of this thesis is to examine opportunities and challenges of a module in interprofessional education (IPE), situated in a Higher Education Institution, to create new insights and ideas for health and social care educators engaged in the complex task of developing a collaborative workforce ready to provide a service that is in the best interests of all. This first chapter will explore the fundamental concepts that underpin my study of IPE and justification for the key constructs selected will be included. Perceived complexities involved in the inclusion of IPE in health and social care programme curricula will be discussed. The specific module which this thesis examines will be explained in terms of structure, learning outcomes, content and professions of staff and students involved. In this chapter, I will outline my understanding of ‘attitudes’ and ‘collaboration’ that will subsequently be used as lenses to examine the data. Finally, theories that were accessed to both develop the research and examine the data will be explored.

1.1 IPE in contemporary health and social care programmes

Since its inception in the late 1990s IPE has continued to be recognised as important in health and social care (Dow et al., 2017; Osman, 2017; Reeves et al., 2016) as diminishing workforces composed of increasing numbers of specialities, care for populations whose health and social care needs increase in complexity (Ploeg et al., 2017; World Health Organisation (WHO), 2010; Barr et al., 2005). Widely publicised failures in collaboration (Appendix 1) are acknowledged as significant motivational factors for IPE (Francis, 2013; Laming, 2003; Leathard, 2003; Loxley, 1997). Recognition of the aging population together with increasing social awareness of complex issues, such as non-accidental injury, have also been documented as pertinent drivers (Leathard, 2003; Loxley, 1997, Department of Health and Social Security, 1974).

A long-standing aim of IPE is to educate health and social care professionals to understand, promote and develop skills in collaborative working with the goal of benefitting the service user (Barr et al., 2016; Barr and Low, 2012; Hammick, 1998). Collaborative working has generally been regarded as desirable, and this tenet will be discussed (Section 1.8). Notwithstanding the aims of IPE, and the extent to which it has become integrated into health and social care curricula (Barr and Low, 2012), continued well publicised failures in the care of service users

(Appendix 1) can be regarded as instrumental in health and social care regulatory bodies, such as the Health and Care Professions Council (2009), the Nursing and Midwifery Council (2010), and the General Medical Council (2009) including the requirement for IPE within their standards of education.

The rationale for adopting the term ‘interprofessional education’, rather than terms which some might regard as equivalent, such as ‘multiprofessional education’ or ‘common learning’ in this thesis is because, at my instigation, we have adopted it as the central precept of IPE at the institution where I work. The focus of our IPE is based on the Centre for Advancement of Interprofessional Education (CAIPE) definition;

‘Interprofessional Education occurs when students or members of two or more professions learn with, from and about each other to improve collaboration and the quality of care’ (CAIPE, 2011).

To achieve the stated aim, IPE often focuses on enhancing the knowledge, skills, attitudes and behaviours of students as adult learners to develop collaborative behaviours, and so improve the quality of clinical practice (Dow et al., 2017; Friman et al., 2017; Reeves et al., 2016; CAIPE, 2016). Across the United Kingdom, institutions work to achieve these common aims in diverse environments, employing a multiplicity of strategies (Barr et al., 2014), although challenges continue to be identified (Friman et al., 2017; Jakobsen et al., 2017) as the differing student cohorts and environments entail diverse methods of teaching and learning (CAIPE, 2016).

IPE is possibly unique in Higher Education, as it brings together staff and students from different professions and disciplines, so that they can be taught the same, or related topics, at the same, or similar, times, with a single goal. IPE does this within an organisational structure where analogous professions are not infrequently organised into distinct schools, departments or faculties. It is suggested that such groupings tend to be for administrative purposes rather than for pedagogical reasons, and a consequence of such combinations may be causation of perceived, and perhaps real, hierarchies (Kreindler, et al., 2012; West, et al., 1999; Melia, 1984) with professional socialisation occurring within, rather than between, groups (Mossop et al., 2013; Brown et al., 2013; Brownell and Tanner, 2012) as except for IPE, staff and students generally spend the majority of the time relatively isolated within their professions (Ryland et al., 2017).

It is suggested that also inherent within the encountered challenges, are the mechanisms by which professionals develop required knowledge, and this has been a topic of research (Brown et al., 2013; Burford et al., 2013; Brownell and Tanner, 2012; Blue et al., 2011; Clouder, 2003) with the ethnographic study by Becker et al. (1961) being widely regarded as seminal. Becker et al. (1961) concluded that the medical students they studied developed common perspectives, a common culture and common ways of behaving as a consequence of working on the same tasks, in the same environment, on a regular basis over a protracted period. The study also noted that the culture and the common behaviours developed by the students were not the same as that of, or anticipated by, the teaching staff.

1.2 IPE at a specific Higher Education Institution

IPE has been integral in the curricula of health and social care programmes at my institution since 2004. My own institution may be regarded as typical of many others that manage education programmes for health and social care professions, in that there is a multiplicity of diverse professional groups organised into departments and schools. Our IPE includes students from professions that are assigned to different schools, for example the professions of pharmacy and dietetics are included in a different school to the other health and social care professions. Additionally, although not included within my study, students from the School of Education enrol on the level four IPE module. Since starting the doctorate programme, following a strategic re-organisation, pharmacy students no longer study IPE on the module being examined in this thesis.

At my institution IPE was introduced, and remains, as two compulsory, separate and distinct 15-credit modules, one at level four and one at level six. In general, undergraduate students study at level four during the first year of their programmes, and for those concluding with a Bachelor's degree, the third and final year of study is at level six. From its inception, IPE was adopted into a breadth of programmes; currently it remains embedded within pre-registration nursing (adult, child, mental health and learning disability), midwifery, diagnostic radiography, radiotherapy, social work, physiotherapy, dietetics, and paramedic science. In addition, in recent years, students from the MSc nursing (adult) programme have been included on the final module. An institutional review of the IPE provision conducted in 2015-16 concluded that IPE would remain

as a core theme (Abu-Rish et al., 2012; Hammick et al., 2007) with student feedback from the National Student Survey (NSS) remaining influential.

The stated intention of the IPE provision is to support the development of health and social care graduates who can work in services that are flexible, co-ordinated, complementary, service-user centred, collaborative and cost-effective (Hinshelwood and Skogstad, 2000; Obholzer, 1994; Menzies, 1970). The provision endeavours to achieve this while recognising and respecting the differences inherent across diverse professional identities (CAIPE, 2016; Barr et al., 2014).

The aims of the current curriculum of the IPE module under examination are;

- To create opportunities and supportive environments so that the students learn with, from and about each other.
- To prepare students for collaborative working by increasing their knowledge of other health and social care professions, helping them to acquire relevant skills while influencing attitudes and perceptions so that they are equipped to work across professional and inter-agency boundaries.
- To focus on cooperative actions required to influence change and improve the quality of services and care for patients, clients, carers and service users.
- To involve, and be focused on, the needs of patients, clients, carers and service users to enhance practice within and across professions.

1.3 The structure, learning outcomes, content and assessment of the third year IPE module

The focus of this thesis is the second of the two IPE modules that the students study. This module is taught to students towards the end of their programmes of study. This is most commonly at level six, in the students' final year of study, but the students from the MSc Nursing (Adult) programme study the same module at level seven (Masters' degree level), in the first year of their programme. To accommodate differing placement patterns the module employs a 'block week' delivery pattern and is currently scheduled during the second week of the semester. To achieve the specified contact hours the teaching occurs during the whole week.

The described teaching pattern has developed during the course of this research; When the first aspect of data was collected (Section 3) there were two teaching weeks, one at the beginning of the semester and one towards the end.

The module is taught in both semesters (A and B) to different cohorts of students, with very different group sizes. To date, the institution has been unable to alter these arrangements because of constraints imposed by the bodies that have, until very recently, commissioned education for health professions. Table 1.1 demonstrates the number of students who have undertaken the module in the 2017-18 academic year. The configuration of the Semester A cohort, in terms of the very different number of students studying each of the professions, adds complexity to the teaching and learning methods adopted. The limited breadth of professions enrolling on the Semester B run of the module also requires innovative initiatives from the module leader.

Profession/Discipline	Student numbers
Semester A	
Midwifery	60
Radiotherapy	34
Dietetics	28
Diagnostic radiography	110
Mental health nursing	40
Learning disability nursing	72
Child nursing	39
Adult nursing	250
MSc nursing	40
Paramedics	53
Social work	45
Physiotherapy	50
Total	821
Semester B	
Adult nursing	53
Mental health nursing	18
Total	71

Table 1.1: Student numbers for 2017-18

The teaching accommodation required for teaching the very large cohort in Semester A has always been permitted to dictate the teaching methods used. To teach the Semester A cohort in smaller size teaching rooms for the whole week is regarded as prohibitive by the institutional

timetabling service. The largest venue that can be used for teaching in the institution is an auditorium, which accommodates a maximum of 450. Therefore, a conference style is used for some of the teaching. My institution is structured across two campuses, separated by a main arterial road. It is unfortunate that the auditorium is not on the same campus as the one on which the health and social care students spend the majority of their time. In Semester A, the cohort is divided into two halves and every session is run twice. However, a perceived advantage of the large number of students is that we are able to attract some ‘high profile’ speakers, such as representatives from the Department of Health, regulatory bodies and senior executives from local NHS Trusts and Social care organisations.

The large group, conference style sessions are followed by classroom-based activities that permit professional debate of issues. Students work through a series of practice-based scenarios, case studies and activities drawing on, among other foci, high profile breakdowns in care delivery. With the focus on collaborative, interprofessional working, contemporary topics are used as illustrations to educate and inform the students about aspects of the professions and services they are about to enter. Currently, some topics included are contemporary developments in interprofessional working, service user safety, the perspective of the service user, human factors, resilience and unconscious bias. A similar approach, although on a very different scale, is adopted in Semester B.

An enquiry-based learning approach is used in the smaller multi-professional groups (Barr, et al., 2005; Barr, 2002). In the classroom setting, students are expected to act autonomously within agreed guidelines, role-modelling professional behaviours (Barr et al., 2005). The activities require participants to be both confident and flexible in identifying and offering solutions to complex issues and encourage them to appropriately challenge opinion and reflect on both their own, and others, actions.

The module has distinct learning outcomes for the level six and level seven students as detailed below.

Level 6 Learning Outcomes	Level 7 Learning Outcomes
Apply and evaluate the extent to which professional roles and knowledge contribute to patient/service-user experience.	Critically evaluate complex issues of service delivery in relation to their professional role.
Analyse inter-professional and collaborative working strategies that may be used to overcome boundaries between professions	Analyse and judge the appropriateness of inter-professional and collaborative working strategies that may be used to overcome boundaries between professions recognising alternative approaches.
Demonstrate the skills of autonomy and be able to interact effectively in inter-professional discussion.	Demonstrate the skills of autonomy and be able to interact effectively in inter-professional discussion.

Table 1.2: Module learning outcomes

The module content is designed to give students opportunities of working in small interprofessional groups to improve understanding across professional boundaries and encourage collaborative learning and working that will bring benefit to patients/service-users (Spencer et al., 2011; Tew et al., 2004). The module requires students to bring specialist, in-depth knowledge of their profession, including professional codes of conduct, to a group setting so that health and social care pathways can be critically reviewed in the context of professional practice.

To allow the students to integrate their specialist professional knowledge with the concepts of collaborative interprofessional working, currently the coursework is an individually written submission based on the format of a critical incident evaluation. The students are required to select an incident from their practice that illustrates the affordances and challenges of interprofessional working; the evaluation supports their learning in greater depth than might otherwise be achieved from the experience.

1.4 Experiences as module leader of the IPE module

A pre-requisite of an academic career in health or social work in the institution where I work is proven experience in profession specific employment. My own experience was working as a diagnostic radiographer. The post I held immediately before leaving the health service to pursue an ambition to teach, was as a Superintendent Radiographer managing a Computerised

Tomography (CT) scanning service. This was a busy, high pressure and rewarding role involving the highest radiation dose equipment and, very often, the most sick, or most severely injured, patients.

Prior to undertaking the IPE module leader role, I had been working in higher education for several years and had become experienced, with a proven level of proficiency, in teaching and learning. I had held roles as both module leader and programme tutor. The role of module leader became straight-forward and lacked sufficient challenge. The role of programme tutor never greatly appealed to me as I perceived it as being too ‘task orientated’. To maintain my interest in work I had become involved in some practice-based research integrating technology into teaching which enabled me to indulge and use a creative ability I had never previously recognised in myself.

At the same time, I was awarded a secondment to the institution’s Learning and Teaching Institute (LTI) in recognition of my knowledge, experience and enthusiasm for teaching, learning and assessment. With hindsight, I think my experiences with the patients who had been in my care during my previous clinical career, influenced my approach to the student experience.

Patient experience was always something I believed to be of great importance, and with hindsight, I think I equated student experience with patient experience. This was before ‘student experience’ had become something of a mantra, and at that time, it was not something that I consciously recognised.

In 2009, while working on secondment, I was asked to consider taking on the role of module leader for the final year IPE module. At the time, the module was in considerable disarray, to the extent that it was cited as a weakness in the School Strategic Plan. Up to this point I had not been involved in IPE and, in my ignorance, my perspective was that it was something of an irrelevance. Although at that time I was looking for a new challenge in my working life, such was the reputation of the module, I was unsure that I had the necessary level of ability to take on an IPE module lead role.

The operational demands of leading this massive module have, at many times, involved significant, even possibly excessive, amounts of challenging work and effort. For example, in my estimation, any module leader is likely to have repeated contact with approximately 10% of a cohort; with IPE, this can equate to approximately ninety students, which is more than many

whole programme cohorts. Additionally, as previously explained, the module does not fit the standard format and, as module leader, it is necessary to be willing to continuously develop ways of making the module work within institutional constraints, such as the timetabling service.

To teach this module to approximately 900 students across the academic year the module has, by usual standards, a very large teaching team. The organisation of the teaching team, to ensure a level of equality of student experience in the teaching, learning and assessment was, and remains, a considerable challenge and burden. Other aspects of leading an IPE module, such as negotiating a common way of working, are more complex than those of conventional, uni-professional modules.

When starting the doctorate programme, I was module leader for the level six/seven module and I also held the role of IPE Lead for the institution. The IPE Lead role encompasses aspects such as being an authority on IPE, having responsibility for the IPE curricula and providing strategic oversight ensuring cohesiveness and compliance with quality standards and institutional regulations. This situation of holding both roles developed over the duration of my study. After six years of being module lead this role was re-allocated, at my request, to allow me further scope to develop the IPE Lead role.

Recognition of, and having the overall responsibility for, overcoming the onerous operational difficulties associated with IPE was an inspiration for my application to undertake doctorate level study. Creating authentic, constructive and enjoyable learning opportunities for such very large, diverse cohorts is a significant challenge, and was the foremost motivating factor for me applying to do the professional doctorate programme. To achieve this, I believed I needed a greater understanding of IPE and I thought that using the affordances of studying IPE at doctoral level would allow me the opportunity to undertake a detailed consideration of the teaching, learning and assessment of IPE, with the potential to identify developments that could be made to the module.

After a few years, the module began to normally receive an average and acceptable level of feedback. However, I believed that there were two issues that remained unresolved. The first was the question of whether there was a more effective way of achieving the goals of IPE that was operationally easier, as creating and organising learning opportunities for this module requires a level of endurance and resilience that I did not know I possessed.

The second issue was of equal importance to me. In every cohort, there are students who feedback that the module has changed how they will work as qualified professionals, and that they understand the importance of collaboration to successful health and social care practice. However, at the same time I am aware there are also students who do not enjoy the module and who do not find it a useful learning experience. It is this second group of students that are a concern. Generally, these negative opinions are only made overt several weeks after the teaching has been completed, when the results of the institutional Module Feedback Questionnaire (MFQ) are published. This dichotomous feedback is a recurring theme such that some members of staff refer to the IPE module as ‘marmite’ i.e. the students either love it or hate it.

Gaining an understanding of what the module achieves and why students do, or do not, recognise the importance, or relevance, of collaborative, interprofessional working was an aim of this thesis. I am also aware that there are members of staff, not necessarily on the teaching team, who also have little regard for the aims of the module. As one might expect, staff with these views are neither explicit nor open about them to me. While the thesis does not address such perceptions directly, it was thought that increasing my own knowledge and understanding would create opportunities to disseminate, and perhaps improve, ‘popular’ opinions of IPE in my institution.

1.5 The role of attitudes in IPE

It has been suggested that both profession-specific education and IPE focus on developing students’ knowledge, beliefs and attitudes (Cox et al., 2016; Bain et al., 2014; Atack et al., 2009; Mc Climens et al., 2009) but it could be thought that ‘attitudes’ have been recurrently used in very general terms, perhaps without conscious attention, sometimes synonymously with level of satisfaction, without being fully explored (Hanyok et al., 2013; Wakely et al., 2013; Corfield and Kelly, 2009; Dobson et al., 2006; Curran et al., 2005).

Referring to the idea that IPE often focuses on knowledge, skills and attitudes it occurred to me that I was not sure what was meant by the word ‘attitude’ in this context and therefore it seemed relevant to consider in some depth. The three constructs, knowledge, skills and attitudes are often used in the teaching of IPE as a focus, and it is a frequent practice within IPE to measure outcomes in terms of ‘knowledge, skills and attitudes’ (Tomizawa et al., 2017; Cox et al., 2016; Domac et al., 2015; Bluteau and Jackson, 2009). Perhaps coincidentally, it has been suggested that collaboration also comprised of the same three distinct categories (Loxley, 1997).

While knowledge and skills can be readily quantified, e.g. to demonstrate knowledge students must be able to articulate that they have a comprehensive understanding of the work of other professionals, the concept of attitudes is thought to be less tangible and if considered at depth, perhaps rather elusive. Therefore, while not ignoring the ‘knowledge’ and ‘skills’ aspects I decided to examine the concept of attitudes, and their integration within IPE in depth as I thought it might be a useful strategy to increase my understanding of the complexities of implementing IPE.

Initially, I used a process based on that described as a ‘concept analysis’ (Walker and Avant, 1995) to gain a greater understanding of the term ‘attitude’. This involved strategies such as using dictionaries, thesauri, search engines and on-line dictionaries to compile a list of different interpretations of the term. Following this, named sources were consulted to compile a comparative list of definitions of the word. Books by authors recognised in the field of attitude research and general texts that listed ‘attitudes’ in the content or index were subsequently accessed. Compiled lists were then reviewed, and repeated characteristics identified, which resulted in the following points;

- 1) Evaluation of something
- 2) State of mind including memory
- 3) Link between state of mind and behaviour
- 4) Behaviour as expression of thoughts (either positive or negative)

As an initial premise, an amorphous description of an attitude was thought to be a decision involving some degree of judgement about an object or concept. In a recent paper, that might be regarded as typical of the literature into exploring students’ attitudes towards aspects of IPE or collaboration, the term ‘attitude’ was taken to mean an evaluative judgement and was not explored in any greater depth (Gould et al., 2017). My claim on the typicality of the research by Gould et al. (2017) can be supported by the comparable approaches taken by other authors publishing on the same or similar topic (Stull and Blue, 2016; Dominguez et al., 2015; Roberts and Forman, 2015; Kururi et al., 2014; Wakely et al., 2013; Van et al., 2012).

Occasionally authors writing about IPE have alluded to, although not in extensive detail, the link between attitude and behaviour. To illustrate this point, an extract from a research study into students’ attitudes towards working with people with autism states, ‘working with people with

autism was viewed as difficult and demanding' (Werner, 2011: 133), demonstrating how the evaluative aspect of attitude has been evidenced by the data. The theoretical framework of the paper by Werner (2011) also briefly cited the link between attitudes and intended behaviour, which was then illustrated by examples from the data. More recently, a literature review on the topic of attitudes towards IPE similarly briefly explained the link between attitude and behaviour (O'Carroll et al., 2016). A stated premise of the work was that student experiences of IPE can be varied. One interpretation of this might be the suggestion that challenges remain in the operational aspects of IPE in successfully developing students' attitudes towards IPE, future collaborative behaviours, and ultimately improving patient care through interprofessional and inter-agency working.

At this point, I thought that studying the construct of attitudes at greater depth than was readily evident in the IPE related literature, might create the opportunity to use attitudes as an underlying concept with which to examine the IPE module.

1.6 What is meant by attitudes?

When considering attitudes as evaluative judgements, it becomes relevant to note that they have been classically regarded by some authors, as involving a synergistic relationship between cognitive, affective and behavioural domains (Maio and Haddock, 2009; Ajzen, 2005; Fazio and Olson, 2003; Bohner and Wanke, 2002) with each domain having the potential to be influential. The cognitive aspect involves thoughts and beliefs about an object; the affective component engages the emotional response, and the behavioural domain relates to past behaviours and experiences (Bohner and Wanke, 2002; Eagly and Chaiken, 1993).

The three domains are believed to be individual, distinct and synergistic; the consequence of the synergism is that, for example, negative beliefs are typically linked to negative emotions and negative behavioural associations. Individuals will vary in which component is most important to them when forming attitudes, (Haddock and Maio, 2012; Hogg and Vaughan, 2008; Aiken, 2002); however, an individual may hold more than one, dissimilar attitude towards a given concept or object, even simultaneously (Ajzen, 2005; Bohner and Wanke, 2002).

In practice, attitudes can vary in both valence (direction), ranging from positive to negative, and strength, on a continuum from weak to strong (Bohner and Dickel, 2011; Maio and Haddock,

2009; Petty et al., 1997; Allport, 1954). A point of note is that a person's attitudes generally cannot be directly observed; they may only be inferred from observing behaviour and cues that an individual demonstrates. (Maio and Haddock, 2009; Eagly and Chaiken, 2007; Ajzen, 2005; Aiken 2002; Bohner and Wanke, 2002). Equally important to recognise is that individuals may, consciously or unconsciously, choose whether to demonstrate cues that enable attitudes to be recognised (Aiken, 2002; Martin et al, 2010; Fazio, 1990).

An individual's need for consistency or coherence is thought by some to be influential in the relationship between attitudes and the type and nature of information that is perceived, processed, interpreted and remembered and it has been suggested that it is more likely that an individual will remember information that supports their attitude to an object rather than that which conflicts it (Maio and Haddock, 2009; Ajzen, 2005; Fazio and Olsen, 2003; Eagly and Chaiken, 1993). The topic of the attitude, and the strength with which it is held, are both important because they both may motivate behaviour. Important and strongly held attitudes are said to be more salient, and the more salient an attitude, the more influential, and less resistant to change, it is likely to be (Martin et al., 2010; Bohner and Wanke, 2002; Ajzen, 2001; Petty et al., 1997; Fishbein and Ajzen, 1972).

Literature suggests that the link between attitudes and behaviour is not simple. Some authors have reasoned that early research into possible links between the two, achieved limited success for many years. More contemporary knowledge suggests that 'general attitude measures...are good predictors of aggregate measures of behaviour' (Bohner and Wanke, 2002: 242), suggesting that there are clearer links between groups of attitudes and general behaviour than single attitudes and specific behavioural traits, particularly when there is congruence between the attitude and the behaviour (Cialdini et al., 1981). There are a number of models that explore how attitudes influence behaviour and there appears to be a level of consistency in the proposal that both deliberate and spontaneous behaviours should be considered (Fazio, 1990; Tesser and Shaffer, 1990), although Fishbein and Ajzen (1972) have suggested that such a dichotomous distinction belies the multiplicity and complexity of situations that may influence behaviours.

It has been proposed that sometimes, deliberate behaviour may be comparatively more closely linked to attitudes, with the rationale that in some situations, an individual will have more time to consider appropriate actions suggesting that the individual's intention is thought to be an

important predictive factor (Sherman et al., 2009; Tenbult et al., 2008; Tesser and Shaffer, 1990). Conversely, it is proposed that spontaneous behaviours will vary depending on the strength of the attitude and its salience (Maio and Haddock, 2009; Hogg and Vaughan, 2008; Fazio, 1990).

Personality differences also complicate the attitude-behaviour relationship. From a psychological perspective, this can be explained by considering how people behave in different social situations (Ranganath et al., 2008; Ajzen, 2005; Ross and Nisbett, 1991). The term used is ‘self-monitoring’ and people who are low self-monitors are likely to have a stronger relationship between their attitudes and their behaviour, regardless of the social situation. Equally, it is proposed that high self-monitors are more able to vary their behaviour according to the requirements of their current social situation (Greenwald et al., 2009; Ajzen, 2005; Fazio and Olsen, 2003; Bohner and Wanke, 2002; Eagly and Chaiken, 1993).

1.6.1 Measuring attitudes

There appears to be a general level of acceptance in the literature that any attitude, and therefore measurement thereof, can be either explicit or implicit in nature (Ratliff and Nosek, 2010; Greenwald et al., 2009; Payne et al., 2008). Explicit attitude measures are thought to be more important in predicting and explaining intentional behaviours, while implicit measures have a closer relationship with impulsive behaviours (Wood, 2000; Cialdini et al., 1981; Fishbein and Ajzen, 1972). Explicit measurement includes the utilisation of tools where the participant is aware of what is being measured, and the most common examples of this are the semantic differential and Likert scales (Oppenheim, 1992; Thurstone 1928, in Gawronski and Le Bel, 2008). It seems reasonable that explicit measures may be limited, as responses given by an individual are liable to be reliant on the impression that the participant wants to create (Ajzen, 2005; Aiken, 2002; Eagly and Chaiken, 1993). It follows that implicit measures are those where the participant is unaware (or less aware) of what is being measured and therefore these are less likely to be affected by conscious thought (Greenwald et al., 2009; Ranganath, 2008).

It is accepted and recommended that both explicit and implicit measures should be included in any study, as it is not that one measure is better than the other, but that they each add unique dimensions to data (Oswald et al., 2013; Perugini et al., 2012; Grumm et al., 2009; Whitfield and Jordan, 2009). However, researchers have been warned in adopting this strategy they should expect results where measures may demonstrate heterogeneities in addition to the desired

homogeneities (Gawronski and Le Bel, 2008) resulting in the needs to reconcile incongruences and perhaps prioritise some findings over others (Section 2.1.2).

There are several proposed techniques to measure implicit attitudes. One is evaluative priming, where the participant is required to indicate implicit associations between images and adjectives (Ratliff and Nosek, 2010; Payne et al., 2008). The test involves the participant being shown an image and an adjective sequentially on a computer screen. The test requires one of two keyboard keys to be pressed, one which indicates an association, the other a dissociation. It is not which button is pressed that is the measure, but the speed with which the button is pressed. The test relies on the premise that response times will be shorter with associations compared to dissociations. It has been suggested that these tests have been used extensively to assess racial attitudes with reportedly accurate results (Haddock and Maio, 2012; Hogg and Vaughan, 2008).

Another example is the Implicit Association Test (IAT) which is based on a similar idea, where the participant is never asked directly for their response to a cue (Greenwald et al., 2009; Grumm et al, 2009). The IAT has similarities to evaluative priming, as it is based on the supposition that objects generate evaluations and the participants' response time is the indicator of a particular attitude (Maio and Haddock, 2009). Although not without contention, some authors have suggested a similar success to assessing racial attitudes as with evaluative priming (Oswald et al., 2013; Ajzen, 2005; Aiken, 2002)

1.6.2 Attitude change

It could be thought that there is something of an assumption in including a discussion on attitude change in IPE as it implies that there is something perhaps deficient in the students' attitudes that IPE has a role in changing, presumably for the better. This conundrum will be examined throughout the thesis, but this introduction might be regarded as deficient without some discourse on which future chapters can be based.

One does not have to go far without encountering images or sentiments that are designed to change attitudes, be that editorials in newspapers, advertising on terrestrial television or elsewhere, such as social media, e.g. Twitter. In each of these media examples the underlying motives will be more, or less, apparent, and perhaps vary in altruism, all of which add to the possible depth of discussion. Of mechanisms designed to influence attitude change, two are

thought to be fundamental: where the message originates from, and the message itself (Carlson et al., 2010; Crano and Prislin, 2006).

Within the literature there have been suggestions that individuals consider information in one of two ways. The central, or cognitive methods is said to rely on the individual being motivated and having the ability to process the information while the peripheral, or heuristic, route is more probable when either of these factors are low, and therefore may be regarded as weaker (Crano and Prislin, 2006; Cialdini et al., 1981). Heuristic processing can be regarded as a cognitive short-cut which provide sufficiently accurate premises most of the time (Hogg and Vaughan, 2008). Alternatively, it may be that these two methods are at either end of a continuum rather than distinct and discrete (Bohner and Dickel, 2011). If elements of congruence are extracted from a breadth of published literature from recent decades, it does seem that repeated, strong, logical arguments that are personally relevant, credible, within intellectual grasp (Whitfield and Jordan, 2009; Crano and Prislin, 2006; Wood, 2000; Tesser and Shaffer, 1990; Cialdini et al., 1981), and which involve an element of affect (Gawronski and LeBel, 2008) are likely to be more influential on both implicit and explicit attitudes, resulting in attitudinal change and therefore altered attitude related behaviours.

One aspect of attitude change that is perhaps less obvious, is the suggestion that performing counter-attitudinal behaviours may be of influence. An example of counter-attitudinal behaviour can be related to variable speed limits, with associated speed cameras, as frequently sited on major motorways in the U.K. An individual's attitude to driving in excess of the speed limit may not change initially, but the potentially punitive consequence of the speed cameras has effected a change in behaviour. To overcome the discomforts of behaving in a counter-attitudinal manner, the individual may come to believe they are driving more safely because a possible consequence of a message that is disconfirming, or perceived as threatening to self-esteem (Grumm et al., 2009) is similar to the challenges implicit in cognitive dissonance, as human nature prefers consistency (Festinger, 1957). This last point will be further considered (Section 1.9.5).

Finally, the apparent likeability of the source (Chaiken and Stangor, 1987), such as the use of a popular celebrity endorsing a particular product, and the motivation of the individual, are both recognised (Bohner and Dickel, 2011) as influential. The importance of information being either self-determined, (Cialdini et al., 1981) or at least self-serving (Chaiken and Stangor, 1987) i.e. in

the individual's own interests, has also been recognised (Wood, 2000). Each of these elements can be recognised in a variety of advertisements, from fitted kitchens to toothpaste in numerous forms of media.

1.7 How a focus on attitudes might influence students' learning on IPE

It seemed to me that there was some synergy between aspects of attitudes and the dichotomous nature of the feedback on the IPE module mentioned previously (Section 1.4). After I had been given the role of IPE module leader, and once I had gained an understanding of the aims of IPE, I came to have no doubt as to its value in the health and social care curricula, especially when considering it in the light of my own clinical career. As a Computerised Tomography (C.T.) Superintendent successful collaboration across professional boundaries was integral to optimal care of the patients. Alongside this, I compared the student experience and feedback on IPE with other aspects of my teaching. I continue to teach anatomy and physiology, and it is something I remain enthusiastic about. The feedback received from students on anatomy modules is substantially more consistent and uniform than that for IPE. I continued to think that an examination of attitudes in IPE would be an appropriate vehicle to increase my understanding of the module and how it did, or did not, work.

An initial strategy was to familiarise myself with other publications on the topic of attitudes within IPE. It was noted that one approach used by some authors was a longitudinal study using questionnaires to study students' opinions towards collaborative working throughout their programme of study (Hansson et al., 2011; McFayden et al., 2010; Curran et al., 2010; Pollard and Miers, 2008), before and after IPE courses (Wakely et al., 2013; Hayashi et al., 2012; Atack et al., 2009), or at various points throughout IPE (Bain et al. 2014; Ateah et al., 2011).

One of the strengths of such research is the potential to access large numbers of participants, with IPE cohorts often being very large. A notable limitation of such studies, as noted by some, is the questionable reliability of self-completed questionnaires in measuring attitudes, as there is an inherent risk of the respondents giving answers thought to be acceptable rather than genuine (Hanyok et al., 2013; Pollard and Miers, 2008). This will be considered in greater depth (Section 3.3). A second limitation, commented on by some authors, is the questionable representativeness of samples as there was an increased likelihood of students who were more positively inclined to IPE to participate in the research (Ateah et al., 2011; Garber et al., 2009; Dobson et al., 2006). I

recognised that such studies generally restricted the discussion to the impact of IPE on students' attitudes, rather than extending the inquiry into potential mechanisms of how any recorded attitude change occurred, although more recently there has been some exploration of the cognitive, emotional and behavioural elements of attitudes (Gould et al., 2017; O'Carroll et al., 2016; Domac et al., 2015).

An alternate research method that has been employed involves the examination of a single, high impact, interactive IPE intervention (Mohaupt et al., 2012; Jones and Jones, 2011; Shrader et al., 2010; Corfield and Kelly, 2009). These studies lose the previously noted advantage in that such interactive sessions, generally comprising simulation activities, are only achievable with relatively small cohorts (Buckley et al., 2012), although they do permit use of a quasi-experimental design with a pre-test and post-test strategy.

A third approach, adopted by some, that was of interest, investigated the attitudes of staff to IPE, some of which used a qualitative approach (Hoffman and Redman-Bentley, 2012; Lee et al., 2012; Anderson et al., 2011; Curran et al., 2005). One aspect of the Anderson et al. (2011) study which influenced my thinking was that the semi-structured interviews were conducted by someone of the same, or lower, grade as the participants, possibly lessening the effect of them wanting to give the right, or the perceived acceptable, response. A second aspect that resonated was that several of the educators believed that IPE was an unnecessary intrusion into curricula that were already identified as full (Curran et al., 2005; Barrett et al., 2003).

I recognised again that such studies generally limited the discussion to the impact of IPE on attitudes, particularly those of students, rather than extending the inquiry into the mechanism of how any recorded attitude change happened, or any detailed investigation of confounding effects limiting attitude change. This observation reinforced my desire to gain a greater understanding of the concepts involved in attitudes and attitude change believing that there was more that could be learned, and that perhaps I had found a potential gap in the literature.

The investigation of interprofessional attitudes in IPE is not original to this study. Unpublished literature lent to me by Prof. Hugh Barr explored the development of professional and interprofessional attitudes between social and community workers and teachers, and their impact on collaboration (McMichael and Gilloran, 1984). The stated rationale for their work was the perception of hostilities between community and social workers and teachers. The work

suggested that each profession has members whose attitudes range across a continuum e.g. conservative to radical, and that there will be like-minded people in different professional groups, but that conflicts arise from differing professional ideologies and associated perspectives. As mentioned previously, when considering the more recently published exploration of the cognitive, emotional and behavioural elements of attitudes (Gould et al., 2017; O'Carroll et al., 2016; Domac et al., 2015) it was thought that there was potential merit in exploring these concepts further.

Additional affirmation for the chosen direction of this thesis is taken from the continuing publication of discussions on the implementation of IPE within health and social care curricula (Reime et al., 2017; Ryland et al., 2017; Luebbers et al., 2017; Nasir et al., 2017; Stow et al., 2017) and how its impact may be assessed (Mahler et al., 2017; Sakai et al., 2017; Schmitz, et al., 2017; Oishi et al., 2017) in that these areas appear to remain worthy of further investigation.

1.8 What is meant by collaboration?

Having reassured myself on the place of attitudes within my research it seemed appropriate to similarly examine the term ‘collaboration’ as I identified that the construct has many connotations, and examination of its multiple facets was thought to be sine qua non prior to any detailed examination of its implications to the IPE module. As an initial premise, a simple explanation of the term, and one which in part derives from classical origins, as in ‘co labore’ could be the association of aspects of working with others for mutual benefit (Huxham, 1996). Despite having some historic, negative associations from World War II, where collaborators were those working with the enemy, it has been repeatedly suggested that working collaboratively is a desirable aspiration that has become something of a mantra in contemporary society, both within, and beyond, health and social care (Croker et al., 2015; Trodd and Chivers, 2011; Webster and Clouston, 2011; Sullivan, 1998; Loxley, 1997; Cropper, 1996; Himmelman, 1996; Engel, 1994).

It might be thought that an effect of this supposition is that some authors appear to assume collaborative working as an unequivocally positive attribute (Bandali et al., 2011; Bridges et al., 2011; Chan et al., 2010; Garber et al., 2009); others appear to recognise that the attraction of collaboration may be founded on assumptions, and that rhetoric included in some national policies may have a negative, rather than the presumably intended positive, impact, in terms of

the limited consideration of other concepts (Glasby and Dickinson, 2008; Sullivan and Skelcher, 2002; Loxley, 1997).

With the intention of retaining a level of focus, consideration of the term collaboration will be essentially restricted to U.K. based health and social care, although literature from a cosmopolitan context has, at times, been accessed and integrated. While this may be thought of as being contradictory, it could be argued as a strategy to allow a wider cognisance, while restricting the focus of discussion to maintain pertinence to U.K. practice. Discussion of some perceived drivers will be used as lenses to elaborate on the implications of the meaning of the term.

In an exploration of collaboration in health and social care, the formation of a tri-partite National Health Service, with the diverse areas of practice being general practice (of medicine), hospital care and local authority community health and social services, has been cited as an inaugural and fundamental impeding factor (Leathard, 2003; Loxley, 1997). Leathard's interpretation was that the individual aims of each sector always had the potential to conflict with others, engendering an inherent risk to individuals using the services. While Loxley (1997) had previously cautioned that such divisions, although designed to maximize effectiveness of care, inevitably increased bureaucracy that then had the potential to limit, or even negate, any potential benefits.

The locus of the service user within these disparate services might be interpreted as a causative factor in failures of care, many of which have, appropriately, become high profile. One such example was the death of Victoria Climbié (Laming, 2003). Some suggest that Victoria's story was pivotal (Rees, 2013; Hammick and Anderson, 2009), others might regard the inclusion of the tragedy of this little girl's mistreatment and death as rather dated, and therefore sentimental. I would argue that health and social care professionals have a duty to never forget, as has been previously advocated (Department of Health, 2000). In the report of the inquiry (Laming, 2003), the historical factors mentioned in the previous paragraph were recognized as being implicit in impeding collaboration. Authors have since cited the political ramifications of such events as being drivers in promoting collaboration in health and social care (Lamb and Shraiky, 2013; Rees, 2013; Webster and Clouston, 2011; Garber et al., 2009), although the moral imperative should not be overlooked. It is likely to remain pertinent that, as

consequences of failures of collaboration in health and social care can have potentially fatal consequences (Glasby and Dickinson, 2008), they will continue to be influential.

In 2010 the World Health Organisation (WHO) published the Framework for Action on Interprofessional Education & Collaborative Practice, with the definition of collaboration in healthcare being more elaborate and specific than the one stated previously. The document suggested that collaboration included individuals from more than one profession working together, with the proposed mutual benefit being comprehensive and high-quality care. The publication explored how interprofessional collaboration could be key to an increasingly insufficient workforce, meeting the progressively complex needs of populations, who had been identified as not having their healthcare needs being met (WHO, 2010).

It is pertinent to examine what was meant by those whose healthcare needs were not being met. While recognising that the aim of the Framework was a global imperative, for the purposes of this piece of work, as previously stated, a U.K. focus will be maintained. A persistent demographic shift in the U.K. population is well recognised and it is the increasing numbers of people living to a greater age that is one of the concerns for health and social care (Dunnell, 2007; Colledge, 2006; Loxley, 1997), as it is the elderly who are more likely to have complex health and social care needs (Robson and Kitchen, 2007; Plochg et al., 2006; Himmelman, 1996). An additional consequence of aging is that health and social care needs also become more numerous (Engel, 1994) and therefore more expensive (Loxley, 1997). The requirement for a multiplicity of agencies to be involved, and therefore to collaborate, increases as the number of needs of the aging individual increases (Konrad and Browning, 2012; D'Amour and Oandasan, 2005) and it seems logical that as needs become increasingly complex and more numerous, the scope for solutions to conflict with each other becomes more probable.

Other drivers for greater, successful collaboration might be regarded as implicit within the two aspects already explored. The potential for conflict explained by Leathard (2003) is likely to have increased since the foundation of the NHS in 1948 as the elements of, and professions involved in, delivering contemporary services have become more numerous and more complex during the intervening decades. Some suggest that improved collaborative practice may be a solution to this increasing complexity (Croker et al., 2015; Bridges et al., 2011; Bruner et al., 2011; Chan et al., 2010; Reeves et al., 2010; Barr et al. 2005). However, it is not only the

services offered that have become more complex; both chronic and increasingly complex illnesses and conditions, such as diabetes, are likely consequences of demographic trends (Chung et al., 2012; Chan et al., 2010; Makowsky et al., 2009).

These trends are set in an environment where there are increasing public expectations (Smith, 2013; Barr et al., 2005), and a demand for a more holistic approach to be taken in health and social care, maintaining a patient-centred agenda (Kennedy, 2013; Garber et al., 2009; Calman, 2007; Robson and Kitchen, 2007; Engel, 1994). Increases in demand continue to occur against a global financial situation that mandates an on-going demand for cost-effectiveness and efficiency (Klopper-Kes et al., 2010; Jones et al., 2004; Huxham, 1996).

1.9 Introduction to theoretical framework

The theoretical framework used to orientate my research developed iteratively. Retrospectively, I suggest that a number of drivers predominated both its development and my thinking. The first was the integration of theories and concepts arising from my role as the module leader for the IPE module. These comprised both my thoughts about the teaching activities I developed and integrated into the teaching, and also, my observations of interactions between students, students and staff and staff with staff during successive instances of the IPE module. The nature of the interactions that piqued my curiosity were variously conducive or antagonistic and it felt important to understand the dialogues to a greater extent in order to maximise the former and reduce the latter. Another driver was the reading that I undertook, both as part of the doctorate programme and also from my desire to develop my knowledge and understanding as module leader. How the theories relate to central tenets of my study will be explored in depth to expand on the outline of the research context.

There were two activities that were particularly influential in directing my thinking and reading. Before starting this research, I introduced a session into the IPE module where service users addressed the students and told them what it was like, from their perspectives, to be a user of the health and social care system. The session has always been recognised by staff and students as a powerful learning experience. On each occasion, the feedback from the students to the service users was notable for the powerful language selected (Section 5). The second activity was based on students' drawings. With the aim of illustrating students' possible preconceptions, I had

developed an activity requiring the students to draw different professionals e.g. a doctor and a nurse. Each time I did this there was remarkable similarity in the drawings produced (Section 4).

1.9.1 The place of pre-judgement

One theory that I read at an early stage in my research was the seminal work, Nature of Prejudice (Allport, 1954) as it had been cited by numerous authors writing about IPE (Barr, 2013; Bainbridge and Wood, 2012; Barr, 2012; Thistlethwaite, 2012; Anderson et al., 2011; Hind et al., 2003) and I thought, as others had before me, that there was much that resonated with the aims and implications of IPE. Although the more frequently cited aspect of the work was the examination of the effects of contact (Bainbridge and Wood, 2012; Barr, 2012; Thistlethwaite, 2012; Anderson et al., 2011; Hind et al., 2003) one of Allport's (1954) initial proposals was that people are unable to make original judgements about every person they meet, so there is a natural tendency to create generalisations, or pre-judgements, which may often be based on preconceptions, probabilities and previous experiences. More recent writing has agreed with Allport, which although classic consideration of pre-judging did not imply any emotional connotation, it has been suggested that this has evolved to often imply negative emotions, behaviours or even hostility (Sandel, 2014; Brown, 2010) as associated with prejudices.

Relating this new knowledge to my own professional experience, it seemed plausible that members of different professional groups make generalisations about other professions. With the premise that pre-judgements are related to diverse and multiple individual professional perspectives and ontologies (knowledge as perceived by an individual), it may be that information used might be based on emotion, presumptive evidence or hearsay. Relating this proposal to IPE, it is possible members of professional groups may make generalisations about other professions, and although these may be based on knowledge or experience, it is also possible that they are based on something less substantial. Although such ontologies might be historical, within professional health and social care education it is IPE that has often mandated members of different professions working more closely together, and this might be an explanatory factor in either or both the conducive and antagonistic interactions mentioned previously.

Another aspect that appears relevant to consider when considering the students in IPE, is the suggestion that youth, or relative age, is significant in pre-judgements becoming prejudices

(Allport, 1954). It has been proposed that because younger people have a relative lack, or limit to, their socialisation (Maio and Haddock, 2009; Pietroni, 1994) as the undergraduates build ‘knowledge’ based on their experiences any pre-judgements may become beliefs and attitudes, and perhaps when these are negative, lead to prejudices. Data collection methods of this work have been designed to explore any apparent ontologies of both staff and students.

1.9.2 Professional Socialisation

Having articulated the notion that interaction between members of different professional groups will underpin elements of this thesis, it would seem pertinent to include some discussion of the processes involved in how people become members of those groups, if socialisation into a profession is to be considered an arguable precursor to any tensions or dissonance between groups.

The concept of professional socialisation has been the subject of research and debate within the literature. Even the opinion that any such process may begin with an individual’s self-perception (Blue et al., 2011) may not be the crux as there may be many different influences on one’s self-perception, such as peer or familial factors (Koenig and Eagly, 2014). Professional socialisation has been referred to as the selective acquisition of knowledge, skills, attitudes and values, which might collectively be referred to as a culture, by an individual, with the intention of becoming a member of a specific group (Fitzpatrick et al., 1996; Merton 1996; Eraut, 1994; Schon, 1991; Benner, 1984) although the dynamics of the process have been contested (Clouder, 2003).

Clouder (2003) likened the process to moulding with an aim being collective understanding. The links between professional knowledge and cognitive styles have previously been described as tenacious (Becher and Trowler, 1989) and indicative of discipline specific ‘ways of being in the world’ or epistemic knowledge (Foster and MacLeod Clark, 2015). Implicit within this there may be an important, and perhaps underestimated link, with professional-specific education and IPE, as there is a requirement for academic staff on professional programmes, such as those in health and social care, to remain on professional registers, which may have the effect of making their own professional identity more salient.

That for the majority of their education, health and social care undergraduates are taught within profession specific groups (Smith et al., 2015), generally by members of the same profession,

with goal of developing the required epistemic knowledge that for qualification, registration and employment, may be influential. During IPE, the students are removed from their cultural ‘comfort zone’ (Tajfel and Forgas, 1981) and this may create uncertainty if the proposal that such social categorisation is important in interpreting information and creating perceptions (Tajfel and Forgas, 1981).

1.9.3 The impact of groups in IPE

Allport (1954) suggested that groups develop a collective mentality that is characteristic of their values, beliefs and standards. As has been considered above, as neophyte professionals this epistemic knowledge is suggested as integral with the students’ chosen professions (Kreindler et al., 2012). Brown (2000) previously proposed that it is a group’s norms that guide an individual’s behaviour, and that becoming part of a new group evokes anxiety. It is a possible source of challenge that for the IPE module, students are temporarily removed from their profession specific groups and allocated to mixed discipline groups, which may result in a perception of difference that is over accentuated from the reality, as group differences are made more salient.

It is a recognised function of the groups one belongs to, to maintain an individual’s self-esteem (Vorauer, 2013; Baron and Kerr, 2003; Hewstone, 1989; Tajfel, 1982). Because the students studying the IPE module are usually in their final year of study prior to qualification and registration, it is possible that the need to increase their self-esteem may be emphasised by anxieties about their ‘almost-qualified’ status. Therefore, the pressure to conform to their own professional group might exacerbate possible inclinations to feel biased against other professional groups (Carpenter and Dickinson, 2016, Pettigrew, 1998; Cartwright, 1951).

Ellemers et al. (1999) concluded that students felt more strongly about their groups when the group was positively evaluated, self-selected and of a minority in terms of size. The last of these points can be considered as relating to the relative sizes of the profession-specific groups (Section 1.2). It was also suggested that students were likely to feel less positive about their group if they had been assigned to it, which happens on the IPE module.

Conditions required for conducive interactions between groups have been the source of investigation, some of which have used occurrences such as racial conflict in the southern states of America or conflict in the Middle East as contexts (Pettigrew and Tropp, 2006; Brown et al., 1999; Amir, 1969). Two of the general rules proposed by Allport (1954) were that the group

members should be perceived as being of equal status, and that there should be pursuit of common goals. These are perhaps two aspects of the IPE groups that can be viewed as constructive. The first is the notion that as undergraduate students they might be regarded as being of equal status. However, it is possible that the students will need supporting in recognising a shared identity and status (Kreindler et al., 2012), as it has already been noted that some are on a Master's programme. The second condition, that of common goals is rather more fundamental, and it might be presumed that all health and social care professions ought to be united in putting the patient first (Wacherhaussen, 2009).

1.9.4 Social Identity Theory

Social identity theory is widely accepted as a convincing explanation of group behaviour (Turner, 1982). The theory derives from an individual's need to increase their self-esteem, so that they may feel good about themselves. In order to increase our self-esteem, we develop affect, or sentience for the groups to which we belong, as we see ourselves as a consequence of these groups. Experiments led Tajfel to conclude that this occurs even when groups are not in competition with each other (Tajfel, 1970). However, the hierarchy within health and social care (Duckmanton, 2011; Miers and Pollard, 2010; Reeves et al., 2010; Freidson, 2007) may be thought to promote these behaviours perhaps both within and between professions and it is possible that IPE may be counter-productive in increasing the salience of group differences.

1.9.5 Cognitive Dissonance Theory

As mentioned previously (Section 1.6) as humans, we demonstrate a significant level of consistency between what we know, what we believe, and what we do, a concurrence described as consonance, and it has been proposed that the antonymous, dissonance will be psychologically uncomfortable (Festinger, 1957). Furthermore, it is suggested that there will be an inclination to both reduce dissonance and avoid knowledge and situations perceived as creating it, with the strength of the desire being related to the magnitude of dissonance. If such concurrence is regarded in parallel with profession specific epistemologies (Section 1.9.2) and professional cultures it may be surmised that different healthcare professions will behave differently towards each other (Cooper, 2007; Cartwright, 1951) compared to uni-professional groups.

My experiences have led me to believe that examples of this theory can be seen in action in IPE. Current proposals suggest that individuals will manipulate their environment, alter their behaviour and, or, access peer support in reducing dissonance (Cooper, 2007; Festinger, 1957). Of the proposed mechanisms available to reduce dissonance, an individual may acknowledge original information, leading to a change in attitude and possible subsequent behaviour change. If this is considered in relation to attitudes towards collaboration, it may be taken as a realistic explanation of how the aims of IPE may be achieved. However, the converse, where an individual looks for, and identifies, previously unrecognised information to confirm a feeling of dissonance will also resolve the discomfort. It is possible that both these processes occur during IPE and may be influential in the dichotomous feedback mentioned previously (Section 1.4).

1.9.6 Transformational Learning

If the situations students encounter during IPE have the potential to result in cognitive dissonance, it seems reasonable to explore what is happening with the students who enjoy, appreciate and value IPE, compared to those who do not. It is possible that some of the conditions Mezirow described as ‘transformational learning’ may be applicable (Mezirow and Ass., 2000) as there seems to be some congruence between the two theories.

Mezirow and Ass. have suggested that when individuals experience difficulties in understanding a situation, they may turn to habit to create consonant, but possibly invented meanings, according to their existing knowledge. Transformative learning is said to occur when an individual considers how an initial perspective alters in the context of new knowledge, so that the resultant perspective is the symbiosis of the two. The relevance of communicative learning, in a dialogic process involving ‘feelings, intentions, values and moral issues’ (Mezirow and Ass., 2000: 8) seems to have overt synergy with IPE (Section 1.3) with reflective review of assumptions enabling students to reach mutually agreed common understandings. There are aspects of IPE that have already been identified which are also thought to be required for transformational learning. One example is equality between participants (Section 1.9.4) and, where pertinent, this study will view data through the lens of transformative learning.

1.10 Ontological and epistemological position and synergy with the thesis structure

This chapter has rationalised that IPE is, and is likely to remain, a core element of the curricula of contemporary health and social care programmes in Higher Education Institutions. The logistics of this area of the curriculum are challenging, and student feedback can be variable.

This thesis suggests that the concept of attitudes in IPE has not been fully explored in the literature, although the concept is acknowledged as being problematic and has not been underestimated. Exploring attitudes to collaboration, with relation to the aspirational characteristic of collaboration will permit an in-depth investigation of the IPE module.

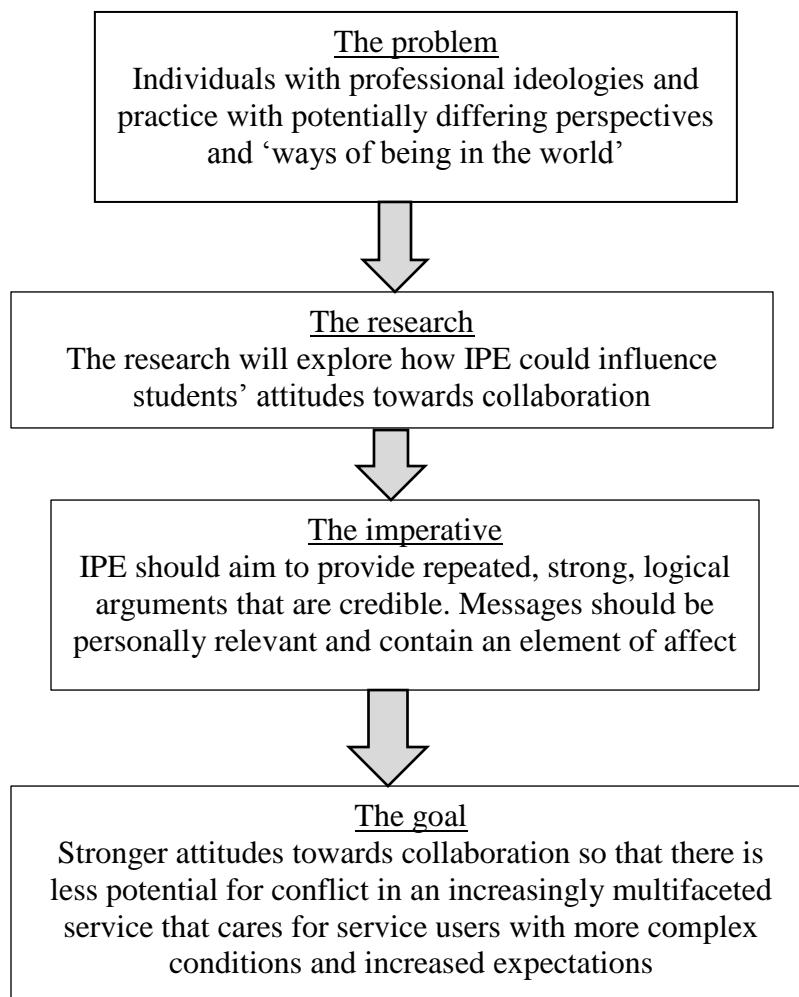


Figure 1.1 Diagrammatic representation of place of research within attitude lens

My ontological stance starts from a belief that any reality is based on a range of perceptions, and that with specific regard to IPE, consideration of the range of perceptions across the breadth of those involved is fundamental. As a practitioner, experienced in both healthcare and education, I believe taking only my perceptions of IPE into account is insufficient to allow me to conduct credible research, an aim of which is to gain a greater understanding. I recognise that my views are filtered by my own lenses, which are created, developed and maintained by my experiences and my exclusive position within the IPE module. It follows that my epistemology and my own assumptions may, or may not, be the same as others, and importantly may prevent me from seeing, investigating and understanding a breadth of pertinent factors as my observations will be many and varied being socially situated between myself and my participants.

I perceive IPE as a complex phenomenon in which multiple realities exist and the myriad interactions which have the potential to occur may have an influence that is possibly unquantifiable. The integration of a breadth of perspectives, which initially may appear to be both irreconcilable and incommensurable, will be carefully and diligently woven, using the analogy of a tapestry, to maximise what might be learned. An iterative, interpretivist paradigm will allow explorations of specific events and activities from the participants' perspectives in conjunction with my own interpretations and observations. The diverse approach adopted will permit multiple claims and assumptions about social realities to be considered. While perhaps more challenging, it is believed that the complexity reflects that of the subject being explored, and will, potentially, allow insight into constructs that might not otherwise have become apparent.

However, it cannot be overlooked that participants may not be in a position, or willing, to give full explanations. Therefore, it is suggested that the multiplicity of methods and lenses will offer insights into subtle variations into individual participant experiences (Denzin and Lincoln, 2011). I recognise that given my role, I am immersed in IPE to a certain extent, and will attempt to embed methodological rigour (Yin, 2009) with my task as an interpreter (Stake, 1995) in a continuum to produce a credible account. This is in the recognition that there may be limited scope for generalisation but considering the previously mentioned multiplicity of methods and environments for teaching IPE, the insights which will be generalisable will vary between institutions and their methods of implementing IPE.

In order for the research to be cohesive, highlights of multiple sources of evidence will be identified and built into synergies throughout the thesis. A complication, that will be embraced rather than avoided, is that there will be opportunity to exploit and explore ambiguities, rather than succumbing to the temptation of ignoring, or minimising them.

Therefore, it is apposite to outline exactly how the theoretical framework will inform and be used to interrogate the research. Allport's assertion from 1954, that we have a natural tendency to make generalisations, has significance in IPE when considered in parallel with professional socialisation. Generalisations based on probabilities and previous experiences are likely to be inextricably linked with distinct professional groups selectively acquiring the values, knowledge, skills and attitudes implicit within disparate professional cultures. Because of the definition of IPE (Section 1.2), aspects of intergroup contact (Brown, 2000; Pettigrew, 1998) will necessarily be between individuals whose professional cultures are dissimilar, or perhaps simply just not the same. The impact of social identity theory (Turner, 1982; Tajfel, 1970) on third year students having to work in mixed professional groups while maintaining their self-esteem is particularly pertinent if the module is to influence students' attitudes towards collaboration.

However, these theories did not appear to offer insights into one of my imperatives for wanting to gain a greater understanding of IPE, which was the dichotomous nature of feedback being received from successive cohorts, i.e. either very positive or very negative. It was thought possible that the theory of cognitive dissonance (Festinger, 1957) might be relevant to explore the negative aspect of the 'marmite' phenomenon mentioned previously (Section 1.4). It is thought that cognitive dissonance might offer an explanation for those who provide very negative feedback following IPE. However, the converse and positive opinions might suggest that transformational learning theory (Mezirow and Ass., 2000) has something to offer in explaining the comments of the affirmative aspect of the marmite analogy. This ontological position and the results from the ensuing research will be revisited at the end of the thesis (Section 8.9).

The structure of this thesis is somewhat unconventional but has been deliberately designed with the aim of complementing the methodology and reflecting the complexity of the topic in a way that supports transparency. The second chapter will outline and justify the choice of a case study approach to the research. Subsequent chapters will consider, individually, and in turn, each phase

of data collection, including exploration of each method utilised, allowing each element of the theoretical framework to become a focus. The final chapter will include a synergistic account of the research findings allowing individual threads to be drawn together to explain how the work may be used as an evidential basis for changes to practice.

2 Methodology

2.1 Rationale for case study approach

2.1.1 Introduction

The aim of this section is to clarify and justify why a case study approach was chosen as the methodology for my research. My role as module leader was a principal factor in the decision, as I recognised that my approach as a researcher was almost certainly influenced by my own ontological and epistemological positions (Denzin and Lincoln, 2011). Considering my ontology as being my assumptions about the IPE module (Grix, 2010), I recognised my experiences as module leader (Section 1.4) would be unique and have influenced my beliefs about the reality of the module. I also recognised that my ‘social construction of knowledge’ (Berger and Luckman, 1966: 27) would, perhaps inevitably, be different to that of both students and the members of the teaching team. Key elements of my own perspective originate from working in both the clinical and academic environments and my beliefs in the fundamental importance of health and social care professionals working collaboratively to achieve good patient centred care, and the challenges inherent in successful interprofessional and interagency working.

In the institution where I work there are higher education programmes for twelve health and social care professions. As has been suggested is common in Higher Education in the U.K. (Section 1.1), the institutional structure can be regarded as promoting professional socialisation within, rather than between groups as students from most health and social care professions are educated in isolation from others, generally by members of that particular profession. The only exception to this is nursing where a small percentage of the programme is taught to student nurses from the four nursing fields (adult, child, mental health and learning disability).

My perception is that this relative professional isolation (Ryland et al., 2017) creates, promotes and reinforces each of the professional groups as having specific, and differing ontologies, with their social realities being typically profession specific (Morrison, 2012). Although it might be disputed, this effect perhaps originates with staff (Grix, 2010), and is then shared with, and learned by, the students. It is suggested these ontologies shape students’ values and beliefs which although not exclusive, are emphasised to different extents within specific professions (Cohen et al., 2011) resulting in each of the professional groups having bespoke realities (Merriam, 2009).

It is further suggested that these realities are socially constructed (Berger & Luckman, 1966) and potentially unique to each of the professions.

Referring to Becker et al. (1961), it is recognised that these profession specific ways of viewing the world held by staff and students, will not necessarily be identical as there will be socialisation between students, and between staff, leading to slightly dissimilar cultures and ways of behaving. Although beyond the scope of this thesis, I believe that staff role modelling appropriate behaviours is fundamental to the students' education, although this has the potential to be limiting if staff remain isolated within their professional groups.

Similar arguments can be made for professional groups having different, specific epistemologies, where students from different professions are taught in similar, but not identical ways (Grix, 2010). Again, with the assumption that knowledge is socially acquired (Berger & Luckman, 1966) this relative professional isolation, and predominance of within professional dialogue and interaction (Lofland and Lofland, 1984), which may be synonymous with communities of practice, it can be suggested that profession specific forms of knowledge will not be the same across the breadth of health and social care professions (Cohen et al., 2011). If the view that no epistemological position is 'value neutral' (Grogan and Cleaver Simmons, 2012: 30) is considered this may reinforce the value differences implicit within varying ontologies as expressed previously.

Thus, although there are areas of knowledge and practice across the health and social care professions that overlap and coincide, differing ontologies and epistemologies suggest that there are likely to be different beliefs, values and ways of behaving in each of these professions. Section 1.10 (page 28) summarises how IPE may be regarded as a complex phenomenon in which multiple realities exist. Using a case study methodology has synergy with the context of the research and will facilitate the weaving of the ontological positions of different participants to maximise what might be learned. The use of an approach which permits a diversity of claims and assumptions to be examined facilitates consideration of different social realities.

This philosophy necessarily has an impact of how this research was both conceived and implemented (Cohen et al., 2011) as the complexity of investigating how the IPE module might influence the number of differing, and perhaps as yet unrecognised, professional assumptions and beliefs. I thought that no single explicit paradigm would be sufficiently adaptable and

flexible (Lofthouse et al., 2012), in order to allow me adequate objectivity to interpret the complexities within a single approach. Therefore, the approach of a case study methodology was thought to fit well with the focus of the research, to discover any influence of the IPE module on students' attitudes towards collaboration.

The theories underpinning my own knowledge are based on the elements of my theoretical framework discussed previously (Section 1.9) because they appeared to offer insights into my experiences with IPE. For example, the theory that group membership is intrinsic to an individual's self-esteem, seemed to offer a potential explanation of my perceptions of the anxiety within the student group during IPE. From these considerations I realised that my ontological and epistemological position influenced the use of a diverse set of research methods within a case study approach.

An outline of the structure, learning outcomes and content of the IPE module under consideration has been given previously (Section 1.3). As noted, the role of module leader had been, at times, overwhelming. The challenges that recur stem from both the size of the student cohort and the teaching team, and the complexities of creating a single module that is synergistic with twelve different programmes of study. In addition, the logistical challenges of timetabling, and ensuring that all staff are available and know what is required of them, compound the difficulties. One final challenge of the block delivery design of the module, in that all the arrangements need to be complete and all resources for the whole module have to be available prior to the start of teaching week, which is at the beginning of the semester. The purpose of this research was to discover any validation for aspects of the teaching and learning and student experience that might be regarded as successful, and insights on how to improve areas perceived by staff and/or students as requiring development.

The seminal study by Becker et al. (1961), which employed an ethnographic approach to investigate the transition between students registering on a programme to study medicine and newly qualified doctors, inspired me. My initial intention was to consider whether an ethnographic research strategy might be adopted, where there could be observation of participants by immersion within the student group (Burgess, 1982). An impetus for the idea was my perception of the complexity of the links between attitudes and behaviour. In agreement

with Van Maanen (1988), I thought an ethnographic study would furnish an increased level of understanding of the students' perspectives.

However, when attempting to devise an ethnographic method of data collection I was unable to propose a viable strategy that could achieve the desired data while reconciling both the ethical considerations and the requirements of my role as module leader. As module leader, being ultimately responsible for the module assessment process, it was very probable that this would influence the students' interactions in my presence. Experience on the module has taught me that the students' conversations generally change, or even stop, as soon as I join a group discussion. I concluded that the power differential would have the consequence that it would not be possible for me to be ethnographically immersed within the student groups without having too significant an effect on the data collected (Measor and Woods, 1991).

Covert observation could have provided a solution to this obstacle but would have had ethical implications. I thought that it might be possible to have an assistant, of a similar age to the student population, who could mix with the groups in a covert manner. However, this still raised ethical issues, such as that of informed consent (de Laine, 2000), and was soon abandoned as a strategy

Robson's (1993) suggestion that the specific labelling of different research models is not always helpful, as it can preclude responsiveness, was influential in selecting a methodological approach. However, I believed some identification of specific data collection methods would be useful in the initial stages of my research. I thought it would support the development of a case study strategy that would enable me to formulate an iterative plan of how the research would be conducted.

2.1.2 Case study context

I agree with Grix (2010) who suggests that a case study is not a methodological choice as such, but more of an organisational strategy that has the significant advantage of facilitating study of a social object without altering its character (Grix, 2010), although it has been suggested that some degree of alteration is inevitable (Ball, 1991). Flyvberg (2011: 301) expands on this and gives the definition 'an intensive analysis of an individual unit... stressing developmental factors in relation to environment' where the developmental factors are tangible, interconnected and

organised events. My study appeared to conform to this concept, where the individual unit can be thought of as the students, staff and teaching, the environment is provided by the module and the developmental factors are the aspects of the teaching and learning which may result in attitude change.

Stenhouse (1980) compared educational case study research to the work of historians, where the stated aim is the collection of evidence to create a cohesive whole that is then accessible to others for scrutiny. While making work accessible is an accepted aspect of doctoral study, my priority is rather more singular, and that is for my research to support and have the potential to develop my own practice and the students' experience of the IPE module, with the belief that it may then be of some use to others.

As perhaps to be expected, information and opinions have been found to be both confirmatory and in contrariety of a case study strategy being adopted as a research approach. In a thought-provoking examination of the literature on case study, Brown (2008) envisioned case study methodology on a continuum with the arguments of both Stake (1995) and Yin (2009) being at opposite ends with Merriam's opinions (1998) occupying something of a middle ground. This proposal was based on Yin, being interpreted as having a methodical, logical approach, focusing on the skills of the researcher and rigorous data collection because of the very comprehensive essence of his discussions of each case study element. In contrast, it was suggested that Stake's focus was on the researcher as an interpreter whose role was to create meaning, and a clearer understanding based on personal experiences (Brown, 2008). Aspects that were thought to justify my use of case study was the desire to increase my knowledge and understanding of the IPE module, in a way that would support others undertaking similar explorations.

Making certain assumptions, based on my reading, I selected some key features highlighted by these two authors to establish the form of my case study, such as Yin's carefully articulated steps and Stake's focus on achieving a greater understanding through both description and explanation (Yin, 2009; Brown, 2008; Stake, 1995). Subsequent review of a breadth of case study research reassured me that the features I had selected were within the norms suggested in published literature, with the aim of producing potent and evidentiary insights into the IPE module (Yin, 2009). For example, it was hoped that utilising a number of different sources of data, such as

drawings, interviews and focus groups (Sections 4, 6 and 7) in an holistic approach would support the development of a greater understanding (Merriam, 1998).

As stated above, my primary motivation was to learn more (Stake, 1995) about the IPE module, which I regard as the ‘case’ of the case study, being a single entity (Stake, 1995) within a real-life context (Yin, 2009). While as module leader I have had a certain level of control over what is taught, I would suggest it is not possible to control exactly what or how the students learn, fulfilling one of Yin’s criteria (2009). Possibly the greatest challenge in the method would be to identify and put aside my own assumptions, enabling a more objective analysis (Stake, 1995) while recognising that my role would probably dictate a mixed inductive and deductive approach to the research.

2.1.3 The role of case study approach

The case study approach to this research began with a single, although rather inchoate and amorphous notion, intrinsically linked to the role of module leader. The broad aim was to increase my understanding, with a focus on attitudes, of what, how and why the students were learning during the module and how any learning might impact on their future practice. Yin (2009) cites the questions of ‘how’ and ‘why’ as being a pertinent reason for selecting a case study approach.

Given my background of working in health, I perhaps had an affinity with the case study approach, where it is a commonly used enquiry method. Some level of personal affinity for a methodological approach is a recognised phenomenon (Burgess, 1985). In health and medicine, the aim of the case study is the detailed investigation of a complex set of circumstances (Keen and Packwood, 1995) which seemed to be congruent with planned study. As an educator, it seemed that answers were most likely to be gained by studying the module in depth within its context (Yin 2009; Brown, 2008; Gibbert et al., 2008).

Perhaps a more compelling factor in choosing a case study approach was my recognition that there were likely to be multiple realities, and possibly opposing explanations of what was happening during the IPE module. It was thought that there might be a confusing multitude of views and opinions among the teaching team and students. This was not to ignore my own perceptions. My desire was to develop a clearer understanding of what was happening on the

module, recognising Stake's (1995) suggestion that developing greater understanding is a reason for selecting a case study methodology. Alongside this was the recognition of my ownership as module leader and the need to identify any personal bias (Yin, 2009). However, my personal predisposition is to focus on aspects that need to be improved rather than those that appear to be successful, and I believe this will be helpful in building a rational view of the module.

Some researchers have tended to be dismissive of case study as a research approach (Gerring, 2004; Brown 2008). The consequences of limited, or perhaps no ability to generalise has been variously cited as a weakness, or an area for development (Swanborn, 2010; Popper, 2002; Bassey, 1999; Tripp, 1985). The flexibility that some researchers regard as a strength in investigating more than one reality (Jones and Lyons, 2004) others regard as a weakness because of the lack of proscription, and possibly ambiguities, with the risk of variance in interpretation and definitions used being a threat to validity (Gibbert et al., 2008; Gerring, 2004; Meyer, 2001). While it is helpful to pay attention to authors critical of case study to add rigour, I took reassurance from the view that dismissive opinions could be regarded as unjustified (Flyvberg, 2004; Gerring, 2004) and that a case study approach is justifiable when in concordance with the research problem (Merriam, 2009).

In order to counter any claim on the weaknesses of the chosen methodology, the imperative of enhancing research rigour indicated that the context of the case should be carefully described (Mays and Pope, 1995; Yin 2009). Therefore, the definition of 'the module' has been carefully articulated.

The module has an academic value of 15 credits and is taught twice in every academic year, once in both semesters A and B. Whether the students enrol on the module in semester A or B is decided by each individual health or social care programme. As a result, the number and specific professions on the module in each individual semester are different, although remaining broadly similar in successive academic years.

The stated aim of the module is to enable students to further develop skills for inter-professional and collaborative working so that they may contribute positively to the provision of patient/service-user-centred health and social care. Members of staff are allocated to the module teaching team in a ratio of staff to students of 1:25. The teaching team is typically composed of approximately 32 members of staff in Semester A. Some staff are on the module from year to

year and so are experienced in working with multi-professional groups. Members of staff on the teaching team vary in their extent of teaching experience and their enthusiasm and engagement with the module ethos.

2.1.4 Overview of research process

Although the research could have been conducted with a single cohort, the demands of leading a module with a typical cohort size of hundreds of students from multiple professions had the consequence that it was not possible to collect all the data within a single semester. Another relevant rationale was the desire to develop the research iteratively, using previous findings to inform the future direction. Therefore, the case study had to encompass successive cohorts over the study period. This has been outlined in Appendix 2 and is illustrated in the overview diagram on page 40 (Table 2.1). One advantage was that data could be collected from a greater number of professions, rather than being limited to a single module instance. Encompassing data from a broader range of professions on different occasions could suggest that findings may be less specific than a single instance and more generalisable to other IPE modules in different institutions.

Date: January 2014	First tranche of data
Description of data	Pre-module and mid-module questionnaires
Sample size (students included in data analysis by number and profession)	42 student nurses 39 pharmacy students Total = 81
	
Date: January 2014	Second tranche of data
Description of data	Students drawings of professions
Sample size - drawings included in data analysis by student (number and profession)	99 pharmacy students 120 adult nursing students 23 child nursing students 23 learning disability nursing students 12 mental health nursing students Total = 277
	
Date: January 2014	Third tranche of data
Description of data	Feedback to service users
Sample size - comments included in data analysis by student (number and profession)	68 pharmacy students 212 adult nursing students 51 child nursing students 48 learning disability nursing students 35 mental health nursing students Total = 414
	
Date: September 2015	Fourth tranche of data
Description of data	Focus groups with students
Sample size (students included in data analysis by number and profession)	4 pharmacy students 5 adult nursing students 3 mental health nursing students Total = 12
	
Date: September 2015	Fifth tranche of data
Description of data	Focus groups with staff
Sample size (staff included in data analysis by number and profession)	2 diagnostic radiography 2 child nursing 1 adult nursing 1 learning disability nursing 1 midwifery Total = 7
	
Date: October 2015	Sixth tranche of data
Description of data	Interviews with students
Sample size (students included in data analysis by number and profession)	1 mental health nursing student 1 dietetics student 1 diagnostic radiography student 1 adult nursing student 1 child nursing student 1 paramedic science student Total = 6

Table 2.1 Overview diagram of research process

2.2 My perceptions of the research study

2.2.1 Introduction

To this point, a rationale has been offered for the topic of my thesis including the context of the research and the method devised to inform the data collection. It now becomes relevant to identify my position, as a researcher, within the research. To achieve this, in addition to consulting published views and opinions, I have used two rather less formal ideas to support the development of a critical stance required (Mann, 2016; Etherington, 2004; Finlay 2002). The first concerns the advice to think about ‘how you are thinking about what you are thinking’ i.e. a kind of metathinking (Mowles, 2016). In tandem with this, and in line with the ethos of IPE, is the suggestion that ‘not everybody thinks like I do’ (Fulford et al., 2016). With these two phrases in mind the rest of this chapter will give an account of my position in the research, using my reflective diary to inform the writing.

2.2.2 Perceived personal influences

The structure of the IPE module where the research has been conducted has been outlined (Section 1.3) together with my academic background, and how it led to this thesis, has been explained (Section 1.4). However, my personal background, and how it may have influenced the research is also relevant to include (Mann, 2016; Gough, 2003; Mauther and Doucet, 2003), to begin the process of making assumptions explicit (May and Perry, 2010; Gough, 2003). My parents were both medical practitioners, one worked as a general practitioner (G.P.) and the other in academia. When I was a child a proportion of a G.P.’s working life was conducted from the home environment, making medical practice a normal part of my family life. In retrospect, I think this had the effect of making me believe in the importance of medicine in society, together with some implicit understanding of the complexities involved. In addition, I was encouraged to engage in critical thinking with conversations at home often taking an academic, enquiring course.

Perhaps in contrast to such formative, discursive conversations, my experience of working as a healthcare professional in the National Health Service has led me to believe that contemporary practice has an ingrained desire to get things right, and that there must always be an ‘evidenced-based’ solution (Helman, 2000). As explained previously, successful collaboration with members

of other professions was integral to my clinical role managing a C.T. scanning service, and an aspect from which I derived enjoyment. The biggest frustration of my clinical career was when patient care suffered as a result of the complexities inherent in the service itself which obstructed successful collaboration and had a detrimental effect on quality of care.

2.2.3 Perceived institutional influences

When I registered on the doctorate programme and started this research it was in my role of module leader. In the institution where I work a module leader is responsible for the ‘academic leadership, organisation and management’ (Learning & Teaching Innovation Centre, 2017) and this was an important facet of the research, as the aim of identifying areas for development would be regarded as critical review of my own, rather than someone else’s, practice. Had this research been conceived from a different role to that of module leader it may have had a very different design. However, I recognised that my role as module leader would almost certainly have had the influence of being a vested interest.

Two additional institutional drivers were perceived; the place of IPE within the School Strategic Plan (Section 1.4) and the emphasis currently placed on the student experience, in part because of the significance of the NSS on recruitment and retention. Together these might have contributed to an imperative to improve how the module was perceived by some students. The NSS was regarded as an influential driver particularly as release of the IPE module coursework results generally coincided with the opening of the survey, and therefore the IPE module may have been particularly salient for the students. One final driver, the strength of which is challenging to quantify, is the opinion of my colleagues across the School and my desire not to be seen to fail in the role of IPE module leader. If the ability to be reflexive is taken as a continuum from detachment to involvement (Mowles, 2016) then I recognised the need to inculcate a level of detachment in myself when designing how the research would be conducted.

2.2.4 Measures taken to identify researcher influences

My first motivation for the research was to examine the module with the aim of identifying whether there were aspects of the teaching, learning, assessment and organisation that could be developed. It is in my nature to focus on my weaknesses and limitations and also to ask ‘why’. I believe these to have been significant motivating factors in ensuring that my interpretations were

realistic, intelligent and to a certain extent pragmatic, although recognising that I would need to uncover my assumptions, and their influence, along the research journey (Finlay, 2002; Lynch, 2000).

Beck (1993) considered reflexivity in terms of auditability, fittingness and credibility and provided some expedient checklists to support the researcher in maintaining a reflexive approach. Examples of research aspects given included discussing the researcher's own experiences, use of multiple methods for triangulation, taking steps to ensure the representativeness of participants and including an in-depth analytical account of data collection methods used. However, others consider reflexivity labyrinthine, akin to a quagmire, less amenable to such a possibly simplistic reduction with diverse approaches offering omnifarious opportunities and challenges (Finlay, 2002).

The opportunity to recognise the impact of triangulation by the use of a number of different research methods has been exploited in this thesis so that examined aspects have been explained more fully. As suggested previously, such triangulation has limited the risk of bias and strengthens confidence in the data generated (Cohen et al., 2011). Such triangulation facilitated the confirmation of the credibility of findings and the opportunity to indicate a hierarchy in the conclusions.

A compromise offered by Finlay and Gough (2003) suggested that the concepts of reflexivity, critical reflection and reflection, as a continuum with a parallel of reflexivity and reflection being two sides of the same coin (Duncan, 2017). It could be suggested that Beck's (1993) utilitarian approach is just one view of reflexivity being the assessment of 'knowledge' and 'the ways of doing knowledge' (Calas and Smircich, 1992: 240). The analogy thought to fit most closely with my research is that of a diligently finished tapestry; describing the generation and interpretation of data being accomplished within a breadth of co-existing representations (Koch and Harrington, 1998). Specific measures were undertaken to ensure each element of the case study would be carefully articulated and meticulously analysed to make each aspect of such a tapestry overt and transparent, such as recursive sifting and taking steps to review the theory both before, during and after each cycle of data analysis.

As has been suggested by others (Savin-Baden, 2004; Finlay, 2002) my own personal and professional identities were identified as advantageous while simultaneously needing careful

consideration to avoid becoming detrimental to the research. As the research was being conceived I, in order to interrogate my own assumptions, wrote what I believed to be comprehensive accounts identified personal and professional influences as previously summarised (Section 2.2.2). As the research progressed the need to also take account of institutional influences also became apparent (Section 2.2.3) as they had identified influences on the research, such as the affordances and limitations posed by the block delivery pattern of the IPE module (Mauthner and Doucet, 2003).

2.2.5 Study aims, objectives and research questions

My initial aim of undertaking this research was professional. The demands of leading an IPE module have previously been described (Section 1.4), and I knew that I was not alone in such a position. Conversations at external meetings and conferences had led me to believe that potential solutions were not easily reached, and that any potential solutions to running IPE in one institution would not necessarily apply in another (Section 1.1). My first aim, or purpose, (Bowling, 2014) was to gain an increased understanding of how the IPE module works for students, and how it may be made better for students and staff. Such an aim was underpinned by the sentiment that might be stated colloquially as ‘what is going on here?’ (Becker et al., 1961). A recognised adjunct to this aim was the opportunity to identify insights which might be transferable to IPE leaders in other institutions. The second aim was to identify mechanisms to improve collaboration between the respective groups of health and social care professionals, gaining a deeper understanding of factors, including attitudes, that might inhibit collaboration. Therefore, the research question is how can the IPE module work better for staff and students to improve collaboration between health and social care professionals?

I was very mindful of the complexities inherent in IPE and believed that any single method of data collection risked creating as many questions as answers. Therefore, I decided that the use of a case study approach, with the module as the case, would facilitate an iterative style to the research. Such an approach would allow the development of objectives and data collection methods that would take into account and build on knowledge from analyses of previous tranches of data. Specific objectives are thus integral within each tranche of data collection.

One aspect that researchers are cautious about is that of defining the boundaries of a case. Several emphasise that the criteria for case study use need to be unequivocal and defensible

(Cohen et al., 2011; Denzin and Lincoln, 2011; Denscombe, 2010; Robson 1993; Guba and Lincoln, 1981). Denscombe (2010: 56) advocates the need for a case to be ‘fairly self-contained and to have distinct boundaries’. Merriam (2009: 40) uses the term ‘delimiting’ to describe such careful definition and containment proposing that it constitutes perhaps the most significant element of case study research, enabling detailed description and analysis of a ‘bounded system’.

Yin (2009) recommends that in order to define the boundaries of a case, research questions should be specified and that this will support clarification of the unit to be analysed. I took some reassurance from Yin’s view that composition of unambiguous questions can be problematic, and they may need to be revisited during the research process.

The following questions were devised to specifically address the aims and answer the research question.

Question 1

What conclusions can be drawn, and indicators for further research gained, from a questionnaire designed to elicit an understanding of students’ explicit attitudes towards working with other professions?

As mentioned previously, early in the research process I realized that I had only a superficial understanding of the term ‘attitudes’, and that although commonly linked with IPE other research appeared to take the term at face value (Section 1.5). Having determined to explore the concept further, I wanted to gain some formative understanding from which I would have the opportunity to develop my thinking. Being aware of how my own professional values influence my thinking it seemed important to gain an understanding of the perceptions of other health and social care professions. While it was recognized that any conclusions would be context dependent, I thought an aspect of quantitative data would provide an initial foundation on which to build further data collection methods.

The importance of attitudes to successful collaboration in health and social care has been discussed for decades (Horder, 1977), and it has been recognised that attitudes have integral explicit and implicit components (Wood, 2000; Cialdini et al., 1981; Fishbein and Ajzen, 1972), and that in any assessment of attitudes, or attitude change, measurement of both has been recommended (Oswald et al., 2013; Perugini et al., 2012; Grumm et al., 2009; Whitfield and

Jordan, 2009). It was thought that, as a previously used method (Bain et al. 2014; Wakely et al., 2013; Hayashi et al., 2012; Hansson et al., 2011; Ateah et al., 2011; McFayden et al., 2010; Curran et al., 2010; Atack et al., 2009; Pollard and Miers, 2008), an initial data collection exercise would be the design and implementation of a questionnaire to gain a level of insight into students' explicit attitudes towards collaboration (Section 3).

Question 2

What inferences can be drawn from healthcare students' drawings of members of professions?

My own experiences as a healthcare professional, working in both the NHS and academia, have suggested that professional groups tend to stereotype other professions. Such examples have long been recognised, such as a nurse being caring and doctors being arrogant (Carpenter, 1995). Stereotyping can be regarded as symbiotic with attitudes as both encompass evaluative judgements that guide an individual in making sense of their social environment (Maio and Haddock, 2009; Stangor, 2000). Previous experiences of asking students to draw simple diagrams of named professionals had suggested that such stereotypical categorisation both endure and precede qualification. It was thought that, using students' drawings as illustrations, the concepts underpinning stereotyping could be explored at depth, creating an opportunity to discuss the implications, and suggestions for, teaching.

As explained previously, one of the first texts I read as part of my doctoral study was 'The Nature of Prejudice' (Allport, 1954) (Section 1.9.1). I had seen the theory cited in journal articles and my own experiences in the clinical environment had led me to believe that some health and social care professionals may be prejudiced against each other. After reading and reflecting on the theory I developed an activity for the students to do in a teaching session. The activity required the students to draw their perceptions of different professions, for example, a doctor and a nurse. On each occasion students tended to draw stereotypical figures. While this was not altogether surprising, the frequency and extent to which the stereotypical features drawn contradicted contemporary practice raised concerns about students' attitudes towards other professions, and therefore by extension towards collaboration. I thought that analysing these drawings might highlight information relevant to students' attitudes towards other professions. It

was hoped that inferences could then be made about students' attitudes towards cross-professional collaboration (Section 4).

Question 3

How might service user narratives (see section 5.1 for exploration of the term 'service user') influence students' attitudes towards collaboration?

As mentioned previously (section 1.8) the centrality of the service user in health and social care may be seen as both desirable and sometimes, and unfortunately, a causative factor in failures of care. Previous experiences of integrating service users into the IPE module have raised some questions on the nature of the interaction between their narratives and students' learning (Clarke, 2015; Perry et al., 2013; Rush, 2008). Having observed previous sessions during which service user narratives were used I felt I did not sufficiently understand how the narratives influenced the students' learning. The inclusion of this question within the case study was thought to be both potentially useful to other educators and also provided an opportunity to recognise the importance of the service user perspective in health and social care.

In accordance with many such as Howkins and Bray (2008), service user narratives have been included as a focus on the IPE module since I became module leader, as it seemed that care of the service user was one aspect that all the students would have in common. The language used in feedback from the students to the service users was consistently notable in terms of the potency of words used and strength of sentiments expressed (Section 5.1). For example, phrases such as 'I promise I will always...' and 'you have inspired me to...' occurred repeatedly. The reasons for this were not obvious and suggested that students regarded service user narratives as different, and perhaps more compelling than conventional teaching by a member of staff. Using this feedback as a form of naturally occurring data seemed to be a readily available opportunity to gain insight into the students' perspectives (Section 5). It would also seem to be comparable with the use of documentary evidence as advised by Yin (2009).

Question 4

Using the two qualitative data collection methods of a focus group and individual interviews, what information can be gained about the learning, teaching and assessment

facilities afforded by the IPE module on the influence of the students' attitudes towards collaboration?

As mentioned previously, the IPE module is taught to a very large group of students within institutional and organisational constraints, which requires creativity to create authentic and useful learning and teaching opportunities (Section 1.4). Through both formal and informal feedback mechanisms some activities are recognised as more influential than others. Interviews and a focus group with students were designed to gain a greater depth of information on the different aspects of the module than is achievable through standard, institutional evaluative methods (page 10) so that inferences could be drawn on the influence of the module on the students' attitudes towards collaboration.

Question 5

What information can be determined from a focus group with members of the teaching team that is either in accordance with, or dissimilar to, opinions expressed by students or my perceptions as module leader?

As module leader I have long recognised that members of staff, both within the teaching team and beyond, have disparate opinions of the IPE module and what it is aiming to achieve. A focus group was designed to identify whether there were any similarities or disconnect between the perceptions of members of the teaching team, myself and students with the aim of identifying confounding factors and opportunities that may result from this increased insight.

The use of interviews and focus groups with the students, and a focus group with members of the teaching team seemed to be sources of data that might provide insight into any varying ontologies, as opinions based on individual experiences could be discussed (Sections 6 and 7). Stake (1995) suggested that the researcher can expect each participant to have had a distinct experience and Hamilton and Corbett-Whittier (2013) advise that such data collection methods are likely to be among the richest sources of data. The student interviews were video-recorded with the aim of examining the recordings for aspects of body language that may indicate implicit attitudes.

These questions were derived in an iterative process, and it is acknowledged that my knowledge, understanding and perceptions as module leader were significant in their development. Each

successive instance of the module allowed me opportunities to observe activities and interactions, and so increase my understanding of where possibly suitable avenues for investigation were. However, it was not a uni-dimensional process, as the students' interactions and activities were meaningful in the sense that they influenced the choice of data collection methods. For example, the nature and manner of some observed discussions indicated that it might prove valuable to include individual interviews. While a brief background to each of the questions has been given at this point, more detailed discussion will be included in subsequent chapters of this submission.

2.3 The case study boundaries

In higher education institutions that I have experience of, it is typical that, although modules are integral within a programme of study, they function as discrete units. It could be argued that modules within a programme may have a level of impact on each other, and IPE would be no exception. Therefore, although the module being studied is a relatively bounded unit it is acknowledged that there may be undetectable and unquantifiable influences from profession specific programmes.

The temporal boundary of the case study was across three academic years, namely 2013-14, 2014-15 and 2015-16. During this time period six disparate batches of data were collected (Appendix 2, Table 2.1).

Successive module instances tended to have different members of staff on the teaching team. Therefore, the boundary of the case study included any member of staff allocated to the teaching team at any time during the time-frame of the study.

The boundaries of the case study included taking account of relevant national events. Appendix 1 includes a synopsis of some typical, relevant events, some of which occurred during the study period. These included the conviction, imprisonment and death of Daniel Pelka's mother, the publication of The Francis Report (2013) and that of the report of the Morecambe Bay Investigation (Kirkup, 2015). Such is their significance that the module content necessarily evolved to include contemporary events. It is a consequence of the timing of such events that their salience will vary with cohorts studying the module during the data collection period. It is recognised that this may be either viewed as a complication or as an illustration of the strength of

the relationship of case study data to reality, however such events are likely to be unavoidable (Bassey, 1999; Gerring, 2004).

Gerring (2004) offered reassurance to case study researchers suggesting that a single case could be regarded as an example of a wider phenomenon. He also cautioned against case studies providing evidence of causal relationships, suggesting that descriptive inference was a more realistic outcome. He cited strength of case study as the depth of analysis possible, the likelihood that results would be comparable to other phenomena, while the limited generalisability was an accepted restriction.

2.4 Outline of data collection methods

2.4.1 Explicit measurement of attitudes

Having determined attitudes as a focus for this research I returned to the conundrum of the apparent assumption that IPE is intended to be instrumental in influencing students' attitudes. Although it was thought that such an intention may either be based on that associated with profession-specific education in general (Section 1.5) or that failures in collaboration have been cited in instances of failures in care (Kirkup, 2015; Francis, 2013; Laming, 2003) it seemed a logical beginning to the research. As other researchers had done previously, a questionnaire was designed and implemented to gain an insight into students' explicit attitudes towards collaboration in a pre- and post-test design, which was administered before the IPE teaching commenced and after the students had experienced some of the module activities (Cloutier et al., 2015; Dominguez et al., 2015; Foster and Macleod Clark, 2015; Gould et al., 2015; Heath et al., 2015; Kadar et al., 2015; Roberts and Forman, 2015).

2.4.2 Investigation of relevant stereotypical views that might impact on attitudes towards collaboration

There appeared to be some synergy between Allport's theory (1954) on the links between pre-judgement and development of prejudice with the concept of stereotyping (Carpenter, 1995). Mindful of the distinction between explicit and implicit attitude measurement (Ratliff and Nosek, 2010; Greenwald et al., 2009; Payne et al., 2008) it appeared apposite to collect some data, where the students were less aware of the exact focus of data being examined, as previously stereotypes have been explored using questionnaires (Foster and MacLeod Clark, 2015; Ateah et

al., 2011; Hean et al., 2006; Lindqvist et al., 2005). It was thought some data of interest could be obtained from the drawing activity mentioned previously (Section 2.2.5).

2.4.3 Investigation of the influence of service user narratives

A second element of naturally occurring data that seemed relevant to examine as an aspect of the case study was the feedback given to the service users by the students as it had repeatedly been a source of interest (Section 2.1.4). The relevance was thought to have two rationales; the first being the centrality of the service user in IPE (Jackson and Bluteau, 2009; Barr et al., 2005) and the second was the feedback that the session had consistently received. It was not clear why there appeared to be a difference between a member of academic staff describing a service user experience and the service user describing it themselves (Lorimer, 2016).

2.4.4 Investigation into the opinions of students and members of the teaching team

It was noted that focus groups are often used in research that intends to analyse qualitative data on attitudes (Krueger and Casey, 2015; Jayasekara, 2012; Massey, 2011; Morgan, 1997; Krueger, 1994), and that they can be used to follow a survey to gain greater insight (Winlow et al., 2013; Massey, 2011; Brown, 1999; Sim and Snell, 1996). They were thought to be particularly appropriate to this research as the mixed profession group interactions, be that students or staff, implicit within the focus groups could be thought of as correlational with IPE.

2.4.5 Interviews to gain an increased understanding of students' opinions

For the purpose of this research it was thought that individual, semi-structured interviews with students had the potential to add further information than that achieved in the focus group. The most significant reasons for this were the observations that participants may have been deterred from articulating an opinion if they thought it dissimilar to others (Winlow et al., 2013; Stewart et al., 2007; Sim and Snell, 1996), and that there would be greater opportunity to gain insight into individual responses, which may not have been possible within the dialogue of a focus group (Krueger, 1994).

2.5 Proposed synergy between the case study and the theoretical framework

As both the theoretical framework and the decisions on data collection methods used developed iteratively, and as consequences of my experiences as module leader, I thought that they were

complementary and cohesive. Although the decision to include the students' drawings and feedback to the service users had been recognized as intriguing by my supervisor, the decision to include them as data sets was not confirmed until the analysis of the questionnaires was established. Similarly, inclusion of cognitive dissonance theory within the theoretical framework originated from my experiences as module leader as the dichotomous nature of the feedback on the IPE module suggested it might be relevant for some students.

Administration of the two questionnaires was thought to be a suitable tool to establish some baseline data on any generalisations or pre-judgements that the students may have prior to undertaking the IPE module and whether these are different after some IPE teaching. Both the questionnaires and the students' drawings were thought to have the potential to create findings that could be reviewed with respect to Social identity theory.

I thought that both the focus groups and the individual student interviews would allow insight into the effects of groups, both professional and mixed professional, behaviours, and any impact that might be attributable to the IPE module. The influence of both uni-professional education and IPE might be evident from both methods of inquiry.

Although rather challenging to articulate, having run the service user session several times, and been made aware of both the students' reactions to the speakers and the nature of their feedback I believed that some aspects of transformational learning were occurring.

The following five sections will each describe and explain individual aspects of data, each utilizing a different technique. The final section of this thesis will draw the disparate elements together to offer synergistic and convincing insights that will be of relevance to others.

3 Questionnaires to identify and examine any attitude change

3.1 Introduction

As previously mentioned (Section 1.7), there are both advantages, such as a large number of potential participants, and disadvantages, for example the questionable reliability, in using self-completed questionnaires to examine attitudes to collaborative working (Hanyok et al., 2013; Pollard and Miers, 2008). However, with my first goal being to gain a greater understanding of the students' perceptions of the module than is achievable with the MFQ, I decided that obtaining and examining some quantitative data would be a logical initial foundation on which to build the case study. It should be emphasised that the purpose of the questionnaire phase was to elicit descriptive statistics to inform the wider, developing study.

3.2 The context of questionnaire implementation in IPE

On reviewing published literature, it is evident that there are various validated tools which have been used to evaluate IPE (Bainbridge et al., 2015; Dojeiji et al., 2015; Dominguez et al., 2015; Hojat et al., 2015; Archibald et al., 2014; McFayden et al., 2010). I have taken support for my own perceptions from the suggestion made by Thistlethwaite et al. (2015) that the most commonly used and adapted tool appears to be a questionnaire designed to assess the readiness of healthcare students for interprofessional learning (RIPLS), (Parsell and Bligh, 1999). There is a plethora of published articles using the original, translations or derivatives of the RIPLS tool.

The aim of RIPLS was to examine the attitudes of undergraduate healthcare students towards interprofessional learning (IPL) (Parsell and Bligh, 1999). A set of characteristics, which were thought to be required for positive IPL, were compiled into four domains, one of which has parallels with my study. The domain that I thought relevant for my research concerned the values and beliefs that were judged as being influential in relationships between distinct groups of professionals. It was proposed that this domain was concerned with 'variation in attitudes between professional groups' (Parsell and Bligh, 1999: 96).

In common with many other similar instruments, RIPLS uses a set of statements with a self-completed Likert scale element on which participants indicate their level of agreement, often in a pre- and post- test strategy (Cloutier, 2015; Dominguez et al., 2015; Foster and Macleod Clark,

2015; Gould et al., 2015; Heath et al., 2015; Kadar et al., 2015; Roberts and Forman, 2015). One potential strength of the many studies based on RIPLS could be that they variously involved undergraduate and postgraduate participants in dissimilar environments, (such as community mental health nursing, palliative care and acute healthcare teams), from a variety of professions (including some less obvious ones such as psychology and alternative medicine) in multiple countries. However, a limitation of the test-retest strategy is that any changes cannot be unquestionably attributed to the intervention, as there are likely to be concurrent influences, such as relevant media reports which may impact on participants' responses (Oppenheim, 1992) a dilemma that has been previously considered (Section 2.2).

When planning my initial phase of data collection, I considered using a tool such as RIPLS. I identified that although a questionnaire would not facilitate a detailed level of understanding, it might provide some initial quantitative data (O'Carroll et al., 2016). I thought the notion that the achieved data could subsequently be used in a formative manner (Bainbridge et al., 2015) and inform further data collection methods suited my purpose at the early stage of the study.

At that time (October 2013) my working research question was whether the IPE module had any effect on students' attitudes towards collaboration, and this presented two dilemmas. I was unconvinced that instruments such as RIPLS, designed to elicit attitudes towards interprofessional learning, would reliably produce information on attitudes towards collaboration, as they are separate and distinct concepts. The second difficulty was that I thought the construct of 'attitude' had been insufficiently examined and defined in published articles, with the result that what the tools were actually assessing was not overt.

Similar uncertainties about RIPLS have recently been more expertly examined in published literature (Mahler et al., 2015), with a deficiency in the underlying theoretical framework and how attitudes can be measured being two of the identified shortcomings perceived. In common with both my concerns and those expressed by Mahler et al. (2015), Neville (2015) also examined tools used to measure attitudes, albeit those of undergraduate student nurses caring for older adults. In a conclusion, analogous to that of Mahler et al. (2015) Neville also questioned the internal consistency of some scales, as measured by Cronbach's alpha.

Cronbach's alpha is a statistical test which can provide an indication of the reliability of a questionnaire; that is, a measure of the internal consistency (Tavakol and Dennick, 2011;

Cronbach, 1990). It can be used to demonstrate the degree to which different sub-scales in an instrument measure the same abstract, although it is recognised that both the homogeneity and length of the questionnaire will influence the result (Tavakol and Dennick, 2011; Cronbach, 1990). Both Mahler et al. (2015) and Neville (2015) cautioned researchers on the need to select the right instrument in order to be sure the intended aspect was being measured.

3.3 The use of questionnaires to measure attitudes

In order to maintain consistency, the definition of attitudes proposed by Allport will continue to be used as a basic construct; classically the term meant ‘a judgement based on previous decisions and experiences’ (Allport, 1954: 7) (Section 1.5). It has been repeatedly suggested that, in general, attitudes cannot be observed directly, and often may only be inferred from an individual’s responses or behaviour (Maio and Haddock, 2009; Eagly and Chaiken, 2007; Ajzen, 2005; Aiken 2002; Bohner and Wanke, 2002).

As previously mentioned (Section 1.6.1), any attitude measurement can be either explicit or implicit in nature, where explicit measurement includes the utilisation of tools where the participant is aware of what is being measured (Ratliff and Nosek, 2010; Thurstone, 1928 in Gawronski and Le Bel, 2008). The most commonly cited examples of explicit measurement are the semantic differential and Likert scales (Ajzen, 2005; Oppenheim, 1992). The semantic differential scale presents participants with pairs of opposing adjectives, separated by a scaled range of categories. Participants are required to indicate the category of response that accords most closely with their opinion (Osgood et al., 1957 in Hogg and Vaughan, 2008). The Likert scale differs, in that participants are asked to indicate their level of agreement or disagreement with a statement in a rather more dichotomous manner (Oppenheim, 1992).

Many psychologists have considered the measurement of attitudes as troublesome and complex (Sherman et al, 2009; Gawronski and Le Bel, 2008; Aiken, 2002; Bohner and Wanke, 2002; Eagly and Chaiken, 1993; Fishbein and Ajzen, 1972). While authors often agree on fundamental elements, there are many nuances, some of which are relevant to take into account here.

Literature suggests that explicit measures may be limited, as responses given by an individual will be reliant on the impression that the participant wants to create; this is liable to be particularly relevant when the topic under investigation is socially sensitive, e.g. racial attitudes

(Perugini et al., 2012; Whitfield and Jordan, 2009; Payne et al., 2008; Ranganath et al., 2008; Tenbult et al., 2008; Ajzen, 2005). I thought it was possible that some students' attitudes towards other health and social care professions, within the context of the IPE module, may have the potential to be construed by them as socially sensitive. The inescapable power differential when the research is being conducted by the module leader was also recognised as liable to have an impact on the data achieved (Trowler, 2016). One suggestion made by Ranganath et al. (2008) to increase the reliability of explicit attitude measures was to instruct respondents to complete the instrument at speed i.e. before implicit attitudes could become too great an influence.

Both Gawronski and Le Bel (2008) and Ranganath et al. (2008) concluded that feelings, particularly gut reactions, influence explicit attitudes and their measurement. It is relevant to IPE that feelings may be as important as knowledge when individuals are being exposed to novel learning experiences which may have the effect of creating new, or developing, their attitudes and it has been noted that such feelings can be related to a single learning opportunity (Ratliff and Nosek, 2010). This may, in part, be explained by the MODE model (Motivation and Opportunity as Determinants of Behaviour), which emphasises the influence of how salient, or easily remembered, an attitude is in influencing behaviour (Grumm et al., 2009; Whitfield and Jordan, 2009; Ranganath et al., 2008; Tenbult et al., 2008; Fazio, 1990).

A relevant point for IPE on a similar aspect is confirmation bias, which is the tendency to select information that supports prior attitudes (van Strien et al., 2016; Ratliff and Nosek, 2010). This is reinforced by the phenomenon of covariation, where individuals detect and predict relationships between events (Ratliff and Nosek, 2010; Goethals, 2007). The result may be that learning opportunities and experiences arising from the module have the effect of reinforcing attitudes towards collaborating with other professions. However, it should not be assumed that this will be positive in every case as students' attitudes towards collaboration may be either positive or negative. Festinger's (1957) theory of cognitive dissonance takes both confirmation bias and covariation into account and explains how individuals can evade information when the risk of increasing dissonance is perceived (Section 1.9.5), which has the potential to increase negative attitudes.

Having considered explicit measures, it follows that implicit ones are those where the participant is unaware (or less aware) of what is being measured and therefore these are less likely to be

affected by conscious thought (Wood, 2000; Cialdini et al., 1981; Fishbein and Ajzen, 1972.) Gawronski and Le Bel (2008) caution that explicit and implicit measures are likely to elicit information which demonstrates both homogeneities and heterogeneities and adopting a case study methodology for my study has allowed this to be exploited.

3.4 The rationale for questionnaire use

The use of questionnaires as a tool for data collection may be regarded as ubiquitous as it is generally acknowledged they are both versatile and extensively used (Artino et al., 2014; Ambrose and Anstey, 2010; Cohen et al., 2011; Richardson, 2005). Frequently cited advantages of questionnaires are the ease of administration and the structured nature of the information obtained, which being frequently in numerical form, is consequently regarded as straightforward to analyse (Cohen et al., 2011; Scheerder et al., 2009; Rattray and Jones, 2007; Marshall, 2005; Oppenheim, 1992).

Perhaps also because of their widespread use, there is a similar level of consensus on the limitations of questionnaires as a data collection tool. For example, the considerable amount of time taken to design, pilot and review questions together with the limited depth of data likely to be achieved are among the more often cited restrictions (Bell and Woolner, 2012; Booth, 2005; Oppenheim, 1992). It is in the light of such limitations that some authors suggest that questionnaires should be used in conjunction with other data collection techniques (Scott, 2012; Grix, 2010; Marshall, 2005; Oppenheim, 1992), as the challenges of creating questions that are explicit and easily understood are acknowledged and the design of questions may influence the information achieved (Artino et al., 2014; Ambrose and Anstey, 2010; Rattray and Jones, 2007; Murray, 1999).

When implementing a case study approach, an initial survey of a moderate number of people may be used to generate quantitative, non-specific information, which may then give the researcher a broad understanding (Hamilton and Corbett-Whittier, 2013; Swanborn, 2010; Gerring 2007; Stenhouse, 1980). I thought it was relevant for my study to conduct an initial survey of a student cohort to attempt to gain an initial insight into their interpretation of the concepts under investigation. This was in cognisance of the probability that different groups may have disparate interpretations, and it would provide an opportunity to look for relationships between putative epistemologies (Trowler, 2016; Keen and Packwood, 1995; Stake, 1995).

The opportunity to assimilate both quantitative and qualitative methods within case study research has been noted as a strength (Hamilton and Corbett-Whittier, 2013; Yin, 2009; Gerring, 2007) with the broad understanding from the quantitative data being subsequently used to generate more detailed questions. With particular relevance to my study, Hamilton and Corbett-Whittier (2013) used questionnaires and interviews as a specific example to illustrate this initial approach to using multiple methods.

This section has already mentioned the widespread use of questionnaires in IPE (Section 3.2). The size of IPE cohorts (Section 1.3) may be interpreted as significant in many research studies on IPE, as large numbers of potential participants and cost effectiveness are often cited as influential when deciding data collection methods (Rattray and Jones, 2007; Marshall, 2005; Richardson, 2005).

3.5 The questionnaire design

Having decided that my first phase of data collection would be to attempt to devise and implement an instrument to measure students' explicit attitudes towards collaboration I recognised that any conclusions drawn from the data would necessarily be limited, but that it could provide a level of formative understanding, as suggested by several authors (Hunt and Lathlean, 2015; McLaren, 2013; Wilson, 2013). Following a breadth of reading, I realised I needed to be quite clear about what I was attempting to measure (Crano et al., 2015; Artino et al., 2014; McLaren, 2013; Wilson, 2013) and this prompted and supported the development of three objectives for this phase of the study;

- To examine students' declared perceptions of the attributes required for collaboration
- To examine students' declared opinions of other health and social care professions
- To attempt to assess if students indicated different opinions immediately prior to the teaching week, compared to those towards the end.

From these objectives, I undertook further literature searching and a 'brainstorming' process which resulted in a large bank of characteristics. I was then able to review these to ensure they were related to the key concepts of 'attitudes' and 'collaboration', rejecting those that I regarded as potentially confusing, ambiguous or less relevant (Crano et al., 2015; Jones and Rattray, 2015; Giles, 2002). The characteristics were then used to develop a questionnaire that would meet the

objectives (Ambrose and Anstey, 2010) using both Likert and semantic differential scales (Appendix 3).

The Likert scale is regarded as the most commonly used (Giles, 2002) and more efficient than other scales such as the Thurstone or Guttman scales (Crano et al., 2015). However, there is conflicting advice in the literature over the presentation of Likert scales, with the inclusion of a neutral or undecided category being contentious. Some suggest that five categories are most common (Wilson, 2013; Saris and Gallhofer, 2007) and decrease the risk of non-response (Jones and Rattray, 2015) while others state that a neutral point should not be offered as it can encourage a lack of thoughtful engagement (Crano et al., 2015; Giles, 2002). Having reviewed the questionnaires to which the students are commonly exposed to within the institution I decided to include the five categories.

The semantic differential scale was pioneered by Osgood in the 1960s and is regarded as a popular method of assessing attitudes and subjective interpretations of concepts (Crano et al, 2015; Wilson, 2013; Hogg and Vaughan, 2008; Ajzen, 2005; Aiken, 2002; Bohner and Wanke, 2002; Oppenheim, 1992). It was included in addition to the Likert scale as it might be thought of as being both simpler to read and less likely to be misinterpreted, possibly resulting in higher internal consistency (Crano et al. 2015).

3.6 Content of the questionnaire

The questionnaire was designed to have seven sections and can be summarised as follows;

- | | |
|-----------|-----------------------------------------------------------------------------------------------------------------------|
| Section 1 | unique identifier |
| Section 2 | questions requesting demographic data |
| Section 3 | questions about student nurses (items 1; 2 a-j; 3 a-c) |
| Section 4 | questions about student paramedics (items 1; 2 a-j; 3 a-c) |
| Section 5 | questions about student pharmacists (items 1; 2 a-j; 3 a-c) |
| Section 6 | questions about medical students (items 1; 2 a-j; 3 a-c) |
| Section 7 | questions about collaboration, collaborative working, communication and knowledge of professional roles (items 7 a-k) |

Section 1

The first page of each questionnaire asked the student to complete a two-part unique identifier composed of their day and month of birth expressed as a four-digit number, and the destination of their last holiday. It was anticipated that, given the number of students in the cohort, it was likely that there would be students who shared the same birthday, and therefore a further category of identifier was required. Although it was recognised that this might be overcome by asking for their date of birth this was discounted as being information that made the participants potentially identifiable. The aim was that following completion of both questionnaires, it would be possible to use the information to collate the questionnaires into pairs, so that an indication of pre and mid-module responses could be analysed, and potential changes therein detected.

Section 2

The first page also asked students to indicate their gender, age group and profession. The limited demographic information was requested to facilitate the identification of any correlation between gender, age group and espoused perceptions. Each student was asked to indicate to which professional group they belonged, so that participants' attitudes, and any attitudinal change, to their own or other professions, would be indicated.

Sections 3 to 6

Each questionnaire was then sub-divided into four identical sections. There were separate sections to complete in relation to each of the professional groups that students would meet and work alongside during the module. There was also a section of questions about medical students, who would not be present on the module. Each section considered a specific profession (section 3 -student nurses; section 4 - student paramedics; section 5 - student pharmacists; section 6 - medical students). The sections asked participants to complete a set of questions on their perceptions of the attributes of each of the named professional groups. Questions were based on personal qualities such as compassion, collaborative working skills and willingness to take responsibility.

The first question was on compassion and asked respondents to indicate how compassionate they would describe the named health professions to be. It was designed so that respondents gave

their personal impression (Oppenheim, 1992), which could subsequently be compared in the pre-module and mid-module questionnaires.

The second question used the semantic differential technique and a number of pairs of opposing evaluative adjectives were listed e.g. kind... unkind. Respondents were required to indicate their level of agreement in respect to the named profession, therefore indicating their espoused explicit attitudes (Hogg and Vaughan, 2008; Ajzen, 2005; Aiken, 2002; Bohner and Wanke, 2002; Oppenheim, 1992).

The third question employed a Likert scale with a continuum of attitude indicators ranging from strongly disagree to strongly agree using three items associated with collaborative working which offered the respondents the opportunity to indicate their subjective opinions on the abilities of each of the professions to collaborate.

Section 7

The concluding section asked the students to indicate their perceptions of their own attitudes towards collaboration, their knowledge of other professions, and was designed to provide information to support the third objective of this phase of the study, namely to attempt to assess if students indicated different perceptions immediately prior to the teaching week, compared to those towards the end.

3.7 Consideration of the ethical implications

As with all research involving human participants, it was important that ethical implications were considered from the initial planning stages to ensure that the information being sought did not already exist (Scott, 2013), and that the study had the potential to result in improvements to the module (Johnson and Long, 2015; Basit, 2013; Oliver, 2010). In accordance with institutional requirements ethical approval and consent were gained prior to the start of any data collection (Protocol number EDU/PG/UH/00407, Social Sciences, Arts and Humanities ECDA: Appendix 23).

Trowler (2016) has suggested that when undertaking insider research there are particular complexities, such as power, that are pertinent. Power was thought of as being directly relevant to the process of obtaining informed consent, as students are necessarily going to be aware of a

power differential (Parsell et al., 2014), which could result in perceived coercion (Johnson and Long, 2015). Oliver (2010) believed the presence of hierarchy, as in this study, would always have the consequence that some may feel obliged to participate and that the need to maintain an ethical relationship with the potential participants was essential.

I considered several aspects underpinning informed consent in this phase of data collection, and integral to this was considering the students' perspectives (Stuchbury and Fox, 2009). The first was ensuring I showed the students proper respect (Johnson and Long, 2015) by giving them a concise but specific and sufficient explanation of the study (Appendix 4) and adequate time to consider their participation, allowing them the opportunity to make an informed choice (Johnson and Long, 2015; Jones and Rattray, 2015; Scott, 2013; Basit, 2013; Oliver, 2010; Raffe et al. 1989). A number of authors are of the opinion that demonstrating proper respect includes appropriate dissemination of results (Scott, 2013; Raffe et al., 1989), and the completion of my doctoral study is regarded as required to fulfil this obligation.

Measures required to maintain participant anonymity and confidentiality were recognised as important (Johnson and Long, 2015; Scott, 2013; Raffe et al., 1989) and to fulfil these obligations very limited personal data were collected and completed questionnaires were returned to sealed boxes. The demographic information requested was not sufficient to identify individual students. Participants were not required to return completed questionnaires, maintaining their right to withdraw from the study. The final considerations were ensuring a reasonable level of sensitivity of questions asked and designing a questionnaire that demonstrated methodological thoroughness (Cohen et al., 2011). To achieve these ideals overly emotive adjectives were avoided and care was taken to allow the participants the opportunity to demonstrate a wide variety of views.

3.8 Method

3.8.1 Implementing the questionnaire

A simple questionnaire was constructed (Appendix 3). Two identical sets of copies were produced, each set on different coloured paper. The first was titled a 'pre-module questionnaire' and the second a 'mid-module questionnaire'. Students were invited to complete the pre-module questionnaire during an induction session before the start of the teaching. They were

subsequently invited to complete the mid-module questionnaire towards the end of the first teaching week.

The first round of data collection was conducted in January 2014. The total number of students in the cohort was 380. The breakdown of the cohort by profession was as follows; student nurses = 176 (46%); paramedic students = 23 (6%); pharmacy students = 181 (48%).

During an introductory session, the students were invited to complete the pre-module questionnaire. The completed questionnaires were returned to a sealed box and return of completed questionnaires was taken as consent. Towards the end of the first teaching week the same process was repeated when the students were given the mid-module questionnaire.

3.8.2 Analysing the data

After the pre- and mid-module questionnaires had been returned a number of procedures were performed. Each questionnaire was scrutinised, in terms of completeness, uniformity, and accuracy, such as of the identifiers. Those that were judged as incomplete were removed from the sample and reserved. Using the two elements of the unique identifier in section one the questionnaires were sorted into pairs. This resulted in 82 completed pairs which were then available to be used for descriptive and inferential statistical analysis.

3.8.2.1 Statistical analysis

Initially the data was entered into a spreadsheet and each response was given a numerical score. For question one, allocated scores were between 1 and 4, where 4 = very compassionate and 1= not compassionate. For questions two and three, the positive attributes were scored with a positive number of up to +3, with -3 being allocated for the most negative responses. Neutral responses were scored as zero. This was completed for both versions of the questionnaire. Subsequently the questionnaire (Appendix 3) has had such notations added in italics for the purpose of clarity in this thesis.

Each section of both questionnaires were then examined individually. In sections three to six, mean scores were calculated for the difference in the espoused attitudes towards the respondent's own profession and each of the others. In section seven, changes in responses were calculated for the whole cohort and individual professional groups. A positive difference in a mean therefore indicated an increase in score on the mid-module questionnaire compared to the pre-module

version, and therefore a subsequent more positive rating of an attribute. Two items were reverse scored (arrogant-humble on question two and poor listeners on question three). Standard deviations (SD) were calculated for each mean, with the higher SD values indicating a wider range of views in the responses. The smaller SD scores were regarded as indicating less variation in expressed opinions. Results were regarded as more significant where there was a larger change in the mean and a smaller SD score.

The non-parametric Wilcoxon test was then used because the data was ordinal and the sample size relatively small (Dancey and Reidy, 2002). The differences between the scores on the two questionnaires were identified and ranked using the Statistical Package for the Social Sciences (SPSS) which created a standardised z-score, with the larger z-scores indicating a more significant change in responses between the two questionnaires. The associated p-values were recorded to demonstrate the likelihood of the changes happening by chance (Dancey and Reidy, 2002), with any value less than 0.05 being regarded as significant.

A number of graphs were created that illustrate the changes in the means between the pre-module and mid-module questionnaires, where any positive score on the graph represents an increase in score on the second questionnaire.

3.9 Results (Detailed numerical scores in Appendix 5)

3.9.1 Response rate

	Pre-module	Mid-module
Number of students in attendance	346	323
Number of returned questionnaires	180	113
Percentage returning questionnaires	52%	35%

Table 3.1: questionnaire response rate

Unfortunately, only one paramedic student completed and returned both questionnaires and these therefore had reluctantly to be removed from the sample for analysis.

The second section of the questionnaire asked the participant to indicate some demographic data (gender and age group) and also their profession.

Profession	Gender	Age Group				Total
		Not stated	Under 20	21-30	31-40	
Nurse	Male	0	0	1	0	0
	Female	0	5	29	5	2
Paramedic	Male	0	0	0	0	0
	Female	0	0	1	0	0
Pharmacist	Male	1	4	4	0	2
	Female	0	6	21	1	0
Total		1	15	56	6	4
						82

Table 3.2: Questionnaire response rate by profession, age and gender

3.9.2 Results of questionnaire sections three to six

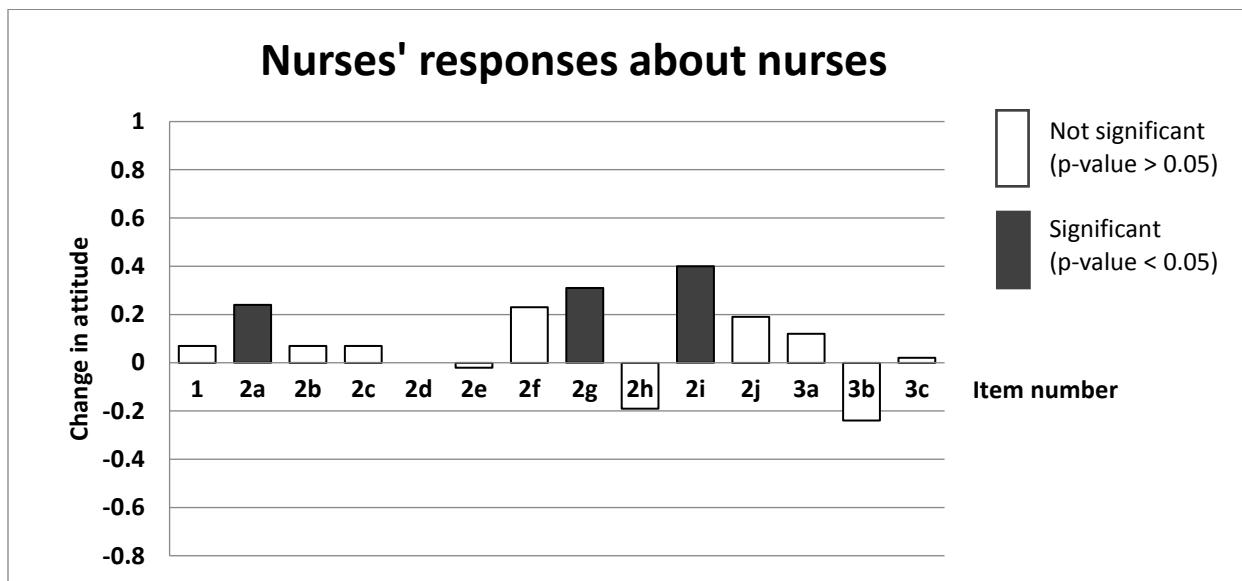


Figure 3.1: A summary of the changes in explicit attitudes of nurses about nurses

This set of responses indicates significant increases in perceived kindness, how approachable and academically able nurses regard other nurses to be.

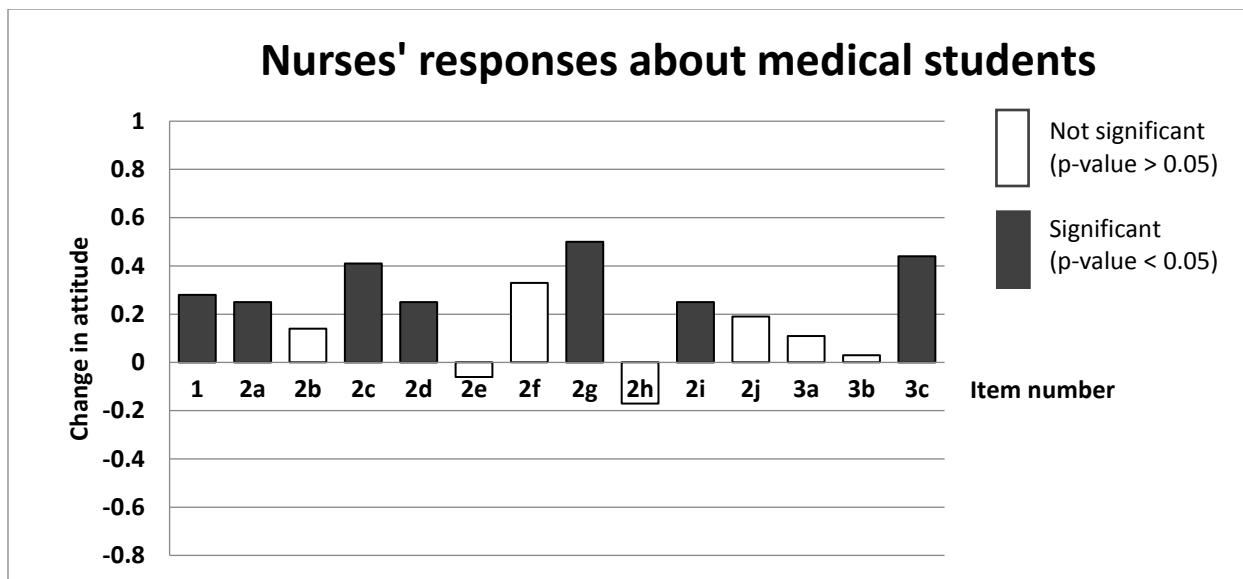


Figure 3.2: A summary of the changes in explicit attitudes of nurses about medical students

The responses indicate significant increases in perceived levels of compassion, kindness, respectfulness, caring, approachability, academic ability, ability to take responsibility.

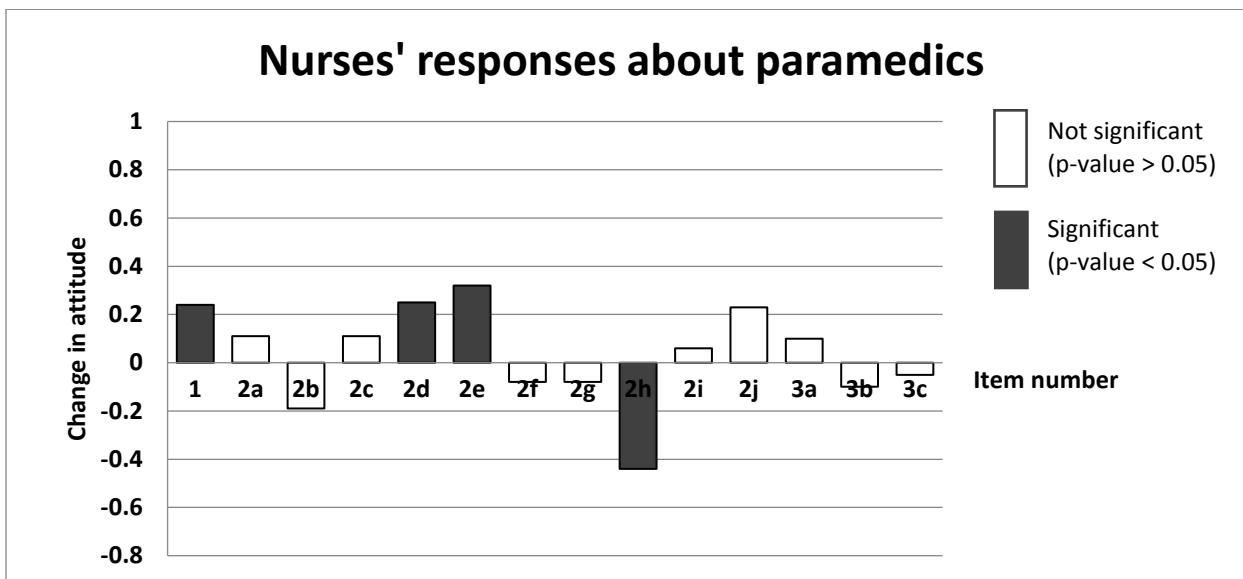


Figure 3.3: A summary of the changes in explicit attitudes of nurses about paramedic students

The responses indicate significant increases in perceived levels of compassion, caring, devotion and a significant decrease in how arrogant paramedics were thought to be.

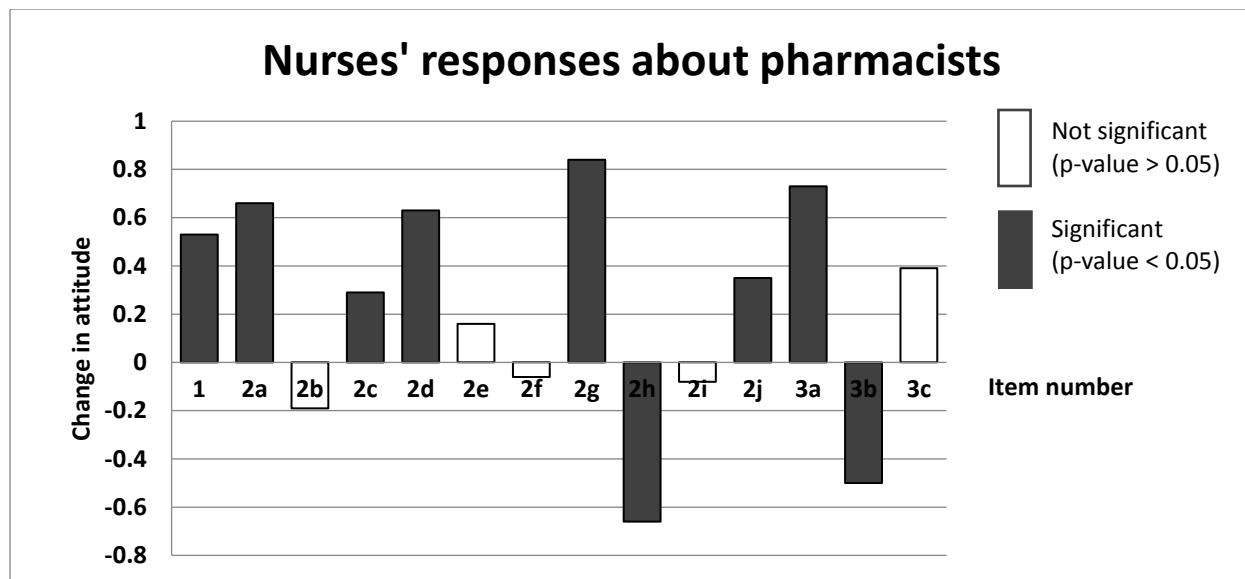


Figure 3.4: A summary of the changes in explicit attitudes of nurses about pharmacy students

The responses indicate significant increases in perceived levels of compassion, kindness, respect, caring, approachability, work ethic, and team-working. There was a significant decrease in how arrogant pharmacy students were perceived and also a significant decrease in the perception of their being poor listeners.

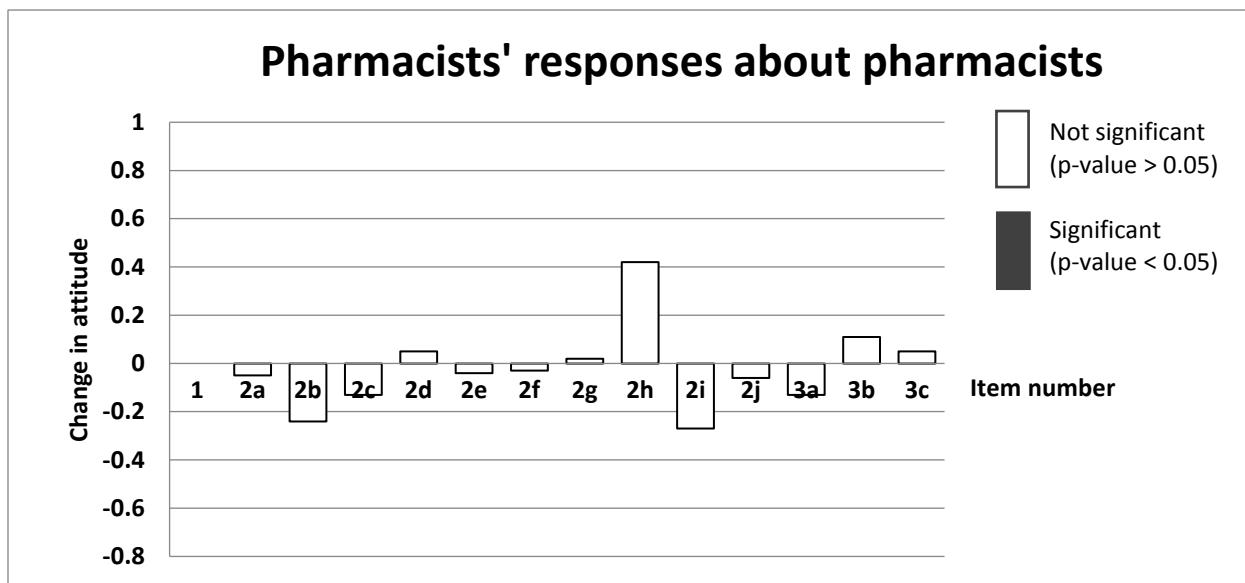


Figure 3.5: A summary of the changes in explicit attitudes of pharmacy students about pharmacy

The responses indicate no significant changes in any attributes.

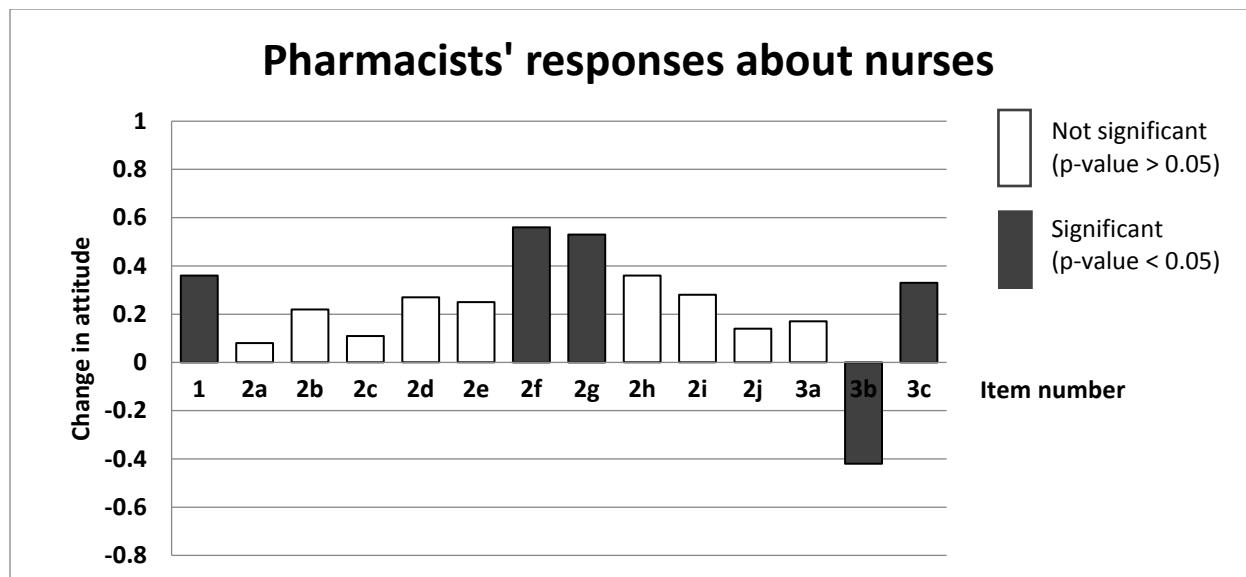


Figure 3.6: A summary of the changes in explicit attitudes of pharmacy students about nursing students

The responses indicate significant increases in perceived levels of compassion, confidence, approachability, and taking responsibility, while there was a decrease in the perception of their being poor listeners.

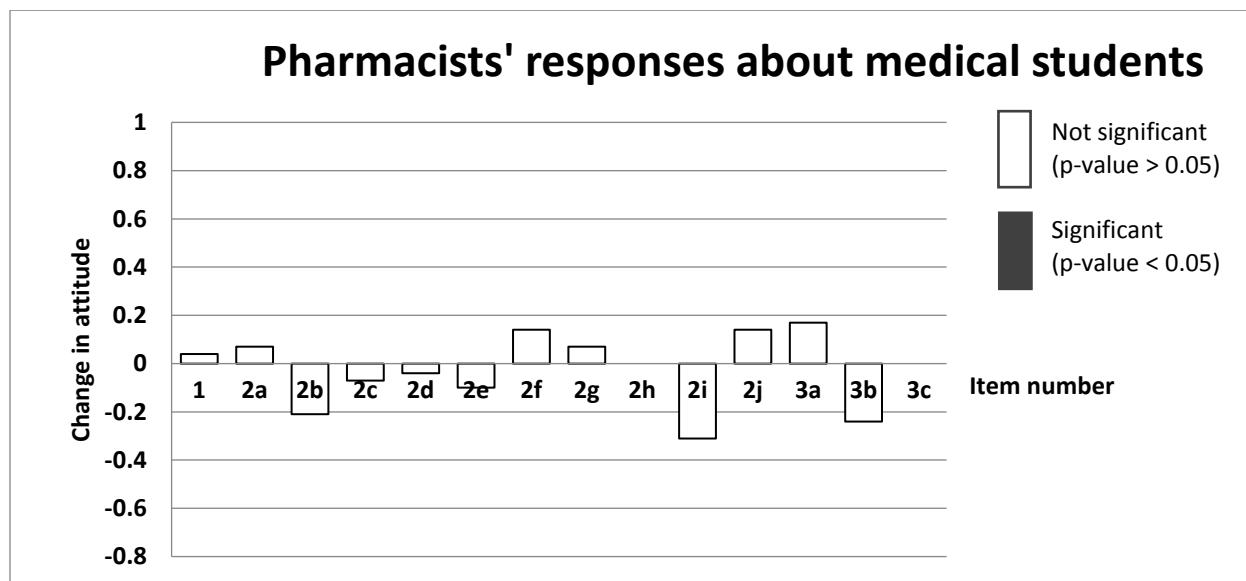


Figure 3.7: A summary of the changes in explicit attitudes of pharmacy students about medical students

The responses indicate no significant changes in any attributes.

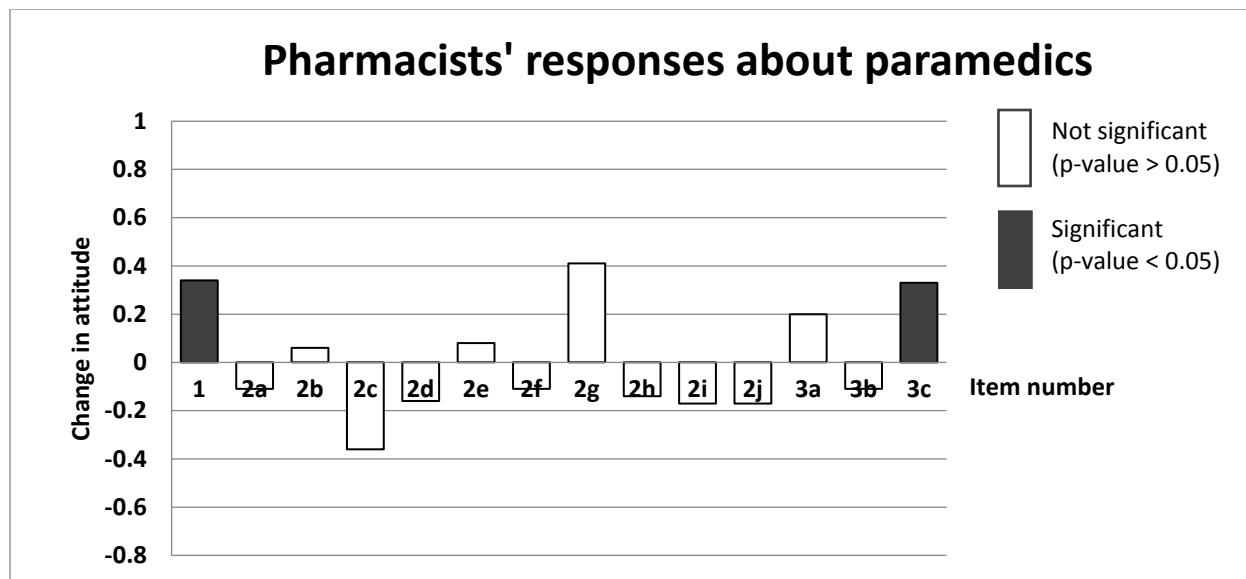


Figure 3.8: A summary of the changes in explicit attitudes of pharmacy students about paramedic students

The responses indicate significant increases in perceived levels of compassion and ability to take responsibility.

Section Seven

Section seven required the students to complete a Likert scale in response to eleven statements.

The statements were as follows;

- 1 Collaboration in healthcare is easy
- 2 I need to learn more about collaborating with other professionals
- 3 Learning to collaborate with other professionals is important
- 4 Team working skills are important in healthcare
- 5 My team working skills are good
- 6 Good communication skills are important in healthcare
- 7 My communication skills are good
- 8 I know about nurses' professional role
- 9 I know about pharmacists' professional role
- 10 I know about paramedics' professional role
- 11 I know about doctors' professional role

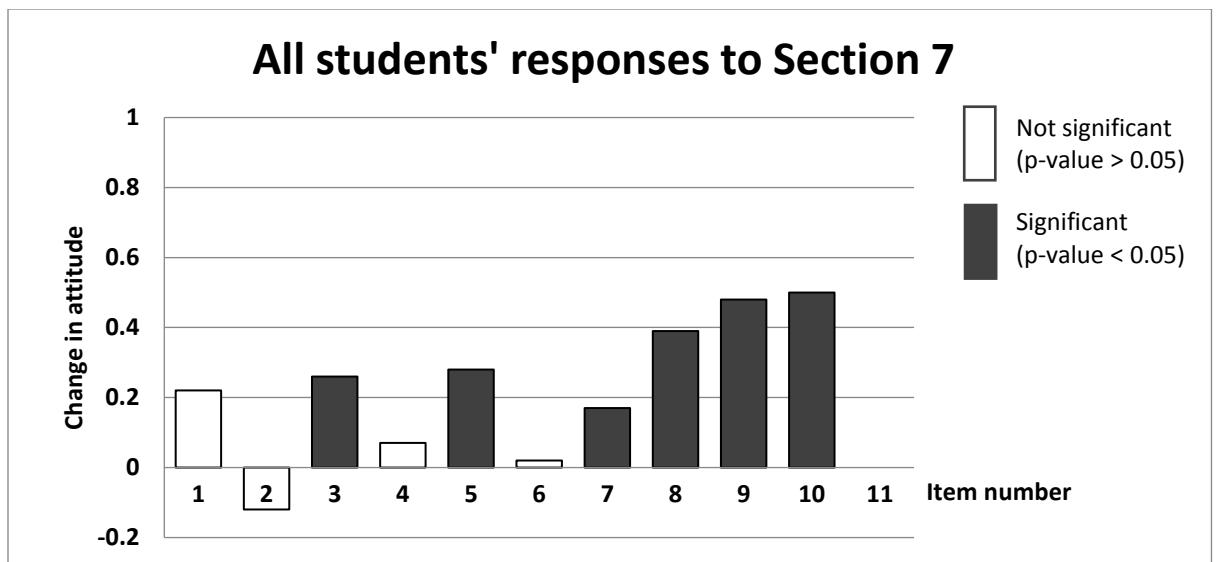


Figure 3.9: A summary of the changes in explicit attitudes of the whole cohort towards collaboration, team-working and communication skills and knowledge of other professions.

The responses indicate a significant increase in espoused attitudes towards the importance of collaboration. Student responses indicated that they thought their team working and communication skills had improved. Students appear to have learned about the other professions present on the module.

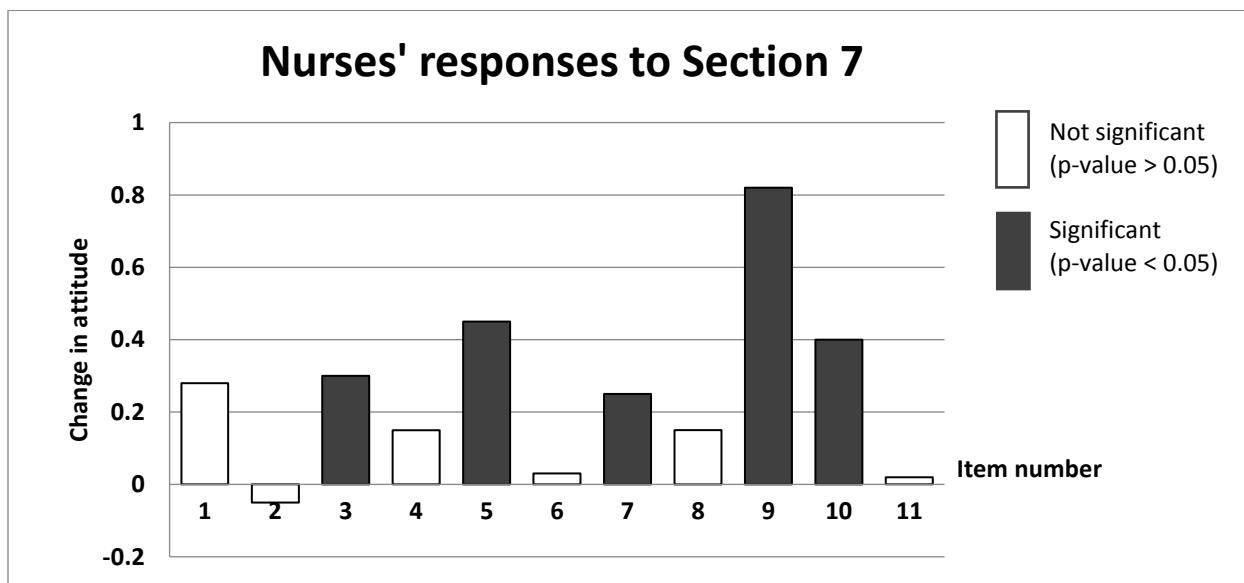


Figure 3.10: A summary of the changes in explicit attitudes of student nurses towards collaboration, team-working and communication skills and knowledge of other professions.

The nursing student responses indicate a significant increase in espoused attitudes towards the importance of collaboration. Student nurse responses indicated that they thought their team

working and communication skills had improved. They also appear to have learned about the other professions present on the module, particularly in relation to pharmacists.

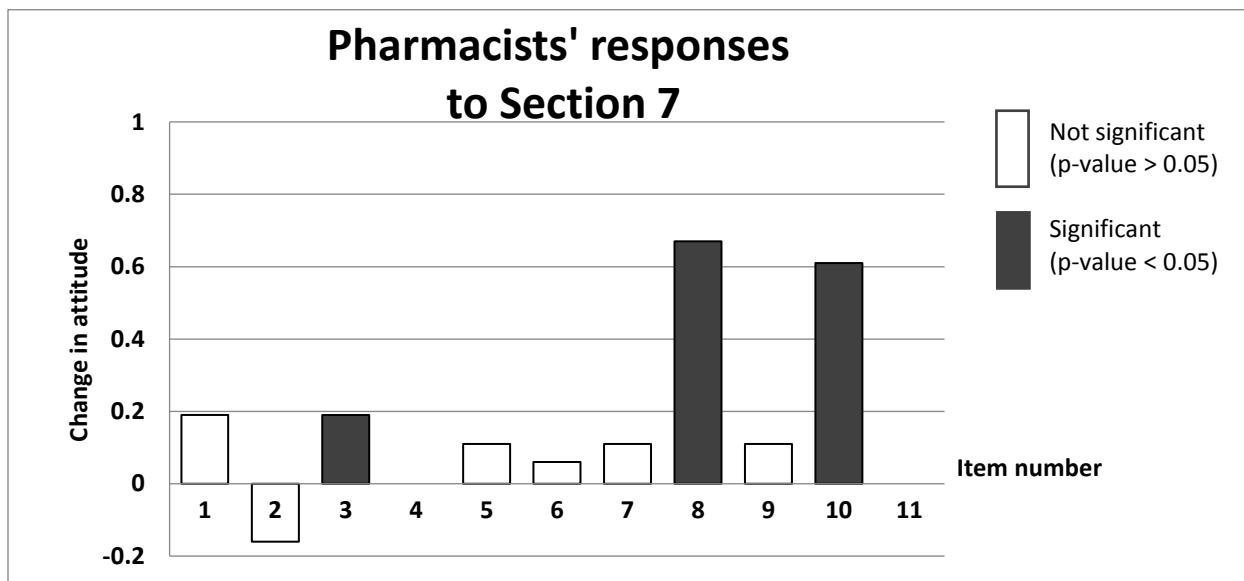


Figure 3.11: A summary of the changes in explicit attitudes of the pharmacy students towards collaboration, team-working and communication skills and knowledge of other professions.

The pharmacy student responses indicate a significant increase in espoused attitudes towards the importance of collaboration. Students appear to have learned about the other professions present on the module.

3.10 Discussion: Questionnaires and attitude change

3.10.1 Explicit versus implicit measurement

As mentioned towards the beginning of the chapter (Section 3.3), attitude measures can be either explicit, where the respondent is aware of what is being measured, or implicit, where the respondent is less aware; it follows that explicit measures can only take account of opinions that are deliberately reported (Ratliff and Nosek, 2010; Whitfield and Jordan, 2009; Payne et al., 2008; Aiken, 2002; Ajzen, 2005; Eagly and Chaiken, 1993). The questionnaire in my study was designed with the deliberate intention of gauging an initial understanding of the students' explicit, declared attitudes towards collaboration. Consideration of implicit attitudinal change will be further discussed in Section 8.

It has also previously been mentioned that questionnaires used to measure the espoused effects of interprofessional education, and attitudes towards collaboration are both common and frequently published (Bainbridge, 2015; Dominguez, 2105; Gould et al., 2015; Heath et al., 2015; Archibald et al., 2014). During the process of constructing the questionnaire for this study, and considering the implications of the results, a broad selection of articles using, or reviewing, such instruments had been studied (O'Carroll et al., 2016; Kururi et al., 2014; Hayashi et al., 2012; Ateah et al., 2011; Hojat et al, 2015; Hammick et al., 2007; Mc Fayden et al., 2007; Lindqvist et al., 2005; Mc Fayden et al., 2005; Tunstall-Pedoe et al., 2003; Bronstein, 2002). It became apparent that although some studies, such as Archibald et al. (2014), recognised the complexity of the attitude construct, it appears as though attitudes have often been regarded as a fixed entity.

3.10.2 Approach to data discussion

Within the caveats of explicit attitude measurement, data from the questionnaire will be discussed and related to both the theoretical framework (Section 1.9) and the domains of attitude (Section 1.6) as described in the multicomponent model (Eagly and Chaiken, 1993), the definition of which will be briefly revisited. The cognitive domain of attitude encompasses the attributes, beliefs and thoughts associated with an object; the affective domain relates to emotions or sentiments connected with an object, and the behavioural domain is attributed to attendant past behaviours or practices (Ajzen, 2005; Fazio and Olsen, 2003; Eagly and Chaiken, 1993; Cialdini et al., 1981; Fishbein and Ajzen, 1972).

3.10.3 Initial responses

It could be suggested that the students who responded, based their initial responses on preconceptions, and these may have been based on previous encounters and experiences. It was recognised that some of these would probably have been with members of various professions as colleagues, while others may have occurred when accessing services. Theoretical evidence for this initial assertion can be found in Allport's enduring theory (1954) that suggested we rely on generalisations which are often based on preconceptions. In examining the initial responses, it was also relevant to consider that the students' habitus, where the term refers to an individual's frame of mind, influences them to behave in certain ways (Bourdieu, 1991), as different professional groups may demonstrate similar or dissimilar response patterns.

In tandem with these stances, some authors identify that being part of a professional community involves having a particular sense of identity (Clouder, 2003; Becher and Trowler, 1989; Freidson, 1970; Becker et al, 1961). Therefore, the students who responded may be regarded as having preconceptions, perceptions and behaviours, which may be common within specific professional groups, and that these characteristics might also be part of the professional groups' habitus (Hewstone, 1989).

Changes in the students' attitudes towards collaboration can be thought to be demonstrated as being necessary because of the scores given in response to the first questionnaire, and the argument for the necessity of attitudinal change, as presented in the introduction chapter (Section 1.6). If the initial scores are examined, it appears that both nurses and pharmacists rated their own professions more highly than each of the others, with the pharmacists having the higher of the two sets of ratings. Interestingly, the pharmacists and nurses both appear to have had had notably low opinions of each other's profession, and this was more marked than their perceptions of the paramedic and medical students.

3.10.4 Attitudinal change

As an overall statement, the results do suggest that the respondents did demonstrate some explicit attitudinal changes, which may be attributable to the interactions on and during the IPE module (Whitfield and Jordan, 2009; Wood, 2000). The following discussion will explore these changes with reference to aspects of the theoretical framework. It is recognised that any self-report measure will only indicate attitudes the students are aware of and willing to divulge, that these are probably only going to influence deliberate behaviours (Bohner and Dickel, 2011; Crano and Prislin, 2006) and that personal relevance is required in order for the changes to endure in the longer term (Cialdini et al., 1981). It could be suggested that the questionnaire did focus on feelings in addition to knowledge and therefore might correlate well with an implicit measure (Ratliff and Nosek, 2010; Gawronski and Le Bel, 2008), although the socially sensitive interpretation could limit this effect (Sherman at el., 2009; Payne et al., 2008; Ranganath et al., 2008).

The theoretical basis supporting a perceived change, or lack of change, in attitudes can be interpreted by referring to group dynamic, social identity and contact theories, which are

synergistic and suggest explanations which may be thought convincing. Each of these will now be discussed.

3.10.5 Group dynamics

It could be that some challenges of attitude change in IPE can be thought to be conceptualised in this definition of a group by Brown (2000: 3):

‘a group exists when two or more people define themselves as members of it and when its existence is recognized by at least one other’.

Brown continued by explaining that group members have some commonality, which those outside the group are perceived as not sharing. He also emphasised that group members see and define themselves as belonging to their group (Brown, 2000). There are other key authors whose work has used, and can be summarised by this premise (Tajfel, 1970; Amir, 1969; Allport, 1954; Cartwright, 1951). The same concept continues to be used in contemporary writing (Carpenter and Dickinson, 2016; Pettigrew and Tropp, 2008; Rijswijk et al., 2006), and therefore it will form a basis of this discussion.

In exploration of group dynamics, it has been proposed that one’s characteristics are strongly determined by the groups to which one belongs (Hogg and Vaughan, 2008; Brown, 2000; Tajfel, 1970; Cartwright, 1951). If this is related to the diverse and distinct professional groups on the IPE module, it seems reasonable to propose that each group may have some attributes which they regard as unique, and this seems to have been demonstrated in the initial responses. From the initial set of data, it appears that the nurses and pharmacists valued their professional groups attributes more highly than others, which appears to be in agreement with the comments on professional identity and habitus mentioned previously. This could result in challenges in appreciating and understanding the other profession’s perspectives, and therefore also a possible influence on any attitudinal change.

The questionnaire data has suggested that the IPE module activities did exert an influence on the cognitive domain of attitude for some students, and the questions on ‘knowledge of different professional roles’ appears to support this. There was a significant difference in the responses to the questions about knowledge of the professions present in the cohort, but this was not demonstrated about medical students who were not present. This may be further evidence of

change in the knowledge domain of attitude. It may also indicate a change in the affective domain if it is considered in conjunction with the opinion that increased acquaintance may generate affinities (Pettigrew and Tropp, 2006; Amir, 1969).

Another interesting aspect of the data is that the student nurses' responses indicated significant improvements in their attitudes towards the professions that were present on the module, e.g. they rated both paramedic and pharmacy students as more compassionate at the end of the teaching week than they did at the beginning. The data suggests that these improvements were indicated selectively for paramedic students, but both greater and across more attributes for the pharmacy students. Similarly, responses from the pharmacy students also suggested a more favourable attitude towards both nurses and paramedics, with the example of improvement in the compassionate rating between the two questionnaires being significant. As with the nurses, the improvement in espoused attitudes was more widespread for student nurses than paramedic students. An explanation for this difference may be in the size of the cohorts, in that the paramedic students were a significant minority (Section 3.8.1).

It may also be that the pharmacy students continue to rely on some of their preconceptions. There is a possible contributory factor that may be of relevance in this difference, and that is the amount of clinical education that each of the professions complete during their programmes. Nursing programmes have a clinical component that comprises approximately 50% of the overall programme teaching, whilst pharmacy students undertake only approximately two weeks of placement during their four-year programme. It is possible that the nursing students' greater clinical experience enabled them to relate aspects of the teaching to medical students that they may have had contact with while on placement. However, this potential explanation does not explain the changes in attitude towards their own profession.

Two other aspects of group dynamics that appear to be relevant to consider are the relative size and perceived prestige of different groups, as it has been suggested that in-group identification is related both to the size of the group and its relative status (Guimond et al., 2002; Tajfel, 1982). Allport (1954) suggested that defining an in-group precisely was difficult, but that members of an in-group use the term 'we' with similar significance.

It may be reasonable to presume that, as these students are soon to qualify, they would hold their professional group in high regard. Festinger (1950, in Cartwright, 1951) suggested that the more

attractive a group seems, the greater its influence will be. Relating this to the IPE module, it seems probable that the students will be more influenced by their espoused professional groups, their ‘in-groups’, than by mixed professional ones on the module. It has been proposed that this effect is more pronounced in both smaller and higher status groups, although larger groups are likely to be more homogeneous (Guimond et al., 2002; Brown, 2000; Hewstone, 1989; Tajfel, 1982).

It might be relevant to the data that the group of paramedic students was such a significant minority within the cohort, and that this led to a level of ‘group think’ (Reeves et al., 2010; Hewstone, 1989), similar behaviour and minimal participation in the research. Potentially this may be an important point and will be further investigated by subsequent data collection opportunities such as the individual interviews (Section 7).

While these positive changes illustrate an aim of IPE, it would be simplistic to assume the situation is that straightforward. To this point, the discussion has regarded a ‘group’ in isolation, and in order to fully consider groups with respect to IPE, intergroup behaviours should also be considered. As a basis for the discussion, the groups of different professions on the module are going to be regarded as having professional specific group identities, and therefore social identity theory becomes relevant.

3.10.6 Social Identity Theory

There seems to be a persistent link between IPE and social identity theory as proposed by Tajfel (1982), and many papers on IPE cite its influence (Carpenter and Dickinson, 2016; Stull and Blue, 2016; Foster and Macleod Clark, 2015; Thistlethwaite, 2012; Hean, 2009; Coster et al., 2008; Ondasan and Reeves, 2005). Tajfel has been regarded as a foremost authority in social psychology (Billig, 2002) and the impact of his work endures, perhaps because of its origin being the aftermath of the holocaust (Deaux and Martin, 2003).

The basic premise of social identity theory (SIT) is that self-esteem has two components, one of which is social identity, linked to knowledge of one’s group, and salience of group membership (Hogg and Cooper, 2007; Huddy 2004). It has been presumed that there is an inevitable link between the individual and their groups, and iconic experiments, such as the Robber’s Cave study (Sherif et al., 1961), have demonstrated that group membership influences individuals’

cognition and behaviour (Hogg and Cooper, 2007; Brown, 2000; Ellemers et al., 1999; Hewstone, 1989).

An important aspect of SIT is that of self-esteem, and of this, group identity is a key aspect, i.e. as individuals we need to maintain our self-esteem, and one way of doing this is by feeling good about the groups to which we belong (Carpenter and Dickinson, 2016; Stull and Blue, 2016; Huddy, 2004; Brown, 2002; Ellemers et al., 1999). In relating SIT to IPE, a number of authors have regarded professional groups as synonymous with social groups (Stull and Blue, 2016; Thistletonwaite, 2012; Hean, 2009). In agreement with the SIT, there seems to be evidence in the questionnaire data above of regarding one's own group as more positive. On the initial questionnaire, out of a possible fourteen attributes, the nurses scored themselves strongly in seven and the pharmacists in eight. Both nurses and pharmacists scored their profession particularly highly on the attribute of compassion. In general, the scores allocated to students' own groups were noticeably higher than those allocated to other professions.

This positive regard for students' own groups can be thought to be linked to behaviour. Ellemers (1999) explored SIT and identified three components that were identified as distinct but related; the elements were emotional, evaluative and cognitive domains. This construction has subsequently been adopted by others (Rijswijk et al., 2006; Guimond et al., 2002; Brown, 2000). It was suggested that these elements together were sufficient to create a group identity that could influence social cues and subsequently guide behaviour (Ellemers et al., 1999).

There are two related phenomena that relate to this proposal that could affect the influence of IPE on students' attitudes. The first is the suggestion that strong attitudes are more likely to influence behaviour and weak attitudes are more likely to be influenced by behaviour (Crano and Prislin, 2006; Bohner and Wanke, 2002; Ajzen, 2005; Maio and Haddock, 2009). Where students have developed a very positive attitude there is more likely to be a positive influence on their behaviour.

The second noteworthy aspect, related to SIT is in-group bias, a recognised phenomenon (Carpenter and Dickinson, 2016; Huddy, 2004; Brown, 2000; Allport, 1954). The implications relevant to IPE of in-group bias suggest that it is more pronounced in minority groups when relative status and group salience are more overt (Rijswijk et al., 2006; Huddy 2004; Ellemers, 1999). All of these are overt in IPE when cohorts of multiple professions are brought together,

as face to face contact with students from other professions may make differences more overt, even though teaching sessions aim to emphasise commonalities. Additionally, it has been suggested that the environment needs to be non-threatening (Thistlethwaite, 2012), and that bias is more likely to be accentuated when groups are formed as a result of achievement, rather than allocated, and leaving is not an easy option (Hogg and Abrams, 2003; Guimond, 2002), each of which can be seen to be analogous with IPE.

It can be thought that SIT has the potential to cause the students challenges in IPE. The identification of group status is likely to be more pronounced in higher status groups (Rijswijk et al., 2006; Huddy, 2004; Guimond et al., 2002; Brown, 2000; Ellemers et al., 1999) and this may result in greater prejudice being demonstrated (Hogg and Abrams, 2003). With health and social care being acknowledged as hierarchical I believe the student groups are liable to view themselves as part of the hierarchy. It is not clear how such hierarchy is determined, or where student groups see their profession, but it is probable that their status is integral to the groups' habitus. Groups valuing themselves relative to other groups is a key aspect of SIT (Brown, 2000). It might be thought that pharmacy students see themselves as higher in status than either nurses or paramedics from the way the respondents scored their own, and other groups' attributes.

One final aspect of SIT that seems pertinent to IPE but does not appear to have been discussed to any great extent in related literature, is the suggestion by Brown (2000) that language can be deliberately used to communicate more, or less, effectively with out-groups, and use of linguistic differences is more prevalent when identity is interpreted as being threatened. With the place of jargon in health and social care being pervasive (Freidson, 2007; Becher and Trowler, 1989) it could be thought that there could be ample scope for this strategy to be adopted in IPE. While any direct evidence of this was not achievable using questionnaires, it was noted as a useful aspect to consider in future elements of the case study.

3.10.7 Contact theory

Contact theory may underpin the suggestion that IPE can influence how students' attitudes are altered (Pettigrew and Tropp, 2006; Brown et al., 1999; Tajfel, 1982; Amir, 1969; Allport, 1954; Cartwright, 1951). There is general consistency in the literature regarding the conditions required for intergroup contact to improve attitudes, and these are cited as group members

having status that is perceived as equal, identifiably common goals, institutional support and a level of co-operation (Carpenter and Dickinson, 2016; Brown et al., 1999; Tajfel, 1982; Amir, 1969; Allport, 1954). If the respondents' espoused attitudes on the second set of data are taken as being improved, it could be suggested that the conditions for intergroup contact to be successful have been met for some. It could then be argued that the module has influenced explicit attitudinal change in a positive direction among the respondents.

It is probably a simplistic view that all of the students on the module are third year undergraduates and are, therefore, of equal status as this would overlook the individual identities of professional programmes. For example, there is an overt hierarchy in the number of University and Colleges Admissions Service (UCAS) points required for entry to the pharmacy, paramedic science and nursing programmes. The pharmacy programme requires the highest number of points, and the nursing programme the least. Additionally, the nursing students were registered on a Bachelor level programme, while the pharmacy programme results in a Master's level qualification.

It is perhaps more realistic to consider that the students on each of the professional programmes regard their professional group as distinctly different from others which could be a negative influence with respect to IPE. One interpretation of the data could be that the student nurses were more able to see a level of equality, which resulted in a greater change of espoused attitudes, compared to the pharmacy students.

There is a suggestion in the data that the respondents did identify a common goal as figures 3.9, 3.10 and 3.11 all demonstrate a level of agreement on the importance of collaboration. As module leader, I arrange for the students to have institutional support both in the form of taught sessions and facilitated group work. The students' perceptions of this support are explored in a further aspect of data collection. (Section 6).

The IPE module is a mandatory component of all of the undergraduate health and social care programmes. There is disagreement within the literature on the effect that this compulsory participation might have on the students. Festinger (1957) has suggested that forced compliance could increase dissonance, while Pettigrew and Tropp (2006) proposed that it may result in decreased prejudice. From the perspective of the module perhaps both are correct, with students experiencing one or other of the effects, which might go some way to explaining the 'marmite'

phenomenon (Section 1.4) and that the students who responded, regarded the co-operative experience as positive. It can only be conjectured, but it is possible that the students who did not respond did experience dissonance.

However, the data also suggest a level of ambiguity with regard to contact theory. As well as the professions present on the module, the nurses also rated their own profession and medical students more positively at the end of the week and the changes were more widespread for the medical students. The nurses' responses could be supported by Pettigrew and Tropp's (2006) assertion that the effects on intergroup contact may extend beyond the group. The nurses' responses contrast to those of the pharmacy students, who indicated no significant change in their attitudes towards either the medical or their own profession.

There is some consensus on the negative impact of anxiety on intergroup contact and this can be related to the IPE module and influence on attitudinal change, as it has been recognised that the role of emotion, or its affect, is integral. Cartwright (1951) discussed the effect of anxiety on self-esteem and the inevitable impact of this upon a group. Brown (2000) repeated similar sentiments, which were then emphasised by Pettigrew and Tropp (2006), Crano and Prislin (2006) and Carpenter and Dickinson (2016). They all suggested that reducing anxiety was important if intergroup contact was to decrease prejudicial attitudes. As the questionnaire data demonstrated some mixed attitude change, it was thought this would be a useful area to explore further with reference to data from other collection methods during the case study (Section 7).

3.10.8 Methodological issues

3.10.8.1 Questionnaire development

It was a definite weakness of the data collection process that the questionnaire was not piloted. The errors that have been noted during analysis could have been eliminated by piloting. The questionnaire was subject to a level of expert scrutiny by my supervisors (Artino et al., 2014) although ideally a more thorough process could have been attempted by asking the teaching team to scrutinise it prior to administration. The rationale for not involving the teaching team was consideration for staff workloads, and for the lack of piloting was again due to workload and also the deadlines required for finalising and approval of the tool. Had the deadline for data collection in January 2014 been missed the next opportunity would not have been until the following September, resulting in an eight-month delay.

While the results appear to have been discriminating, in hindsight the phrasing of some of the characteristics could have been improved e.g. ‘academically superior’ now appears rather clumsy. The advantages of using the Wilcoxon test were thought to be its relative simplicity and its suitability for ordinal categorical data such as Likert and semantic differential scales. It is recognised that in general it is less powerful than parametric tests because of the non-normally distributed data (Dancey and Reidy, 2002).

In order to assess the internal consistency of the questionnaire, and the extent to which the subscales were interpreted in the same way, Cronbach’s alpha was calculated for question two (Tavakol and Dennick, 2011; Cronbach, 1990). The figures in Appendix 6 indicate that removal of item (h) ‘arrogant... humble’ results in a satisfactory score, as a figure below seven is indicative of inconsistency (Mahler et al, 2015). It is thought this may be due to the reverse scoring of this item.

3.10.8.2 Demographic data

Within the remit of collecting and analysing some initial data, to amass a formative understanding that would inform future data collection methods, the questionnaire was thought to be broadly satisfactory. With the benefit of further study and hindsight there are some areas that are relevant to discuss.

No differences emerged along gender lines, although without having included this question some uncertainty could have been caused. Unfortunately, an error was made in creating the age boundaries, in that if a student were exactly twenty years old they would not fit into any category. The demographic data questions were cited in the initial section, as my perception was that this was more common with the argument of asking the most straightforward questions first (Cohen et al., 2007; Denscombe, 2010; Murray, 1999). However, there are also convincing arguments for placing this section at the end, as it may be perceived as dull and off-putting (Rattray and Jones, 2007; Richardson, 2005; Oppenheim, 1992) and may even decrease the response rate (Roberson and Sundstrom ,1990).

3.10.8.3 Questionnaire Content

It was only in hindsight, during analysis that I noticed some aspects of the questionnaire content that I regard as errors. The semantic differential scale contained six categories, while the Likert scales contained five. While this had not been intentionally planned, it is an unintended

possibility that it made the data more reliable in discouraging ‘less thinking’ responses. Of greater note was the omission to reverse more of the scaling sets with the consequence of the ‘halo effect’ (Oppenheim, 1992: 231), where students’ responses indicate an overall opinion rather than individual views, although this does not appear to be overt in the results.

The nursing cohort was considered as a single entity. While there is a single pre-registration nursing programme there are four distinct fields of nursing: adult, child, mental health and learning disability. For future elements of data collection, the four fields could be considered individually, although the very different cohort sizes will need to be taken into consideration. The unintended advantage of not differentiating between the nursing fields was that the nursing and pharmacy cohorts were very similar in size, making responses sets comparable.

3.10.8.4 Response rate

The response rates of 52% for the pre-module questionnaire and 35% for the mid-module questionnaire resulted in 82 pairs for analysis which equates to a response rate of 26% for both. This is not dissimilar to some other studies (Tsang et al., 2016; Kadar et al., 2015; Gould et al., 2015) and a trend was noted that studies designed with a single instance of data collection generally had higher response rates (Dominguez et al., 2015; Archibald et al., 2014).

The exceptionally low response rate from the paramedic students is notable. While it can only be conjecture, it is possible that being very much a minority in the cohort (Section 3.8.1) was relevant to the lack of responses. It has been suggested that minority status results in a stronger group identity (Huddy, 2004), and this stronger identity can act to increase the tendency to behave in terms of their group (Ellemers et al., 1999), which could explain the more consistent lack of response.

The level of non-response bias has been considered and is thought prudent to gauge the representativeness of results limited (Richardson, 2005; Marshall, 2005). As the researcher, I thought that the risk of being able to identify individual students was negligible, and that this would both support the response rate (Roberson and Sundstrom, 1990), and encourage honesty in the replies (Cohen et al., 2011). It is acknowledged that the responders may hold different attitudes, stronger feelings and possibly regard IPE more positively than the non-responders (Sedgewick, 2011, 2013; Scheerder et al. 2009; Tunstall-Pedoe et al., 2003). Therefore, the extent to which the results are generalizable to the whole cohort should be viewed as limited.

3.10.9 Summary and implications for future data collection

The questionnaire appears to have been a valuable tool in producing data to inform subsequent elements of the study and has given an indication of changes in respondents' explicit attitudes. There are some important caveats to be remembered, the limitations implicit in a self-report tool, that any changes cannot be ascribed to the IPE module in isolation and the lack of evidence on the representativeness of the sample. The identified objectives were met in that changes in participants' attitudes towards collaboration and other health care professions were identified and discussed.

Analysis of the questionnaire data suggests that there is evidence of a need to influence attitudes towards other professions and collaboration as both professional groups had notably lower opinions of other professions compared to their own. It is possible that these opinions could be barriers to appreciating other professions and therefore a potentially negative influence on attitudes towards collaboration and collaborative behaviours.

Within the limitations of a questionnaire in terms of the measurement of attitudes, this tranche of data appears to have demonstrated that students come to the IPE module with specific attitudes shaped by the professional group to which they belong, and that they value their own, and by extension their group's, characteristics more highly than those of other groups/professions. This may be compounded by their relatively limited professional experience, and relative youth, limiting the extent of the impact of the module has on their attitudes towards collaborating with other professional groups.

Perhaps inevitably, concomitant with the suggested profession specific epistemologies is the evidence of the in-group bias associated with social identity. The questionnaires demonstrated some attitude change to professions on the module (student pharmacists' attitudes to nursing and paramedic students) and beyond it (student nurses' attitudes towards medical students).

The influence of the module appeared to be different for student pharmacists compared to student nurses. The nurses' responses demonstrated greater change towards the pharmacists than vice versa, illustrating how the impact of IPE cannot be taken for granted for all students, and that perhaps there are trends within specific professions. The pharmacy students' responses indicated a more pervasive and enduring in-group bias than those of the nurses, perhaps

evidencing a stronger, or more valued, professional identity and perception of relative places within a hierarchy. The limited amount of clinical placement undertaken by pharmacy students, when compared to other healthcare students may be a factor here. The variation is important when considering how IPE influences students' attitudes towards collaboration because of the association between group identities, influences on social cues, and by extension, on behaviours.

The results suggest that inter-group contact cannot be assumed to be consistently effective, as all students undertook the same activities, and that therefore other influences may be at work. As mentioned previously, the module is mandatory, and this may be a confounding factor for some as it may increase dissonance.

When reviewing the results with respect to the three attitudinal domains, it may be concluded that there was recognition that the cognitive domain had been influenced, i.e. the students knew more about other professions included on the module. It is suggested that the teaching activities up to this point had been insufficient to influence behaviour (the responses to the questionnaire), with social identity potentially being a greater influence. The results suggest that greater exploration and focus on the affective domain could have the potential to increase the influence of IPE on behaviour, and therefore attitudes.

It is suggested, at this point, that for some students, IPE highlights the salience of professional/group membership, and the differences between them, and that this may be counter-productive in influencing students' attitudes towards collaborating with others. This is despite the identification of common goals and the support given by the institution to promote the co-operative influences of intergroup contact. The evidence of any impact of transformational learning and cognitive dissonance seems to be inconsistent, suggesting that these concepts have not been sufficiently examined by the questionnaires and therefore there may be other influences which need to be further investigated

This concluding section has highlighted aspects of the findings from the questionnaire that were either congruent with, or supplementary to, my articulated epistemology and ontology. The impact of social identity theory, with its implication for in-group bias was greater than I had previously recognised despite the questionnaire data being relatively superficial. The varying responses of the two professional groups were somewhat reassuring in affirming my initial

epistemology, that different groups have dissimilar epistemologies to each other and that there was scope within the study to explore this further.

4 The students' drawings

4.1 Introduction

Having completed the questionnaire administration and analysis and achieved formative data that suggested that evidence existed that the IPE module had some influence on students' explicit attitudes to collaboration, the next step was to examine some of the attitudes in greater detail. As suggested previously, I had the supposition that some health and social care professionals might be prejudiced against each other, or, at the very least, make pre-judgements (Sections 1.9.1 & 2.1.4) which would have the potential to have an impact on collaborative behaviours. Having used a self-completed questionnaire I was minded to implement a data collection method that might give some insight into implicit attitudes.

In 1995, Carpenter published a study on stereotypes that has since become widely cited in work considering interprofessional working and education. The study involved medical and nursing students and suggested that IPE had the potential to decrease these professions' stereotypical views of each other. Subsequently, the impact of stereotypes in IPE has been explored by other authors, often using a self-completed questionnaire (Foster and Macleod Clark, 2015; Ateah et al., 2011; Hean et al., 2006; Lindqvist et al., 2005).

Being cognisant of some of these studies, a number of years ago I introduced the topic of stereotypes into an initiatory teaching session on the IPE module. The teaching method utilised was based on my preferred style of teaching; this often involves asking the students to undertake activities as I believe this has the potential to increase the extent to which students may engage with the content of a teaching session (Cameron, 2017; McCoy, 2017; Rejno, et al., 2017; Chan, 2014). After deciding that self-completed questionnaires were not particularly suitable as a within-session teaching activity, I devised a drawing activity on the topic of stereotypes that was designed to highlight similar points that might have become apparent in a questionnaire.

The drawing activity appears to have been an enjoyable, engaging and thought-provoking adjunct to teaching about stereotypes for successive cohorts. I thought that the students' drawings at the start of the module might potentially demonstrate a link with their extant attitudes towards other professions, and so to their attitudes towards collaboration. With this rationale, I included the drawings as a source of data in this study in order to explore this

construct in depth. This section will explore some of the theoretical aspects of stereotyping, explain the method used to achieve the drawings and outline the results of analysis of the images produced by a single cohort. In conclusion, features of the analysis pertaining to students' attitudes towards other professions and collaboration will be proposed.

4.1.1 Defining the term 'stereotypes'

While the scientific study of the concept of stereotypes can be traced back for almost a century to Lippman in 1922 (Wright and Taylor, 2003; Allport, 1954) it seems to have been some decades before their relevance to social psychology was explored. One of the widely quoted publications is the seminal 'Nature of Prejudice' (Allport, 1954) in which a link was proposed between stereotypes and prejudice, using crucial issues such as antisemitism and segregation in the southern states of America as supporting illustrative examples. While perhaps rather simplistic, the metaphorical phrase likening stereotypes to 'pictures in the head' is commonplace within the literature (Koenig and Eagly, 2014; Hilton and von Hippel, 1996; Stangor and Schaller, 1996; Tajfel, 1981; Tajfel and Forgas, 1981) and it is the manifestation of this metaphor in the students' drawings and suggested implications and consequences for IPE that will be explored.

The concept of categorisation, which can be described as the tendency to use common characteristics to assign objects to groups (Hewstone, 2012), is thought to be central to knowledge and understanding of human activity and behaviours (Tajfel and Forgas, 1981). Such heuristic processing is generally appropriate (Hogg and Vaughan, 2008) and facilitates successful navigation through life. For example, the concept of 'food' generally conveys common understanding, and therefore, appropriate related behaviours. It follows that making inferences linking observations with causes, such as grey clouds in the sky with subsequent rain showers, although likely, will probably not be universally successful (Ross and Nisbett, 1991; Hewstone, 1989).

It might further be suggested that the process of allocating people to groups can be regarded as a natural sequitur, even that such attribution forms a basis of society, and that it is the perception of such groups that defines the concept of stereotyping (Mc Garty et al, 2002). The impact of any observable link between modal attributions and supposed related behaviours might be important in collaborative working, and it was hoped that analysis of the students' drawings might provide some insight into any potential relationships.

A concise definition of stereotypes is ‘beliefs about the characteristics of groups of individuals’ (Stangor, 2000: 1), where the characteristics can be thought of as non-exclusive features, as very few categorisations will be totally unambiguous (Tajfel and Forgas, 1981). For example, the attribution of intelligence might be ascribed to doctors, but is not unique to that profession as it might also be imputed to lawyers, scientists and many others. Cultural stereotypes can provide accessible examples to illustrate this point e.g. the Germans as organised, Italians as romantic, Swiss as fastidious, and the Welsh as naturally musical; such views can be thought to encompass a behavioural element within the stereotype (Pendry, 2012; Hilton and von Hippel, 1996) and variability within a group tends to be overlooked (Hinton, 2000). It was thought that the links between the example used of differing nationalities might be similarly distinctive and overt in the perceived differences between professions in IPE.

Some authors have proposed it is possible to have stereotypical opinions about groups with whom one has had no contact (Aiken, 2002; Stangor and Schaller, 1996). Others have suggested the dissimilar view that stereotyping is likely to involve a degree of knowledge about the group (Foster and Macleod Clark, 2015; Koenig and Eagly, 2014; Tajfel, 1981). These two opinions raise the issue that knowledge is not necessarily equivalent to contact, and perhaps a compromise notion might be that familiarity may strengthen, or abate the beliefs of stereotypes (Robertson, 1999). The relevance of this dilemma to IPE is that the module brings together students of professions who will have already had direct contact, as well as those who have not.

Although Allport (1954) proposed that the difference between generalisations and stereotypes was the existence of solid data, there is a level of dissent on the veracity of stereotypes. Devine and Elliott (1995) and Aiken (2002) have suggested that perception, personal beliefs and reality should not be regarded as consistently congruent, while others cite the ‘kernel of truth’ concept suggesting that there is congruence between what one perceives about a group and the actualities of that group (Koenig and Eagly, 2014; Mc Garty et al, 2002; Hilton and von Hippel, 1996) and that stereotypes would be unlikely to persist if they were wholly inaccurate (Carlson et al., 2010; Stangor, 2000). Although written from the perspective of gender stereotypes, perhaps the suggestion that stereotypes ‘both represent and distort realities’ (Eagly and Steffen, 1984, cited in Stangor, 2000: 142) can be thought of as a compromise, and it is the context in which people are encountered that is influential. These are points which may be particularly relevant to the

students on IPE, many of whom will work, or at least spend time in, the clinical environment, where the wearing of uniforms is often customary. It is possible that uniforms serve as visual prompts in making or accentuating, generalisations.

4.1.2 The function of stereotypes

One function of stereotypes is similar to that of categorisation, in that it can simplify the understanding of complex, or anxiety-provoking situations (Hewstone and Jaspers, in Tajfel, 1982; Tajfel and Forgas, 1981). Authors such as Hogg and Vaughan (2008) and Aiken (2002) have suggested they are often used heuristically, as cognitive short cuts, providing information that is sufficiently accurate most of the time. Stangor and Schaller (1996) related the categorisation aspect of stereotyping to the human motives of simplifying situations; to facilitate both the understanding of information and social communication, which they termed an epistemic function. This function may become more salient than usual for students during IPE if the module is interpreted as creating a situation that is both more complex and possibly more anxiety-provoking than uni-professional modules. An additional facet of this is that, while in the university environment students do not typically wear their uniforms, and perhaps having different professions together, without the visual clues of uniform, creates uncertainty or anxiety.

It is suggested that within the function of categorisation, both a deductive process, which can be likened to making inferences during a scientific experiment, and inductive categorisation, where the process occurs on the basis of insufficient information, are implicit (Tajfel and Forgas, 1981). That the inductive process is more commonly employed in social interactions is relevant, as the making of judgements on information that may be regarded as insufficient is closely related to the esteem function of stereotypes, where a basic motivation of stereotyping is self-enhancement (Stangor and Schaller, 1996).

When considering inter-professional behaviours and IPE, it is the function of stereotypes that is related to group- and self-esteem, and how these concepts are related to social identity that can be thought to be pertinent. As a recognised authority on social identity, Tajfel defined social identity as ‘part of an individual’s self-concept which derives from their knowledge of their membership of a social group.... together with the value and emotional significance attached to that membership’ (Tajfel, 1982: 2). It has been suggested that stereotypes may be influential in assuaging a basic human requirement for self-enhancement (Robertson, 1999; Fein and Spencer,

1997; Hilton and von Hippel, 1996; Stangor and Schaller, 1996) and that both the approbation of in-groups and opprobrium of out-groups are integral aspects (Jacobsen and Lindqvist, 2009), as demonstrated in the conclusions drawn from the previously administered questionnaire (Section 3.10). In relating these concepts to the students on the IPE module, who are imminently to become qualified professionals, it may seem reasonable that they will feel a need to value their own espoused profession most highly, creating a possibly valid reason for stereotyping.

4.1.3 Individual and collective beliefs

Stereotypes may also be regarded as a means of creating a shared commonality of views and ‘knowledge’ which may be utilised as a source of social influence (McGarty et al, 2002; Robertson, 1999). One aspect of stereotyping that is pertinent to IPE is the relationship between individually held stereotypes and cultural beliefs. Tajfel (1981) examined this difference through the lens of social identity. He suggested that a generalisation perceived by an individual could be thought of as a cognitive definition of a stereotype, but that a social psychological definition included the aspect of a perception consensually shared within a group. It has been suggested that it is the ‘shared’ aspect that is most important and can be thought of as being the focus of discrimination (Hogg and Vaughan, 2008).

It is believed that an individual will develop perceptions based on their impressions, interpretations and memories of information encountered and lived experiences (Fein and Spencer, 1997; Stangor and Schaller, 1996). This process is recognised as commencing in childhood through observations (Koenig and Eagly, 2014). There are two proposed mechanisms by which an individual remembers information about groups. The first is called the prototype model, where the perception is formed from a collection of associations (Tajfel and Forgas, 1981) which are regarded as being typical characteristics (Hinton, 2000). Illustrative examples of this model of processing might include ‘car’, ‘table’ or ‘zoo’, where each category has a set of relational associations e.g. a table might often be associated with a flat, level surface and four legs of equal length.

The second mechanism is the exemplar model where perceptions are based on a particular extant example (Hilton and von Hippel, 1996), and it has been suggested that these have the potential to influence behaviour and emotions (Stangor and Schaller, 1996), as it is the associated memory that has the potential to influence a response (Tajfel and Forgas, 1981), particularly if a certain

feature is distinctive or idiosyncratic (Hilton and von Hippel, 1996). In contemporary society, it is possible that a person may have formed a specific impression of, for example, a particular Member of Parliament, or an Olympic athlete, which could then have the potential to influence their emotional or behavioural response to all members of that group of individuals. Since examining stereotypes in depth as part of this research I have introduced two images to illustrate this phenomenon into my teaching. One image is on a smiling, engaging, elderly lady; the second is a male youth wearing a hooded sweatshirt, often known as a ‘hoodie’. I ask the students to view the images and then consider their initial thoughts and feelings and their perceptions are then discussed.

Stangor and Schaller (1996) and McGarty et al. (2002) have all argued that society is based on shared knowledge, of which shared, or cultural, stereotypes are an integral aspect. These shared beliefs may be based on one group’s knowledge and experience of another’s attributes (Foster and Macleod Clark, 2015; Eagly and Chaiken, 1993) and may be controlled by the roles, actions and interactions between the two groups (Tajfel, 1981). An important aspect of cultural stereotypes is that they may influence the group’s behaviour (Stangor and Schaller, 1996) as they are used to both predict and understand different groups’ behaviours (Bell et al., 2014; Veerapen and Purkis, 2014; Cuddy et al., 2007; McGarty et al., 2002). With regard to the two images mentioned in the previous paragraph, the students are asked to consider their likely behaviours in relation to such individuals.

4.1.4 Factors influencing stereotypes

It is relevant to clarify that the focus of this section is the students’ drawings of some professions, which might illustrate stereotypical views. This concept needs to be distinguished from that of learning or having stereotypes. It has been proposed that social stereotyping cannot be non-verbal (Stangor and Schaller, 1996), suggesting that an element of dialogue is required for a perspective to be shared. The findings from analysis of the students’ drawings are a facet of note with respect to the assertion of the need for dialogue, as there may be implications of group behaviour to be seen in the drawings. It is noted that the students’ drawings may only indicate stereotypical views, not where or how they are formed.

Allport (1954) explored how the attribution of a noun to a category is a fundamental element of our social lives, and that the application of particular nouns to certain categories can be

exceptionally powerful. Of particular salience in Allport's work was describing a person in terms of ethnic origin. Stangor and Schaller (1996) extend Allport's analogies further, citing how both benign and derogatory nouns, can be used to categorise people into groups, as indicators of stereotyping. They continued by exploring how these views are promulgated and propagated through language and communication. Maass et al. (1989) had already suggested that stereotyping was more overt when considering undesirable behaviours, and that an initial abstraction is likely to produce additional congruent information, adding to the negativity of the initial stereotype.

The relevance of such concepts to IPE has been identified by some authors. Tunstall-Pedoe et al. (2003) proposed that negative attributions assigned to some professions could be as a result of stereotypical views expressed to students by both clinicians and academics. It has been proposed that students enter higher education with pre-conceptions of the profession they are proposing to enter (Foster and Macleod-Clark, 2015; Ateah et al., 2011; Hean et al., 2006; Hind et al., 2003). As much under-graduate health and social care education then occurs in uni-professional settings the disparate experiences, assumptions and learning may seem inevitable (Ryland et al., 2017; Smith et al., 2015; Veerapen and Purkis, 2014; Lewitt et al. 2010), leading some authors to articulate the need for educators to be open-minded (Croker et al., 2016) in order to mitigate potential negative implications for service user care (Jacobsen and Lindqvist, 2009).

The role of media in influencing stereotypes has limited exposure in literature, although in 1954 Allport cited media influence as being extremely important. It could be suggested that with the ubiquitous presence of the internet, and multiplicity of communication methods in contemporary society, any influence facilitated by the media is likely to be underestimated. Stangor and Schaller (1996) recognised the much greater potential influence of multimedia compared to interpersonal communication, and their suggestions pre-date the widespread use of social media on mobile electronic devices.

However, it could be that the importance contemporary society places on equality and diversity (Legislation.gov.uk, 2010) may be a moderating factor in the publication of stereotypical opinions in published, established media, such as newspapers. An opposing opinion could be that the extent to which social media, such as Facebook™, is beyond legislation may reinforce the influence of stereotypical thinking. If parallels are drawn with the widespread portrayal of

aggression in the media and its acknowledged effects (Krahe, 2012; Anderson and Huesmann, 2003), it seems reasonable that stereotypical views can also be communicated in a similar way.

There are a number of psychological factors that influence stereotyping and are relevant to IPE. Self-fulfilling prophecies affect how groups behave towards each other (Wright and Taylor, 2003; McGarty et al., 2002); attitudes held by an individual can instigate altered behaviour, which then causes reciprocally altered behaviour in the target of the expectancy (Karremans and Finkenauer, 2012; Hilton and von Hippel, 1996). Relating this to IPE if a student from one professional group believes members of another profession to be arrogant, interactions between the two may occur in such a way that the belief is reinforced. The phenomenon of covariation, where one believes separate characteristics are related (Hogg and Vaughan, 2008), may add to the strength and commonality of such interactions.

Furthermore, expectation states theory applies to groups performing a common task (Nijstad and Van Knippenberg, 2012) and can appear to relate directly to IPE; the theory suggests a group's characteristics indicate to others the degree to which their contribution will be useful in the task at hand. Using the example of arrogance again, contributions of a group held to be arrogant may be held in less regard than those of a group believed to be more diffident.

Phenomena that support individuals in protecting or enhancing their self-esteem are also relevant to the impact of stereotyping and may be particularly important during IPE when students from different professional groups have to work together. As mentioned previously (Section 4.1.2) it could be suggested that IPE creates a situation where perceived status of professional groups becomes more salient and overt, which may cause some students anxiety. Stangor and Schaller (1996) suggested that implementing a stereotypical strategy to simplify communication was more common at times of crisis.

While I would be hesitant in describing IPE as a time of crisis it would seem realistic to suggest that students may identify a need for some self-preservation, which could have the effect of increasing the impetus to employ categorisation (Turner, 1982; Tajfel and Forgas, 1981). Such categorisation could lead to students perceiving members of other professional groups more, or less, similar than they really are because a level of anxiety may have a negative impact on the efficacy of how information is processed (Hilton and von Hippel, 1996). For example, if one professional group perceive another as more academically able than their own, they would be

likely to self-affirm, and identify a different characteristic which they perceive as stronger in their own group as being more pertinent. An illustrative example can be found in Carpenter (1995) where medical students were identified as confident and the nursing students as caring. Similarly, a group might employ self-serving bias, where other groups' attributes are misrepresented in order to enhance or protect self-esteem (Hogg and Vaughan, 2008).

4.1.5 Stereotypes and behaviour

One term used to describe how stereotypical beliefs may influence behaviour is erroneous inference, sometimes referred to as illusory correlation, where the co-occurrence of two distinct incidents creates the perception of an association (Hogg and Vaughan, 2008; McGarty et al., 2002; Hamilton and Gifford, 1976), which is suggested to be more likely with the more minority, such as smaller professional, groups (Hilton and von Hippel, 1996). This effect is compounded by the tendency to select and remember information that is concordant with existing perceptions (Allport, 1954; Tajfel and Forgas, 1981), resulting in an over-estimation of the correlation of the phenomena (Smith et al., 2015; McGarty et al., 2002). An example of how this might influence behaviour would be when an individual has the impression that a particular group has negative characteristics; they would then be likely to avoid contact with members of that group, therefore limiting any opportunities that might be influential in changing their perceptions resulting in a reinforced stereotypical opinion, or when interacting with the members of the group unconsciously look for affirmation of beliefs (Croker et al., 2016; Hamilton and Gifford, 1976). Overcoming these possible behaviours is a central concept in the ethos of IPE (Section 1.1).

Stereotypes might often be regarded as an expression of negative, or less than positive, attributes (Aiken, 2002) depicting a pejorative ethos (Hogg and Vaughan, 2008). Building on Allport's (1954) suggestion that stereotypes could be used to justify prejudice (Cuddy et al., 2007), and so related behaviour, Tajfel (1981) believed that a prejudiced perception was likely to exacerbate any perceived negative characteristics associated with professional identity. It is a goal of IPE, that intergroup contact has a part to play in ameliorating any perceived dissimilarities, and so encourage more congenial interprofessional behaviours, and in extremis, counteracting any prejudicial opinions and behaviours.

When considering social prejudice Aiken (2002) reviewed Allport's analysis of scapegoats, where the contemporary use of the term refers to an expression of hostility or displaced

aggression linked to either an individual or group of people. Of Allport's four characteristics of scapegoats (Aiken, 2002) easy identification and ease of access remain pertinent to collaborative, interprofessional working and education. The IPE module creates an environment where both access and identification are fulfilled for a multiplicity of professions, even when, as mentioned previously (4.1.2), the students are generally not wearing their profession specific uniforms.

The tragic consequences of the lack of interprofessional, collaborative behaviours in the care of Victoria Climbié, is often regarded as pivotal in the development of IPE. It is perhaps logical to use instances such as the death of Victoria (Appendix 1) as persuasive examples to illustrate to students the need for educating them to be able to work collaboratively. However, unless such events are discussed with great care, the possibility of suggesting links between particular professions and scapegoating may be an inadvertent and unfortunate consequence.

4.1.6 Stereotypes and professional identities

There are two further issues that may suggest it is appropriate to consider the role of stereotyping in promoting collaborative working, and they are the linked concepts of education and language. It can be proposed that both are relevant to the undergraduates undertaking IPE, if viewed through the lens of professional socialisation. The students are soon to be qualified and are therefore developing their specific professional habitus, which, it could be suggested is not always through conscious, overt, and recognised teaching methods (Delamont, 1989). The concept of habitus, as discussed by Bourdieu (1977), might be thought of as both implicated and causative, where habitus can be regarded as a collection of traits that allows both individuals and groups to engage in, and contribute to, meaningful practice (Rawolle and Lingard, 2013).

Stangor and Schaller (1996) suggested that cultural models, or habitus, may be transferred through sources such as education, so that professional groups display collective behaviour that is linked with both their status and their profession specific world view (Foster and Macleod Clark, 2015), and even that stereotypical views can be used to preserve professional identity (Robertson, 1999), which may indicate the potential for positive by-products. When this is linked with the supposition that individuals in the same category are often viewed as similar (Tajfel and Forgas, 1981) it could be proposed that any stereotypical opinions are integral aspects of any professional commonalities, particularly when it is remembered that the majority of professional education and socialisation occurs in uni-professional situations (Smith et al.,

2015). It has been proposed that undergraduates can form negative views of other professions as a consequence of hearing and remembering similar views expressed by academic and clinical staff (Tunstall Pedoe et al., 2003), and that the demands of stressful situations in the clinical environment may be more influential than academic teaching and learning (Veerapen and Purkis, 2014)

The implications of professional specific language, or ‘jargon’ might be thought of as being similar, or possibly integral to professional identity. Bourdieu (1977) identified that both forms of conduct and the language used, influence an individual’s place within a hierarchy, and this may be regarded as being within and between professional boundaries. It has previously been proposed that stereotypes are often expressed verbally (Section 4.1.4) and language is a fundamental mechanism for identifying people as belonging to specific groups (Tajfel, 1981), and therefore maintaining and propagating stereotypes (Stangor and Schaller, 1996).

4.2 Method

As outlined in the introduction (Section 4.1) drawings completed by the students during an initial teaching session were used as a source of data. The process by which the drawings were obtained will now be explained in detail. As preparation for the data collection, ethical approval was obtained (Protocol no: EDU/PG/UH/00407: Appendix 23). Securing ethical approval sanctioned the opportunity to use the outputs of this activity from the teaching session as a source of data.

The teaching session, which took place in a lecture theatre with seating for 450, included an exploration of the conjoint concepts of stereotyping and prejudice. From my own clinical practice, I was aware of the tendency of health care professionals to employ stereotypical views of professions other than their own. This awareness intensified as I became increasingly involved in IPE and my interactions with members of different health and social care professions became more frequent. I thought it plausible that the undergraduate students might hold similarly stereotypical views of health and social care professions to qualified professionals and so I integrated the concept of stereotypes into the module timetable.

In previous academic years, during the comparable teaching session, I had asked the students to draw a number of health care professionals. Students had readily and enthusiastically engaged with this activity. When the drawings had been completed, students were asked to share some of

the features of their drawings with the whole cohort. As the session facilitator, I was able to collate some of the commonalities in ‘real time’. The activity had, on more than one occasion, proved to be a useful exercise in demonstrating the universal nature and possible consequences of stereotyping, which was then used to explore associated theory in greater depth. By securing ethical approval I had the opportunity to invite the students to submit their completed drawings so that I could use them as an element of naturally occurring data (Perryman, 2012).

Following confirmation of ethical approval, a notice advising the students of the planned activity and subsequent data collection was placed on the module site of the Virtual Learning Environment (VLE). The notice was uploaded one week prior to the session to maximise the opportunity for students to read the information (Denscombe, 2010). Care was taken to explain that submission of drawings was voluntary.

Prior to the start of the session each student was provided with a pre-prepared document, comprising a single sheet of paper, on which to do their drawings. At the start of the session I repeated that the teaching would include a drawing activity and reiterated my invitation to the students to submit their drawings for use as a data source. The teaching session then continued as planned, with no further reference to my research.

The students were invited to complete a set of four drawings for the activity. The guidance given was that each drawing should be done in a specified labelled area on the provided document.

The requested drawings were as follows;

Drawing 1; a doctor

Drawing 2; a nurse

Drawing 3; a police officer

Drawing 4; a biomedical scientist

After completing their set of drawings, the students were asked to indicate their own profession in an allocated space. At the end of the session, and as the cohort prepared to leave for a comfort break, the students were again invited to leave their drawings in labelled, sealed boxes which had been placed at each of the four doors of the auditorium, where the teaching session had taken place.

The data collected was from a single cohort of students. A breakdown of the professions represented within the cohort is demonstrated in the table below.

Profession	Number of students	Percentage
Pharmacy	150	35
Adult nurse	186	43
Child nurse	33	8
Learning Disability nurse	34	8
Mental Health nurse	26	6
Total	429	100

Table 4.1: The number of students from each profession in the cohort.

4.2.1 Analytical approach

The approach to data analysis was designed to achieve an epistemological understanding of the students' perceptions, utilising an interpretivist construct in order to gain an insight of any meanings that might be construed from the drawings (Wisker, 2008; Gaskell, 2000). The use of specific features of the drawings was thought to be consistent with inductive reasoning, where the objective was to draw some conclusions on possible meanings and interpretations (Kumar, 2005; Leedy and Ormrod, 2005), although it was recognised that my intentions would have the potential to shape the results achieved (Schwandt, 1998). The data was regarded as having the capacity to demonstrate how students' perceptions are influenced by observations of, and interactions with, real world events and environments (Loizos, 2000).

The method used has been interpreted as being of a content analysis approach, whereby there is an element of categorisation and creation of numerical data to reduce the complexity of the images (Marshall and Rossman, 2011; Silverman, 2011; Loizos, 2000). While I recognised this as being only relatively achievable, as far as possible analysis was driven by the data rather than pre-conceptions (Gibbs, 2007), and procedures were constructed and trialled prior to any substantial analysis being undertaken (Ezzy, 2002). Elements of the process for generating meaning advocated by Miles and Huberman (1994) were adopted, such as noting patterns, grouping similar features and counting frequency of occurrence.

It was not apparent whether the profession of the student creating specific drawings was relevant, and it was recognised that only limited inference, rather than a complete explanation might be attempted (Silverman, 2005). However, it was thought that an exploratory element to the analysis, whereby some characteristics of the drawings might provide an insight into possible behaviours, may become apparent (Wisker, 2008).

4.3 Results

4.3.1 Process of data reduction

Initially the documents were collated into groups by the profession of the student doing the drawing. Each sheet of paper was then allocated a number. A total of 321 sets of drawings were placed in the sealed boxes. Of these, 44 either did not indicate the student's profession, or did not give a complete profession (e.g. the generic term of nursing was stated and the field of nursing was omitted) and therefore were discounted from the analysis. The data set analysed comprised of 277 complete sets of drawings. The number of drawing sets from each professional group is indicated in the table below.

Student profession	No. of drawings submitted	Percentage
Pharmacist	99	35.7%
Adult nurse	120	43.3%
Child nurse	23	8.3%
Learning Disability nurse	23	8.3%
Mental Health nurse	12	4.3%
Total	277	100%

Table 4.2: The number of drawings submitted by each professional group

The drawings were studied and reviewed on several occasions. Specific features that appeared more than once were noted. An Excel™ spreadsheet was constructed using the following strategy.

- The first column indicated the number of the set of drawings
- The second column indicated the profession of the student completing the drawing
- The third column indicated the specific picture i.e. doctor, nurse, police officer or biomedical scientist.
- The rows were grouped into sets of four, there being four pictures per student

- Facial expressions were categorised into up (positive), down (negative) or neutral. Non-completion of a face was allocated a neutral score
- Hairstyles were categorised as being clearly male, female or neutral (ambiguous or absent)
- Clothes were categorised as indicating male or female attire or neutral (ambiguous or absent)
- Overt features of sexuality were noted
- Implied features of intelligence were noted, e.g. figures wearing spectacles
- Types of headgear were noted e.g. cap, helmet, hat
- Artefacts included on the images were noted e.g. stethoscope, test-tube, fob watch handcuffs.
- The data set comprised 1108 rows in Excel™
- The data was then re-saved in sets indicating the profession of the students completing the drawings

Using Excel™ the data sets were grouped to indicate the following information per professional group (Appendix 7);

- Doctors drawn as identifiably male or female
- Nurses drawn as identifiably male or female
- Police officers drawn as identifiably male or female
- Biomedical scientists drawn as identifiably male or female
- Biomedical scientists with distinctive hair
- Biomedical scientists and doctors wearing spectacles
- Doctors drawn with stethoscopes
- Doctors drawn wearing a white coat (or jacket which might be more easily drawn)
- Nurses wearing caps
- Nurses with fob watches
- Police officers with handcuffs and/or a handgun
- Police officers wearing helmets/hats
- The correlation between profession drawn and facial expression

It is perhaps useful to mention that no aspects of either race or ethnicity were noticed in the drawings.

4.3.2 Key data from drawings

Profession	Number of participants	Doctor - Male		Doctor - Female		Doctor - Stethoscopes		Doctor - White Coat		Doctor - Spectacles	
		Number	%	Number	%	Number	%	Number	%	Number	%
Adult Nurse	120	84	70.0%	10	8.3%	106	88.3%	9	7.5%	19	15.8%
Child Nurse	23	16	69.6%	6	26.1%	21	91.3%	1	4.3%	2	8.7%
LD Nurse	23	13	56.5%	4	17.4%	21	91.3%	1	4.3%	1	4.3%
MH Nurse	12	7	58.3%	0	0.0%	11	91.7%	0	0.0%	1	8.3%
Pharmacist	99	57	57.6%	9	9.1%	83	83.8%	7	7.1%	10	10.1%

Table 4.3: Drawings of doctors

Profession	Number of participants	Nurse - Male		Nurse - Female		Nurse - Caps		Nurse - Watch		Nurse - Stethoscopes		Nurse - Spectacles	
		Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Adult Nurse	120	8	6.7%	100	83.3%	63	52.5%	57	47.5%	0	0.0%	0	0.0%
Child Nurse	23	4	17.4%	19	82.6%	6	26.1%	8	34.8%	0	0.0%	1	4.3%
LD Nurse	23	0	0.0%	16	69.6%	12	52.2%	8	34.8%	1	4.3%	0	0.0%
MH Nurse	12	0	0.0%	11	91.7%	9	75.0%	4	33.3%	0	0.0%	0	0.0%
Pharmacist	99	3	3.0%	86	86.9%	64	64.6%	18	18.2%	0	0.0%	0	0.0%

Table 4.4: Drawings of nurses

Profession	Number of participants	Police - Male		Police - Female		Police - Gun		Police - Handcuffs		Police - Helmet/Hat		Nurse - Spectacles	
		Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Adult Nurse	120	80	66.7%	7	5.8%	17	14.2%	51	42.5%	107	89.2%	2	1.7%
Child Nurse	23	16	69.6%	4	17.4%	5	21.7%	16	69.6%	20	87.0%	0	0.0%
LD Nurse	23	13	56.5%	2	8.7%	3	13.0%	9	39.1%	13	56.5%	0	0.0%
MH Nurse	12	5	41.7%	0	0.0%	1	8.3%	4	33.3%	11	91.7%	1	8.3%
Pharmacist	99	54	54.5%	7	7.1%	41	41.4%	39	39.4%	92	92.9%	0	0.0%

Table 4.5: Drawings of police officers

Profession	Number of participants	Scientist - Male		Scientist - Female		Scientist - Coat		Scientist - Spectacles		Scientist - Wild Hair		Scientist - Goggles	
		Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Adult Nurse	120	59	49.2%	21	17.5%	59	49.2%	59	49.2%	24	20.0%	5	4.2%
Child Nurse	23	7	30.4%	9	39.1%	6	26.1%	8	34.8%	9	39.1%	0	0.0%
LD Nurse	23	10	43.5%	2	8.7%	4	17.4%	10	43.5%	1	4.3%	1	4.3%
MH Nurse	12	6	50.0%	1	8.3%	2	16.7%	4	33.3%	0	0.0%	1	8.3%
Pharmacist	99	39	39.4%	18	18.2%	56	56.6%	41	41.4%	15	15.2%	2	2.0%

Table 4.6: Drawings of biomedical scientists

4.3.3 Summary of key data

4.3.3.1 Drawings of doctors

Overall the professions, of those who indicated a gender, 86% drew doctors as male. The percentages of each professional group that drew a doctor with a stethoscope appear to be very similar, which seems to indicate that each of the groups have used the stethoscope as a defining feature of the medical profession. Across the professions, 87% drew doctors with stethoscopes. In contrast, the number of doctors drawn white coats demonstrated much less consensus with 6% drawing doctors wearing white coats. One other notable feature associated with the drawings of doctors was that 12% were drawn wearing spectacles.

4.3.3.2 Drawings of nurses

Across the professions, of those who indicated a gender, 94% drew nurses as female. While not as emphatic as the drawings of the doctors with stethoscopes, significant numbers of drawings of nurses demonstrated them wearing caps. Fob watches appear to be a less consistent defining feature than the wearing of a cap. Less than 1% of nurses were drawn with a stethoscope or spectacles.

4.3.3.3 Drawings of police officers

Of the drawings which indicated a gender 89% of police officers were drawn as male and only 11% were identifiably female. Notable identifying features included a hat or helmet, 87%; handcuffs, drawn by 42% and handguns included by 25%. Less than 1% were drawn wearing spectacles.

4.3.3.4 Drawings of biomedical scientists

Of the drawings which indicated a gender 70% clearly demonstrated a male gender and only 30% female. Notably 44% were drawn wearing spectacles (although an additional 3% seemed to be goggles) and 17% had ‘wild hair’. Overall 46% were drawn wearing a lab. coat.

4.3.4 Comparisons across drawings of different professions

Profession	Male or female
Doctors	86% (n= 177) identifiably male
Nurses	94% (n=232) identifiably female;
Police officers	89% (n=168) identifiably male 11% (n=20) identifiably female
Biomedical scientists	70% (n=121) identifiably male 30% (n=51) identifiably female

Table 4.7: Identifiable demonstration of gender

All of the drawing sets included in the data sample had all four figures completed. It was notable that some professions were drawn smiling more frequently than others. In order to examine this further a score was assigned to each figure; a score of +1 indicated a smiling face, a score of -1 was allocated to a miserable face (where the mouth was drawn curled downwards) and a score of zero where there was a neutral or absent facial expression.

Smile factor	Doctor	Nurse	Policeman	Biomedical Scientist
Adult nurse	0.47	0.72	0.43	0.53
Child nurse	0.52	0.78	0.48	0.57
LD nurse	0.57	0.52	0.17	0.30
MH nurse	-0.25	-0.08	-0.33	-0.17
Pharmacist	0.42	0.57	0.30	0.49

Table 4.8: Variation in facial expression

Therefore, a positive number in table 4.8 indicates that the figures tended to be drawn with a positive facial expression. In general, nurses tended to be drawn smiling by the majority of students. The exception to this was the mental health nurses who were more likely to have drawn all of their figures, including the nurses with miserable demeanours. Of all the figures the police officers were generally less likely to be drawn smiling.

4.3.5 Indistinguishable figures

A number of drawing sets were returned by participants that showed no distinguishing features in the four figures. Four of these were doctors, two were nurses, 1 was a police officer and ten were biomedical scientists.

4.4 Discussion

4.4.1 Ethical issues

As advocated by Rose (2012) while following basic ethical principles, each individual set of circumstances created by a research study should consider the particular and individual circumstances created. It could be surmised that there were four aspects of this element of the case study that required careful consideration for the data collection method to be ethically sound. These are the issues of informed consent, participant confidentiality, the researcher participant relationship and copyright; these will be considered in turn.

It was thought that the collection of the drawings, as naturally occurring data, would have had limited potential to cause the participants' harm, but nevertheless informed consent was considered as an essential aspect of ethics (Cohen et al., 2011; Denscombe, 2010; Yin, 2009; de Laine, 2000). Formal ethical permission is generally regarded as the first step in informed consent (Busher and James, 2012; Stake, 1995), and this was sought and secured (Appendix 23).

It was then important to ensure that sufficient attempt had been made to explain the purpose of the research, including an outline of any potential risks or benefits (Busher and James, 2012; Cohen et al., 2011; Denscombe, 2010). No specific risks were identified, and the most overt benefit was that of the potential to improve the efficacy of the teaching for future cohorts. Also integral were the requirements for the students to be given the opportunity to ask questions and also to understand that contribution to the data was entirely voluntary (Cohen et al., 2011), and this was achieved through use of the VLE.

The process of asking the students to place their drawings in sealed boxes might be termed tacit consent (Denscombe, 2010; Merriam, 1998) and was thought to have given the students the right to self-determination i.e. the choice of retaining or submitting their drawings (Cohen et al., 2011). It was also important to convey to the students that their drawings were indicative of their individual perceptions that they were choosing to demonstrate and that there were no 'right' or 'wrong' answers (Kelly, 1985).

The second element of ethical research to be considered is that of ensuring participant anonymity, confidentiality and privacy (Cohen et al., 2011; Denscombe, 2010; Yin, 2009), so that a level of trust existed between myself and the student participants (Grix, 2010; Burgess,

1985). Participant privacy and anonymity were generally assured by not asking for any demographic data to be written on the drawings. However, there was a small potential risk to participants' anonymity and confidentiality. As can be noted from table 4.1, the numbers of students from the fields of child learning disability and mental health nursing were very much smaller than those from adult nursing or pharmacy. However, this risk was not realised as the numbers of drawings returned precluded identification of any individual student participant. The large number of students from adult nursing and pharmacy could be perceived as assuring an element of anonymity.

A further issue to be considered was that of the researcher participant relationship, particularly when considering my dual roles as both researcher and module leader (with concomitant responsibility for summative assessment). These dual roles, which could be termed insider research, have the potential consequences of influencing the information provided by the student participants and also being perceived by them as coercion, albeit unintended (Trowler, 2016; Denscombe, 2010; Merriam, 2009; de Laine, 2000; Merriam, 1998). One strategy to minimise the risk included taking care to be open and honest in every aspect of the research, including how the data would be used (Delamont, 2002; Bassey, 1999) and striving to ensure that any personal opinions were not overtly influential (Denscombe, 2010).

The issue of copyright relates directly to visual images, as normally the person who made the image owns it (Rose, 2012), although generally it is photographs and video recordings that are more contentious (Heath et al., 2010). It was explained to the participants that leaving their images in the sealed boxes was voluntary, and that once they had been left, consent had been given and withdrawal would not then be possible. The intention to use the images as part of my doctoral thesis was overtly included in the explanation.

4.4.2 Methodological issues

As mentioned previously, published research that has explored stereotyping with respect to IPE generally appears to have used self-completed questionnaires (Section 4.1). One advantage of adopting a questionnaire would have been that there may have been less opportunity for students to see, or be influenced by, each other's responses. As part of the learning experience, sharing images among the cohort, in order to emphasise commonalities, was thought to be important. However, the consequence of this could have been that, although the students had anonymity

from myself as researcher, the images were not anonymous from other students; as a result, the possibility of a cohort effect cannot be completely excluded.

Another possible disadvantage of using the drawings of data was the creation of an opportunity for students to draw derogatory, inflammatory or inappropriate images. The potential for this might be thought to be greater than in answering specific questions. A very small number ($n=3$) of students did submit inappropriate images, which generally depicted unnecessarily overtly emphasised indicators of sexuality. While these were not excluded from the analysis, they were not sufficiently numerous to become a notable aspect of the data.

4.4.3 Demonstration of stereotypical features

4.4.3.1 Gender

From the analysis, it appears that the majority of students drew images that demonstrated gender specific stereotypical features. Across all of the professions, 86% drew doctors as identifiably male, 94% drew nurses as female and 89% drew police officers as male. Statistics obtained from the List of Registered Medical Practitioners stated that in October 2016, 54.6% registrants were male (General Medical Council, 2016). The situation in nursing, according to an email received on the 3 November 2016 from the Nursing and Midwifery Council, indicated that only 11% of registered nurses are male and statistics suggest that 72% of police officers are male (The Home Office, 2015).

Of these statistics, the only drawings that realistically reflected reality was that nursing being a predominantly female profession, which could be thought to be an illustration of the ‘kernel of truth’ concept whereby it is suggested that stereotypes can actually emerge from genuine group differences (McGarty et al., 2002). Perhaps the generally unisex design of police uniform for both men and women in the police force might be a contributing, and confounding factor for the drawings; although students who did draw identifiably female police officers they often made the gender apparent through overtly feminine hairstyles. In the absence of such identification, police officers with short hair were assumed to be male (Figure 4.1). It would appear that the perception of doctors being male is the most common and most strikingly demonstrated gender stereotype in the images.

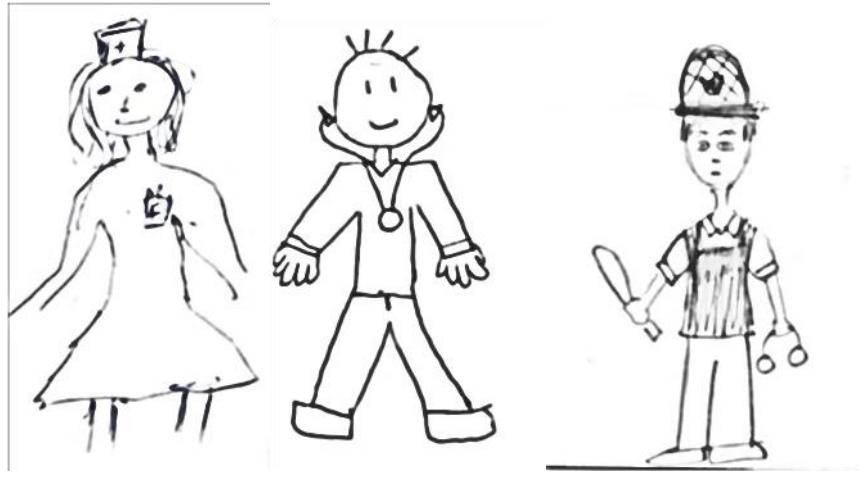


Figure 4.1: Typical images of a nurse, doctor and police officer

The gender of the drawings of biomedical scientists is also noteworthy. I chose this profession for the students to draw as I thought they would be less likely to have had personal experience with a member of this profession or to have extensive knowledge of the professional role. Of those whose drawings identified a specific gender 70% indicated a male gender and 30% female. If my assumption was reliable the data might suggest that stereotypical views are not necessarily confined to those groups with whom individuals have had contact (Aiken, 2002; Stangor and Schaller, 1996). It is also possible that the drawings represented a stereotypical scientist with the 'biomedical' aspect being disregarded. It is possible that the data evidences this supposition as 17% of the biomedical scientists were portrayed with hair styles similar to that commonly associated with images of Einstein, and so by implication were identified as male.



Figure 4.2: Picture of scientist with wild hair

However, there is also data to support the contradictory view that stereotyping may involve a degree of knowledge about the group (Foster and Macleod Clark, 2015; Koenig and Eagly, 2014; Tajfel, 1981) and illustrative images, noted such as those including microscopes or test tubes of blood, might be indicative of the ‘biomedical’ aspect of the profession.



Figure 4.3: Pictures of biomedical scientists

It might seem appropriate to consider heuristic processing as a way of interpreting these findings, which would suggest that sufficiently accurate information is generated most of the time (Hogg and Vaughan, 2008; Hinton, 2000). However, the images drawn do not reflect, and appear to conflict with, the reality in some cases; this could be thought to be particularly relevant for all of the student nurses (notwithstanding their nursing field), who are very likely to have been working alongside members of the medical profession on clinical placements during their preceding two years of study, and yet still predominantly drew male doctors.

4.4.3.2 Demonstration of hierarchy

It has been suggested that there are two strategies for remembering information about social groups; the prototype model which uses a combination of associations, and the exemplar model which involves recalling specific individuals (Hinton, 2000; Hilton and von Hippel, 1996; Stangor and Schaller, 1996). Of these two methods of processing it would seem that the students may be adopting the latter and are tending to recall specific individual(s). This point can be illustrated by the following drawing.



Figure 4.4: Drawing of a doctor which could demonstrate the exemplar model of stereotyping

This image was not unique, others were similar, and they have been interpreted as conveying specific perceptions. In the drawing above there is a definite association with a particular medical speciality, possibly as an illustrative example of a small number of actual individuals. Additionally, there appears to be an expression of out-group bias, with the doctor being portrayed as demonstrating superiority in a manner that can be interpreted as being antagonistic. Other examples of out-group bias were noted and such sentiments could be perceived as an illustration of prejudice, which has been noted to accentuate observed differences (Hilton and von Hippel, 1996; Tajfel, 1981).



Figure 4.5: Drawings completed by an adult nurse which could indicate out-group bias

The theory that extreme individuals are more remarkable, and are therefore more commonly used as prompts, (Hilton and von Hippel, 1996; Stangor and Schaller, 1996; Tajfel and Forgas, 1981) might ameliorate any suggested level of actual prejudice.

When the suggestion of prejudice is considered with reference to Allport (1954) there appears to be distinct tendency to stereotype doctors, as the images of gender are unsupported by the facts. The concern might be that such stereotyping is being used to rationalise or justify ways of behaving, and perhaps the social behaviour of whole professional groups (Pendry, 2012; Hogg and Vaughan, 2008; Stangor and Schaller, 1996). It has been suggested that such seemingly intransigent stereotyping may be an indicator of the power and hierarchy in the doctor-nurse relationship (Bell et al., 2014; Hilton and von Hippel, 1996) and the maintenance of professional distinctiveness (Veerapen and Purkis, 2014) but my findings would have to extend this beyond doctors and nurses to include professions such as pharmacy.

It does seem to be clear that some students' drawings overlooked individual differences, although no motives can be definitely ascribed on the basis of images alone. However, if such categorisation is considered in terms of values, it could be suggested that the students are indicating a level of self-preservation, i.e. 'they are not like us', and they are choosing to demonstrate values that over-emphasise professional differences (Tajfel and Forgas, 1981). There is likelihood that such value-based judgements, if they are regarded as indicative of general behaviours, could lead to further differentiating perceptions of, and behaviour towards, other professional groups (Hamilton and Gifford, 1976).

It is perhaps an associated and unfortunate consequence of such potentially altered behaviour that the self-fulfilling prophecy may then become an influence; the behaviour of the individual with the stereotype will prompt reciprocal behaviour by the stereotyped individual (Croker et al., 2016; Hilton and von Hippel, 1996; Hamilton and Gifford, 1976), which may then reinforce negative perceptions in both parties.

Such derogation of out-groups will implicitly create the perception of enhanced in-group status, and therefore a positive effect on the individuals' self-esteem (Mc Garty et al., 2002; Fein and Spencer, 1997; Stangor and Schaller, 1996; Tajfel and Forgas, 1981). I have suggested that the third-year students on the IPE module may already be experiencing anxieties (Section 4.1.2), and increased anxiety has been recognised as having a deleterious impact on information processing,

possibly leading to increased stereotyping (Aiken, 2002; Hilton and von Hippel, 1996; Stangor and Schaller, 1996).

It has been proposed in literature that such derogation of out-groups is more likely to be apparent in behaviour by minority groups (Aiken, 2002) and that aspects of minority groups perceived as negative are liable to be overly emphasised (Hogg and Vaughan, 2008; Tajfel and Forgas, 1981). The data has been interpreted as demonstrating some evidence of this phenomenon, although not consistently. The mental health nurses tended to draw professions as being portrayed more negatively. Had drawings of the professions at the teaching session been requested, further insight could have been gained into this aspect. However, the children's nurses (another minority group in the cohort) appeared to be more open-minded, drawing more male nurses, more female doctors and fewer nurses wearing caps.

4.4.3.3 Associated artefacts

It could be interpreted that there is further evidence to support the previous suppositions of stereotypical views about the medical profession demonstrated in the images. One interesting feature is the number of doctors that were drawn with stethoscopes (87% across all professions); common contemporary clinical practice entails many nurses using stethoscopes regularly, yet they were demonstrated as an artefact almost exclusively associated with the medical profession.



Figure 4.6: A typical drawing of a doctor wearing a stethoscope

The second element which may support this differentiation is the number of nurses who were drawn wearing fob watches and caps. In contemporary clinical practice, the fob-watch might be

exclusively associated with nurses, in recognition of the element of their role to undertake patient observations (pulse and breathing rate). However, this exclusivity is not reflected in the drawings as only 34% of the nurses were drawn wearing a fob watch.

In contrast, even if the adult nursing group are considered individually, over half of the cohort (52%) drew nurses wearing caps, despite this not having been part of a nurses' uniform since the 1970's, being identified as counter-indicated in infection control. It is probable that many of the students in the group were aged approximately twenty (excluding mature entry students), and these students would never have encountered nurses wearing caps in the United Kingdom (U.K.). It is not clear where such an apparently widespread aspect of stereotyping would have originated, as many contemporary portrayals of nurses, such as on the television, do not show nurses wearing caps. The equivalent association between nurses' uniforms and caps is not overt with doctors wearing white coats, which was demonstrated by only 6% across the whole cohort; this statistic does represent contemporary practice, as wearing white coats in clinical areas is also seen as counter-indicated in infection control. This anomaly is demonstrated in figure 4.7, which is thought to be of note as they two pictures were drawn by the same student.

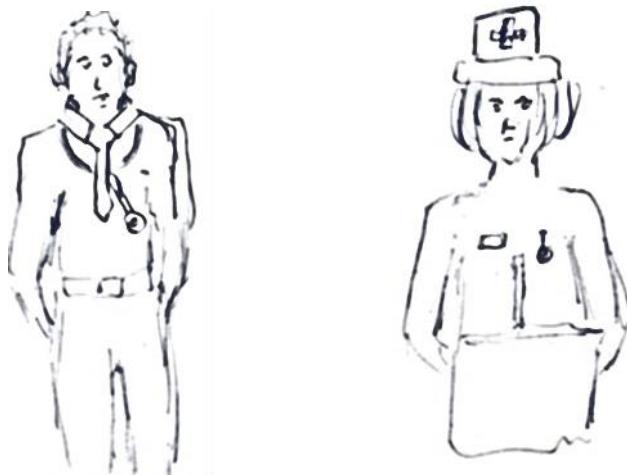


Figure 4.7: Drawing by the same adult nursing student showing a nurse in a cap but a doctor without a white coat.

Artefacts that appeared to be commonly associated with police officers include hand cuffs, the most common item and included on 42% of the drawings, and handguns, identified by 25%. This demonstrates an interesting enigma. In the U.K., police officers do commonly carry handcuffs, and these are often visible, attached to their uniform belt. The reality would suggest

the depiction of handcuffs on the students' images as accurate reflection (Koenig and Eagly, 2014). However, police officers in the U.K. do not commonly overtly carry handguns.



Figure 4.8: A typical drawing of a police officer with handcuffs and hand gun

I suggest that there are two possible explanations for this finding. The first is that the illustration of handguns is a manifestation of a cultural model. The students in the cohort are from a variety of nationalities, ethnicities and cultural backgrounds and it could be thought to be highly likely that police officers in countries other than the UK, such as Ireland and South Africa, do carry handguns, therefore their illustration mirrors reality. The caveat of this connection being suppositional should be added, as no data on students' cultural background was collected. The threat that may be identified by such manifestation of cultural models is the suggested link with an individual's behaviour (Tajfel, 1981).

A second explanation that can be suggested is the influence of media, in particular television and films, principally those originating in countries such as the United States of America. In such media, police officers are frequently portrayed as carrying and using handguns. It has been suggested that the media has an influence on stereotypes (Section 4.1.4), although Hilton and Von Hippel (1996) suggested any effect was subtle, Stangor and Schaller (1996) contemporaneously proposed it could be significant.

The final artefact of note included on the students' drawings was that of spectacles. Less than 1% of the drawings of nurses and police officers included them wearing spectacles, but 12% of doctors and 44% of the biomedical scientists included them. This would seem to demonstrate an element of collective thinking and perhaps there is a supposed association between spectacle

wearing and intelligence. When this association is extended it could be suggested that doctors and biomedical scientists may be thought of as more intelligent than police officers and nurses. If collaboration in health and social care is considered it might be supposed that doctors being stereotyped as more intelligent than nurses is indicative of professional cultures and hierarchy and that spectacles were indicative of group differentiation, and the epistemic function of stereotypes (Veerapen and Purkis, 2014; McGarty et al., 2002; Stangor and Schaller, 1996; Tajfel and Forgas, 1981). There is perhaps an inevitable link between these perceptions and perceived dominance of one profession over another (Greene, 2013; Freidson, 2007).



Figure 4.9: Drawings of a doctor and a biomedical scientist wearing spectacles

4.4.3.4 Demeanour

The final notable feature of the drawings that will be discussed is that of the demeanour demonstrated on the drawn figures. While the majority of images had neutral facial expressions, there was a tendency for nurses to be drawn positively and police officers negatively.

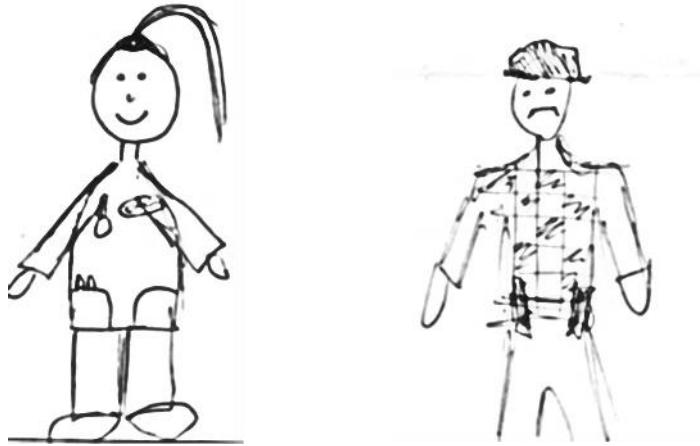


Figure 4.10: Typical drawing showing the difference in facial expressions between nurses and police officers

The disparate facial expressions could be interpreted as non-conscious categorisation illustrating differences between groups (Hogg and Vaughan ,2008), which perhaps has a level of subjective importance to individuals, as described in Tajfel's accentuation principle (Tajfel, cited in Hogg and Vaughan, 2008); it could perhaps be the difference in how the attributes of the two job roles are viewed (Eagly and Chaiken, 1993), nurses as caring and helpful, police officers as law enforcers. The stern-looking police officers seem to be more congruent with the view that stereotypical views tend to be negative in contrast to the friendly looking nurses (Aiken, 2002) although Allport's (1954) view that stereotypes demonstrate a tendency to justify like or dislike appears apposite. It does seem reasonable that the differing assigning of facial expressions could be linked to behaviours towards the two professional groups (Pendry, 2012; Cuddy et al., 2007; Stangor and Schaller, 1996; Hamilton and Gifford, 1976).

4.4.4 The place of the current study with reference to stereotypes and IPE

The role of education and IPE in stereotypes and stereotype change has been discussed sporadically for decades (Carpenter, 1995; Horder, 1977) and it is perhaps the complexity of the issues that is integral to the discussion and conflicting opinions. As a basic premise, there is a level of consensus that students entering higher education institutions to train do so with a gamut of established stereotypes of health and social care professions (Ateah et al., 2011; Reeves et al., 2010; Hind et al, 2003; Tunstall-Pedoe et al., 2003). There is less consensus and greater discussion on the impact of IPE on stereotypical views, and it is suggested that this research adds a previously little-considered dimension to the discourse.

There is some evidence that the stereotypical views held by students entering higher education are readily accessible (Carpenter and Dickinson, 2016) and may be related to students' individual backgrounds and life experiences (Bell et al., 2014; Cuddy et al., 2007; Tunstall-Pedoe, 2003). In an article published in 2006, Hean et al., suggested that stereotypes endure throughout education, and this suggestion would appear to be congruent with an earlier study completed by Carpenter (1995) which employed final year students as participants; my research would seem to reinforce that students approaching the end of their programmes of study still hold readily accessible stereotypical views of other professions.

The role of IPE in diminishing stereotypical views has been subject to investigations (Croker, 2015; Thomson et al., 2015), although how this has been measured does not seem to facilitate direct comparison and the extent to which conclusions can be compared is limited. For example, Foster and Macleod Clarke (2015), Lindqvist et al. (2005) and Ateah et al. (2011) claim to have demonstrated positive changes to healthcare students' attitudes towards each other (the comparisons sometimes only considering various perceptions rather than stereotypes).

However, using self-completed questionnaires could cast doubt on the conclusions as students' attitudes may have played a significant role in their decision to return the questionnaires. It is argued that using drawing as a data collection method, as I have done, has facilitated demonstration of a greater degree of verisimilitude and implicit attitudes as compared to the explicit attitudes likely to have been expressed in questionnaires. It is acknowledged that non-return of drawings could be an equally confounding factor as the non-return of questionnaires.

Another complexity to consider is the method that is used for IPE, and that not all IPE is the same. For example, some studies have been based on students' spending a reasonably extended period on a specialised interprofessional training unit, or ward (Jacobsen and Lindqvist, 2009; Lidskog et al., 2008), and others using a longitudinal model embedded throughout the curriculum (Smith et al., 2015). Alongside this complication is that of the educators also tending to allow stereotypes to influence their thinking and behaviour (Croker et al., 2016) which may be unquantifiable.

Whilst I made no attempt to measure stereotype change, the extent to which stereotypical views appear to endure, the complexity with which they appear to be formed and their accessibility, would seem to suggest using them as a tool in teaching could be valuable. Against this, are the

issues of the students' developing professional identities and possibly professional insecurities, which are likely to increase the tendency for stereotypical thinking (Jacobsen and Lindqvist, 2009; Robertson, 1999; Fein and Spencer, 1997; Hilton and von Hippel, 1996; Stangor and Schaller, 1996). While I agree that IPE has the potential to decrease stereotyping, with its associated negative impacts on collaborative behaviours, the strong tendency to stereotype could be the greater influence, making IPE counterproductive.

Apart from in my research, the link between stereotypical views and behaviour has only been discussed within the literature to a limited extent (Lewitt et al., 2010). I think that it is this aspect of stereotyping that should be emphasised in IPE; supporting the students in understanding the ubiquity of stereotyping and potential impact on their behaviours may be influential in ameliorating potentially negative consequences. In tandem with this, the implication of the students' developing professional identities being influential in the level of insecurity they may experience (Mandy et al., 2004; Hind et al., 2003; Robertson, 1999) should be carefully considered. Taking suitable measures to ensure a supportive and positive environment could have the effect of engendering positive emotions in the students, which might then mediate stereotype change in a positive direction (Cuddy et al., 2007).

4.4.5 Implications of the drawings on students' attitudes towards collaboration

What was surprising about the outcomes of the analysis of the drawings was the close synergy with the three domains of attitudes. The student nurses, who had spent considerable amount of time over the previous two years working on clinical placement were still predominantly drawing doctors as male and nurses with caps. This must conflict with their knowledge from placement, suggesting that the salience of stereotypical thoughts is greater than their knowledge of doctors and nurses. There is also consistent evidence of the affective attitude domain in the demonstration of exemplar model, where the drawing was probably based on an extant example, which is recognised as influencing both emotional and behavioural responses. The over-emphasis of values-based differences would suggest patterns of behavioural responses towards other professional groups. Further evidence to support the impact of stereotypes on the behavioural domain is the difference in the demeanours attributed to nurses and police officers, suggesting that the two professions would elicit very different behavioural responses, and subsequent reactions from the target of the interaction.

The importance of these points is that they are used in education, both of the students during IPE, but importantly also for preparing staff to facilitate IPE, as they will have a key role during facilitation to supporting students to recognise when stereotypical thinking has the potential to influence behaviour. Additionally, the place of facilitators as role models should not be underestimated, and so their learning is an important pre-requisite. I suggest that, although this may appear straightforward, the ‘kernel of truth’ (Section 4.1.1.) aspect is a confounding factor as it will continually support stereotyping and associated behaviours.

4.5 Summary

In conclusion, features of the analysis pertaining to students’ attitudes towards other professions and collaboration have been discussed. The data has not been equated with accepted conventional measure of implicit attitudes, such as the IAT or evaluative priming, but it is possible that the perceptions conveyed in the data are less considered than had a self-completed questionnaire been used.

It would seem that participants were categorising professions, with some values-based assumptions, although not always stereotyping as the images were not consistently pejorative e.g. Figure 4.5. However, it has been suggested that one might draw a burglar with an eye mask, swag bag and stripy jumper (Duncan, 2016). Perhaps therefore, the demeanour portrayed is the most notable factor as being likely to influence behaviour (Section 7.3.3).

My awareness of the impact of stereotypes on collaborative behaviours preceded my involvement in IPE. I had become aware of the professional generalisations and stereotypes that existed within professional cultures both in my clinical and, to no less extent, in my academic career. As supported by the literature, one can only have limited confidence in a self-report tool as used in previous studies. It is thought that using drawings was a less threatening method by which to explore the construct, particularly given the exacerbating factors of my role as module leader and the potentially sensitive aspects of stereotypical opinions in juxtaposition with prejudices.

As mentioned previously, that students enter higher education with stereotypical opinions of other health and social care professions is not new and their continuation might be considered as an inevitable consequence of current modes of health and social care education where, for the

majority of the curricula, students are educated within uni-professional groups, often by members of the same profession. It should also be emphasised that such views are concomitant with cultural models, habitus and collective behaviours. Such evidence of generalisations and social identity biases illustrated in the students' drawings reinforces my belief that the aspect that this work adds to the discussion is the influence of such stereotypical views on both behaviours and the interpretation of behaviours.

While it has previously been acknowledged that the activity described might support drawings demonstrating stereotypical features, it also highlights the significant salience of stereotypes in final year students, and the link between this salience and its impact on behaviours is of note. Another strength of the activity was that it did not require the students to consider explanations but could simply be a production of their thoughts.

The role played by self-fulfilling prophecies becomes more influential in the light of such salient stereotypes. Behavioural confirmation will affect how members of different professions behave towards each other. Subsequently the behaviour that is then reciprocally demonstrated by the target will be similarly influenced. Furthermore, such salience of stereotypes also has the potential to undermine mixed professional groupwork if the way in which behaviours are perceived is considered. The stereotype associated with a professional group may influence how an ambiguous behaviour by an individual of that group is interpreted. A student who is exhibiting reticence may be perceived by others as either shy or lazy depending on the stereotypical view held of their profession.

A consequence of IPE in the academic environment is that students who are accustomed within their placement to being both identifiable themselves and being able to identify others (either by uniform or identification badges) no longer have this method available. When in a mixed professional environment such as encountered on placement, students will habitually accurately recognise people by their appearance, which could be viewed as encouraging collective behaviours and heuristic processing, such that it is the norm. Furthermore, uniforms may both facilitate and simplify communication, both verbal and non-verbal. It might therefore be suggested that conditions in the clinical environment promote such heuristic, or simplistic thinking.

Therefore, because in clinical environments heuristic processing can habitually be a successful strategy, students may find that when such a mechanism is removed, as during IPE, they suddenly have to rely on different perceptions to facilitate interactions and conversation, which may provoke anxiety. It is an inevitable, but unfortunate consequence of anxiety that it results in increased heuristic processing and stereotyping. There is therefore then the potential, where stereotypes that have been demonstrated to be both salient and negative, for collaborative behaviours to be inhibited, particularly if they are used to justify negative perceptions or prejudice. It is suggested that a goal of IPE should be ameliorating and counteracting erroneous inference, so that individuals are valued as such, whatever their profession. It is recommended that the impact of salient stereotyping has to become an important focus within the IPE module.

The most important aspect of this tranche of data is the sharing of the behavioural implications both within, as staff development activities and teaching activities, and beyond my institution. It is an activity that could easily be adopted within other institutions as a focus of their IPE. As a clinician and healthcare professional prior to this investigation I was aware of professional cultures, but would not have anticipated the salience of stereotyping, and the likely impact of students' social realities. In retrospect, perhaps my extensive clinical experience in CT scanning increased my acceptance of working collaboratively with different health professionals as, as mentioned previously, my role often relied on successful multiprofessional working.

This activity has become embedded within the IPE teaching as a result of this research and has had a significant level of resonance and impact as stereotyping has become a frequent aspect of the students' discussions and summative assessments. The focus of the discussion with the students is now of stereotyping being a normal phenomenon, and that learning to recognise it may be influential in preventing it guiding subsequent negative behaviours.

5 Stories told by the service user

5.1 Introduction

This chapter will correlate with the theoretical framework from a different perspective to the previous two. As mentioned in the introduction (Section 1.10) it was never the intention to only give significance to my perspectives and because of the centrality of the service user within health and social care, it is right to devote a chapter to their narratives. Additionally, a stated aim of the research was to increase my knowledge and understanding (Section 2.2.5) and previous experiences had shown me that there was merit in unpicking the session investigated in the chapter in detail. Certain aspects of the theoretical framework, such as intergroup contact, are only tangentially significant to this chapter. Recognition of this will allow greater scope for focus on the elements of cognitive dissonance, transformational learning and the attitudinal domains.

The objective of this element of the study was to investigate whether a specific teaching session involving patient narratives has an influence of the students' attitudes towards collaboration (Lorimer, 2016). One of the first developments I made to the module after taking on the module leader role was to introduce a session that included a number of patients talking about their experiences. My primary motivation was the idea that the 'patient' was the most obvious common entity between the diverse professions enrolled on the module. I believed that it was also the one feature which they were most likely to identify with, and be interested in. Other academic theorists have agreed with the view that good professional, and therefore interprofessional, practice should be patient-centred (Nasir et al., 2017; Barr, et al., 2005; Steinert, 2005).

A persistent challenge in IPE is devising and implementing a curriculum that is recognised as relevant and of value to each of the professional groups in the cohort (Luebbers et al., 2017; Howkins and Bray, 2008; Steinert, 2005). It can be perceived by staff and students that there is a lack of commonality in the foci of each of the professional groups' practices and in order to attempt to overcome this disparity, the service user experience is used as a focus of the modular curriculum.

Each time the session has been held it is received positively by both the students and the teaching team. During the session, the students' level of attentiveness is noticeable. This is observably

increased when compared to other sessions. The most overt signs of this are increased concentration with a decrease in the amount of low-level noise coming from the student group. When compared to other sessions, this is apparent by the observation that they are more likely to be looking at the stage and the speaker rather than their mobile electronic devices. Students have also been observed to be less likely to take a comfort break during this session. I have repeatedly received informal feedback from both the students and the teaching team about the value of the session to learning. Formal feedback received from university instigated MFQ has also evidenced the session as a useful learning experience.

The session was selected as a facet of the case study because of the nature of the feedback received in previous years. It had been recognised that the language used in the students' feedback was notable in terms of the potency of words used and sentiments expressed. The reason for this was not clear, and I wished to gain a better understanding of why the session appeared to be perceived such a valuable learning opportunity, and why the feedback included apparently strong sentiments. Therefore, the feedback comments were used as a source of naturally occurring data that it was thought might give an insight into the students' implicit attitudes towards collaboration.

The teaching session under examination exploited narratives given to the students by people who have accessed health and social care services. Use of such accounts has been an accepted aspect of interprofessional education for over a decade. Barr et al. suggested that learning can effectively be 'built around clients' accounts of their experiences in the hands of the caring professions'. (Barr et al., 2005: 87). In agreement, and with a more practical focus, Jackson and Bluteau (2009: 194) advised that when considering the importance of breaking down stereotypes to enable successful IPE 'the patient acts as a focal point for each professional allowing for areas of learning to naturally occur for each student'. The aim of this chapter is to explore what might have been meant by 'occurring naturally'.

An immediate problem, both for educators in general and for myself as a researcher, is what term to use when describing people who participate in interprofessional education on the basis of their experience of accessing health and social care services. As module leader, I have adopted the term 'service user' to describe people who might be variously described as patients, clients, women or customers. The reason for this will now be explored and explained.

In my professional capacity as a diagnostic radiographer, I would always use the term ‘patient’ for any person accessing the medical imaging services in which I was involved. Because of its technological nature, medical imaging facilities are generally located within hospitals or medical facilities. In these environments, the term ‘patient’ is almost ubiquitous with few exceptions. Services that do not use the term patient include those of mental health and midwifery. Mental health care often uses the term ‘service user’, while midwifery services has adopted the term ‘women’. When working within my own profession in higher education using the word patient has always been, and remains, the norm.

Once I became involved in IPE, I quickly realised that the term ‘patient’ was not acceptable for a student cohort that included a breadth of different professions and was even seen as exclusionary. It was soon pointed out to me that some of the students I was now teaching did not recognise the term patient, as it was, and continues to be regarded as too paternalistic (Christmas and Sweeney, 2016). It was important that I did not continue to use the term and cause some of the students on the module to become disenfranchised. While recognising the negative connotations of the phrase ‘service user’ it was perceived as the term least likely to cause offence to any profession, and so has become my preferred term for any person accessing health or social care services. That said, I do not consider the term to be helpful or correct, but reluctantly use it in the belief that it may be the ‘least wrong’ of the options available.

5.1.1 The meaning of the term ‘service user’

The terms used to describe people who use health and social care services are problematic and have been the subject of debate for over a decade (Simmons et al., 2010; Mc Laughlin, 2009; Turner, 2002). Social care, and some areas of healthcare, have disparate imperatives in avoiding use of the term patient. Of these, there are two drivers in the implementation of some possibly more acceptable terminology that are pertinent to the students on the IPE module and they will be discussed to provide some context to this element of my study.

The first driver is most pertinent to social care. In social care, the person accessing the service is viewed as a co-worker (Kvarnstrom et al., 2012) with the suggestion that the implication of differing power differentials, where the service user might be regarded as subordinate, is regarded as both significant and detrimental. Additionally, these authors continue by suggesting

that the paternalistic approach implied by using the term ‘patient’ may be seen as counter-productive.

A differing opinion is the recognition that oversimplification, as an inherent aspect of labelling, has been identified as a detriment in itself (Dickens and Picchioni, 2011; Park et al., 2009). In a critical examination of the term ‘service user’ Mc Laughlin (2009) suggests that the homonym for patient emerged as a consequence of the tradition of consumerism in health and social care that has been prominent since the 1990s. Although he was also critical that a single term negates individuality, he did suggest that it conveys a perception of power dynamic more appropriate to social work than the term ‘patient’.

Scourfield (2007) discussed how the term service user had been considered as a result of New Labour’s modernisation agenda; that a service user would be an individual who had both the power and resources to choose services according to their individual needs. This view is expanded upon, with the assertion that enabling service users to have greater control and choice is, in part, an outcome of contemporary social and demographic change (Bochel et al., 2009). To a limited extent, evidence of this can be seen in current practice, an example being an emphasis on seven-day working (Keogh, 2013a). One aspect of seven-day working is that it enables people to have greater choice of appointment days and times. However, this initiative often remains confined to specific areas of health and social care and therefore, some may regard the concept of choice as both limited and rhetoric in actual practice.

It seems likely that in contemporary society many people accessing health and social care services have the potential to be more knowledgeable (Hook, 2016; Reeves, et al., 2010) with both the increase in patient and professional organisations, and the amount of information available electronically, such as on the internet. This shift may be regarded as being an important factor in the relationship between people working in health and social care services with those accessing the resources. This point cannot be made without adding the notable caveat about the varied quality and veracity of information that is available to the majority of people. Without expert knowledge, discriminating between relevant, accurate information and other misleading sources may not be possible.

The ways in which the media act as public educators is discussed by Lacey and Longman (1997). While this text pre-dates the widespread availability and breadth of information available on the

internet, it does suggest as individuals we access information that gives us a sense of belonging and security. This argument would suggest that government initiatives, such as the NHS Expert Patients Programme (2002), that encouraged patients to actively participate in their care, rather than be passive recipients, is based on reasoning that may not be realistic. It could be suggested that while ‘expert patients’ may access information to make themselves more informed, they may not access the breadth of information required to give them a balanced view.

The second driver to be discussed is the avoidance of perceived stigmatisation implied by the term patient, as in mental illness. Helman (2000) suggested that although the definition of mental illness is culturally dependent, a key aspect is that of ‘uncontrolled abnormal social behaviour’ which then triggers the label of ‘mental illness’ (Helman, 2000: 175). Bochel et al. (2009) argue that society has become risk averse, and that in areas such as mental health, compulsory treatment has become increasingly emphasised. Paige and Mansell (2013) take this argument further, suggesting that mental illness has become viewed so negatively by a society that values social independence, that it has become stigmatised. Other authors, such as Hamilton et al. (2014), claim that individuals with mental illness have suffered from stigmatisation and discriminatory behaviour since the 1960s.

Murphy et al. (2013) also discussed the perceived stigma associated with mental illness, citing its portrayal by the media as being a significant influence. They criticised the media for portraying those with mental illness as being different from the general public in such a way that the public needs protection from them. They suggest that these negative stereotypes are pervasive in media portrayal. Such negative stereotypes are contradicted by both my own personal and professional experience, and expert literature that gives the view that patients with mental illness generally tend to display passive behaviour patterns (Eliacin et al., 2015). In my opinion, the dichotomy between expert opinion and media portrayal lends weight to the need to avoid associating the term ‘patient’ with those suffering from mental illness. While the term ‘service user’ is acknowledged as problematic I have concluded that it is, however, preferable to other terms, and so have adopted both in this thesis and in my teaching.

5.1.2 The concept of service user centred care

It is not only the term that is used to describe people who use health and social care services that has been debated in recent years. Health and social care in the United Kingdom has increased in

size and scope during the last century and the evolution of the concept of ‘patient centred care’ can be traced through the decades from the inception of the National Health Service (NHS) to current practice (Hook, 2016; Reeves et al., 2010; Leathard, 1994).

Although not a new concept, patient (or service user) centred care is seen by some as something of a mantra in contemporary health and social care (Bochel et al., 2009), having a positive impact (Sands, 2016; Voshaar et al., 2015; Pulvirenti et al., 2011). Over a decade ago the importance and rationale of this were explored by Coulter (2002) who focused her article on the then recent recommendations from the Bristol Inquiry Report (Appendix 1). A key recommendation was that patients should be at the centre of the NHS as equal partners with as much, but different, expertise.

Since 2002 this concept has been echoed in numerous other reports (Kirkup, 2015; Francis, 2013; Department of Health, 2012; Laming, 2009; Laming, 2003; Kennedy, 2001), which call for a culture change that puts patients at the heart of care as a possible solution to prevent recurrence of each set of events examined. It could be suggested that some areas of health and social care achieve this to greater extent than others, with hospice care sometimes being cited as a successful example (Washington et al., 2017; Reed et al., 2015; Hammick et al., 2009) perhaps because it is an environment where care can be adapted to suit each individual’s needs (Reeves et al., 2010). However, a contrary view of patient-centred care is that a more fundamental debate on key issues, such as hierarchy and power is required, rather than an uncritical adherence to the concept (Fox and Reeves, 2015; Reeves et al., 2010).

In the light of the discussion, the event that is the focus of this section was a teaching session that deliberately used the term ‘service user’ in the title, albeit with the recognition that the term, and its associated concepts, are topics of further debate in health and social care. The rationale for the title was to emphasise the importance of people who access health and social care services and was designed to put them at the centre of the teaching.

5.1.3 The service user session

Geertz (1973) discusses thick description in the context of how ethnography may be thought of as a tool in the investigation and interpretation of culture, where the details of the environment and the perceptions of the actors are key (Merriam, 2009; Stake, 1995; Guba and Lincoln, 1981).

Some aspects of Geertz's (1973) suggestions have been thought to relate to the interpretation of the data from the service user session. The relevant insight seems to be how ethnography interprets 'social discourse' in a microscopic description so that a transparent analysis process highlights significant aspects although with the caveat that any analysis will be 'intrinsically incomplete' (Geertz, 1973: p 29).

Therefore, the process adopted will follow Geertz's suggestion that the analysis will be within the context, and closely adhere to the occasion when the data was collected, while acknowledging that any interpretations may create further questions as well as offering possible answers. As Guba and Lincoln (1981) explained, the purpose is not to infer external validity, nor to create a case for generalizability, but to allow others to create circumstances that permit collection of comparable data (Flyvberg, 2011). To fulfil this aim, the following section will detail a precise explanation of the circumstances from which the data was collected.

There were 421 students in the cohort in the run of the module when the data was collected. They were from the professions of pharmacy and nursing. The fields of nursing were adult, child, learning disability and mental health. The exact numbers of each are indicated in table 5.1 below.

Profession/discipline	Number of students in the cohort	Number of students present at the service user session
Pharmacy	149	126
Adult nursing	181	173
Learning disability nursing	33	28
Mental Health nursing	25	22
Child nursing	33	32
Total	421	381

Table 5.1: The number of students per profession and discipline

As part of the module teaching there was a two-hour session where six service users talked to the student cohort about their experiences. Some of the service users were carers who were able to articulately explain the intricacies of their involvement with the health and social care services. The session took place approximately half way through the week's teaching. The location for the session was an auditorium, where the whole cohort was together. In practice, there are approximately 400 students present for the session. A number of the teaching team are also present. The session is 'chaired' by a member of the teaching team; others facilitate questions

from the students to the speakers using hand-held radio-microphones. This allows students to ask questions, which are audible to the whole cohort, from the relative anonymity of their seats.

Service users are invited to take part in the session on the basis of their experience. In practice, and in the specific situation being described, this means that a variety of scenarios are presented. Service users with mental health issues, dependency issues, learning disabilities or chronic conditions have all been invited over successive events. Each service user speaks for approximately 15 minutes, and the talks generally describe a very personal story. Service users are able to use a PowerPoint™ display to illustrate key aspects of their talk. When used, these are often in the form of images of themselves and their loved ones.

In order to acknowledge the important contribution that these speakers make, and to demonstrate how much I value having them as part of the module team I will give a concise, anonymised description of each person. The first speaker has cared full-time for his wife, who has suffered from multiple sclerosis, incontinence and depression, for 12 years. The stress of the caring role has caused this speaker to have a nervous breakdown in the past. The second speaker suffered meningitis as a child leaving her with epilepsy and a learning disability. The third speaker cares for her 22-year-old son who has quadriplegic spastic cerebral palsy. He is also blind and has hydrocephalus and epilepsy. The fourth speaker is 17 years old and cares for her mum who has numerous physical disabilities. The fifth speaker is 15 years old and cares for his mum who has multiple sclerosis. The final speaker cares for her son who is 38 years old and who is profoundly deaf and has autism.

In the time that I have been running this session, many of the service users have refused payment. While I appreciate the validity of their reasons, I have always believed that it was important to give something to each of the speakers in recognition of their input to the teaching. This prompted me to invite each of the students present to write a piece of anonymous feedback to one, all, or any of the service users. At the beginning of the session each of the students are offered a ‘post-it note’ on which to write their feedback. Large, blank, lengths of paper are stuck to the auditorium walls close to the exits. At the end of the session students are invited to stick their post-it notes, with the written feedback, onto the sheets of paper as they leave.

These comments are then collected. I transcribe them into a single document and return them to the speakers. The majority of the comments are typed up verbatim and returned. Constructive

comments, such as ‘have you thought of...’ are returned but any negative comments are not. I know from previous verbal and email communication that the feedback is greatly appreciated by the service users.

5.1.4 Story telling as a teaching method

The inclusion of the personal elements of a patient’s life into the practice of health and medical care is not a new idea. One of the first to persuasively advocate for this was Peabody (1927). His recognition of patient care as an essential aspect of medicine can be epitomised in his statement ‘the secret of the care of the patient is in caring for the patient’ (Peabody, 1927: p 818). This view can be considered as echoing Dewey’s philosophy on learning, where it is the meaning of learning that is fundamental (Dewey, 1910)

Decades later there was a shift from the accepted passive role of the service user in education to one that was more active and service user centred (Benbow et al., 2011; Repper and Breeze, 2007; Barnes and Carpenter, 2006). Although some have seen this development as being driven by a health and social care service that has become more consumer focused (Rhodes, 2012; Storrie and Manthorpe, 1997; Biggs, 1997), further developments have seen this integration become something that is expected by healthcare education commissioners (Turnbull and Weeley, 2013; Mackay and Millar, 2012; Furness et al., 2011; Gutteridge and Dobbins, 2010) and is recommended as an important aspect in the education of medical, health and social care professionals (Steven et al., 2016; Carr, 2015).

Contemporary developments in health and social care have been significantly influenced by well publicised failures in care. One recent motivating factor behind developments, which is particularly pertinent to this section, is the Keogh Report (2013a) which examined enduringly high mortality rates in some hospital trusts. The Keogh Report (2013b) recommended that service users should be integral to all aspects of health care including education. Keogh’s recommendation has been reiterated by others, with the argument that the contextualised knowledge which service users bring to teaching students topics such as compassion, remain an important facet of health and social care professional education (Cabiati, 2016; Keenan and Hodgson, 2014; Clarke and Holtum, 2013; Dewar and Nolan, 2013). Additionally, Carr (2015) explained that the intricacies of understanding the service users’ lives is fundamental in supporting the students learning from clinical practice.

Views such as those explored by Hurwitz (2000) seem to have had an impact on how service user stories are used in education. He suggested that humans have always found narratives and storytelling persuasive and in synergy with Dewey (1910), suggested it is how we make sense of our experiences, citing the ‘unique aspects of patients as people’ (Hurwitz, 2000: p2088) as being fundamental to successful practice. More recently, while writing specifically about medical training and patient safety, Jha et al (2015) suggested that service user narratives are now an accepted part of education. They proposed that an important aspect of these real stories is that they are sufficiently powerful to generate emotional responses, such as guilt or sadness in the students, which then has the effect of the narratives being more memorable when compared to ‘conventional’ teaching methods.

It has been suggested that one aspect of service user narratives in education is that they have the effect of allowing the service user to be perceived as more of an equal partner (Rush, 2008) and the balance of relationship is different to that encountered by the students when they are on clinical placement. It may be that the greater level of equilibrium might be achieved because, in practice, most students rarely meet service users when they are well (Terry, 2012). As might be inevitable, there are complications in the integration of service user narratives. An example that is of particular relevance to IPE is the caution that each professional group may be pre-disposed to select elements of a narrative that have direct relevance for their own profession, and the co-create their own account of the narrative, which could result in incomplete, or even incorrect, learning (Clarke, 2015).

The mechanism of the learning from service user narratives has been the topic of research and some authors recognise elements of transformational learning in students learning from service users. One qualitative study interviewed student nurses about their learning from service users and the participants claimed to have changed their knowledge, affect and behaviour (Rush, 2008). Rush proposed that participants reflected on the lived experience of the service user, acknowledging both the emotions involved and the role reversal, with the service user being the leader. Two studies involving medical students claimed that both the emotional response, and cognitive dissonance to stimulate critical reflection, were important (Jha et al., 2015; Kumagai, 2008). Furthermore, Kumagai (2008) discussed the change in frame of reference required as being related to examination of one’s own biases and values, and it has been suggested that both

the variation in the traditional power balance (Perry et al., 2013) and the context of the learning (Rush, 2008) are important.

However, Merriam (2004) earlier proposed dissenting opinions, suggesting that any transformational learning requires a considerable maturity and cognitive function, even suggesting that this is unlikely until middle age. She proposed that the ability to examine, and perhaps change, long held values, beliefs and assumptions required a level of dialectical thinking unlikely to be achievable by those less mature in years. Each of these elements will be reviewed in the light of the data achieved.

5.2 Method

5.2.1 Rationale for data collection method

Cohen et al., (2011) would describe the approach taken as falling within an ethnographic, interpretive paradigm as the intention is to gain an authentic interpretation and understanding of the students' perspectives of the situation. More specifically, they would identify it as being 'ethogenic' (Cohen et al., 2011: 445) as it is the students' thoughts and feelings which are being used as data. Miles and Huberman (1994) cite the strengths of data such as this, suggesting that such data is rich, and the researcher has a good chance of determining a comprehensive level of understanding.

It is thought to be useful to relate the theory of meaning proposed by Habermas (Habermas, 1987; Sandberg, 2013) to this aspect of data collection. An interpretation of his theory was that it recognised that understanding interactions relied on shared meanings and interpretations, although it is acknowledged that challenges remain. Habermas suggested that making sense of a situation includes the detection of underlying perceptions and the motivations behind them, as it is suggested that when an individual is claiming to be sincere they are communicating in terms of their subjective knowing, or epistemology (Habermas, 1987; Sandberg, 2013). Although primarily concerned with oral communication, parallels are being drawn with the feedback on the post-it notes for the intention of exploring this method of data collection. The purpose of the data, together with the context of its collection, must be considered and analysis of the function of the data is an important facet.

The arguments proposed by Habermas are repeated in more contemporary sources, such as Delamont (2002), who cautions the researcher on the need to consider the social context of collected data. The ‘fuzzy generalisations’ proposed by Bassey (1999) can be utilised both as a caveat and also as an opportunity. The ‘fuzziness’ suggests that there will be an element of uncertainty because of the inherent complexity of human interactions. However, the method does create an opportunity in that other researchers could emulate the circumstances, collect and analyse equivalent data. There are also elements of the reasoning proposed by Habermas that support this approach and which can be used as corroborative arguments (Habermas, 1987; Sandberg, 2013). It has been suggested that the previously mentioned element of sincerity engenders a degree of validity, and that there are four different factors that are relevant when attempting to understand meaning. Two of the factors that are particularly relevant to the data are making a judgement about the speakers’ intentions and an understanding of the reasons behind what is being said. For the purpose of this data collection method, it is proposed that the students’ feedback is taken as intended and sincere while being mindful of the context of its production.

As with previous elements, it is necessary to consider the power relationship between the students and myself as module leader. The knowledge of the sources of this naturally occurring data from previous years is being proposed as mitigation. The students were aware that their feedback was being used as naturally occurring data, yet it was broadly similar to that of previous occasions. That the feedback comments are written anonymously, and cannot be traced back to individual students, is also apposite to this argument.

Bandura’s social learning theory (1977) also adds some credence to use of this data source. His assertion that people have control over their behaviour is pertinent. The request for feedback for the service users from the students was carefully articulated as an invitation. There was no compulsion either to write or return any feedback. It can be conjectured that those who both wrote and returned feedback had a genuine intention for their feedback to reach the service users.

5.2.2 The place of the data within the case study context

As the IPE module is being used as the case study, the data collected from the service user session can be regarded as information that may help to answer the research question concerning which, if any, aspects of the teaching influences students’ attitudes towards collaboration. It is

thought that the data might provide an illustration of a specific feature of the case (Flyvbjerg, 2011; Miles and Huberman, 1994).

Stake (1995) cautioned that the qualitative researcher should adopt a policy of non-intervention. Although his advice was not completely adhered to in this phase of the study, I would argue that the interventions made were only minor and not noticeably significant to the teaching and learning taking place. The advice that the researcher should not create a situation to study is pertinent and is supported by Bassey's description of evaluative case studies (Bassey, 2012). Bassey suggests that use of such an approach is appropriate when exploring an educational event.

Yin (2009) lists six sources of evidence that may be used in case study research, and while the comments on the post-it notes can be thought to be applicable it is not clear to which source they may be attributable as they fit some of the criteria for both documentation and physical artefacts. It does seem possible that the comments on the post-it notes will contribute to an heuristic understanding of the case under scrutiny (Merriam, 2009) so that the findings provide an allegory to increase a reader's understanding of the episode under study.

5.2.3 Data collection method used

For the purpose of this research, ethical approval was sought and obtained to use this feedback as a source of naturally occurring data (Appendix 23; Protocol number; aEDU/PG/UH/00407). At least one week prior to the session an explanatory notice was emailed to the students via the VLE notifying them of the plan to use their feedback to the service users as research data. Silverman (2011) would term this data 'naturally occurring' as it was derived from a situation that was (almost) independent of the researcher, or at least from the study being undertaken. Two potential drawbacks to using this data were that member checking would not be an option and that one researcher was less likely to uncover any multiplicity of meaning compared to a research team (Cohen et al., 2011).

To enable analysis one slight modification was made to the process used in previous sessions. The post-it notes issued to the students at the beginning of the session were assorted colours, so that each professional group were given a particular colour, as detailed in the table below. Apart from this modification feedback was requested and returned as explained previously.

Profession/discipline	Colour of post-it note
Adult nursing	light green
Pharmacy	blue
Mental Health nursing	yellow
Learning Disability nursing	pink
Child nursing	orange

Table 5.2: Breakdown of post-it notes given to students

5.2.4 Approach to Analysis

As explained earlier, it was thought that the comments on the post-it notes collected as a result of the service user narratives might permit a greater understanding of any perceived influences on the students' thinking. However, there was then a challenge in discerning a suitable method of analysing the comments as the data was perceived as less organised than standard types of qualitative data, such as interviews or observations (Cohen et al., 2011; Silverman, 2011).

Yin (2009) suggests that data acquired during a case study can be used to build explanations and causal links, suggesting that initial theoretical propositions can be compared against findings from the data. Greater insight into data analysis was achieved by referral to the reminder that the researcher's 'primary task is to understand the case' (Stake, 1995:77) by concentrating on the proposed correlation articulated in the research question and interrogating the data for any patterns and significances.

It was thought that the method of analysis was likely to encompass some features of discourse analysis, as a detailed examination of the language used might be an important facet of the task, noting the degree of repetition of specific words and phrases (Perryman, 2012; Silverman, 2011). An element of analysis that was identified as possibly significant was that although the frequency of some elements might permit generalisations, the least common phrases could be the most insightful (Cohen et al., 2011).

Miles and Huberman (1994) discussed two approaches to creating causal networks, the inductive and deductive strategies. Using the deductive method proposed by Yin (2009) initial proposals would be compared against the data; however, because of my prior knowledge and familiarity with the data it seemed likely that an inductive design, where collected data is analysed to suggest theories, would also be relevant (Merriam, 2009). It was reassuring to note that it was

suggested that the ‘either-or approach’ be avoided and the two may be used concurrently to good effect (Miles and Huberman, 1994: 155).

5.2.5 Process of Analysis

All of the returned comments were transcribed verbatim within ten days of the service user session. There were two imperatives for the relatively short timescale. The first was the desire to return the feedback to the service user speakers in a timely manner. The second was the imperative of completing the transcription while the memory of the session was recent (although the session is always video recorded and the option of reviewing the recording existed). Once the comments had been transcribed they were uploaded to NVivo 10™ computer software. NVivo™ was used as it is designed as a qualitative data analysis tool designed to support the organisation and analysis of text data. It was used to classify, reduce and arrange information so that any causal relationships could be identified and examined.

The initial sorting of the data was by profession/discipline and comments from each were uploaded into separate nodes (categories). Some students wrote separate comments i.e. feedback to different speakers, on the same post-it note. These comments were entered as separate comments into the software. Items that were similar, such as that of evoked emotions, (Table 5.4) were grouped together and categorised until a number of named themes and sets of comments were scrutinised for similarities and differences (Cohen et al., 2011).

Miles and Huberman (1994) suggested that when adopting a deductive approach, the aim of the research should be a focus. The aim of this aspect of the research was to discuss aspects that may influence students’ attitudes towards collaboration and elements that were identified as having the potential to indicate an impact on behaviour were considered in detail (Bazeley, 2013; Saldana, 2013). In order to relate the data to any possible attitude change several initial proposals were interrogated against the data. It was recognised that analysis may not provide ‘correct’ answers but may uncover traits where generalisations might be made (Saldana, 2013; Cohen et al., 2011).

The first set elements of a possible causal map were deductively derived from an analysis of attitudes and attitude change (Section 1.6) and aspects representing the cognitive, affective and behavioural domains were identified deductively as familiarity with data from previous sessions

had given me the impression that knowledge, behaviour and emotions were likely to be evident as themes. The initial proposal identified was that of emotion, because emotions, or feelings, are implicit within the affective component of attitudes. Feelings or emotions are regarded as an important aspect of attitude formation (Maio and Haddock, 2009; Fazio and Olson, 2003). The second proposal recognised was that of behaviour, as it is suggested that behavioural inclinations indicate a conative response (Ajzen, 2005). The third component of attitude that was manifest as a category was that of knowledge, or beliefs, as being an indication of the cognitive domain (Aiken, 2002; Eagly and Chaiken, 1993).

Adopting an inductive approach to the data two further aspects became apparent. The first was that of altered perspectives. This can be thought to relate directly to the aim of the study, as to whether the teaching influences students' attitudes. It was thought that an indication of perspective change could indicate both a shift in the cognitive domain which might be indicative of potential attitude change (Bohner and Wanke, 2002), and an aspect of transformational learning (Mezirow and Ass., 2000). The second aspect that became apparent was comments and phrases that related to indicators of transformational learning (Mezirow and Ass., 2000) as discussed previously (Section 5.1.4).

It seemed analysing the data only in terms of the constructs outlined previously was not taking full account of the situation in which the data had been collected. In recognition that behaviour (taken to be the feedback written on the post-it note) depends on both the individual and the situation they are in, as the environment can influence behaviour (Ross and Nisbett, 2011). There was also the consideration that different professions, and individuals, are likely to have different interpretations of the same events (Clark, 2015). It was recognised that these two concepts will be in a state of dynamism (McKinlay and McVittie, 2008), and therefore may be different across professions and individuals.

It was thought that a students' reaction to something that they had heard might be evident in their feedback and may have the subsequent effect of causing an actual or intended change in behaviour, as proposed in the study by Rush (2008). It was also thought that students might either demonstrate opinions comparable with others from their profession/discipline, which would indicate a level of homogeneity; equally it was not excluded that the opposite might become apparent and a degree heterogeneity be demonstrated. It was decided that the above

concepts would be identified by categorising data in terms of where interactions between the student and the speaker indicate a specific or general influence indicating the potential for a behaviour change.

5.3 Results

The number of comments per profession was counted and is demonstrated below both as a total number and as an average number of responses per student.

Profession/discipline	No. of students present	No. of comments	Average no. of comments per student present
Child nursing	32	51	1.6
Mental health nursing	22	35	1.6
Adult nursing	173	212	1.2
Learning disability nursing	28	48	1.7
Pharmacy	126	68	0.5
Total	381	414	1.1

Table 5.3: The number of pieces of feedback received from students

The above table has been included as it gives an indication of the levels of participation by the students and demonstrates that the learning disability nursing students were the most engaged, and those from pharmacy the least.

Having used NVivo™ to categorise the data, the four themes identified in the table below were apparent in the data because of the frequency with which they were mentioned. The frequency of each theme is detailed in the table below, both by profession and for the whole cohort.

Profession	Emotions		Behaviour		Knowledge		Altered Perspectives	
	Number	%	Number	%	Number	%	Number	%
Child nursing	20	39%	6	12%	7	14%	5	10%
Mental health nursing	10	29%	4	11%	5	14%	2	6%
Adult nursing	78	37%	49	23%	34	16%	20	9%
Learning disability nursing	17	35%	1	2%	6	13%	2	4%
Pharmacy	28	41%	6	9%	22	32%	16	24%
Total	153	37%	66	16%	74	18%	45	11%

Table 5.4: Frequency of comments for the four main themes by profession

5.4 Analysis of comments

5.4.1 Introduction

As mentioned previously (Section 5.2.4), the approach to analysis used a hybrid of deductive (Yin, 2009) and inductive (Merriam, 2009) methods as advocated by Miles and Huberman (1994). The engagement with the exercise by the students has been considered. The themes of the affective, cognitive and behavioural domains of attitudes became apparent through a deductive approach, and transformational learning became apparent inductively through becoming progressively more acquainted and engaged with the data.

5.4.2 The number of post-it note comments

When reviewing the figures for the number of post-it note comments left by the students there is a notable difference. The four disciplines of nursing demonstrated a broadly similar level of engagement (adult field, 1.2; child field, 1.6; learning disability field, 1.7; mental health field 1.6) while that demonstrated by the pharmacy students was noticeably reduced at 0.5 (Table 5.3). The reasons for this cannot be definitely ascertained but some inferences can be drawn.

The pharmacy programme includes only a minimal amount of clinical placement when compared to the nursing disciplines; nursing students spend approximately half of their programme learning on clinical placement while pharmacy students spend only a maximum of two weeks. It is possible that as a result of the reduced amount of placement experience the pharmacy students were either less able to, or more reticent at, engaging with the service users at a level that prompted a desire to give feedback. This seems to be a reasonable suggested rationale given the broad similarity in the figures for each of the branches of nursing.

An alternative explanation might be that a smaller number of pharmacy students, when compared to the nursing students, felt sufficiently emotionally involved with the speakers, and so fewer felt sufficient desire to leave any feedback. This proposal seems less likely as it contradicts the observed behaviour of the total cohort (Section 5.1).

However, there could be a very simple explanation. The auditorium has four exits, two at the top of the stairs and two at the bottom (adjacent to the stage). In hindsight, it has been noted that sheets of paper for the comments to be left on were only placed near the bottom exits. A seating plan would not have been feasible, so it cannot be ascertained whether more pharmacy students

were sitting towards the back of the auditorium and so had less of an opportunity to leave their feedback. Although, for any student to leave their feedback required a degree of motivation, so the effect of where a student was sitting might have been influential.

It can be confidently stated that a greater proportion of pharmacy students felt less inclined to leave feedback for the service users when compared to the nursing students. The motivating factors explained previously can only be regarded as conjecture. Had there been an additional opportunity to gather further data, this difference could have been examined in further depth.

5.5 Identified themes

5.5.1 Theme of Emotion – whole cohort

The comments from the whole cohort were analysed for inclusion of words or phrases that indicated emotions experienced by the students and every comment was scrutinised. All of the comments, with two exceptions that will be discussed individually, indicated positive emotions, and it has been suggested that evoking emotion helps communicate meaning (Jha et al., 2015; Mackay and Millar, 2012). There was not always the indication of one emotion per comment, and where this was recognised each of the emotions mentioned was noted individually. The following statement from a pharmacy student is an example of a more than one emotion being expressed;

'Thanks for sharing your life stories as carers. Really appreciate it'.

This piece of feedback was interpreted as including the emotions of gratitude and appreciation. Words that conveyed similar emotions were regarded as synonyms and were allocated to a collective category. An example that illustrates this decision-making is in the use of the words ‘*touching*’ ‘*moving*’ and ‘*heart-felt*’. These words were all taken as illustrations of empathy. In addition to single words, some of the feedback also included phrases. One such phrase written by an adult nursing student that was also interpreted as indicating empathy was;

'I can't stop rain, but I promise I will help you dance in the rain'.

From the elements identified in relation to the code of emotion a number of themes were identified. The most common theme was that of gratitude. Many comments expressed thanks to the speakers, with a typical example being;

'I whole heartedly would like to say thank you for the time and insight in your lives'.

This comment was notable as several smiling emoticons (pictorial representations of facial expressions) were also included. The expression of gratitude is perhaps reasonable and to be expected (Hadjistavropoulos, et al., 2015; Duffy, 2012). The speakers sometimes explain their reasoning for taking the time to talk to the students and what they hope it will achieve. For some speakers, it is clear from what they say that they have busy lives. What is interesting in the above phrase is the inclusion of the idiom '*whole heartedly*' which could be interpreted as indicating sincerity.

While gratitude is perhaps to be expected, 39 comments included the words 'inspirational' or 'inspiring' which suggests that the speakers have made the students think about what they have heard in a positive manner. This might be interpreted as indicating that some students saw the speakers as demonstrating qualities and skills that they admired and identified as being worth emulating (Benner, 1984) and perhaps have the effect of highlighting the empathetic aspect of practice (Clarke and Holtum, 2013). Similarly, to being inspired by the speakers, emotions such as being made to feel humble or commenting on enjoyment of the session were noted. Among other common emotions expressed in the feedback were admiration, appreciation and respect, perhaps illustrating a positive impact of the session (Mackay and Millar, 2012).

Each time the session is run it is evident that what the speakers say often provokes an emotional response; in expectation of this I habitually keep a tissue with me. In order to support the students, I always notify the institutional counselling and support service when the session is scheduled and ensure that there are sufficient members of the teaching team present to support distressed students. As was observed during the session it was common for the students to be moved to tears, and many fed this back to the speakers;

'Never felt so tearful in a lecture before'.

Another aspect that is interesting is the use of the word 'sharing' which was mentioned 30 times in the feedback, and is illustrated by the comment;

'I appreciate the courage and time taken out to share their experiences and challenges'.

It seems that students did not perceive the speakers as teaching them, but more as sharing their knowledge and experiences. This may be a result of the personal nature of the accounts that the students have heard, and perhaps indicates that students felt a level of mutual understanding and connection with the speakers (Dewar and Nolan, 2013; Duffy, 2012; Kumagai, 2008). This would be in contrast to ‘conventional’ academic teaching that the students would have more often experienced where personal experiences are not normally divulged, as suggested by Barnes and Carpenter, (2006). An alternative suggestion is that the perception of sharing stems from an increased awareness of the power imbalance between service users and service providers (Barnes and Carpenter, 2006).

In general, the students commonly expressed sympathy or empathy for the speakers. However, in contrast to this, two pieces of feedback demonstrated significantly different opinions as reproduced below;

‘Outline aims and objectives before talking about your information’

‘At what point do you say enough is enough and wheel them into Dignitas?’

The first comment was made by a student from the child branch of nursing and the second was made by a pharmacy student. These two comments are striking in their degree of difference to the other comments. This is particularly true of second comment. They appear to convey an element of rejection and dissonance to the service users’ narratives, or perhaps a level of distress or anxiety (Kumagai, 2008). It is possible that, the session was too emotional and had the effect of leaving these students unable to engage with the personal stories (Clarke and Holtum, 2013; Perry et al., 2013) and their integral level of emotion (Cabiati, 2016), or that the ‘real life’ nature of the narratives was challenging to reconcile with academic teaching (Benbow et al., 2011; Gutteridge and Dobbins, 2010). The two comments appear to evidence Merriam’s (2004) caution on the level of maturity required to have the ability to examine existing beliefs as a pre-requisite for transformational learning (section 5.5.8).

5.5.2 Comments on emotion from individual professions/disciplines

The frequency with which each emotion was mentioned in the feedback comments was calculated for each profession and ranked in order of decreasing frequency (with most frequent ranked as 1 and least frequent as 5). The results are demonstrated in the table 5.5. Emotions

were ranked, in terms of frequency, rather than simply reporting the number of times mentioned because of the disparity in the cohort sizes of the professions/disciplines.

Emotion	Child nursing students	Mental health nursing students	Adult nursing students	Learning disability nursing students	Pharmacy students
Gratitude	1	1	1	2	3
Sharing	2	2	5	5	5
Inspiration	3=	4=	3	3=	4
Empathy	3=	3	4	3=	1
Admiration	3=	4=	2	1	2

Table 5.5: The frequency that specific emotions were mentioned by each profession/discipline

Despite the dissimilar cohort sizes there is a notable similarity in the percentage of students giving feedback that indicated emotion (range 29 – 41%). The feedback left by the pharmacy students raises some interesting questions. It seems surprising that empathy was most frequently included in the feedback comments by these students as it appears to contradict the apparent lack of engagement indicated by the number of pharmacy students who chose not to leave feedback for the service users. That gratitude was one of the most frequently mentioned emotions by all the other professions/disciplines except pharmacy might reinforce their apparent lack of engagement.

Pharmacy students mentioned sharing relatively infrequently which might also indicate a relative lack of empathy with the service users, perhaps with the students considering the session as an academic activity. Initially the very limited time on placement learning included in the pharmacy programme was thought to mean that many of the students have not yet had the opportunities to acquire or develop the same level of emotional intelligence as the other students. However, this idea could be negated by the adult and learning disability students also mentioning sharing least frequently.

That the learning disability nursing students most commonly mentioned admiration could have been influenced by the second speaker who is a lady who has a learning disability. It would perhaps be expected that the different disciplines of nursing would show different rankings of expressed emotions as they reacted to diverse aspects of the speakers' stories, and perhaps is evidence of students from diverse professions co-creating their own meaning (Clarke, 2015).

5.5.3 Influence of emotion on attitude

Since emotions were a theme identified within the feedback left by the students it can be proposed that there are implications for the sessions having an influence on their attitudes towards collaboration and there are elements in the data that suggest the session had a positive influence on students' attitudes.

One heuristic that is relevant to consider is that positive emotions tend to result in positive attitudes (Maio and Haddock, 2009; Fazio and Olson, 2003; Wood, 2000) although the extent to which this is significant varies between different people. The number of positive emotions recorded in the feedback could suggest that, in general, the students demonstrated a positive attitude towards the service users. Loxley (1997) has suggested that this is likely to result in a positive attitude towards collaboration. The effect of a positive rapport is also likely to be relevant, and the use of PowerPoint™ presentations (Section 5.1.3) is perhaps significant. For example, as the lady with learning disabilities speaks her presentation shows pictures ordered chronologically through her lifetime. The images of her as a small child are very likely to engender positive emotions. These positive moods are likely to influence information processing (Maio and Haddock, 2009; Wood, 2000).

It can also be proposed that the exposure to the service users' experiences can elicit positive attitudes (Bohner and Wanke, 2002; Eagly and Chaiken, 1993). There are two further principles that the authors propose are relevant to this suggestion. The first is the suggestion positive attitudes are more likely to be developed in students that were familiar with narratives similar to those of the service users, although it is recognised that the longevity of this effect is likely to be limited.

The second principle is based on how attitudes can be acquired through imitation, also termed vicarious conditioning (Bohner and Wanke, 2002). As the session takes place in an auditorium,

the students sit in long rows of seating and are therefore likely to be able to see a number of other students. It is proposed that where students are observed experiencing a strong emotional reaction, this is likely to influence others. The students are also likely to feel sympathy or empathy when hearing about some of the speakers' experiences, such as the young carers talking about the challenges in having a normal school and social life.

The positivity of the feedback and my observations suggest that the students find the session very interesting (Section 5.1.3). This may be congruent with an indication of a positive effect on attitudes (Maio and Haddock, 2009) as a sense of boredom would be likely to have the opposite effect. It could also be suggested that the students themselves exert an influence on each other, as attitude reinforcement can occur when individuals observe each other's reactions. This is said to be true particularly if there is a desire to comply with social norms (Bohner and Wanke, 2002; Aiken, 2002).

The inclusion of emotions such as these might be an indication of a common habitus and culture. It is possible that the cohort had a sufficiently collectivist camaraderie to have similar responses to each other (Ross and Nisbett, 2011). That the word 'sharing' is used so frequently in the feedback might also be explained by the Asch Paradigm. Asch proposed that when individuals respond to a situation, social conformity is likely to be influential (Goethals, 2007) in predicting behaviour. If this is the case then it might seem logical that the students have developed a collective habitus and are demonstrating similar attitudes (Bourdieu, 1991). Continuing this argument might lead to the conclusion that some in the cohort share sufficiently similar cultural beliefs and values that there is similarity in how they interpreted the experience (Ross and Nisbett, 2011; Hinton, 2000).

5.5.4 Theme of Behaviour

The second category that was thought might have an impact on attitudes was indications that behaviour might be different as a result of the service user session. Unlike the comments on emotion, and perhaps in further support of the proposed common habitus, those on behaviour were similar across the professions. Therefore, the comments will be discussed in terms of the whole cohort rather than individual professional groups. To demonstrate integrity, comments from each profession will be included and identified.

One frequent theme of this aspect of the feedback was students saying that they would be able to behave differently because of listening to the service users (Perry et al., 2013; Jones and Black, 2008; Rush, 2008; Barnes et al., 2006; Lathlean et al., 2006). This was most common among the students from adult nursing and least common from those in the learning disability field. The pharmacy students' feedback was not at either end of the spectrum of recorded incidence. Comments illustrative of this aspect include those from a learning disability nurse, a mental health nurse, and a pharmacist who wrote;

'All speakers gave me something to think about in relation to how I can become a better nurse'

'It is very motivating to make sure I do the best I can as a nurse to ensure a happy and positive care experience for patients. I will make sure I do those little actions that make a difference'

'Driven me to provide as best care as I am able in the future'

Some students explained how they would work to develop similar skills or qualities to those they perceived they had seen evidence of, such as the following comment from an adult nurse;

'I will use your courage as an inspiration to be a better health professional and provide better care'

and from a mental health nurse:

'I hope my future practice can reflect your compassion and resilience'

Similarly, the narratives were seen to be either a motivating, or an inspirational, influence as although the service users had not openly criticised health and social care, students seem to have interpreted what they heard as an indication that service improvement is required. Moreover, feedback indicated that individuals thought their own standards of caring could be improved. The following comments are from an adult and a child nurse;

'I promise this will have an impact on how I care'

'I will take your experiences into my practice to enhance patient care'

Some identified skills or abilities that they needed to improve, such as the child nurse who said;

'I pledge to make a difference to people like you by listening more'

And the adult nurse and pharmacists who made the following comments;

'You have inspired me to work harder in my role and improve the service you receive'

'It inspired me to do that extra bit for each individual'

Some comments referred directly to collaborative working, such as the one from a pharmacist who said;

'We need each other's skills, knowledge and commitment to get the job done'

5.5.5 Influence of behaviour on attitude

Research suggests that strong attitudes are relatively strong predictors of deliberate behaviour (Crano and Prislin, 2006; Bohner and Wanke, 2002; Ajzen, 2001). It seems plausible to suggest that the students' feedback comments will be credible predictors of espoused behaviours, because of the strength of the attitudes expressed. An initial argument to support this is the notion that previous behaviours are suggested as strong predictors of future behaviour (Chaiken and Stangor, 1987), which is reinforced by, a presumed, level of commitment and direct experience (Cialdini et al., 1981). Environmental cues, such as those from a clinical environment (Crano and Prislin, 2006) and behavioural intentions (Petty et al., 1997; Tesser and Shaffer, 1990; Fishbein and Ajzen, 1972) are also thought to reinforce attitude consistent behaviour.

One counter-argument includes the suggestion that spontaneous behaviours are less predicted by attitude, and perhaps these are more likely in environments that are less predictable, such as emergency departments. Another relevant point is that the salience of an attitude is an influence (Fazio, 1990) and it could be argued that attitudes and behavioural intentions are very accessible during and immediately after the service-user session, but their effect may not be enduring (Cialdini et al., 1981).

Following on from this, it could be suggested that the two students who made the negative comments are also likely to have strong attitudes to the service user accounts, which may then impact on the behaviour in a less desirable manner, although the academic environment may have been a confounding factor and may not have been a realistic indicator of espoused behaviour in a clinical environment.

Maio and Haddock (2009) discuss that much psychological research is conducted using students as participants and that students tend to show less correlation between behaviour and attitudes than others. However, while this study has students as participants it is proposed that the nursing students on IPE may not be thought of as ‘typical’ students. The logic behind this assertion is that they are registered on professional programmes, undertaking integral professional placements. Moreover, they are paid (at the time of the data collection), in the form of a bursary, to complete their programmes. Thus, their attitude predicated behaviour may be less likely to mimic that of students on non-health and non-social care programmes. It should be noted that pharmacy students are more ‘conventional’ students, as neither of these aspects apply to them, and yet their comments were largely similar to those of the nursing students.

An additional aspect of the nature of students in the study is that as a result of professional placements, it is possible that they already have a professional identity. Bohner and Wanke (2002) suggest that individual attitude influenced behaviour is less likely when collective identity is salient. So, although the participants above demonstrate some strong, positive opinions suggestive of attitude, when alongside their qualified colleagues the more senior members of staff are likely to be a greater influence on attitude related behaviour.

5.5.6 Comments on Knowledge

When considering different themes under the code of knowledge, many pieces of feedback stated that the narratives had increased the student’s knowledge in a manner that was useful, but did not give any specific details, such as the following from adult nursing and child nursing students;

‘I believe as a nurse you have helped me learn a lot on how to be a better nurse’

‘Very useful and interesting. I learnt a lot’

Other comments suggest increased knowledge towards potential collaborative practice, such as the following from a learning disability nurse, a mental health nurse an adult nurse and a pharmacy student;

‘As a nurse it’s important to maintain a patient friendly approach’

‘I thought the stories were very educative and have made me realise the importance of listening to both patients and carers’

'I have learnt to involve family members to discuss the plan of care'

'I have learnt that no one is an island and cannot live in isolation'

For some students the narratives appear to have reinforced the vocational aspect of their programme. A child nurse wrote;

'Reminder of why we are studying children's nursing and to stop and remember it's not just about getting things done on time but to spend time with our children and families listening and understanding'

An example of how students' knowledge may have been increased, perhaps in a less quantifiable manner can be illustrated by the following comment from a learning disability nurse;

'Makes me realise that you can't take things for granted and you never know what goes on behind closed doors'

Some students related this new knowledge to their professional practice, illustrated by the following quote from an adult nursing student;

'Made me realise how important patient experience is and how we, as healthcare professionals can make a difference. Each person illustrates both the difficulties and advantages of being in their situation'

This could suggest that the new knowledge has influenced the student's priorities. It seems to suggest that the student has gained a greater, or more holistic, understanding of what service users experience when using health and social care services. Not only is an awareness of the need for holistic care being demonstrated but also for the need for a patient-centred approach being important.

'showed the importance of remembering to treat patients and families in a holistic approach. Also, I really enjoyed the afternoon and found this a valuable part towards my learning and professional development'

For some, the narratives appear to have supplemented perhaps more academic learning, or more easily defined clinical skills, such as the following comment from a mental health nurse;

'It has indeed given me insight into your individual worlds. Even though I cannot feel the exact way you do. It has enlightened me to know how to care for patients and carers sensitively with care and compassion'

The perceived relevance of a service user, rather than a member of academic staff, telling the narrative seems to be illustrated by the following comment from a pharmacy student;

'Gaining a more in-depth knowledge about their roles. I learnt a lot from external speakers who gave first-hand accounts'

One final aspect of knowledge acquired from the narratives appears to endorse the value of the professional learning;

'I have learnt that my role as an LD nurse is important in the quality of care that children and adults with learning disabilities receive.'

5.5.7 Influence of knowledge on attitude

Aiken (2002) explored the relationship between knowledge and attitude, suggesting that individuals relate the knowledge contained within a message to their beliefs and feelings. He suggested that when the knowledge is positively received it may be effective in influencing attitude, an effect that is more potent when it is personally relevant. The level of attentiveness mentioned previously (Section 5.1) would appear to support the notion of relevance to the students, which would then support the suggestion that the session is identified as influential on attitude. Another aspect of the service user session that may support its influence on attitude change is the number of service users who speak. Although, their stories are different, there are similarities and it is this element of successive, multiple sources which may be of note (Eagly and Chaiken, 1993).

It has also been suggested that there is a continuum comprising two routes, the systematic and the heuristic, in which knowledge may influence attitude change (Visser and Cooper, 2003), with the systemic route being more laborious. While this is perhaps not quantifiable, it may be the 'conceptual orientation' (Eagly and Chaiken, 1993: 297) that emphasises that it is the individual recipients thinking that is most important, as it has been proposed that it is the less effortful route that is more often adopted (Hogg and Vaughan, 2008). An additional argument to support the implementation of this less effortful method is the view that the students should find the

narratives both motivational and compelling, and therefore more likely to be accepted at face value (Petty et al., 1997; Tesser and Shaffer, 1990).

An additional aspect of the service user session that may be influential is the forum in which it takes place, as group identity, and shared knowledge and beliefs may also have an effect in a similarly heuristic manner (Perugini et al., 2012; Wood, 2000; Tajfel, 1970), as suggested in the previous paragraph. This may be accentuated for the student nurses as they will be more familiar with service user experiences because of the clinical placement element of their programmes (Tenbult et al., 2008).

5.5.8 Theme of transformational learning

The final theme that was thought to be apparent in the data was that of transformational learning, and this was approached inductively (Merriam, 2009; Miles and Huberman, 1994) because of my familiarity with the session, and the students' reactions to the narratives. Mezirow and Ass. (2000) proposed that transformative learning encompasses changing one's frame of reference, or perspectives, through critical assessment. Familiarity with feedback from previous sessions had made me aware of a suggestion of altered perspectives, and so the data was scrutinised for evidential statements, of which there were 31 that referred directly to a different perspective or seeing things differently.

The following elements of feedback were given by adult nursing students;

'Changed my perspective. Helps you to see what it's like being in their shoes'

'It opened my eyes to a whole new world'

'I got a different perspective of my career'

'This session really helped me to understand the carer's perspective of healthcare'.

Some students from the child branch of nursing gave similar feedback;

'Has helped me to understand patient care from a different perspective. Has given me insight into how service users feel and cope with their own situations'

'Helps to give a better understanding from different points of view'

Elements of feedback from learning disability nursing students expressed similar sentiments;

'I hope that people 'see the person' in future'

'It was so informative to hear from the carers perspective'

As did those from mental health nursing;

'Understanding where you are coming from'

'It has indeed given me insight into your individual worlds'

And so did pharmacy students;

'You have really changed my way of thinking today'

'This session was very enlightening as it showed me a new perspective in interprofessional working'

'You have opened our eyes to see the healthcare setting through your eyes'

Such a mode of learning has previously been identified (Clarke and Holtum, 2013; Rush, 2008) in the involvement of service user narratives in professional programmes. The elements of emotional engagement and critical reflection have been cited as notable, which is perhaps why there is debate on how, or even if, it can be realistically achieved (Clarke, 2017). While it is argued that elements of feedback, such as those reproduced above, suggest transformative learning, with regard to changing terms of reference, Merriam (2004) argued that such development required a considerably mature level of cognitive functioning, suggesting that both affective and intuitive dimensions may be equally important. Mezirow and Ass. subsequently gave qualified agreement (Mezirow, 2004). It would seem that there is evidence in the above statements that the students were able to question their own assumptions, and construct their own, rather than a directed, meaning from the narratives that they had heard (Attebury, 2017; Shor et al., 2017; Young, 2013; McNaron, 2009), perhaps accepting that the service users' interpretations of events were justified (Choy, 2009).

5.6 Summary and Implications

It is suggested that while service user involvement has become more of an imperative, and also more widely implemented, there remains scope for its effects to be investigated further as there will always be a place for focus on key issues, rather than an uncritical adherence to the concept (Fox and Reeves, 2015; Reeves et al., 2010). The thesis began with clarification of the service user's place at the heart of care, and that there is a need for a culture change to ideally prevent, but realistically lessen, future mistakes and incidents. Recent recommendations, as outlined in

Section 5.1.4 are that the service user should be an integral part and equal partner in teaching and therefore scrutiny of the impact is both timely and an imperative. The students' feedback to the service users from the IPE module was included as an element of naturally occurring data, to highlight an area of the module that might otherwise have been overlooked. Experiences from previous times the session had been conducted suggested that it was influential, and therefore it was thought to be important to gain a greater understanding of the students' perspectives. While not being advocated, the term service user was employed as being applicable, and perhaps preferable to other viable options.

The data achieved was, in general, very similar to the feedback given by the students of previous cohorts, suggesting that there had been no notable effect of the proposal to use the feedback as data, although this assertion cannot be qualified. Familiarity with equivalent data from previous sessions pointed towards attitudinal domains as an analytical vehicle, and therefore the inclusion of the session within this thesis. The theme of transformational learning became apparent inductively.

The three domains of attitude appear to be evidenced in the data, suggesting that the session was influential with regard to students' attitudes, although perhaps more toward their attitudes to service users, and their experience, than explicitly to collaboration. There is some synergy between the attitudinal domains with the proposed facets of transformational learning, and it suggested that for some students, the narratives were an effective influence, particularly with the strength of sentiments expressed, as strong attitudes are reasonable predictors of behaviour.

Although as others have mentioned previously, the longevity of any behavioural change cannot be determined. The impact of the Asch paradigm (Section 5.5.3) suggests that social conformity within the group was also influential, reinforcing the likely impact of the narratives on students' attitudes.

However, it is important to note that positive effects were not universal across the cohort. The two students who left negative comments (page 142) could be assumed to be an underestimation, as other students who felt a lack of engagement are likely not to have left any feedback at all. Again, it can be concluded that the session is not a positive learning experience for all the students and a dissonant and rejecting response by some needs to be anticipated.

As a result of this aspect of data collection, and the subsequent analysis and suggested findings the involvement of service users is influential for the students learning within the IPE module and has therefore been further developed. As mentioned, the session was originally scheduled within the auditorium. Because of the identified impact of the session in this research it has since been possible to negotiate increased funding to extend the involvement of the service user within IPE, which had previously been a barrier. Following the auditorium session, subsequent tutorial discussions are scheduled, which provides students, staff and service users with an opportunity for significant dialogue. The service user is now used as ‘the case in the room’, with an academic member of staff acting as a joint facilitator. It is suggested that this greater opportunity for dialogue will facilitate more students having an opportunity to come to understand a different perspective, therefore changing their frame of reference and developing their attitudes to service users, and by extension to collaboration. This opportunity for closer dialogue with a service user, in a learning environment and further positive development of their attitudes will have a subsequent beneficial effect on their future practice.

6 Focus groups

6.1 Introduction

To this point, three batches of data had been collected and analysed. The initial quantitative data from the pre- and mid-module questionnaires suggested that regarding the IPE module there was scope for students' attitudes towards collaboration across professional boundaries to be improved and that there was a positive change in recorded explicit attitudes. The data from the students' drawings suggested that salient stereotypical views had the potential to influence collaborative behaviours and the feedback on the post-it notes given to the service users indicated that the narratives had the effect of influencing each of the three domains of attitude.

While these findings were encouraging, the data collection methods had not yet afforded the opportunity for dialogue with either students or members of the teaching team. Mindful of my role as module leader, and the implications of the power differential I thought a useful next step would be to conduct focus groups with staff and students in an attempt to gain a greater depth of information.

6.1.1 Rationale for use of focus groups

There is a breadth of opinion that focus groups are a recognised, established and useful tool for collecting qualitative data on attitudes, perceptions and opinions (Krueger and Casey, 2015; Jayasekara, 2012; Massey, 2011; Morgan, 1997; Krueger, 1994). An often-cited reason is that one of the key characteristics of the focus group is that it uses group dynamics to produce data that is socially constructed i.e. insights can often arise as a result of communication and interactions between members of the group (Cohen et al., 2011; Kitzinger, 2006; Fern, 2001). Both group interactions and interpersonal influences are thought to be significant (Krueger and Casey, 2015; Stewart et al., 2007; Kitzinger, 2005) and as such, in my opinion they can be viewed as a microcosm of IPE. In IPE, group dynamics and social interactions are implicit within the learning (Chatalalsingh and Reeves, 2014; Hean et al., 2012), and so it seemed apposite to integrate focus groups into my study as a data collection method.

Although focus groups can be used as an initial formative step to guide further data collection in a study (Halkier, 2010; Stringer 2004; Kevern and Webb, 2001) in my study they have been

integrated as a distinct facet of the case study approach. They have long been regarded suitable as part of a multi-method approach (Morgan, 1997; Krueger, 1994), where each method contributes a unique aspect to the study; for example, they can be used as a follow-up to a survey, to achieve a greater depth of information (Winlow, 2013; Massey, 2011; Brown, 1999; Sim and Snell, 1996), and this approach has been used recently in IPE research (Aase et al., 2016; Coulson et al., 2015; Gould et al., 2015; Thomson et al., 2015).

Both reasons in the previous two paragraphs form part of the rationale of why I chose to integrate focus groups within my research. However, there is also, in my opinion, a more compelling reason for conducting focus groups with both staff and students. As module leader, I have long recognised that I almost certainly have dissimilar perceptions of the IPE module to the students. I consider that I may also have different opinions to the members of staff who teach on the module. I decided it would be an important aspect of my research to try to identify and include any extant multiple perspectives and associated resultant complexities (Hamilton and Corbett-Whittier, 2013; Yin, 2009; Bassey, 1999; Stake 1995).

The importance of understanding the implications of different perceptions during IPE has become more evident to me while I have been conducting this study. These subjectivities highlight a philosophical problem, the investigation of which this aspect of my research will be a prolegomenon. Any differing perceptions are likely to result in a variety of realities (Berger and Luckman, 1966) and therefore multiple epistemologies (Denzin and Lincoln, 2011). It may be the interaction of potentially diverse epistemologies that is important in the IPE module, with outcomes having the potential to influence students' attitudes towards collaboration, be that in a positive or negative direction. Data from the focus groups may give further insight into existing attitudes together with any perceived changes. In addition, the direction of any change and potential causal explanations may become explicit. With the aim of investigating the synergy or antergy of interactions, two focus groups were undertaken; one with members of the teaching team and one with students enrolled on the module.

6.1.2 How focus groups may provide insight into staff and student epistemologies

Some authors (Morgan, 1997; Krueger, 1994) liken focus groups to an ethnographic model, where data collection is through both interviewing and observation, in an apparently naturalistic and social environment, with each of the methods contributing a unique facet. Other authors

refute the naturalism of the focus group environment, declaring it to be contrived (Jayasekera, 2012; Cohen et al., 2011; Kitzinger, 2005). When compared to ethnographic observations, focus groups can be thought to be more efficient as there is likely to be a greater amount of relevant interactions in a shorter time (Cohen et al., 2011; Morgan, 1997) with the moderator having the opportunity to direct activities so that there is the potential for the discussion to be more focused to the research aims. Although the moderator will probably have a less directive role than in other methods, such as one to one interviewing (Kevern and Webb, 2001), it is recognised that their input can influence the resulting data (Greenbaum, 2000). This last point will be discussed further (Section 6.2.4).

Conducting two separate focus groups could allow student and staff participants to consider their opinions within the context of their group (Jayasekera, 2012; Merriam, 2009; Fern, 2001; Brown, 1999), without the influence of the status differential between staff and students inhibiting participation (Krueger and Casey, 2015; Cohen et al., 2011; Merriam, 2009). However, it is recognised that eradication of perceived power differentials between participants is likely to be an unrealistic aim and mitigating any potential effects is a more realistic aspiration, as professional hierarchies and supposed differences in knowledge and understanding may still be influential. Not only does this apply to members of the groups, but also to any perceived differences between the participants and the researcher. Although an advantage of focus groups is that this effect is likely to be less overt than in individual interviews (Jaysekera, 2012), Morgan (1997) warned that it is inherent in focus groups as it is in a profusion of qualitative research studies.

It is a recognised strength of focus groups that they can result in data that reflects both individual and group perspectives (Massey, 2011; Merriam, 2009; Stewart et al., 2007) as participants may openly articulate and compare their opinions and experiences (Kitzinger, 2006; Lehoux et al., 2006; Morgan, 1997) and the impact of using homogeneous or heterogeneous groups needed to be carefully considered. It has been argued that in a homogeneous group, where participants have similar cultural or social backgrounds, they are likely to feel more at ease than in heterogeneous groups, where individuals have dissimilar backgrounds; in the latter, they are likely to feel less comfortable, which could have the effect of reducing the honesty and openness of any discussion (Jayasekera, 2012; Brown, 1999; Rice and Ezzy, 1999). With the aim of the focus groups being

to gain an insight into epistemologies I decided that I would regard students and staff as being distinct, homogeneous groups, albeit in the recognition this would encompass variation along the lines of professional background, age and other perceived differences.

Krueger and Casey (2015) suggested the aim of the focus group is to encourage self-disclosure by the participants therefore this decision might be thought as being crucial to the data collected. It has been claimed that when group members share aspects of their background, the resulting discussion can be akin to naturally occurring data (Kitzinger, 2005; Kevern and Webb, 2001; Rice and Ezzy, 1999). Self-disclosure could be thought to be a more probable outcome by conducting separate staff and student groups as there would be less distinct hierarchies (as discussed above) than compared to mixed staff-student groups.

Although it is not an aim of a focus group to build consensus (Jayasekera, 2012; Brown, 1999) a collective view could be regarded as a limitation (Cohen et al., 2011) as relevant individual insights could be suppressed. While the group interaction might enable individual participants to clarify and express their opinions (Jayasekera, 2012, Sim and Snell, 1996), an alternate outcome is that group interaction could also inhibit individuals from expressing their views (Kevern and Webb, 2001) with more dominant members having an intimidating effect.

6.1.3 Do focus groups provide insight into attitudes?

Some authors, who may be perceived as advocates of the place of focus groups in qualitative research, cite their use in the investigation of attitudes. Krueger (1994) proposed that part of the explanation was that they tap into human predispositions, which may be thought of as being developed, at least in part, by interaction with others. He continued with the idea that it was the open-ended questions, allowing the participants the opportunity to choose how they respond, together with the moderator's observations that facilitate the insight into attitudes. Morgan (1997) was rather more specific in his proposal that learning about participants' opinions and attitudes on the research topic was a goal of the focus group.

In general, in the literature based on focus groups, attitudes are regarded in a rather non-specific way, and may be bracketed with opinions, behaviours and perceptions, as though interdependent (Stewart et al., 2007; Fern, 2001; Morgan, 1997; Krueger, 1994). That said, there are some insights thought to be useful that can be highlighted as common themes; the first is Morgan's

suggestion that focus groups participants explore ‘how they think about it and why they think the way they do’ (Morgan, 1997: 20). Similarly, Greenbaum (2000) suggested that focus groups may be used to examine the reasons behind attitudes and opinions. The argument suggests that participants will not necessarily express espoused attitudes in reasoned responses, with spontaneous contributions having the potential to contribute a greater depth of information adds to the rationale (Kitzinger, 2005).

However, these opinions raise an interesting point. The sociologist Merton (1996) developed the focus group, from an initial idea of the focused interview, in order to gain responses from a group of participants. It is perhaps because of the generalist nature of ‘responses’ that the use of focus groups to investigate attitudes is rarely mentioned in psychological texts. Psychological attitudinal research tends to rely on quantitative methods (Stroebe., 2012; Hogg and Vaughan, 2008; Ajzen, 2005; Fazio and Olsen, 2003). Focus groups have been mentioned, alongside qualitative methods in general, as being used to gain an increased insight into participants’ understandings, or as an initial pilot to clarify the research objectives (Manstead and Livingstone, 2012). Therefore, the results of these focus groups will be primarily considered with regard to gaining an insight into the thinking of the staff and student groups, with any inferences towards attitudes, or attitude change being tentative.

6.1.4 Advantages and disadvantages of focus groups

As mentioned previously, some of the advantages of focus groups derive from their interactive nature. Both the participants and the moderator have the opportunity for clarification on any ambiguities or misunderstandings (Stewart et al., 2007; Stringer, 2004; Rice and Ezzy, 1999; Krueger, 1994). Interactions may become synergistic where participants’ responses build on previous information, resulting in new insights and an increased richness of data (Cohen et al., 2011; Sim and Snell, 1996); equally importantly, disagreements and differences of opinion can also add to the depth of information resulting from the group (Stewart et al., 2007).

One more advantage of the interactive nature, is that focus groups are often regarded as social, flexible, informal and, if conducted well, user-friendly (Winlow et al., 2013; Stewart et al., 2007; Kevern and Webb, 2001; Rice and Ezzy, 1999), which can have the effect of encouraging participants to relax their inhibitions and speak with greater candour (Stringer, 2004; Fern, 2001; Krueger, 1994). However, it has also been discussed that some aspects of the social nature of

focus groups can impact negatively on the quality of the data. One of the criticisms is the possibility of participants portraying themselves more positively than their actual behaviour, either deliberately or unconsciously (Krueger and Casey, 2015; Rice and Ezzy, 1999).

Other advantages are suggested in comparison to alternative data collection methods. As previously suggested (Section 6.1.2) focus groups are considered less time consuming and therefore less expensive than ethnography, but also than one-to-one interviewing (Cohen et al., 2011; Stewart et al., 2007; Lehoux et al., 2006; Krueger, 1994), although Delamont (2002) regards techniques such as focus groups as a very poor substitute for observational data. A possible explanation for her opinion is that focus groups can be seen as lacking in authenticity, and therefore deficient in emotional context (Stringer, 2004). It is perhaps an inevitable consequence that if a data collection method is less time consuming, it may well result in data that is comparatively deficient either in terms of quantity and/or quality, than the costlier method (Cohen et al., 2011; Rice and Ezzy, 1999).

In addition to the advantages, some limitations may also arise from the interactive nature of focus groups. The group dynamic might result in the discussions being dominated by particular participant(s) with the result that others do not get an equality of opportunity to voice their opinions (Winlow et al., 2013; Stewart et al., 2007; Sim and Snell, 1996), although it has also been suggested that more vocal participants may begin a discussion making it easier for a more reticent member of the group to participate at a later point (Kitzinger, 2006; Kevern and Webb, 2001; Rice and Ezzy, 1999). A dynamic and fast paced discussion may result in open-ended, incomplete responses which could be both awkward for the moderator to control (Krueger, 1994), and also have the effect of making interpretation challenging (Stewart et al., 2007). Alternatively, a focus group could lack dynamism and be slow paced and quiescent, which could also have frustrating consequences for the researcher.

It is important to mention the limited ability to generalise from the results of focus groups because of their small size (Massey, 2011; Stewart et al., 2007; Sim and Snell, 1996), although some authors suggest that achieving representative data is not the aim (Jayasekera, 2012; Rice and Ezzy, 1999). However, implicit in the same point is their high face validity, in that the range of views and perspectives of participants are likely to be well represented (Kevern and Webb, 2001; Rice and Ezzy, 1999; Krueger, 1994).

The final potential limitation of focus groups is that of moderator bias, as the exercise is being driven by the researcher, who can unintentionally influence the group's interactions (Greenbaum, 2000; Rice and Ezzy, 1999). More highly trained moderators are more likely to achieve a greater quality of data, as the depth of data depends on the inclination of the participants, which can in turn be influenced by the skills of the moderator (Krueger and Casey, 2015; Stewart et al., 2007; Stringer, 2004; Greenbaum, 2000; Brown, 1999; Sim and Snell, 1996; Krueger, 1994).

6.2 Method

6.2.1 Sampling

When utilising focus groups, the sampling methods used need to be carefully considered, to the extent that some authors (Cohen et al., 2011; Stewart et al., 2007) cite it as the major factor likely to influence the success of the outcome. Many authors suggest that purposive sampling is the most suitable for focus groups (Merriam, 2009; Kitzinger, 2006; Brown, 1999; Morgan, 1997; Sim and Snell, 1996; Krueger, 1994) and that was the approach that I adopted. Morgan (1997) warned that this strategy will possibly have the result that less than a full scope of opinions and experiences are voiced, therefore limiting the generalisability of the results, but Rice and Ezzy (1999) suggested that focus groups do not aim to represent the whole population but rather are designed to collect data that is information rich.

6.2.2 Group size

As the group dynamic is almost certain to have a significant impact on the amount and quality of the data that is achieved it is important to consider the size of the group. The number of participants in the group will impact on the length of time available for each person to speak, and how likely they are to voice an opinion (Krueger and Casey, 2015; Stewart at al., 2007; Morgan, 1997). Between approximately six and twelve participants is often stated as a preferable number (Krueger and Casey, 2015; Merriam, 2009; Lehoux et al., 2006; Brown, 1999; Morgan, 1997). Because of the number of authors suggesting that this approximate number I aimed to recruit similar numbers to my focus groups.

It has been suggested that, as mentioned previously, too many participants may result in each participant having insufficient time to express their opinions, while fewer than six participants is likely to result in a discussion that lacks the desired breadth (Morgan, 1997; Krueger, 1994). To

complicate this for the researcher, experience has demonstrated the likelihood of recruited participants failing to attend, therefore inviting a number in excess of the actual number required can be used as a failsafe mechanism (Kitzinger, 2005; Sharts-Hopko, 2001; Brown, 1999; Rice and Ezzy, 1999). The likely outcome is that the researcher will probably not know exactly how many participants will take part until the start of the session.

6.2.3 Recruitment

For the student focus group, I decided that the participants would all be students enrolled on the IPE module in the academic year 2015-16 and for the staff focus group, potential participants would all be those allocated to teach on the module during the same academic year. The numbers of students registered on the module, and staff allocated to the teaching team in each semester are indicated below.

Semester A (September to January)			Semester B (January to May)		
Professional group	Number of students in the cohort	Number of staff on the teaching team	Professional group	Number of students in the cohort	Number of staff on the teaching team
Adult nursing	58	2	Adult nursing	179	7
Mental health nursing	15	1	Mental health nursing	25	1
Midwifery	51	2	Child nursing	33	2
Dietetics	29	1	Learning disability nursing	33	2
Paramedic science	54	2	Pharmacy	149	6
Physiotherapy	43	2			
Diagnostic radiography	92	4			
Radiotherapy	25	2			
Social work	38	2			
Total	405	18	Total	419	18

Table 6.1 Breakdown of students enrolled on, and staff on the teaching team, of the IPE module in 2015-16

A general request offering the students the opportunity to take part in a focus group was issued through the virtual learning environment (VLE) two weeks before the intended day of the focus group (Appendix 8). The request stated that the first respondents from each professional group to

reply would be invited to take part, with the aim of recruiting a maximum of nine participants, as it had been decided that all the students would be equally suitable to be participants.

I recognised that taking part in a focus group required a time commitment and that offering an incentive was likely to encourage participation (Winlow et al., 2013; Stewart et al., 2007; Rice and Ezzy, 1999). The request stated that each participant taking part in the focus group would be paid the sum of £20 in cash at the end as an honorarium, although it had been noted that Krueger (1994) disputed use of the term honorarium as he regarded any payment as pure incentive. It was thought to be a sufficient amount to encourage participation, but not so significant as to cause ethical dilemmas, such as perceived coercion. It was hoped that it would indicate to the students that their contribution was valued (Krueger and Casey, 2015), although it was recognised that a financial incentive might influence which students volunteered to be participants. The request stated that each participant would be required to sign a form confirming that they had received the payment. Care was taken to ensure the financial incentive offered was overt on the application for ethical approval.

The invitation explained that refreshments would be included during the session in agreement with the suggestion that this would be likely to help to create a relaxed atmosphere (Stewart et al., 2007; Kitzinger, 2006; Rice and Ezzy, 1999). The advice of Krueger and Casey (2015) was followed and food was chosen on the basis that it was quiet to eat; paper plates and cups were utilised to decrease the risk that accompanying noise would impact on the quality of the audio-recording.

An approximate intended location for the group was included on the invitation. Lengthy consideration was given to suitable venues. A teaching room was discounted as it could be seen to reinforce, and be a visible reminder of, the power differential between myself and the students, and consequently a meeting room was booked as a more neutral venue (Kitzinger, 2005; Krueger, 1994). The location of the room was also thought to be important, as requiring participants to travel either to the far side of the campus, or even the other campus of the institution, was thought likely to discourage attendance. Therefore, the room booked was in an area of the campus that was close to areas known to be used by the student group and so would be both convenient and easy to find (Krueger, 1994).

It was stated in the initial invitation that the session would be audio-recorded, and field notes would be made, as is widespread practice (Krueger and Casey, 2015; Winlow et al., 2013; Brown, 1999; Morgan, 1997; Sim and Snell, 1996). The choice to use audio-recording, rather than video, was made in part of the basis on practicality, and also because of the more intrusive nature of video; the aim of the field notes was to record significant incidents of non-verbal behaviour and also to serve as an aide-memoire during transcription (Stewart at al., 2007; Pope et al., 2006; Krueger, 1994).

Participants were selected from the responses gained and notified of their selection within one week. Selected students were subsequently sent a personalised confirmation (Appendix 9) and then a reminder about the event was sent the day before the group.

The considerations for the staff focus group were similar and an equivalent process was conducted with members of the teaching team and an invitation (Appendix 10) and a confirmatory message (Appendix 11) were sent via email. Rather than offering the staff an honorarium it was explained that they would be offered a small gift at the end of the focus group.

6.2.4 Ethical considerations

As with all research involving human participants, it was important that ethical implications were considered from the initial planning stages, as an initial concern was that the information being sought did not already exist (Scott, 2012), and that the study had the potential to result in improvements to the module (Johnson and Long, 2015; Basit, 2013; Oliver, 2010). In accordance with institutional requirements, ethical approval and consent were gained prior to the start of any data collection process (Appendix 24; Protocol number EDU/PG/UH/00407(2), Social Sciences, Arts and Humanities ECDA). The three aspects of research ethics that were considered particularly pertinent to focus groups as a method of data collection were those of informed consent, confidentiality and researcher bias and they will each be considered in respect to the current study.

Obtaining informed consent from participants involves ensuring that both the purpose of the study and the extent of expected commitment are carefully explained to, and agreed by, potential participants, so that they understand exactly what they are committing to prior to the start of the focus group (Stuchbury and Fox, 2009; Silverman, 2000). To achieve this and bearing in mind

the need to build a relationship based on trust, I was careful to ensure that all written and oral communications with potential participants was sincere, timely and used language that was accessible (Silverman, 2000). For both focus groups, participants were given time before the start of the group discussion to read, discuss, and sign consent forms (Busher and James, 2012). In addition, at the beginning of each group I carefully reiterated the expected process of the focus group, ensuring that all participants had the opportunity to withdraw, either at that point or at any other, during the group discussion.

The issue of confidentiality needs greater consideration for focus groups than other methods such as interviewing because all members of the group are party to the discussions, and therefore information is inherently shared, not only with the researcher, but also all the other participants (Coleman, 2012; Morgan, 1997). This is perhaps one reason why some authors suggest that focus groups are less suitable for topics that are personal or highly sensitive (Merriam, 2009). While the topic of my research was not considered to be highly sensitive, the potential for disclosures to be personal could not be discounted. During initial discussions, while the ground rules were being outlined, the requirement for all to protect each other's privacy and respect their confidentiality was explained and explored; key points were again mentioned during the debriefing at the end of the discussions (Kitzinger, 2005; Stringer, 2004).

The final implication of confidentiality was the use and storage of digital recordings (Winlow et al., 2013). Participants were reassured that recordings would be stored in a pass-word protected computer hard drive, only be accessed by myself and research supervisors. I affirmed that any quotes that were integrated into the report would be carefully anonymised. Additionally, student participants were assured that no analysis would occur until after all of the examination boards, and consideration of module results, had been concluded for the academic year.

The importance of preventing moderator bias has been mentioned earlier (Section 6.1.4) and was recognised as one of the challenges of the moderator role. It has been suggested that the moderator should effectively balance active and passive roles; the active role being to generate discussion and interest in the topic, while passivity can be seen as not encouraging the participants to espouse the researcher's views (Wilkinson, 2004; Robson, 2002; Fern, 2001). During the introductory comments, I explained my role and emphasised that it was the participants' knowledge, understandings and perspectives that I was interested in. Questions

were carefully worded so as not to be leading. During the focus groups I used neutral, rather than positive, encouraging phrases to stimulate participation and discussion to avoid the impression of agreeing with particular views or opinions.

6.2.5 Pre-planned questions (Appendix 12)

As explored previously (Section 3) the first element of data collection in this case study was the self-completed questionnaires that sought to identify any attitude change that might have been prompted by the IPE module. Having gained an initial insight, I decided that gaining a greater understanding of the perceptions of both staff and students would complement the questionnaire results.

One objective related to the research questions that I wanted to explore in greater detail was the question of what staff and students understood by ‘collaboration’. Elements I wanted to explore included what it meant to them in their professional practice as well as an indication of the level of importance and relevance they attached to collaborative working. Through my literature reviewing I had increased my own understanding of what I thought was of consequence in the term, but I wanted to investigate what similarities, or differences, others perceived. It was planned that a greater understanding of the term collaboration would give some insight on how future the question of ‘of’ data collection could be designed.

I recognised that different participants might have very different connotations of collaborative practice and I looked forward to the possibility that the discussion might take a direction I had not anticipated (Morgan, 1997). I was aware, that if I had given considerable thought to what the term meant, asking participants to encapsulate and articulate a succinct definition might be rather challenging. Therefore, I decided that asking some less structured questions initially might be useful in allowing participants to consider aspects of their practice and collaboration before asking a more specific question about a definition.

Such an approach of starting with more general questions before moving on to more specific ones appears to be accepted and is sometimes called a funnel approach (Winlow et al., 2013; Stewart, 2007; Morgan, 2004; Brown, 1999). In more than one publication, Krueger considers formulating questions for focus groups in depth (Krueger and Casey, 2015; Krueger, 1994), suggesting an order of distinct types of questions, each with a specific purpose. The planned

questions for both focus groups have been reproduced in Appendix 12 and will now be discussed.

Questions were designed to be open rather than closed, or dichotomous, so avoiding ‘yes’ or ‘no’ answers so that they would stimulate explanations and hopefully discussion (Stewart et al., 2007; Lehoux et al., 2006; Fern, 2001). In general, the questions were designed around opinions, experiences and behaviour of participants (Bowling, 2009), with avoidance of ‘why?’ in the recognition that it could appear interrogative and therefore counter-productive (Merriam, 2009). Krueger (1994) has explored reasons for avoiding the use of why, and his considerations were perceived as directly relevant for my study; he proposed that in general, our decisions are often made on impulse, and asking participants to rationalise their reasons could be likely to be perceived as erroneous. As Kitzinger (2005) suggested attitudes do not dependably relate to reasoned responses (Section 6.2.3).

Initial questions were designed as ice-breakers, the purposes of which were to allow each participant the opportunity to speak and establish commonalities and cohesion within the groups (Krueger and Casey, 2015; Fern, 2001; Krueger, 1994). They were planned to be both timely and relevant, e.g. asking the students their year of study and where they were hoping to work would both be pertinent. The next two questions asked about experiences and opinions, so introducing the topic of collaboration and encouraging participants to consider their thoughts about the key topics (Sarantakos, 2005; Gaskell, 2000).

It was important to ask participants their understanding of the term collaboration, so there was the opportunity for the group to relate their understandings to the IPE module. The questions on relating teaching activities on the IPE module to knowledge, skills, behaviour and barriers were thought to be the key questions with clear links, in my mind, between attitudes and collaboration. The final question was designed to help encourage participants to voice values and opinions, having heard all of the discussion, in the hope that it would act as a conclusion (Krueger and Casey, 2015; Massey, 2011; Merriam, 2009; Fern, 2001) in the recognition that it can be the final questions that yield the most useful information (Krueger and Casey, 2015).

6.2.6 Additional considerations

As an experienced academic, I have experience of facilitation with both students and staff groups, so had a reasonable level of confidence in my abilities to act as moderator. However, the significant investment I felt to ensure the groups were a success meant that I was very nervous. I felt that as the groups were part of my doctorate study I should be able to manage them independently. Had I been conducting them outside of a programme of study I think I would have recruited a second moderator. Particular issues that I would have felt more comfortable with additional support were the potential for moderator bias, managing both the logistics and any potential conflict.

The idea of using images, statement cards or flip chart paper for summarising were considered (Kitzinger, 2006; Kitzinger, 2005) but not implemented, in part because of my concerns around implementing them successfully without any additional support.

6.2.7 Analysis strategy

Of the literature on focus groups, even the authors who write extensively do not always offer advice on transcription. Key points that are mentioned include the relative merits of complete transcription, (Stewart et al., 2007; Pope et al., 2006) out-sourcing the task (Winlow et al., 2013; Brown, 1999), and the importance of creating a ‘clean’ record (Merriam, 1998). In preparation for transcription I acquired transcription equipment and software that could control the both the volume and speed of playback together with a foot pedal (Merriam, 1998).

The challenge of analysing the data was not underestimated and was approached with some trepidation. In order to prepare myself for a task I considered daunting, I undertook considerable research and reflection.

My first decision was to use a post-positive, inductive and interpretive approach to the analysis as, although informed about the topic, I felt I did not have any specific, formulated hypotheses (Robson, 2002; Miles and Huberman, 1994; Strauss and Corbin, 1990). I intended to be both thorough and fair in my examination of the data (Silverman, 2011), with the aim of identifying meanings and developing categories from the transcript data (Sarantakos, 2005; Wilkinson, 2004; Lofland and Lofland, 1984), with limited preconceptions on the nature or specificity of the categories that would emerge (Merriam, 1998). The previous statement is perhaps a little naïve,

as I recognised that I would be interpreting the data based on the purpose of the data collection task (and the research as a whole), my own knowledge and understanding, and the data the participants had chosen to reveal (Merriam, 1998).

I considered that my approach was something of a hybrid. My intent to identify key meanings (Lofland and Lofland, 1984) in the data, and gain insight into their frequency of occurrence would seem to be congruent with content analysis (Bowling, 2009). However, the aim of developing categories, which might be seen as synonymous with themes, could be interpreted as consistent with thematic analysis (Bazeley and Jackson, 2013; Kitzinger, 2005; Brown, 1999). I decided that it was the clarity of the mechanism, and the articulation of the process to allow repetition, rather than its nomenclature that was important. A strategy for identifying concepts has been called the ‘constant comparative method’ (Merriam, 1998: 179) where elements of data are sorted into categories that have an element of commonality. Having considered a range of opinions, I came to the conclusion that it was clarity, systematism and transparency that should be the focus of my analysis method.

I was concerned that any approach should not be thought to be remiss in disregarding the interactive nature of the process that had produced the data (Wilkinson, 2004), and thought that this could have been an important oversight. In tandem with this concern was whether participants would use the same words to indicate a single meaning (Stringer, 2004; Lofland and Lofland, 1984). It has been suggested that using specific codes for types of interaction might integrate the interactivity (Kitzinger, 2005) but the subjectivity of interpretation of interactions could still be considered a confounding factor in coding the data.

My own level of inexperience and limited confidence led me to continue to consider the literature, with the, perhaps unrealistic, aspiration, of finding the ‘right way of doing it’. I found a strategy that claimed it offered a model that would complement thematic analysis, and an adapted version is described in brief below (Massey, 2011), and this was integrated onto the analytical approach.

Type of data	Brief description	Advantages	Limitations
Articulated	Material given in direct answer to either the moderator's, or other participant's questions. Will commonly include opinions, attitudes and experiences	Relatively easy to draw inferences and increase understanding.	Relies on the use of good questions and spoken (rather than unspoken) content.
Attributional	Material given that alludes to a question in an indirect way. May come from a desire not to be critical or controversial. May arise out of group interaction.	Focus group needs to be structured to allow to occur	Analysis needs to demonstrate the logic of attribution. Requires greater level of inference, so may be discounted or incorrectly attributed.
Emergent	Unanticipated material that arises out of group interaction and may be of importance to individual cultures and values. May create new insights.	Allows greater understanding and most closely related to interaction	Can be most easily misinterpreted and needs careful justification

Table 6.2: Key descriptors in the strategy used for analysis

6.2.8 Process of Analysis

Because the aim of the two focus groups was to gain an insight into the perceptions of members of the teaching team and student cohort, each focus group was initially considered individually and using an identical process. Subsequently, the outcomes of each of the focus groups were compared.

Initially a complete transcript was created from each recording. The transcript was reviewed while re-listening to the recording on two separate occasions. Amendments were made where necessary, such as additions or correcting minor errors. When I was satisfied that each transcript was an accurate representation of the content of the focus group, similar and different phrases and themes of data (Miles and Huberman, 1994) were then copied into a table (Appendix 13). Extracts were deemed to be pertinent if they related to the research question. Categories that emerged from the data were;

- Aspects of collaboration
- Knowledge and skills required for collaboration
- Aspects of the IPE module that were thought to be relevant to collaboration

- Indications that the IPE module influenced a change in students' behaviour
- Opinions of the IPE module

This was done sequentially by repeatedly reading through the transcript. In the table the extracts were assigned to each of the categories indicated in Table 6.2, i.e. articulated, attributional and emergent data. As extracts were pasted into the table, words and phrases that were thought to be of consequence were highlighted and an inference added alongside (Appendix 13). Inferences were sometimes broad, so that they did not rely on use of identical words and terms (Stringer, 2004). To facilitate transparency some of the extracts were lengthy so that the context of the inference was supported. The transcripts, extracts and inferences were reviewed on three separate occasions to identify omissions and inconsistencies, e.g. it was identified that the word 'fear' had been omitted from the data extracts from the student focus group. This was thought to be notable as it meant that fear had been identified as relevant by both focus groups. The process of extraction of key phrases and assigning inferences was initially completed for the student group. Once this had been accomplished, the same process was followed for the data from the staff group with the aim of compiling two sets of extracts that could be compared. For example, the shared objectives mentioned by the students were thought to be similar to the shared goals mentioned by the staff group.

The two tables were then reviewed in detail, and the areas of discussion and inferences were compared to identify similarities and differences between the two groups (Pope et al., 2006). A second, summary table (Appendix 14) was constructed where the inferences under each of the themes were collated in a clustering process (Miles and Huberman, 1994). Where the inferences were identical they were paired onto the same row, for example the mention of hierarchy and its impact. Where inferences were thought to be dissimilar the extracts were put into groups, for example the perceived challenges of collaboration. It was noted that there were instances where inferences contained identical words and phrases, but in different categories of the discussion, for example the students mentioned the need to modify usual practice as an aspect of collaboration, where the staff saw the same concept as a challenge. Where these were identified the text was italicised but were retained in the original group.

On reviewing the results, I felt that I had not sufficiently taken the interactive aspect of the data in to account. Massey (2011) suggested that the three categories of articulated, attributed and

emergent data were on a continuum of deductive to inductive elements. He suggested that articulated data tended to be deductive and given in direct response to good, clear questions, and emergent data suggesting more tentative themes, and that where aspects of the data were repeated across the categories the researcher could be reassured as to their validity. Therefore, the data in the summary table was cross-referenced back to the initial table and a final table constructed (Appendix 15) which indicated whether individual themes of data, were articulated, attributed or emergent. This final table illustrated which themes were repeated, which were dyadic, i.e. arising in both the student and staff focus groups, and the strength with which they were represented in the data.

6.3 Results and Discussion

6.3.1 Conduct of focus groups

The focus groups were conducted on consecutive days. A total of twelve participants took part in the student focus group; five students from adult nursing, four from pharmacy and three from mental health nursing. A total of seven members of staff took part in the second focus group; two from diagnostic radiography, two from child nursing, one from adult nursing, one from midwifery and one from learning disability nursing. As previously suggested, it was not straightforward to predict how many participants would actually take part in each group (Kitzinger, 2005; Sharts-Hopko, 2001; Brown, 1999; Rice and Ezzy, 1999). In the event, all of the student participants identified took part, perhaps in part because of the financial incentive. Two members of staff who had agreed to participate were, on the day, unable to take part because of unforeseen commitments.

Both groups followed a similar format with the pre-planned questions (Appendix 12) being used. The groups were started with some straightforward questions, based on ice-breaker format, which were designed to put participants at ease, introduce each participant to the group and introduce the topics to be discussed. The group discussions diverged in places, for example, the student group discussed patient care on placement in greater depth while the staff group had a lengthy discussion on implications of teaching aspects of clinical placement activities.

There were facets of the topic where both different and correlative views and perceptions were expressed. Some of the results appear to suggest that the staff and students do have dissimilar

epistemologies to each other and also to me. These will now be explored in depth before a final summary is constructed and conclusions drawn.

6.3.2 Collaboration in practice

When asked to consider collaboration in detail there was similarity between phrases that the two groups used with, shared goals or objectives, recognition of its widespread use, sharing knowledge, and the requirement for co-ordination being mentioned by both. Each of these aspects was mentioned across a breadth of articulated, attributed and emergent categories of the data, giving a level of confidence in the consensus. The importance of service-user centred care and the challenges of collaborative working for newly qualified professionals were also widely acknowledged by both groups, both by individuals and as a result of the interactions.

However, within this aspect of the discussions, there were differences in how each of the two groups spoke about the service user, and in hindsight, this might seem quite rational, although potentially problematic. The members of staff expressed more holistic impressions that regarded the service user as an integral part of the health and social care system;

'I think collaboration does make a difference to the service user, but I don't know that they always perceive it as making a difference, they just see it as the system'.

In contrast, the students tended to explain specific examples that illustrated their interpretation of the impact of collaboration on the service user;

'the patient was about to go to the community, so he was told what services would be available for them ... to know that, so this is what they have done since they've been there, this is where they have got to, this is where they are going... but also to give them a choice of where they are going, not just telling them'.

These disparate perceptions seem quite logical, when it is considered that some students have very recently been on practice placement, and all are at the beginning of their clinical careers, and in the process of considering or applying for their first jobs in the clinical environment. In contrast, while the teaching team have all previously been employed in the clinical environment, they will have moved to academia and now have limited, if any, involvement in clinical practice. The following opinion, expressed by a member of staff, seems overtly different to those of the

students, where ‘they’ refers to professionals providing the service, which was in this instance a child nurse;

‘they can’t allow themselves the luxury of seeing it from the service user’s perspective, to some extent, because otherwise they wouldn’t get the work done’.

6.3.3 Staff confidence in teaching IPE

It did appear that the staff were aware of this difference and some believed it impacted on their credibility in teaching the students, on a very practice orientated module. The following quote refers to bringing practicing clinical staff to teach on the module;

‘they actually... they are doing the job, rather than a radiographer telling them what a nurse does in interventional work and that is really powerful... even though they are not teachers, it doesn’t matter. Students really enjoy it’.

These different approaches could mean that either the staff involved in the interaction believe that their teaching lacks in meaningfulness, or that the students give the impression that it does, which is a challenge that has been previously explored (Langton, 2009). Barr et al. (2005) emphasised that diversity in IPE groups needed to be accepted and celebrated, but perhaps the challenge facing the teaching team should not be underestimated. Not only may they feel their lack of recent clinical experience affects their teaching, but they also have students from a breadth of professions to work with, and both may add to any pressure in facilitating IPE (Lie et al., 2016; Bainbridge and Wood, 2012; Anderson et al., 2011; Clark, 2011; Steinert, 2005) which may impact on the influence of the module.

6.3.4 Student and staff understandings of collaboration

After the icebreaker questions, but before asking participants questions about what the concept of collaboration meant to them, I asked for an example of collaboration from practice. Massey (2011) suggested that such articulated data, i.e. that given in reasonably direct response to questions, is both straight-forward to interpret and easily defended. The students’ responses were perhaps predictable and gave generally positive accounts of collaboration in areas such as community pharmacies, a stroke unit and a multidisciplinary team working in community mental health. One such example, given in relation to the recovery of a patient on a stroke unit was;

'thanks to the collaboration of the team who was involved...the result of it was to benefit the patient'.

However, they did not ignore the difficulties in achieving collaborative practice, as illustrated by the following quote;

'you have to try and make it work, sometimes it works and sometimes it doesn't work. I think it is an area that definitely needs to be improved'.

Also, as expected in retrospect, the staff responses were more varied and included examples from a greater breadth of practice such as a stroke unit, a cross university working group, cross profession research and community learning disability nursing. Without being asked some members of staff began to explore the challenges to collaboration very early in the discussion and it appeared that the staff more strongly associated collaboration with challenges than the students. For example, one member of staff said;

'some of whom were not comfortable with the concept of an integrated, joint practitioner, and we had to work through all of those concerns that people had'

It would seem reasonable to propose that, as might be expected, that the staff and students did have different perspectives of collaboration, with the students being more positive and practice focused while the challenges were more salient for the staff. This suggestion can be compared to the findings of other, similar studies. Similarly, Robson and Kitchen (2007) found students tended to describe positive experiences of collaboration in critical incident accounts. In contrast, another study, which also used focus groups, found that less experienced staff were more likely to have a less positive view of collaboration compared to more senior members (Bruner et al., 2011).

However, Wittenberg-Lyles et al. (2010) compared articulated perceptions with actual behaviours in hospice care teams and found that espoused perceptions tended to overestimate enacted behaviour. So, it might be suggested that the students' actual collaborative behaviours were not as positive as articulated. An explanation of this could be the power differential between myself and the students. The students might have preferentially espoused more positive views, while the teaching team were more comfortable to articulate realistic and candid opinions.

This explanation may also be applicable to that of Robson and Kitchen (2007) as mentioned in the previous paragraph.

I was surprised when a diagnostic radiography member of staff expressed the opinion that newly qualified radiographers were not required to work collaboratively, as they were generally working only as part of a uni-professional group;

'we work fairly remotely and on our own until you get into a more senior position... I think they do struggle with working with other professions, because we often work in isolation'.

As a diagnostic radiographer myself, my perception of the profession is of working with radiologists (specialist medical practitioners) and radiology nurses in imaging departments, and as part of a multidisciplinary team in trauma situations, operating theatres and wards including intensive care units. If the word ‘collaboration’ is understood in terms of its linguistic routes, i.e. ‘co’ meaning ‘with’ and ‘labore’ meaning ‘to work’, then my own perception of collaboration in my profession is very different to that expressed by the focus group participant.

That collaboration is regarded as a positive concept in contemporary health and social care has been discussed in a previous chapter (Section 1.8) but tentative ideas to support this particular participant’s perspective can be gleaned from published literature. Loxley (1997) considered that practitioners based their practice on assumptions founded on a synthesis of their theory-based and practice-based knowledge. She continued by suggesting that practitioners often do not have the time to reflect on their assumptions. It could therefore be the case that the practitioner quoted above unconsciously and unquestioningly lets assumptions implicitly guide their everyday practice. The result could be that one person may have assumptions about collaboration being unnecessary, while someone from the same profession, but with disparate assumptions, could regard collaboration as integral to their practice. This dichotomy will be further discussed in Section 7.1.

An alternative explanation could be inferred from the ideas suggested by Sullivan and Skelcher (2002), that an individual’s commitment to collaboration has to be supported by the environment in which they are working, and possibly their perceptions of the environment. Similarly, to Loxley’s (1997) suggestion, these perceptions could be dissimilar. My own, and the participants’ opinions can be compared to explain this point. When taking a simple radiograph such as a chest

image in the imaging department the radiographer will work on their own. However, in the intensive care unit an equivalent chest image cannot generally be undertaken without the collaboration of a number of staff from different professions.

One final explanation can be interpreted from a taxonomy of collaboration described by Leathard (2003). The taxonomy details five levels of collaboration with accompanying descriptors, which range from professionals who never directly communicate with each other, to a multiplicity of professionals working together within a single setting. It is possible that different members of a single profession could interpret aspects of the service, and therefore the level of required collaboration, differently.

These three tentative explanations seem to offer some justification for the same profession having different opinions on the place of collaboration in practice, but this research will need to consider any potential impact might be on the students' learning during the IPE module. (Sections 7 and 8).

6.3.5 Student concerns with collaboration in practice

Perhaps because of the specific nature of the students' comments regarding the service users (which may have been a result of their more recent clinical experience), they included more detailed information than those of the staff. For example;

'you see it before your eyes, and you know people can die';

'that's really important because pressure ulcers are not good';

'so the patient actually took an active role in its own care and that stayed with me'.

These comments seem to demonstrate a depth of emotional engagement, which was not apparent within the staff group. It may be that the dissimilar perspectives from the two groups could create a feeling of disconnect, and perhaps the staff approach does lack credibility in the students' eyes. The students' comments also had a more practice-centred aspect, and some of the comments could be interpreted as demonstrating a level of anxiety, such as;

'we have to support each other because if you don't have that have that support you won't collaborate because you won't have anyone to rely on';

'people have really got to be top of their game'

6.3.6 Challenges to collaboration

While my approach did not specifically include content analysis, being a rather hybridised style, one area where it did seem to be useful to consider the variety of comments was on the challenges to collaboration. Not only did the staff group articulate many more challenges to collaboration than the students, but the nature of the challenges identified by the two groups was very dissimilar. Some challenges mentioned by the staff participants included concerns over professional identity, personal and professional differences, diverse practices and perspectives.

There are potential explanations for the views expressed by the staff participants. One might be taken as an illustration of the need for a change in professional culture as has been previously suggested, as many of the staff would not have experienced IPE as students (Rice et al., 2010; Schertz et al., 2010) and perhaps can be taken as example of the perceived need for IPE to improve collaboration across professional boundaries. An alternative` explanation may be the less recent clinical experience of the staff group, and that their perceptions of collaboration in practice are not the same as the students. A final explanation to be offered is that the most recent working experience of the staff is within higher education, where it is suggested that, apart from IPE, there is little collaboration between members of different professions, and perhaps the focus group forum made these differences more salient.

When asked directly about the challenges in collaboration, the following quotes from two staff participants appear to be note-worthy;

'there were seven other universities, and we worked together to produce a document.... and that was really interesting (laughter) because there was so much diversity...and we all came thinking the tool we currently use was the best one...'

The laughter after the word ‘interesting’ suggests that it was not meant literally. The final clause is suggestive of a level of disagreement and therefore perhaps challenges in working together. A second example of laughter is illustrated in the following extract;

'we had to work through all of those concerns that people had...that was going to demonstrate the collaboration that we wanted the students to embody in themselves (laughter) as a joint practitioner. So that was really interesting' (more laughter).

Both speakers seemed to be using the word ‘interesting’ as a euphemism, perhaps as an understatement, which again appeared to provoke mutual understanding among the other participants.

Another comment that appeared to provoke mutual understanding and amusement was when considering the meaning of the term ‘collaboration’ the articulated response was;

‘A sustained active involvement with other professionals, where most of the parties (laughter) are well motivated so there is appropriate care for the service user’.

This answer was immediately followed by the following;

‘That’s effective collaboration that you’re talking about - that’s how it should be’

The first comment seems to suggest a level of acceptance of true collaboration being aspirational rather than accepted and reflective of actual practice; this is important and may reflect how the students hear the message of the place of collaboration in contemporary practice. These elements of discussion can be taken as an illustration of the challenges of both being the researcher and the moderator. At the time, I did not laugh as I thought the reasons were obvious and it was indicating the use of a more acceptable euphemism, when what was meant, was difficult or a lack of sincerity. However, when attempting to analyse the data objectively there is no evidence to support this supposition. In hindsight, as a moderator I could have asked for the laughter to be explained.

The students’ comments on the challenges to collaboration were again more immediately relevant to their practice, to their status as students, and once more, there appears to be an underlying theme of anxiety;

‘You are nothing, you are just a student and you don’t have experience;’

‘It becomes a blame game rather than actually working together to solve problems which we should do’

‘It’s important to not be afraid to ask for help in collaboration’

Expressions of anxiety were made even more overtly by both focus groups, and both incidents arose from discussion of how the issue of hierarchy can act as a barrier to collaboration. How

hierarchy is perceived by newly qualified members of staff has been investigated and considered (Burford et al., 2013). The authors considered that hierarchy could be either ‘pragmatic’ i.e. relating to the actual practice of different professions working together or ‘normative’ i.e. how it is traditionally perceived. It is possible that the staff have a more pragmatic perception of hierarchy, while the students still hold a more normative perception. Perhaps an explanation that might more readily suit the notion of anxiety-inducing is that the students, with their more recent clinical experience, have had recent experiences of the challenges created by working within a hierarchy, therefore a more ‘pragmatic’ or real perception. It may also be relevant that as students, they see themselves towards the bottom of any hierarchy, whereas more experienced, qualified staff, who have moved into academia may have been more confident of their place higher within a hierarchy.

One of the student participants articulated, in direct response to a question, how doctors could be ‘scary guys’ in relation to the perception that they are at the top of the hierarchy while the nurses are far lower. When the staff group were discussing the overt nature of hierarchy in the operating theatre, one participant suggested, to which there was a level of agreement indicated by non-verbal communication, such as head nodding;

‘I think it’s fear, because there is an element of fear’.

While these are regarded in the context of being single comments, together with the previous observations, and elements of previous sections, they do seem to confirm anxiety as a stronger theme than had been anticipated. The strength of the anxiety theme can also be considered in how it was a result of the groups’ interactions. The students articulated sentiments of fear and anxiety in direct response to questions, while in the staff group it they arose as either attributed or emergent data. That it was mentioned more than once, and in different contexts seems to add to the validity of the idea but it could be thought that it is more salient to the students than to the staff.

The impact of anxiety has been a little more conspicuous in more recent literature. Brewer (2003) considered several aspects of anxiety including how it may be implicit in supporting intergroup prejudice having a negative, rather than positive, effect on attitudinal change. She suggested that when anxiety is an issue, information processing becomes more superficial, and there is an increased reliance of stereotypes and categorisation. It has also been suggested that

anxiety plays a role in what information an individual perceives, so limiting the positive effect of intergroup contact (Hodson et al., 2013). The theme of anxiety was also discussed in the unpublished literature lent to me by Prof. Hugh Barr. McMichael and Gilloran (1984) suggested that anxiety was a challenge for staff and students alike and increased anxiety was associated with decreased self-esteem and was likely to inhibit collaborative behaviours.

6.3.7 Skills for collaboration

There were, perhaps not surprisingly, dissimilar perceptions of the skills required for successful collaboration, with the staff group expressing attributes that can be thought to be of a higher level, such as ‘accountability’, ‘confidence’ and ‘leadership’, compared to the student participants who suggested skills such as ‘honesty’, ‘knowledge’ and a willingness not to be ‘judgemental’. Both groups mentioned the need for individuals to be assertive, although this was more contentious for the staff participants who expressed concern that the students needed to be ‘appropriately assertive’. This could be interpreted as an example of differing epistemologies with the staff and students having different priorities in the module teaching and learning.

6.3.8 How does the IPE module support development of collaborative behaviours?

When considering which activities on the module were relevant to collaborative working the students were able to cite more examples of how the teaching would make a difference compared to the staff group. Two of the issues which were most convincingly mentioned, i.e. across all three categories of articulated, attributed and emergent data, were the importance of interaction and learning about others’ perspectives. Although the relevance of the service user session has been discussed in a previous chapter, it was cited as a considerable strength of the module by both groups of participants.

Other aspects that can also be cited with some confidence were the importance of learning about the roles of other professionals, learning to compromise and the importance of informal interaction among students. When the students first meet within their mixed professional groups on the module, initial activities take the form of ice-breakers so that they can introduce themselves to each other and begin informal conversations, which may allow them to establish commonalities that cross professional boundaries such as hobbies or interests.

Two student comments were as follows;

'I think it was important to have that ice-breaker [at the beginning of the module], but also to remember that in practice if you don't know someone, if you are not familiar with them you still have to work with them'

'I think sometimes you move away from the activity and you start asking each other about each other's courses and experiences'.

There were similar views expressed by the staff participants;

'Because I think they just, like we do, just enjoy sitting chatting and sharing things, stories, they got quite involved in doing that, just to chat about what their life was like as a professional'

'Finding time to really get to know the people in practice that I'm working with and I've found that things like ...hanging around and having coffee, you know, getting there early and having chit-chat with people ...those kinds of things have really helped'.

In addition to the ice-breaker activity the other extracts also seem to suggest that time for informal interactions are important.

It is relevant to remember that the students can be regarded as having a dual identity i.e. both as prospective members of their professional group, but also as undergraduate students. In their research on students, Brown et al. (1999) suggested that decreasing the salience of group differences during contact could support the positive effects of intergroup contact, and it might be that informal time allowing social relationships to develop might be important. The question of the type of contact that is efficacious is not new, and one of the seminal works on intergroup contact questioned what type of contact was required (Sherif and Sherif, 1953 in Amir, 1969).

There is consensus that the contact needs to be pleasant (Brown, 2000; Hewstone, 1989; Deschamps, 1982; Tajfel, 1981; Amir, 1969) and perhaps it is a role of the module in general, and the teaching team specifically, is to create and facilitate informal, pleasant group discussions.

Individuals within both focus groups independently raised the challenge of students who either were not willing to engage with the module, or struggled to see its relevance, as illustrated by the following two quotes. This first quote is from the student group;

'... People weren't into it, there were a lot of people not interested. People's attitudes towards IPE were like, well they felt like they didn't need to do it. I already do this in placement, so I don't need this... A lot of them seemed to be unable to relate to it....'.

A member of the staff group suggested;

'A lot of my students say they don't think it is relevant to them, some of the scenarios we have, we struggle to fit midwifery in there and I try to say to them it's about transferable skills, we work in with doctors in midwifery and we haven't got any doctors on the module and that's a real shame actually ... we do need to find a way and they need to be aware how important it is even though maybe it is not so relevant, or they don't see it as so relevant to them as midwifery students'

The lack of a local medical school, with the resultant challenges of including medical students on the module has never been resolvable. Successive cohorts identify this omission and in order to try and rectify the omission a number of qualified doctors speak in the auditorium sessions. However, it is recognised that this does not seem to be sufficient and the risk is that their absence may risk them being regarded as scapegoats (Aiken, 2002) during module discussions with subsequent reinforcement of negative opinions and attitudes.

This dichotomy of perceptions appears to be neither new nor related to only this aspect of data collection (Sections 1.4 and 3.10.7). Therefore, the opinions expressed during the focus groups are discussed at this point, but the theme will be further discussed later in the thesis (Section 7). The student's comments make three specific points, the module was not interesting, was not necessary, and was difficult to relate to. The comment from the staff group focused on the students' perception of relevance. Krueger (Krueger and Casey, 2015; Krueger, 1998; Krueger, 1994) has written extensively on focus group questions and, as described above, has suggested that the questions at the end can frequently generate the more valuable information, which is where these responses came in the two focus groups (Krueger and Casey, 2015).

That undergraduate students struggle to see the relevance of some modules is not restricted to IPE. As an example, I also teach research methods, which is notoriously problematic when encouraging the students to recognise its place in the curriculum; neither is the problem of perceived relevance new or unresearched as difficulties in identifying personal relevance has

been cited as a challenge (Church et al., 2010). In a recent study Stahl (2016) supported qualified professional participants in creating their own, tailored curriculum to overcome the issue. The challenges of achieving this with very large groups of undergraduates may be beyond the scope of what is possible, but the idea will be considered further (Section 8). It may also be relevant to consider actual working environments, to successfully place students in groups with others they are likely to encounter in practice, so that there is an increased perception of shared cultures and contexts (Hellman et al., 2016; Van den Bulcke et al., 2016).

Vorauer (2013) discussed how intergroup contact is not guaranteed to create positive outcomes (Vorauer, 2013) considering both individual differences and the influence of the situation. The conclusion of her meta-analysis was that, although intolerant people may avoid intergroup contact, when they do interact the effects are more emphatic than when more tolerant people interact. Perhaps the reluctance to participate that was perceived by some is based on individual, rather than professional, differences. If this suggestion is viewed in conjunction with the salience of the group categorisations (Brewer, 2003) it might be more helpful to maintain a focus on the students as students rather than aspiring members of diverse professions and emphasising differences between professions makes positive outcomes less, rather than more, likely.

A different explanation of the notion that some students find the module difficult to relate to, and therefore demonstrate a lack of engagement, can be drawn from the theory of cognitive dissonance (Festinger, 1957). Such dissonance has also been termed ‘cognitive inconsistency’ and is discerned as being a useful lens through which to examine the part of cultural values on collective, social behaviour (Cooper, 2007: p181).

Festinger (1957) suggested that being in a state of dissonance is psychologically uncomfortable and there is a natural drive to reduce the discomfort. It can be argued that students who are uncomfortable in the IPE module will unconsciously look for reasons to justify their feelings, in order to feel more settled. Therefore, the student may identify negative aspects of the teaching which can be used to justify their feeling of discomfort, so reinforcing the negativity. However, a more desired outcome is that IPE influences a change in the students’ attitudes, so that the module becomes a comfortable environment and dissonance is reduced or even reversed (Cooper, 2007).

6.4 Summary and Implications

Inclusion of focus groups has proven to be a useful opportunity in investigating my own ontological and epistemological stances, while referring to the previous three tranches of data as this thesis begins to draw towards a close. Focus groups were thought to be a particularly relevant data collection method due to the data being socially constructed. The groups with both the staff and the students demonstrated that my epistemological stance and assumptions were not always the same as the staff and students and a range of realities exists, some of which I had not recognised or understood before. Having the opportunity to relate the findings of this tranche of data to the previous three, and also to the initial research aims, has reinforced some of the findings.

The first implication of the findings from the focus groups is that they have provided a rich data source that supplements the quantitative data achieved by the questionnaires. While not viewed as generalisable, the high face validity is regarded as a supplementary rich data source. The data categorised as articulated allowed a deductive approach to be taken. This aspect highlighted that staff and students do not always have the same perspectives, with staff believing collaboration to be much more aspirational than achievable. Members of staff saw collaboration from a more holistic stance, while the students were more concerned with the impact on the service user. There is a risk for IPE in these disconnects, in that staff facilitators need to be able to hear what the students are saying and understand their perspective in order to support their learning. Some members of staff in the focus group appeared to suggest that they were aware of this difference in perspective and that it might contribute to their lack of confidence in facilitating IPE.

This lack of confidence might be implicit within the differential reputation that the IPE modules have within the institution at times. It seems a logical sequitur that when members of the teaching team feel this way it will inevitably be communicated to the students. It is suggested, that because of cognitive dissonance, those students who do not identify any benefit from the module are actively prejudiced against it, with concerning consequences for their future practice.

It was thought that the service user was of more immediate concern to the students, while the staff were able to rationalise the positive effects of collaboration in the light of their broader experiences of the challenges involved in collaboration. It would appear that the IPE module is successful, for some students, in influencing their attitude towards collaboration, but that this

may, in part, be related to the perspectives and confidence of some members of the teaching team. Reasons behind why this appears to be true for some students, and not others, needs to be further investigated. In order to interrogate this aspect further the next stage of the study was planned to be individual interviews with students so that there would be an opportunity for dialogue to explore this key issue at greater depth.

Inter-group contact was recognised as being influential, although staff suggested that it did not always need to be as purposeful as proposed in the reviewed literature. It could be suggested that, providing the conditions for inter-group contact are met, informal contact might be as productive as group tasks and activities. The challenge for educators then becomes how to make informal contact to be seen as purposeful and valuable learning by the students.

Another facet of the findings that might be interpreted as relating to the theoretical framework is that of social identity, and in-group and out-group biases. Hierarchy is noted by both staff and students as being of a confounding, and anxiety producing, element of collaborative practice. As previously noted, it would be naïve to assume that such hierarchies are only apparent on placement, and therefore are probably experienced by the students in the mixed professional groups.

It is argued that, if both facilitators and students are, at times, feeling anxious, there is again going to be the propensity for heuristic processing, reinforcing the scope for stereotypical thinking to obstruct or challenge learning. Some students clearly did not recognise the IPE module as being of benefit to their professional development and practice, and the clarity with which this was articulated in front of myself as researcher, and module leader, adds strength to this assertion. With the aim of the mixed professional groupwork being the opportunity for the more positive perceptions to influence the less positive, then anxiety, cognitive dissonance and heuristic processing all have the potential to be detrimental influences.

7 Interviews

7.1 Introduction

As concluded at the end of the previous chapter it was decided that the final stage of data collection for this study would be individual interviews with the students to create opportunities for greater dialogue and depth of discussion. The focus of the interviews would be on the students' experience on the IPE module, with regards to collaboration, with the objective of gaining an increased understanding of their perceptions.

The WHO (2010) defined collaboration in health care as being when a number of individuals from different professional backgrounds work together to give high quality, comprehensive care to communities, patients and their families, claiming that there was sufficient evidence to support the view that more effective interprofessional collaboration in healthcare improves health outcomes. Additionally, the report found that this effect is not limited by environment and can be observed in both the acute and community sectors, although it is implicit that care is liable to be different across different settings. To encourage successful collaboration, the WHO recommended that the needs of the individual, or community, being served should be made central to the care being given.

That one person cannot provide for all a patients' needs is not disputed and it is understood that teamwork is important in the provision of healthcare. However, teamwork can be understood as being where all the members understand the task and work towards a single goal (Pietroni, 1994). Interprofessional working, by its very nature, will not comfortably fit within the same framework as each profession will have some goals that are specific to their remit. A demographic shift and the aging population of the U.K. can be used as an example. It is a consequence of aging that one's health and social care needs become more numerous. As needs become more numerous, the probability of solutions conflicting with each other increases. The requirement for collaboration between agencies involved increases as the needs of the aging individual become more numerous and it has been suggested that organisational boundaries between professions tended to be neater than those between the needs being presented by the service user (Jones et al., 2004)

Features of collaborative working have been discussed by numerous authors (Fraclicx, 2012; Bridges et al, 2011; Bruner, et al., 2011; Chan et al, 2010; Garber et al., 2009). Qualities cited as being important include responsibility, accountability, co-operation, co-ordination and communication (Bridges et al., 2011, Huxham, 1996). The significance of sharing is also thought to be important (Chan et al., 2010) although there is a challenge in understanding and agreement in what information needs to be shared. D'Amour and Oandasan (2005) suggested that both governance and leadership were important drivers, so the different agencies could determine the extent to which different types of information needed to be shared. Bridges et al. (2011), believed that mutual trust and respect across professional boundaries to be important and Fraclicx (2012) thought that for this to happen each professional needed to be fully informed and that there needed to be transparency in relationships. Garber et al. (2009) and Chan et al. (2010) suggested that the key for this to happen was to be found in personal relationships. Jones et al. (2004) and Jungnickel at al. (2009) examined the personal qualities in greater depth and agreed that an individuals' personalities were the most fundamental aspect of collaborative relationships and they cited effective communication skills, being supportive to others and a real desire to work with others.

7.1.1 Collaboration

As suggested in a previous section, authors have postulated collaboration as a potentially effective mechanism for improving aspects of care, but it seems appropriate to examine this proposed relationship in greater detail. Horder, whose work is regarded by many as seminal, advocated general practitioners (G.P.s), consultants and members of other related professions working together as being an effective way of improving general practice (of medicine) (Horder et al., 1986; Horder, 1977). An interpretation of his perspective might be that he regarded the relatively isolated position of a G.P. working in the community as being inhibitory to offering patients optimal care. He cited examples illustrating how people who are unwell may present with interdependent health and social problems and argued that their needs could not be effectively addressed by a G.P. working in isolation (Horder, 1977).

The current relevance of this argument can be related to the demographic shift in the current U.K. population as mentioned previously. Somewhat similarly, the WHO used a Canadian example of the challenges created by caring for elderly patients with dementia in the community

to illustrate the need for collaborative working, citing eight different professions who might be required to provide a service that met ‘the needs, goals and expectations of patients and their care-givers’ (WHO, 2013: 11); the parallels between such examples in Canada and the U.K. are manifest and are argued as incontestable.

7.1.2 The elements of collaboration

In more detailed examinations of collaboration, exploring perhaps more balanced views, may begin with the premise that while collaboration is often thought to be necessary, and sometimes valuable, it is also recognized as difficult and frequently unsuccessful (Bluteau and Jackson, 2009; Huxham, 1996). A critical interrogation of these four possible consequences has been undertaken with the aim of identifying and examining integral facets of the concept that may be thought of as contradictory or ambiguous. The perceptions of necessity and value have been regarded as arguments for collaboration with the elements of arduousness and variable success being challenges.

7.1.3 Arguments for collaboration

Although not written from a health and social care perspective, Huxham proposed that a principal motivating factor for collaboration was financial, with an increase in efficiency and an accompanying decrease in costs being measures of its worth (Jones et al. 2004; Himmelman, 1996; Huxham, 1996). This is not overt in the publications by the World Health Organisation (WHO, 2010, 2013) where a moral standpoint is more evident. However, it could be argued that both are equally important in contemporary health and social care and expounding any proposed priority could be naïve with both imperatives being considered equally supportable dependent on one’s ideological positioning.

Other arguments for collaboration might be perceived as less tangible, or even resting on assumptions (Loxley, 1997), although it has been suggested that rather than focusing on a lack of empirical evidence, prioritising what is thought to work is more productive (Glasby and Dickinson 2008). It has been suggested that there are perceived benefits for both patients and staff. The most commonly cited benefit for the patient is the improved probability of more holistic care (Van den Bulcke, 2106; Smith, 2013; Robson and Kitchen, 2007; Plochg et al., 2006) that is of better quality (Klopper-Kes et al. 2010; Garber et al. 2009; Barr et al., 2005;

Sullivan and Skelcher, 2002; Sullivan, 1998) particularly for those with complex illnesses or needs (Stahl, 2016; Lamb and Shraiky 2013; Chung et al., 2012; Wittenberg-Lyles et al., 2010; Jungnickel et al., 2009) being achievable.

Perhaps more tangible, and equally important, is the suggestion that collaborative behaviours may enhance safety (Van den Bulcke et al., 2016; Konrad and Browning 2012; Kenaszchuk et al., 2011; Rice et al., 2010; Makowsky, 2009). However, it is perhaps also significant that benefits for staff are not overlooked, as a more content workforce may be able to provide an improved quality of care. Issues such as improved job satisfaction (Van den Bulcke, 2016) and increasing the efficiency of working patterns (Konrad and Browning 2012; Makowsky 2009) are thought to be important. However, continued role development in nursing and allied health professions will result in greater overlap with the roles of other professions, such as that of the doctor (Calman, 2007) which may not necessarily be an unmitigated benefit, bringing other issues, such as those associated with hierarchy, to the fore.

7.1.4 Arguments against collaboration

It may be the nature, or even the purpose of research, to focus on perceived challenges and problems with the aim of identifying possible solutions. When considering collaborative working it appears that a perceived consequence of this is that there appears to be a greater number of publications that consider the challenges to collaborative behaviours compared to the benefits. A product of this might be that the benefits of collaboration are therefore questioned to a lesser degree, with the development of characteristics required to achieve this aspirational way of working being a greater focus. It would seem that one consequence is that the identified facets of challenges to, and implicit with, collaboration are more numerous, having been the subject of more published research.

With specific reference to the professionals working in health and social care, the concepts and implications of power and hierarchy can be thought of as cohesive and symbiotic and seemingly inextricably linked with barriers such as status issues and professional boundary disputes (Smith, 2013; Bruner et al., 2011; Freidson, 2007). There is little question that medicine was the first profession in health and social care, and possibly consequently, it secured a position of the highest status, accompanied by the greatest economic reward (Reeves et al, 2010; Calman, 2007; Friedson, 2007). It has been suggested that nursing subsequently deliberately developed an

independent and distinct hierarchy in order not to be regarded as subservient (MacMillan, 2012). It might be thought that the initial establishment of two distinct professions contributed to different and dissimilar traditions, beliefs and practices with bespoke cultures and inconsistent epistemological outlooks being likely to be important (Chung et al., 2012; Bridges et al., 2011; Becher and Trowler, 2001) and perhaps more recently recognised professions, such as that of paramedic science, have simply confirmed the status quo.

Some authors have suggested that such distinct and pragmatic differences which result in a structural hierarchy, where the medical profession asserts hegemony, may be regarded as responsible for many decisions that affect clinical management (Burford et al., 2013; Reeves et al., 2010). An effect of this may be that the medical profession has a predominant level of cultural capital and therefore an assumed power to influence the practice of healthcare (Delamont, 1989). It has been argued that such structural hierarchy is regarded as the norm and fundamental even though a more pragmatic hierarchy, where socialisation occurs between professions, often occurs in practice (Burford et al., 2013).

It could be that such structural hierarchy is positive, and its leadership is reflective of relative levels of accountability. However, when considering collaborative working practices, such differentials in perceived status may be inhibitory if the value of contributions made by different professions are ranked in terms of ubiquitous, implicit and assumed hierarchy (Bruner et al., 2011; Rice et al., 2010; Kvarnstrom, 2008), and it has been suggested that current methods of education of medical and healthcare practitioners are responsible for the promulgation of such challenges, where each profession is socialised within their individual academic educational environment (Burford et al., 2013; Chung et al., 2012; Kenaszchuk, 2011; Rice et al., 2010; Becker et al., 1961).

Therefore, within health and social care, the sharing of authority may be regarded as problematic because the perception of professional prestige and hierarchy may often be regarded as a barrier rather than a facilitator (Kennedy, 2013; Sellman, 2010; Freidson, 2007) but it would be erroneous to assume that such barriers only exist between the medical and all other professions. If an organisational culture is regarded as consisting of common assumptions, beliefs and values (Long et al., 2013; Mian et al., 2012; Klopper-Kes et al., 2010) there is the potential for any

profession to experience challenges when attempting to work across professional boundaries (Sullivan and Skelcher, 2002; Becher and Trowler, 2001; Sink, 1996).

It might be supposed that an element of value of hierarchy originates in a relationship that includes the sharing of authority, accountabilities and responsibilities in the achievement of common goals (Bandali et al., 2011; Bridges et al., 2011; Jungnickel et al., 2009), with the concept of sharing including aspects such as information, decision making and values (Chan et al., 2010). However, there is little in this that can be taken at face value. For example, the concept of sharing is not straight-forward as might be supposed in a superficial consideration. Exactly what should be shared, be that responsibilities, resources or data will be influenced by the professionals' interpretation of the meaning of the collaboration (Bruner et al., 2011) and there may be opposing considerations, such as maintenance of confidentiality (Sellman,, 2010). Additionally, the importance of common goals has been mentioned (Hellman et al., 2016; Sohi et al., 2015; Fralicx, 2012; Bandali et al., 2011) which may usefully, but perhaps not universally, be regarded as synonymous with patient centred goals (Rotz and Duenas, 2016; Makowsky, 2009).

While power and hierarchy are seemingly implicated in the challenges of working collaboratively, it would be obscurantist not to interrogate the implications at greater depth. It might seem obvious that, while professional cultures might promote similar behaviours (Hellman et al., 2016; Carlson et al., 2010; Martin et al., 2010; Becher and Trowler, 2001; Hewstone, 1989), it is likely that not all members of a single profession will behave in a completely identical manner and therefore the impact of hierarchy may not be either universal or necessarily over-riding. My own experiences, and others' views, have demonstrated that individual, personal attributes also play a role in responses and reactions to dilemmas encountered in the work place (Chan et al., 2010).

7.1.5 Factors that foster collaboration

Many authors cite the importance of professionals developing relationships based on mutual trust and respect, that extend beyond professional boundaries, as significant in the ability to work collaboratively (Rotz and Duenas, 2016; Nuno-Solinis et al., 2013; Fralicx, 2012; Bandali et al., 2011; Bridges et al., 2011; Reeves et al., 2010; Kvarnstrom, 2008; Sullivan and Skelcher, 2002). It may be arguable that this is required for professions to be able to interact constructively and

empathetically to feel that they are valued by others (Konrad and Browning, 2012; Bruner et al., 2011; Jungnickel et al., 2009).

In an exploration of interprofessional learning, Croker and colleagues (2015) discussed the importance of students being co-located to develop trust with colleagues from other professions. A similar emphasis of shared experiences was thought to be important for the development of trust (Reeves et al., 2010; Cropper, 1996). Analogous explorations have been conducted by other authors (Bruner et al., 2011; Chan et al., 2010; Jones and Rudd, 2004) and it is conceivable that for health and social care professionals, the opportunity for face to face interactions, under conducive conditions, is important for mutual trust to develop. In such situations, elements of non-verbal communication may be implicit so that good quality relationships are developed (Hean et al., 2012).

Conversely, limited opportunities for interactions of this nature may inhibit the development of mutual trust, or even creating opportunities for conflict (Reeves et al., 2010). Sullivan and Skelcher (2002) suggested that there were antecedents to mutual trust being developed that were demonstrably linked to personal attributes, and that abilities, such as confidence (in oneself and others) was essential. If this were extended to professional confidence being required (Barrett and Keeping, 2005; Loxley 1997; Engel, 1994) such a level of professional confidence may be unrealistic when considering the undergraduate and pre-qualifying status of students on the IPE module under examination.

In an editorial, Ho (2008) addressed the need for both affective and cognitive learning, with the aim of social responsiveness in the clinical setting being targeted. Although he specifically cited responses to the service users, there could be parallels with responsiveness to peers, including those from other professions. Similarly, although rather lacking in detail, negative attitudes (Robson and Kitchen, 2007), limited social skills (Jones et al., 2004) and a lack of transparency (Fralicx, 2012) all have been cited as impeding collaboration between professionals.

It is suggested that greater examination of attitudes may allow insight into collaborative behaviours as the synergistic relationship between cognitive, affective and behavioural domains (Ajzen, 2005; Bohner and Wanke, 2002; Maio and Haddock, 2009) may be underpinning. It is possible that strong attitudes towards the merits of collaboration, or equally strong perceptions

that collaboration is unnecessary, may both be influential in behaviours demonstrated (Maio and Haddock, 2009; Ajzen, 2005).

7.1.6 Concluding remarks

Collaboration has not been considered as uniquely desirable, although supporting arguments might be thought of as convincing. However, the challenges appear realistic and deeply rooted within health and social care.

7.2 Method

7.2.1 Rationale for use of interviews

With the aim being to gain a greater understanding of the students' perceptions of collaboration in health and social care, a number of data collection methods were considered. It was recognized that several suitable options existed and studies with similar aims were reviewed to aid decision making. In studies investigating collaboration, methods adopted included questionnaires (Van den Bulcke et al., 2016; Bruner et al., 2011; Kenaszchuk et al., 2011; Chan et al., 2010; Garber et al., 2009) and interviews (Croker et al., 2015; Nuno-Solinis et al., 2013; Kvarnstrom, 2008) which may have been implemented as part of a case study or mixed methods approach (Hellman et al., 2016; Burford et al., 2013; Vachon et al., 2013; Bruner et al., 2011; Rice et al., 2010; Makowsky et al., 2009; Jones et al., 2004).

In coherence with the case study approach being utilized in my research, interviews were identified as a method of gaining insight into elements of the epistemologies of some students from the professions undertaking the IPE module i.e. how individuals might have created their own individualised understanding of collaboration (Wisker, 2008; Leedy and Ormrod, 2005; Robson, 2002; Gaskell, 2000). Interviews were recognized as flexible and adaptable (Marshall and Rossman, 2011; Bassey, 1999; Robson, 1993) and an important source of data collection in case study research (Yin, 2009). Additionally, it was noted that they allowed the opportunity to follow up on interesting responses and elements of non-verbal communication such as facial expressions (Merriam, 2009; Loizos, 2000) while exploiting the opportunity to obtain a rich data source (Mason, 1996; Robson, 1993). The importance of concentrating on listening to what the students said was recognized to gain an understanding of their experiences and perceptions

(Perakyla and Ruusuvuori, 2011; Marshall and Rossman, 2011; Leedy and Ormrod, 2005; Mason, 1996).

The approach has been described as inductive (Wisker, 2008; Leedy and Ormrod, 2005) and as both exploratory and explanatory because it was hoped that an understanding of students' actions and underlying causes may become more apparent (Wisker, 2008; Silverman, 2005; Rapley, 2004). The caveat to this was the notion that it would be unavoidable to collect data that, to a degree, reflected the students saying what they thought the interviewer (myself) wanted to hear (Mohaupt et al., 2012; Kvale and Brinkman, 2009; Pollard and Miers, 2008), or that they were willing to share. It was recognized that the interviews would have to be conducted in a way that encouraged the students to voice their true opinions, with the aim of limiting, or at least being cognisant of, the impact of the power differential (Marshall and Rossman, 2011; Robson, 2002; Gaskell, 2000).

7.2.2 Sampling

Ideally, a researcher needs participants to be sincere, well-motivated and able to provide accurate data (Cohen et al., 2011; Leedy and Ormrod, 2005; Silverman, 2005; Stake, 1995). It was thought that purposive sampling was the most applicable, as the students' views would be liable to illustrate events. This was thought particularly relevant to those occurring in the mixed discipline group work on the module (Floyd, 2012; Rapley, 2004; Silverman 2000; Gaskell, 2000; Miles and Huberman, 1994), where collaborative behaviours were most likely to be needed and hopefully, displayed and recognised. However, it was accepted that data would be consequentially limited in breadth to achieve depth, so the opinions of those used in the study would be contextual (Schwandt, 1998; Mason, 1996) and may not be generalisable to the whole cohort (Cohen et al., 2011; Flyvberg, 2004).

The timescale over which the interviews were to be conducted also needed to be considered. It was not possible to conduct the interviews during the teaching week because of insufficient time being available given the size and complexity of the student cohort. Therefore, the interviews were carried out within the two weeks following the module teaching to limit the degree to which memory may become a distorting factor (Leedy and Ormrod, 2005).

7.2.3 Number of participants and recruitment

A general request for volunteers was issued through the virtual learning environment prior to the intended interviews dates. The request stated that the first respondent from each profession (adult nursing, child nursing, learning disability nursing, mental health nursing, dietetics, paramedic science, midwifery, social work, physiotherapy, diagnostic radiography, radiotherapy radiography) to reply would be invited to participate, with a maximum of eleven participants. The request stated that participants would be notified of their selection within one week. It also stated that each participant taking part in an interview would be remunerated with a small denomination Amazon™ voucher; the sum was thought to be significant enough to offer reward for the commitment to participate, while not being large enough to create ethical concerns or introduce a source of bias (Winlow et al., 2013; Stewart et al., 2007; Rice and Ezzy, 1999; Oppenheim, 1992).

7.2.4 Ethical considerations

In accordance with institution regulations ethical approval was obtained prior data collection (Appendix 24: Protocol no. aEDU/PG/UH/00407(2)). As with the focus groups (Section 6.2.4), the pertinent aspects of research ethics were thought to be informed consent, confidentiality and researcher bias and the same precautions were taken as in the previous aspect of data collection. (Busher and James, 2012; Stuchbury and Fox, 2009; Silverman, 2000; Mason, 1996). The impact of the power differential was identified as potentially more overt in individual interviews than it had been in the focus groups. It was thought that there could be greater potential for the participant to be influenced by how they perceived the interviewer (myself) (Denscombe, 2010) and that, because it could be not regarded as dialogue between equals (Kvale and Brinkmann, 2009) there was a need to establish a rapport, build trust, be respectful and non-judgmental with each participant (Parsell et al., 2014; Coleman, 2012; Merriam, 2009; Pendlebury and Enslin, 2001; Oppenheim, 1992).

7.2.5 Pre-planned questions

The interviews included standardised questions as an initial premise (Appendix 16) on the basis that the students were likely to have had similar experiences to each other, so it was possible that the questions would have at least similar meaning to each of them (Leedy and Ormrod, 2005;

Gaskell, 2000; Schwandt, 1998). The questions were designed with the aim of gaining an understanding of the participants' interpretations of the term 'collaboration'. Rather than asking directly, questions were asked about individuals from other professions that each of the participants had knowledge and experience of being either easy or challenging to collaborate with. In order to gain a breadth of understanding, both collaboration on the IPE module and on placement were considered. It was thought that by asking about specific professions/individuals both diverse and common themes may become apparent.

However, it was recognised that the data from each respondent would be specific to that individual and their personal perceptions (Kvale and Brinkmann, 2009; Merriam, 2009; Britten, 1995), that they may remember distinct aspects or have assigned differing levels of importance to similar occurrences (Tong et al., 2007; Herzog, 2005), or that what they said may not be an accurate account of their actions (Mason, 2002).

Although the small group tasks and the discipline mix in the small groups on the module are comparable, different characters and characteristics of the students within the groups may mean that their experiences are correspondingly different (Marshall and Rossman, 2011; Wisker, 2008; Delamont, 2002). Each participant was given the opportunity to develop their own ideas and to give emphasis to the aspects of the questions that they thought were significant (Denscombe, 2010; Robson, 2002; Schwandt, 1998).

7.2.6 Additional considerations

In addition to the pre-planned questions, during the interview the students were asked to indicate attributes (qualities) associated with a number of specific professions, with the aim of introducing an element of quantitative, comparable data on which to build proposed insights (Appendix 17).

In order to identify a breadth of attributes which might be indicated by the participants, a similar process to that of the concept analysis (Walker and Avant, 1995) used to gain an understanding of the term attitudes (Section 1.5) was employed. Search engines and on-line dictionaries were used to compile a list attributes. Thesauri and lists of antonyms were then accessed to increase the comprehensiveness of the list. The list was then reviewed several times, removing some attributes that might be interpreted as too similar e.g. lazy and idle. Other attributes which might

be interpreted as equivalent were deliberately retained to discover if the participants identified them as such e.g. miserable and gloomy. Each of the sheets included attributes that might be consistently recognized as positive or negative. In addition, some attributes were included that might appear to be equivocal e.g. quick. Attributes that were thought to be overly derogatory were removed from the list to maintain an appropriate level of professionalism. It was thought that providing approximately 35 attributes would allow participants sufficient scope to build reasonable insights.

At specific points during the interviews, identical and separate sheets (Appendix 17) were provided each time the students were asked about their recollection of an individual or profession. An initial sheet required students to assign attributes to a typical member of their own profession. Four subsequent sheets then required them to identify an individual from each of the following groups and assign attributes to that person;

- A member their interprofessional group on the module who they found easy to collaborate with
- A member their interprofessional group on the module who they found challenging to collaborate with
- A professional in practice who they found easy to collaborate with
- A professional in practice who they found challenging to collaborate with.

This resulted in five data sets for analysis.

All the interviews were video recorded (Section 8.5) and this was made overt in the invitation to participants. The decision to video rather than audio record was made on the premise that greater insight into perceptions might be possible if distinct aspects of responses, such as non-verbal communication, were available for scrutiny (Harris, 2016; Heath et al., 2010; Goldman, 2007; Loizos, 2000).

In addition, I made field notes immediately after the conclusion of each interview. These had the potential to provide information of any influence of the setting, information about the conviction of the participant and to note any relevant non-verbal communication that could then be reviewed on the recording (Rose, 2012; Denscombe, 2010; Heath et al., 2010;). While it might

be argued that the need for field notes could be negated by video-recording it is possible that subtle nuances might be overlooked by a single method (Section 7.3.1).

7.2.7 How interviews may provide insight into attitudes towards collaboration

The reason why it was thought that the analysis of data achieved from interviews might allow some insight into participants' attitudes has its root in the synergistic cognitive, affective and behavioural domains (Maio and Haddock, 2009; Bohner and Wanke, 2002). Accounts of what participants thought, or how they behaved, in response to stimuli or situations may indicate underlying attitudes (Fazio and Olsen, 2003; Greenbaum, 2000). Use of questionnaires as an explicit measure of attitudes has already been discussed, but although not an implicit test for attitude measurement, recounted responses in an interview situation may give an indication 'what people feel like inside' (Smith and Terry, 2012: 36), as participants were not being asked directly about their attitude to collaboration (Haddock and Maio, 2012). This was perhaps more realistic in the case of stronger attitudes, and those formed by actual experience, both of which are recognized as being greater influences over behaviour (Hogg and Vaughan, 2008; Bohner and Wanke, 2002; Eagly and Chaiken, 1993). An unintended consequence of video-recording the interviews involved the possible inducement of increased levels of self-consciousness in the participants which may have had the effect of inducing behaviour more guided by attitudes (Hogg, Abrams and Martin, 2010; Ajzen, 2005).

However, cited disadvantages inherent in interviews as a method of data collection were also recognized. Some authors suggest it is important to be cognisant of the subjective effect memory may have on any responses, that is recollections may not be veritable accounts of actual events (Leedy and Ormrod, 2005; Gaskell, 2000; Schwandt, 1998; Mason, 1996). Although this is often cited as a disadvantage, it could be argued in the current research, that as participants' recollections may have an influence on their attitudes towards collaboration (and vice versa), individuals' memories were an important influence. It was thought that such an influence could be advantageous in the data collected, making an interpretivist approach pertinent in gaining an insight into participants' epistemologies (Silverman, 2005; Flyvbjerg, 2004). Perhaps the more significant disadvantage of such influence is the likelihood that collected data will be influenced by individuals' biases and lack conformity (Rubin and Rubin, 2005; Robson, 2002).

A second aspect of interviewing that is cited as a disadvantage is the time-consuming nature of the transcription of the narrative (Coleman, 2012; Kvale, 2009; Bryman, 2004; Lofland and Lofland, 1984) although this also has an advantageous appurtenance as it affords considerable opportunity to become intimately acquainted with the data, which was recognized as a fundamental precursor to analysis (Gibbs, 2007; Delamont, 2002; Gaskell, 2000).

7.2.8 Analysis strategy

7.2.8.1 Introduction

The aim of analysis was to propose a hermeneutic, explanatory summary of what the students were experiencing during the IPE module, being driven by the data rather than my preconceptions (Gibbs, 2007; Schwandt, 1998), although in recognition that my knowledge of relevant theory had the potential to influence the process (Bryman, 2004; Bauer, 2000). The ability of interviews to generate substantial amounts of data (Leedy and Ormrod, 2005) was seen to be advantageous, albeit with the implicit challenge of reducing the data into underlying themes.

A specific purpose of this tranche of data collection was to gain insight into participants' understanding of collaboration, therefore it was postulated that the data be regarded as a representation of their epistemologies (Silverman, 2005; Ezzy, 2002; Schwandt, 1998). It was not the intention to compare the participants' epistemologies but to identify any common concepts or significant variables and therefore the quasi-statistical approach of content analysis was thought to be appropriate (Silverman, 2011; Robson, 2002; Merriam, 1998; Miles and Huberman, 1994). The process involved scrutiny of verbatim responses to identify main themes, that could then be illustrated with data incidents (Bazeley, 2013; Kumar, 2005; Merriam, 1998). While it would not be suitable to regard any proposed individual epistemologies as typical of any one profession (Flyvbjerg, 2004), identified differences between respondents might promote discussion worthy of future investigation.

The approaches to data analysis were designed to be meticulous (Pope et al., 2006) so that thorough and fair methods would be transparent (Marshall and Rossman, 2011; Silverman, 2011). It was thought that the method used for the interview transcript data would tend towards being inductive, and that for the attribute rating sheets, albeit similar, deductive (Leedy and Ormrod, 2005; Ezzy, 2002). However, both methods would hopefully identify variables to guide

the analysis, with the caveat that latent categories would emerge during the process (Leedy and Ormrod, 2005; Ezzy, 2002; Merriam, 1998). Both the attribute rating sheets and interview data were analysed using a content analysis strategy in order that an objective process to making inferences could be adopted (Bauer, 2000) as it was suggested that utilizing both semantic and syntactical dimensions could indicate opinions, attitudes or stereotypes.

7.2.8.2 Attribute rating sheets

The results were collated on an Excel™ spreadsheet and the frequency that each attribute was ascribed per dataset was determined so that the five datasets (Section 7.2.6) could be compared. For example, when considering their own profession, participants had the opportunity to indicate if they thought members were healthy, unkind or lazy or demonstrated other behavioural traits (Appendix 17). The aim was to gain an understanding of how each of the participants perceived others.

The results were analysed in two different ways. One was to assign each attribute as either positive or negative. The number of occurrences of positive attributes was counted and compared with number of occurrences of negative attributes, within each data set (Table 7.2). The second way examined individual attributes to rank them in order of frequency of occurrence. In this analysis the three datasets concerning individuals who were easy to collaborate with (it was assumed that participants' own profession would form part of this group) were then grouped and the frequency of occurrence of individual attributes across the combined group were ranked. The same was also done for the two datasets concerning individuals identified as challenging to collaborate with (Table 7.3).

7.2.8.3 Preparation of interview data

The first step in preparation of the interview data was to listen to the separate participant interviews in their entirety while reviewing the field notes and the attribute rating sheets to locate data within contexts (Pope et al., 2006). In preparation for the transcribing process appropriate equipment had been purchased so that I could transcribe the data myself. A foot pedal with the capability to pause, rewind and fast-forward was used throughout. The software afforded greater control of recording volume than that available on the desktop computer used. Although requiring a greater time commitment, all interviews were transcribed verbatim; this was done

though a desire to be consistent and to ensure that no data was overlooked and so omitted from the analysis.

Following initial transcription, each recording was again viewed and listened to on three occasions, allowing the opportunity to confirm that the transcription clearly indicated who was speaking, errors were identified and corrected; visual cues thought to be pertinent were added, so that a complete formatted document was created (Pope et al, 2006; Gaskell, 2000; Merriam, 1998), (Section 7.3.1) The addition of the visual cues, although perhaps less certain and more open to interpretation, were identified as pertinent adjuncts to the spoken word (Loizos, 2000).

7.2.8.4 Content analysis of interview transcripts

The inductive stance taken to the data was intended, if not quite to draw conclusions as suggested by Leedy and Ormrod (2005) but more to attempt to objectively identify inferences (Bauer, 2000) that could be used to add a greater depth to the attribute scoring sheets. The data was interrogated for indications of the participants' realities (Gaskell, 2000) of collaboration across professional boundaries; the data also alluded to information on collaboration within professional groups. During the process, it was important to attempt to recognize my own assumptions and epistemology and limit the influence on the instances of data extracted (Stephens, 2012; Kvale and Brinkman, 2009; Merriam, 2009).

The data from the interview questions were analysed sequentially. Transcripts of responses from all the participants to each question were reviewed in turn. For example, in answer to the question on attributes identified with the participant's own profession words and phrases that were interpreted as indicating an attribute were copied into a table in WordTM used as a coding frame (Appendix 18). These were copied verbatim for objectivity, transparency and completeness (Gibbs, 2007; Leedy and Ormrod, 2005; Ezzy, 2002) with a focus on specific details so that the resultant compilation could be reviewed for patterns, connections and disparities (Marshall and Rossman, 2011; Silverman, 2005) both with other participants and also with the analysis of the attribute rating sheets. The coding frames were then reviewed with the transcripts on two separate occasions for reassurances of the representativeness of the data (Miles and Huberman, 1994).

7.2.9 Results

7.2.9.1 Introduction

There were students from eleven professions/disciplines enrolled on the module and it had been planned to recruit one student from each to be a participant. Students from the professions of radiotherapy and midwifery did respond to the initial request for participants but interviews did not take place because of logistical difficulties in completing mutually convenient arrangements. Unfortunately, no students from social work, physiotherapy or learning disability nursing responded to the request for volunteers. No contingencies for these situations had been made during the application for ethical approval.

7.2.9.2 Interview process

A total of six interviews were conducted with students from the professions of mental health nursing, dietetics, diagnostic radiography, adult nursing, child nursing and paramedic science. Interviews were conducted in my office at times of the day which suited both parties' commitments. The location chosen for the interviews was recognised as a compromise between the convenience of not having to find a suitable meeting/teaching room that was available at the required time and the implication of reinforcing the power differential between myself and the participant. That I do not share an office was the most significant factor in the choice of venue. Interruptions were avoided by putting a suitable notice on the door and ensuring other potential sources such as landline, mobile phone and email were all switched off or on silent mode.

I took care to dress appropriately for my dual role as module leader and researcher; this involved appearing smart without being overly formal. Seating arrangements were considered carefully, with two identical chairs being placed at ninety degrees to each other so that eye contact could be maintained, and body language could be observed. I was mindful of my own body language during the interviews and took care to adopt a mirroring posture to help the participant relax (Clabby and O'Connor, 2004) and to avoid giving any impression that a participant had given a 'right answer' (Mason, 2002).

All of the planned questions were asked of each of the participants (Appendix 16). Interviews were structured to have six sub-sections starting with the most straight-forward questions, to put the participant at their ease despite the acknowledge power differential (Kvale and Brinkmann, 2009; Rapley, 2001). The first section asked the participant about the attributes of their own

profession, and each was asked to complete one attribute rating sheet (Appendix 17) to summarise their thoughts. The four subsequent sections asked the participants about professions they thought both easy and challenging to collaborate with, both on placement and during the IPE module. Each of these sections was accompanied by completion of an attribute rating sheet. The final section asked the participant more specifically (Cohen et al., 2011) about whether they thought their attitude towards collaborating with other professions had been influenced by the IPE module.

A notable difference, which had not been anticipated, was the variance in the apparent levels of confidence of the participants. One participant, the dietitian, appeared reticent, tended to give direct answers to questions and had to be encouraged to expand on information given; perhaps at the other extreme another participant (the paramedic) was the student representative of his cohort and was both very confident in his opinions and felt empowered to talk on behalf of all the paramedic students on the module.

The results will be presented with two sequential foci, firstly the attribute rating sheets and then the interview transcripts, rather than in the chronological order that data was collected. The reasoning being that the content analysis approach was thought to be more amenable to a quasi-qualitative summary of the data for the attribute rating sheets, resulting in data of a more numerical nature and a greater qualitative tactic for the interview transcripts producing a narrative to add greater meaning and context.

7.2.9.3 Attribute rating sheets

During each of the interviews, the participants were asked to name a profession that they identified as belonging to each of the categories e.g. the profession who is easy to collaborate with on placement. Following this, and as explained previously, participants were asked to circle any attributes that they thought could be best applied to certain individuals in each of the defined categories. All participants willingly completed the task. Sixteen of the attributes on the sheets were thought to be obviously positive, and examples included kind, friendly, hard-working and responsible. To an extent, attributes that were likely to be perceived as negative were the antonyms of those thought to be positive; examples included inflexible, selfish and dishonest. It was recognized that some attributes included could have been interpreted as either positive,

negative or ambivalent, depending on perceptions; examples of these include quick, confident and humorous. Table 7.1 indicates which professions were identified in each of the categories.

Profession of participant	Profession identified as easy to collaborate with on the IPE module	Profession identified as easy to collaborate with on placement	Profession identified as challenging to collaborate with on the IPE module	Profession identified as challenging to collaborate with on placement
Child nursing	No individual profession	Adult nurses	Paramedic	Doctors
Adult nursing	Midwife Paramedic	Physiotherapists Doctors	Diagnostic radiographer	Speech and language therapists
Diagnostic radiography	Adult nurse	Doctors Adult nurses	Mental health nurse	No individual profession identified
Dietetics	Social work Midwife	Adult nurses	Radiotherapist	Doctors
Mental health nursing	Child nurse	Social workers Doctors	Adult nurse	No individual profession identified
Paramedic	Physiotherapy Social work	Doctors Adult nurses	Adult nurse	Doctors Adult nurses

Table 7.1: Summary of which professions were cited for each category

In general, most participants were able to identify individual professions as either easy or challenging to collaborate with, both during the IPE module and while on placement. Particularly noteworthy are that adult nurses were identified as easy to collaborate with on placement by four of the six participants; this does not appear to be related to the adult nursing student in the IPE groups, as two participants identified them as challenging to collaborate with. The paramedic student regarded adult nurses as fitting both categories and this will be discussed (Section 7.3.3). A second highlight of the table that will also be discussed is the total number of times that doctors, and adult nurses are mentioned; doctors seven times and adult nurses eight.

During the second stage of the analysis, the particular attributes associated with each of the identified professions were examined. Of the six participants, one circled most of the attributes

(positive, negative and equivocal) for most of the individuals. When interrogating the data on Excel™ it was decided to conduct the analysis both with and without the data from this particular participant. The first figure indicated in the table below is that for the five participants, and the figures for all six participants are included in parentheses.

	Number of positive attributes identified	Number of negative attributes identified	Total
Member of own profession	60 (79)	0 (18)	60 (97)
Member of their IPE group who they found easy to collaborate with	43 (58)	0 (4)	43 (62)
Member of their IPE group who they found challenging to collaborate with	17 (28)	20 (23)	37 (51)
Professional who they found it easy to collaborate with on placement	51 (70)	2 (19)	53 (89)
Professional who they found it challenging to collaborate with on placement	12 (16)	21 (35)	33 (51)

Table 7.2: Summary of attribute scoring

The five participants identified only positive attributes as being associated with their own profession. Similarly, there was a much greater propensity to assign professionals who were perceived as easy to collaborate with as having positive and no, or a very limited number, of negative attributes, both during IPE and on placement.

There appears to be less categorical difference when professions who are perceived as challenging to collaborate with are considered. When considering who was challenging to collaborate with in their IPE group an almost equal number of positive ($n = 17$) and negative ($n = 20$) attributes were thought to be thought apposite. This is not the case when professions encountered on placement are recalled. The number of negative attributes (21) is noticeably more than the identified positive (12).

This may suggest that when considering people who are easy to collaborate with, there is a tendency for negative attributes to be overlooked. The converse does not seem to apply; people who are perceived as challenging to collaborate with, still have identifiable, although less, positive attributes. It does appear that there was a greater tendency to identify more positive attributes when on IPE compared to placement, which could indicate that IPE does influence students thinking about others.

Further analysis identified which attributes were most commonly identified as applicable both to those who were identified as being easy, and those who were challenging, to collaborate with.

There is a notable difference in how commonly the same attributes were identified as being associated with those easy to collaborate with, compared to the lack of commonality of attributes associated with those perceived as challenging to collaborate with. The antonyms of the positive attributes were not consistently identified as might have been expected.

Percentage of participants identifying an attribute	More than 80%	79-60%	59-40%
Attributes associated with people thought easy to collaborate with	Friendly Hard-working Flexible	Kind Open Honest Warm Cheerful Confident Polite	Responsible Intelligent Strong Humorous
Attributes associated with people challenging to collaborate with		Inflexible	Closed Intelligent Gloomy

Table 7.3: Summary of most frequently identified attributes

There was a level of consistency concerning the attributes of others who were thought to be easy to work with, of which the most common was ‘friendly’. The importance of this attribute was identified across both the people worked with on the IPE module and those encountered on placement. There was much less consistency with the attributes of someone who challenging to work with; ‘inflexible’ was the most frequently identified across both the IPE module and placement. Intelligence was considered variously as both a positive and a negative attribute.

7.2.9.4 Interview transcripts

As mentioned previously, before each participant was given the first attribute sheet they were asked to identify any characteristics associated with members of their own profession. Each time a participant mentioned an attribute, the exact word or phrase was identified on the transcript; these were copied into a coding frame (Appendix 18). Although slightly different terminology was used some attributes were mentioned by more than one participant, such as the ability to communicate (including listening) self-awareness and a willingness to work with others. Other attributes seemed to be specific to individual professions as indicated below. While each of the

attributes in Table 7.4 might be regarded as important for all health and social care professions a different level of relative importance to specific professional groups might be inferred.

Profession of participant	Specific attribute cited
Mental health nursing	Awareness of others Non-judgmental Sense of humour
Dietetics	Ability to see patients as individuals
Diagnostic radiography	Physical ability
Adult nursing	Organization Time management skills
Child nursing	Patience Empathy
Paramedic science	Good work ethic Problem solving

Table 7.4: Attributes cited as associated with own profession

Before being asked to complete associated attribute sheets about professions that were perceived as easy and challenging to participate with (both on the module and on placement) participants were asked about the reasons for their choice(s). On the IPE module, being of a similar personality and being easy to talk to was mentioned by most participants; less common reasons were being at a similar level in the hierarchy and being of the same ethnicity. There was greater variability in the reasons cited when considering professions that were perceived as easy to collaborate with on placement (Appendix 19).

Similar questions were posed to participants about the reasons for identifying professions that were perceived as challenging to collaborate with (Appendix 20). Regarding the IPE module, a perceived lack of willingness to engage, which was interpreted by some as laziness, was most commonly identified. There was again less commonality with the rationale for why professions were challenging to collaborate with on placement.

The penultimate question in each of the interviews asked participants whether the IPE module had influenced their attitudes towards collaboration (Appendix 21). Four of the participants said that their attitudes towards collaboration had been positively influenced by the module. Reasons for a change were thought to be an increased understanding of other professions, recognition of

common goals, greater appreciation of other professions and a less overt hierarchy compared to placement, facilitating greater cross professional discussion.

The two participants who said their attitude had not been influenced explained that their IPE group had not involved the professions with whom they thought they collaborated most with on placement. The diagnostic radiography student said that the teaching methods employed were not conducive, the information available was not what was needed and that as students, other members of the cohort were not sufficiently knowledgeable to share an understanding of their role. As mentioned previously, the paramedic science student happened to be the representative of the student cohort; much of his consideration was focused on a particular event during the teaching, which had been perceived negatively by some of the paramedic cohort, and therefore was identified by him to have influenced all of the learning to be gained from the module.

The final question asked the participants about perceived barriers to collaboration across professions in practice (Appendix 22). Different personalities, not being co-located, work pressures and the service being underfunded were all cited. Of note were phrases such as ‘everyone hates doctors’ (child nursing) and ‘people forget we are all humans’ (paramedic science).

7.3 Discussion

7.3.1 Aspects of data collection method

The plan for data collection had been to conduct an interview with one member of each of the eleven professions represented on the module, but interviews were only conducted with six students (from mental health nursing, dietetics, diagnostic radiography, adult nursing, child nursing and paramedic science). Therefore, an initial assumption made was that any meaning extrapolated from data could not be related to the professions not represented. The meaning attributed to aspects of the collected data was regarded as unique and not universally generalizable to all the cohort, either as a whole, or to the specific professions. However, in the context of this thesis, as an element of the case study, the insights divulged by the individual participants (Mason, 1996), might be regarded as typical (Leedy and Ormrod, 2005; Schwandt, 1998) and a reasonable representation of context-dependent individual experiences, interpretations and epistemological stances of students on the IPE module (Kvale and Brinkman,

2009; Merriam, 2009; Flyvberg, 2004; Robson, 2002; Gaskell, 2000; Mason, 1996). As has been previously noted, medical students are not represented on the module. One participant (diagnostic radiography) suggested that this absence would render any learning from the module irrelevant, as they believed they collaborated most with the medical profession on placement, reinforcing the suggestion that the data should be regarded as context dependent (Flyvberg, 2004).

With hindsight, I believe I was too influenced by my perception of the power differential between myself as a member of staff and module leader, and the participants as students registered on the module (Marshall and Rossman, 2011; Robson, 2002; Gaskell, 2000). In order to encourage the participants to articulate true opinions (Section 7.2.1) I don't think I was sufficiently challenging to gain the depth of data that might have been achieved with a little more interrogation.

A second limitation of this aspect of data collection was the usefulness of video-recording the interviews. The level of expertise required, together with the inevitable considerable time commitment, meant that the premise that greater insight could be achieved if distinct aspects of non-verbal communication could be used for greater interpretation of what was verbally articulated was not realised (Pope et al., 2006; Gaskell, 2000; Merriam, 1998). Only a very few, minor, and obvious inferences were made from observing body language. One such example was when the child nurse articulated her feelings about doctors she hid her mouth behind her hand. Although well intentioned, my field notes did not add any notable data to that achieved.

7.3.2 Attributes of own professional group

In response to the question on perceived attributes of their own profession, the participants had, as perhaps might be expected for final year students, a clear idea of the characteristics they considered important (Hogg and Vaughan, 2008; Cartwright, 1951; Brown, 2000; Tajfel, 1982). Attributes mentioned may have reflected the qualities they admired in qualified members of their own profession, where similar behaviours are promoted, (Hellman et al., 2016; Carlson et al., 2010; Martin et al., 2010; Becher and Trowler, 2001; Hewstone, 1989) those they aspired to, or believed they already possessed (Goffman, 1959). With listed attributes, both lacking commonalities while simultaneously also demonstrating some shared imperatives, the answers could be regarded as an illustration of the participants' perceptions of differing professional

cultures or identities, and perhaps epistemologies (Clouder, 2003; Becher and Trowler, 1989; Freidson, 1970; Becker et al, 1961).

With some understanding of professional roles, it seems appropriate that a child nurse regards patience as important, the mental health nurse values the ability to be non-judgmental and the paramedic student recognises the importance of being able to remain emotionally detached.

While each of the attributes is presumed not be exclusive to any professional group and might be as interpreted as applicable to all health and social care professions, it is the differing level of importance attached to them by the different professions that is relevant. These dissimilarities and different priorities suggest differences in the habitus of differing professional groups, which although having commonalities, could result in challenges in interprofessional interactions and collaboration (Bordieu, 1991; Hewstone, 1989; Tajfel, 1982).

If epistemology is taken to mean a particular way of constructing or interpreting knowledge (Grix, 2010; Merriam, 2009; Wisker, 2008; Goffman, 1959) then these differing perceptions might demonstrate some challenges for collaboration. The students may not be able to identify characteristics that they believe to be most important in members of other professions and therefore could tend to regard other professions as less, rather than differently, skilled. One effect of this may be that during contact with members of other professions, either in practice or on the IPE module, the salience of group membership is heightened rather than decreased with a possible consequent deleterious effect on intergroup contact (Brown et al., 1999) and as previously suggested this may be more overt in smaller groups (Guimond et al., 2002; Brown, 2000; Tajfel, 1982).

As mentioned, the shared imperatives could be interpreted as generic attributes required in many vocations, such as any associated with healthcare. However, it is of interest that only one of the participants identified any of the negative characteristics as being applicable to their own profession. That the majority identified only positive attributes could be linked to the need to preserve self-esteem; identifying numerous negative attributes in a group one was aspiring to join could be regarded as significant threat (Carpenter and Dickinson, 2016; Stull and Blue, 2016; Huddy, 2004; Brown, 2002; Ellemers et al., 1999). An implication of this might be that such dissimilarities have the effect of inducing anxiety in the students (Brewer, 2003), making students more prone to superficial information processing, reliance on stereotyping, with

potential to limit the positive implications for inter-group contact (Hodson et al., 2013). It might also be implied that the participant who was able to identify negative characteristics associated with their own profession through being very self-confident, therefore having less need to maintain, or bolster, their self-esteem, which could have the effect of increasing anxiety in others.

7.3.3 Attributes influencing collaboration

Such suppositions may be considered further in the light of the data concerning attributes that made collaboration either easier or more challenging. When considering collaborating on placement, four of the participants said that they found nurses easy to collaborate with, and of these three said they found doctors challenging. An explanation for the first finding may be in the diversity of healthcare environments where nurses may work, having the consequence that participants are likely to be co-located with nurses, creating opportunities for face to face interactions and shared experiences, making the development of reciprocal trust and positive interprofessional relationships more realistic (Croker et al., 2015; Hean et al., 2012; Bruner et al., 2011; Chan et al., 2010; Reeves et al., 2010; Jones and Rudd, 2004; Cropper, 1996).

However, while some participants cited doctors as easy to collaborate with, an equal number cited them as challenging, which would suggest that co-location is not the only influential factor, as the medical profession may be perceived as widely disseminated as that of nursing in health and social care. Support for the possible positive effect of working in the same environment is that, of those who are often co-located with doctors, the adult nurse, diagnostic radiographer and mental health nurse found doctors easy to collaborate with, while the child nurse and dietitian found them challenging.

That the paramedic also found doctors and nurses challenging to collaborate with may be an indication of an alternative explanation, where both professional prestige and hierarchy may be greater impedimentary influential factors (Kennedy, 2013; Sellman, 2010; Freidson, 2007). The autonomous nature of the paramedics' task in the community is superseded by the medical and nursing professions when the service user enters the hospital environment and this may have been contributory. This supposition can be further evidence by my experience of the module, where the paramedic students frequently cite handover of the service user on entrance to the emergency department as being problematic.

However, there may be evidence of an alternative factor involved. The child nurse found doctors challenging to collaborate with to the extent that, when asked about perceived power of professions she immediately volunteered ‘that everyone hates doctors’ in her response (Appendix 18) in a manner that suggested it was a recognised and common opinion. Her rationale suggested a lack of common values (Long et al., 2013; Mian et al., 2012; Klopper-Kes et al., 2010) and common goals (Bandali et al., 2011; Bridges et al., 2011; Jungnickel et al., 2009). As previously mentioned (Section 6.3.8) the absence of medical students on the module causes a risk of them being reinforced as scapegoats.

There were two participants who stated, ‘similar personality’ and it might be surmised that, for some individuals, there is an over-riding factor which might be summarised as ‘we like people who are like us’ (Martin et al., 2010; Sedikides and Gregg, 2003; Ross and Nisbett, 2001), indeed the rather extrovert participant from diagnostic radiography said ‘I like people to be outspoken’. Turner outlined characteristics in support of this assertion that include a sense of social coherence and importantly ‘attitudinal and behavioural uniformity’ (Turner, 1982: 29) and that this is a function of the groups to which one belongs, and as previously suggested, the perception of paucity of uniformity may be heightened during the IPE module with perhaps a resultant exacerbation of differences in personalities.

There is a greater level of interpretation that is possible at this point if self-esteem, referred to previously, is considered. Well-being depends on a sense of self-esteem (Carlson et al., 2010; Martin et al., 2010; Hogg and Vaughan, 2008) and attributes that were identified as being influential in successful collaboration might be regarded as also linked to self-esteem. Factors such as ‘open’, ‘friendly’, ‘nice’, ‘charismatic’, ‘approachable’ were all identified as being associated with successful collaboration and perhaps there are some parallels with the demeanours demonstrated in the students’ drawings (Section 4.5.4). With the importance of role of self-esteem, it could be suggested that few people would associate antonyms such as closed, unfriendly, and difficult with themselves. It may be that those who are perceived as easy to collaborate with are credited with similar positive attributes to the individual, making them similar, regardless of professional identity; in the converse, those who are challenging to collaborate with, are therefore assigned the negative attributes and therefore are perceived as

dissimilar. There could therefore be the potential to perpetuate the challenges to collaboration, without experiences to dispel original perceptions.

Evidence to support these ideas can be identified in the data, such as the self-acknowledged extrovert participant who stated, ‘I like people to be outspoken’. Evidence for the converse can also be identified in the data as few described themselves, or their chosen profession, as ‘lazy’, ‘selfish’, ‘closed’, ‘disinterested’ or ‘lacking intelligence’. This demonstration of self-esteem can be suggested as linked to the result of the earlier rating of participants’ own professions; identification of positive attributes in oneself and one’s ‘in-group’ strengthens one’s sense of belonging and self-verification, having the potential to decrease uncertainties and anxieties (Baron and Kerr, 2003; Brewer, 2003)

Cognitive dissonance (Festinger, 1957) appears to be an influence at this point, in that participants tended to overlook negative attributes in those who were perceived as easy to collaborate with, as perhaps identifying negative attributes in someone perceived as similar to oneself would threaten self-esteem and therefore well-being. As an example, in recent years the Kennedy Review (2013) suggested the charisma of the breast surgeon, Mr Ian Paterson, was a factor in his improper surgical practice not being sufficiently challenged, resulting in many patients being harmed. The altruistic identification of positive attributes in those who are identified as challenging to collaborate with does not appear to provoke an equivalent reaction.

7.3.4 Influence of IPE

Fortunately, it did appear that the participants were able to identify positive aspects of the IPE module. Some elements can be directly related to the CAIPE definition;

‘Interprofessional Education occurs when students or members of two or more professions learn with, from and about each other to improve collaboration and the quality of care’ (CAIPE, 2011).

Learning about other professions appeared to be important, which could have an impact on influencing (the cognitive domain of) attitudes towards collaboration, with the caveat that it was thought by some participants that the same professions on the module needed to be the same as students would work with in practice. Working with other professions did not appear to be regarded as a valuable alternative. The greatest challenge in this is the absence of medical students in the cohort, as was identified by the participants.

The diagnostic radiographer participant did not enjoy the teaching methods on the module, as it appears they did not suit his learning style;

'If I was being brutally honest.... If I wanted to learn about other professions I would go and read about it'

However, he did acknowledge the tutorial style of teaching as being relevant to team working skills. Other participants appeared to recognise and value the opportunities afforded by working with other professions in the academic rather than the clinical environment because work pressures were removed and the hierarchies evident in clinical practice were said to be less of an influence.

Some context needs to be added to the comments made by the paramedic participant. During the module, some sessions are taught in the auditorium, which seats 450. As previously mentioned (Section 1.3), because there are approximately 800 students in the cohort, the group is divided into two halves and the session is taught twice. The teaching involved the students contributing their perceptions of their own, and other, professions. The first time the session was taught a comment was made about the courage of paramedics, with the term 'superheroes' being used. However, when the session was taught for the second-time paramedics were compared to bus drivers; this comment very quickly became a significant focus for the paramedic students and was almost the subject of a formal complaint, even though similar analogies had been made about other professions with no overt consequences.

From the further explanation given by the paramedic participant it might be interpreted that this later comment resonated, and therefore was ascribed greater significance, as it was reported that similar comments are made by members of the public using the ambulance service. It appeared to illustrate an example of group behaviour (Allport, 1954; Cartwright, 1951) where the paramedic students demonstrated a collective mentality, so called 'group-think' (Reeves et al, 2010: p64), that the comment was the view of the rest of the cohort as it has been noted that such group-think is more likely in smaller, more cohesive groups, (Cartwright, 1951) a description that might be applicable to the paramedic cohort.

It seems probable that the comment had a negative impact on the paramedic students' group self-esteem (Tajfel and Turner, 1986; Tajfel et al, 1971), to the extent that it undermined any

perception that there was equality between the professions in the cohort (Kreindler et al., 2012; Baron and Kerr, 2003) and so influenced their behaviour for the rest of the module, removing an important condition for inter-group contact (Hodson et al., 2013; Allport 1954) and transformational learning (Jacobsen and Lindqvist, 2009; Mezirow, 2000). A possible further consequence of this event is that, because of cognitive dissonance (Festinger, 1957) some paramedic students may have found it challenging to consider the IPE module as providing any opportunity for valuable learning, and turned to the more familiar, and perhaps group-think views of paramedics as a rationale, which may be exacerbated if members of the teaching team lack confidence in their facilitating (Section 6.4).

Considering how communities of practice theories can be applied to the IPE module creates some points pertinent for discussion. The teaching methods used for learning appear, at least superficially, to be apposite because of their social nature (Wenger, 1998), but the requirement for all the students to find the teaching meaningful might be an insurmountable goal given the composition of the cohort, as illustrated by the comments considered earlier by the diagnostic radiographer and paramedic students. In addition, considering the tacit elements of practice might suggest greater suitability for communities within professions rather than between them, particularly when the ‘shared repertoire’ characteristics is taken into account (Kislov et al., 2011). The ability to renegotiate previous learning to make sense of the experiences on the module has earlier been considered as a challenging task for the students (Section 5.5.7) and perhaps the theory is more applicable to the epistemic cultures of qualified professionals, as suggested by Kislov et al. (2011) rather than the undergraduates being considered in this module.

7.4 Summary and Implications

The interviews were a useful tranche of data in that the information achieved has provided further insight into issues raised in the previous four chapters, and these will now be summarised and implications highlighted.

The students interviewed did understand and agree with the importance of collaboration in contemporary health and social care. One of the issues that has previously been discussed in greater depth is students’ perceptions of collaborative relationships. The importance of maintaining social esteem with reference to social identity theory has been discussed throughout this thesis, and the students’ opinions from this tranche of data are in concordance with

discussions earlier in this research. Claiming possession of relevant characteristics appeared to support participants' self-esteem. At the same time, they did not identify any negative attributes as being associated with their own professions. Both of these appear to be relevant to maintaining self-esteem. The students from individual professions also appeared to have clear ideas of the desirability and value of the inherent characteristics of their own profession, and these were not always the same, or as valued, as those of other professions.

When placement was compared with IPE it was interesting to note that collaboration was interpreted as being more challenging on placement, because more negative attributes were associated with colleagues there. This would suggest that there is some merit in IPE being undertaken in an academic environment so that work place pressures are removed, or at least distanced. While it is recognised that, within any group of health and social care professions, there will be some perception of hierarchy, in the academic environment it is suggested as being less overt. This is important in meeting the conditions of intergroup contact and promoting its success.

There were disparate views from the professions interviewed, suggest differing, and not necessarily compatible, epistemologies and cultural identities, which seemed to remain salient during IPE. There can be seen to be a dilemma here for the students. As mentioned above, they need to value their own profession's values and attributes in order to maintain their self-esteem, but it may then be difficult for them to value the attributes of other professions equally. For the participants this salience may exacerbate anxieties with identified consequential effects on information processing, making heuristic processing and stereotyping more evident.

There were further concerns for the students in addition to those associated with professional groups as it appears that individuals' personalities and levels of self-confidence influence the extent of the success of intergroup contact. The most frequently mentioned, and most highly rated attributes were those of being friendly, hard-working and flexible. As an experienced professional and clinician, these are clearly seen to transcend professional groups (McMichael and Gilloran, 1984). However, the risk of IPE is that, when students are assigned to a mixed professional group, and work with a member of a specific profession for a short, but relatively intense period, there may be a tendency to associate the attributes of that person with all the members of that profession. Therefore, the behaviour of a shy, reticent student may be

interpreted as being lazy and unwilling to engage, with the potential that these attributes will be subsequently ascribed to other members of the same profession. Should this happen, there will probably be a deleterious impact on future collaborative behaviours.

It is suggested that personalities were more relevant in the participants' perceptions of collaboration in practice as co-location less convincingly demonstrated as a factor, although the implication of hierarchy discussed during the focus groups also appears evident (Section 6). The absence of medical students on the module suggests a risk of the medical profession being reinforced as scapegoats. For some less confident students the impact of their personality may be exacerbated by the social coherence, within, and not between, groups, as some of the attributes cited in those challenging to collaborate with could also be ascribed to shyness or reticence. It is suggested that for these students, able facilitation is essential, although as identified in the focus groups (Section 6) but this did not always coincide with members of staff opinions on what was required.

8 Research findings and contribution to the practice of education

The purpose of this final chapter is to discuss how key concepts identified in the literature are reflected in the overall findings. Throughout the research process I have been mindful of the criteria for the award of a Professional Doctorate in Education. Schedule H specifically requires that the work makes ‘a significant contribution to the practice of education’ and this concluding chapter explains the impact of the research on the practice of IPE.

8.1 Introduction

This thesis has been used as a vehicle to examine an IPE module in depth. The acknowledged drivers for IPE are the requirement for services to provide care for populations that are increasing in size, in aging populations whose needs are increasing in complexity, and the impetus instigated by widely publicised failures in care (Ploeg et al., 2017; Francis, 2013; WHO, 2010; Barr et al., 2005; Laming, 2003; Loxley, 1997). Within this context it is essential to educate aspiring health and social care professionals to understand and be skilled at collaborative working across professional boundaries and hierarchies with the goal of improving outcomes and the quality of service being provided (Barr et al., 2016; Barr and Low, 2012; Duckmanton, 2011; Miers and Pollard, 2010; Reeves et al., 2010; Freidson, 2007; Hammick, 1998).

As implied by the stated aims of IPE, the investigated module focuses on enhancing the knowledge, skills, attitudes and behaviours of the students within an organization where collaborative, cross professional education is not the norm (Ryland et al., 2017; Mossop et al., 2013; Brown et al., 2013; Brownell and Tanner, 2012) creating a unique, and not unequivocally positive, environment. The module remains compulsory for eleven professions/disciplines and the role of the module leader is to support achievement of the aims, while recognizing and respecting differences across professional boundaries in a culture where student feedback remains a significant driver.

The focus of this thesis has been on attitudes, as the breadth of literature on the significance, and possible mechanisms of, attitude change in IPE appeared limited, although the existence of interprofessional boundaries, challenges and even hostilities has long been acknowledged (Palfrey, 2016; Mc Michael and Gilloran, 1984; Horder, 1977). It was proposed that these may be based on a natural tendency to generalise (Allport, 1954) and exacerbated by current patterns

of professional education and socialisation (Carpenter and Dickinson, 2016; Foster and MacLeod Clark, 2015; Smith et al., 2015; Koenig and Eagly, 2014). This premise acknowledged that there was a requirement to not assume that students' attitudes were deficient and that the role of IPE was to improve them. With respect to attitude change, the elements under scrutiny which may have been influential (Carlson et al, 2010; Crano and Prislin, 2006), were taken as being the IPE module in terms of structure, content, teaching and assessment.

Various, specific aspects of the IPE module have been considered. It was thought that certain elements, such as personal relevance, credibility, the appropriate academic level and emotional engagement (Whitfield and Jordan, 2009; Gawronski and LeBel, 2008; Crano and Prislin, 2006; Wood, 2000; Tesser and Shaffer, 1990; Cialdini et al., 1981) all had the potential to be either positively or negatively influential on students' attitudes towards collaboration. Factors that were perceived as being potentially hindering were also included as any potential attitude change could have been in a direction which might be construed as negative. One such factor was the behaviour of groups, as the impact on individuals' behaviour was acknowledged (Brown, 2000). The potential for the IPE module to accentuate the differences between professional groups, with the possibility of evoking anxiety, and being perceived as counter-productive (Festinger, 1957) was recognised. Ramifications of different personalities, such as motivation and degree of self-interest (Bohner and Dickel, 2011; Wood, 2000) are also noted as being influential.

8.2 Research findings

The following table outlines the key findings of each tranche of data.

Description of data collection method	Key findings
Questionnaires	<p>Inter-group contact had less of an influence on attitudes than in-group bias</p> <p>Inter-group contact cannot be assumed to be consistently and equally effective for all students</p> <p>Participants' explicit attitudes in terms of espoused behaviours was improved by IPE.</p>
The students' drawings	<p>Drawings demonstrated the salience of readily available stereotypical views and heuristic thinking. A consequence of this was the potential for these to be influential on collaborative behaviours.</p> <p>Influences on stereotypes were formed beyond professional groups.</p> <p>Individuals both selected and remembered information that was concordant with their stereotypes resulting in an over-estimation of correlations.</p> <p>Perceptions about other professional groups gained through IPE may subsequently have influenced how individuals from disparate professions interacted with each other in the clinical environment.</p> <p>The use of such an engaging and non-threatening activity to discuss and highlight the implications of stereotyping was an invaluable tool in IPE.</p>
Service user session	<p>Service user narratives had a positive influence on students' attitudes towards collaboration.</p> <p>The behaviour domain of attitudes was influenced by the narratives for most students, which demonstrated both the inspiration and motivation to change espoused behaviours.</p> <p>Evidence supporting a change in the frame of reference implicit within transformational learning added strength to the influence of service user narratives on attitude change.</p> <p>Service user narratives were not a uniformly positive learning experience for all the students and a dissonant and rejecting response by some needed to be anticipated.</p>
Focus groups	<p>Although staff and students had similar understandings of the meaning of collaboration their contexts were dissimilar.</p> <p>Because different professions collaborated to varying extents and in diverse environments, a single understanding of the term was insufficient when working with a breadth of professions and risked some professional groups being alienated.</p>

	<p>A greater awareness of potentially diverse epistemologies needed to be considered in the planning of IPE, so that the outcomes had a more consistent potential to positively influence attitudes towards collaboration.</p> <p>Diverse perceptions of staff and students were suggestive of a disconnect that could be a risk to successful IPE.</p> <p>Some staff articulated a lack of confidence in teaching clinically based content</p> <p>Students expressed anxieties over collaborating effectively in a system that is overtly hierarchical. This was recognised by some staff.</p> <p>Staff and student anxieties may have influenced information perception and processing and may cumulatively have impacted on the teaching and learning in IPE.</p> <p>It is possible that the perspectives and confidence level of the staff facilitator were crucial factors.</p>
Interviews	<p>There was affirmation for IPE being undertaken in the academic environment as it at least distanced, if not negated, the pressures of the clinical environment.</p> <p>The academic environment was perceived as being a less overtly, and perhaps less oppressively, hierarchical.</p> <p>Tensions between students maintaining their own self-esteem, as an element of their social and professional identity, and being able to equally value the attributes of other professions were identified.</p> <p>It was insufficient to create mixed professions groups regardless of professions present because of the differing assumptions and ways of thinking. If the values and attributes of students in the groups were very different from each other then it would be likely that finding common ground would be very challenging.</p> <p>A challenge existed in taking personality differences into account. There was a risk that perceived personality traits would be misunderstood, overestimated and ascribed to whole professional groups.</p>

Table 8.1 Summary of key research findings

These key findings will now be explored in depth and synthesised with the published literature

8.2.1 Questionnaires

Administration of the two questionnaires as an initial element of data contributed to the case study in terms of providing some formative quantitative findings to use as a foundation. As suggested, the numerical information was without ambiguity and straightforward to analyse (Cohen et al., 2011; Scheerder et al., 2009; Rattray and Jones, 2007; Marshall, 2005;

Oppenheim, 1992) and was beneficial in creating a broad understanding (Hamilton and Corbett-Whittier, 2013; Swanborn, 2010; Gerring 2007; Stenhouse, 1980) of explicit attitudes expressed by the respondents.

The nurse and pharmacist respondents appeared to demonstrate pre-conceived generalisations, as both groups had high opinions of their own professions and correspondingly low impressions of each other's on the initial questionnaire. While it seems reasonable that final year students value their own professions highly, the concomitant low opinions of the other profession are more of a concern, and a recognised impediment to collaborative behaviours. This relationship was more overt with both these two large professional groups than it was about the professions of paramedics ($n = 23$) or medical students, who do not currently take part in the module.

Comparison with the second questionnaire suggested that the knowledge domain of attitude was positively influenced, suggesting that while the self-esteem of the participants had not been adversely affected (the scores did not noticeably decrease on the second questionnaire) the increased knowledge of the members of the other professions caused opinions to be improved.

Data achieved from comparing the two questionnaires suggests that for some, inter-group contact was successful suggesting that the four conditions of group members having status that is perceived as equal, identifiably common goals, institutional support and a level of co-operation (Carpenter and Dickinson, 2016; Brown et al., 1999; Tajfel, 1982; Amir, 1969; Allport, 1954) were met. This was seen as more prevalent, and wider ranging with student nurses compared to those from pharmacy. It could be suggested that the greater change in perceptions for the larger groups, compared to the smaller cohort of paramedics, can be taken as evidence to support the positive effects of contact, as the contact between the larger groups would have been greater.

However, what should be equally emphasised is that the data suggests for some students the inter-group contact has had less of an influence on attitudes than the pervasive and enduring in-group bias. The quantitative data evidences that inter-group contact cannot be assumed to be consistently and equally effective for all students. As all the students in the cohort had the same teaching and learning opportunities there must be alternative explanations. It has previously been suggested that the variance in the amount of clinical placement, perception of hierarchy and salience of professional group membership may underly these differences. While this pattern was identified between student nurses and pharmacists it was not considered to be confined to these

two professions alone. It seems reasonable to assume that this example would be found if other professions were investigated in a similar way.

Despite this there was also evidence to suggest that participants' explicit attitudes in terms of the espoused behaviours was improved by the IPE module, as both the pharmacy and nursing students rated their team-working and communication skills as improved/better on the second questionnaire and therefore it would seem that the students from different professional groups learned from the module, and perhaps from each other.

8.2.2 The students' drawings

Examination of students' drawings, as opposed to using self-completed questionnaires is regarded as simultaneously less threatening and a useful teaching exercise to explore the construct of stereotyping and its implications for collaboration. The students' drawings demonstrated both the salience of readily available stereotypical views and some possible consequences that have the potential to influence collaborative behaviours (Hamilton and Gifford, 1976). It is suggested that for the students the clinical environment provides opportunities for heuristic, or superficial, processing, where sufficiently accurate inferences can be made most of the time, which can become habitual. These inferences may not consistently positively influence collaborative behaviours. The students who submitted drawings would know that doctors are not predominantly (spectacle wearing) males, and that police officers in the UK do not carry handguns. There appear to be other influences that are formed within professional groups and exist beyond them, such as within health and social care. Identified influences include that of various forms of media and students' nationalities, ethnicities and cultural backgrounds.

Because some drawings conveyed such salient values-based judgements there is a distinct potential for such heuristic or superficial thinking to have an impact on collaborative behaviours. The principle of illusory correlation suggests that the co-occurrence of features creates an exaggerated perception of association, such as the previously mentioned spectacle wearing doctors (Hogg and Vaughan, 2008; McGarty et al., 2002; Hamilton and Gifford, 1976). The important consequence of this for IPE is that individuals will both select and remember information that is concordant, resulting in over-estimation of correlations. An example of this from the drawings was the widespread depiction of police officers appearing less friendly than

nurses. If the perceptions illustrated in the drawings are similar to those gained during IPE, then students may learn attitudes that are in contradiction to the desired and stated aims.

This potential problem is further exacerbated by the possibility of self-fulfilling prophecy to influence cross-professional interactions and behaviours (Croker et al., 2016; Hilton and von Hippel, 1996; Hamilton and Gifford, 1976). Perceptions about other professional groups gained through IPE may subsequently influence how individuals from disparate professions interact with each other in the clinical environment. This may be illustrated by the example of two students from different professions, such as a student nurse and a student physiotherapist, having positive interactions during IPE. The student nurse would be more likely to have a positive attitude towards another physiotherapist subsequently encountered during placement (and vice versa). Such positivity would be likely to result in constructive collaborative behaviours by both individuals.

While this may be positive for some students, the salience of less than positive stereotypes, such as those demonstrating the implications of hierarchy, cannot be ignored. The previous example of a positive IPE experience resulting in a subsequent mutually positive interaction would be mirrored if the original IPE experience was negative. A negative attitude could result in negative behaviours, and a lack of collaboration by both individuals with a consequent impact in the clinical setting.

The most important aspect of this data set is how heuristic thinking, which may be stereotypical, has the potential to impact on behaviours, which may, support, or impede, interprofessional collaboration as in the examples above. The findings suggest that use of such an engaging and non-threatening activity to discuss and highlight the implications of stereotyping is an invaluable tool in IPE. It is important to support the students in learning to understand that it is not the features of the drawings themselves that are notable, but the indicators and implications that may suggest potential behaviour patterns.

8.2.3 Service user session

It has been argued that while service user involvement in education has become more widespread there will always be scope for such initiatives to be investigated (Fox and Reeves, 2015; Reeves et al., 2010). The students' feedback to the service users was included in the research as an

element of naturally occurring data in part to fulfil this aim, but also to ensure that the focus remained on more than my own realities and perceptions. Analysis of the data through attitudinal domains produced some data that added an important dimension to the case study. The strength of sentiments expressed suggests that students' embedded attitudes may be reasonable predictors of future behaviours.

The number of post-it notes recording positive emotions in response to the service user narratives suggest that the session has a positive influence on students' attitudes towards collaboration (Maio and Haddock, 2009; Fazio and Olson, 2003; Wood, 2000; Loxley, 1997) and this may be due to either being exposed to the service user experiences or the mutual influencing in social conformity (Goethals, 2003) and vicarious conditioning (Bohner and Wanke, 2002). The behaviour domain of attitudes also appears to have been similarly influenced by the narratives for most students leaving post-it notes, with feedback comments demonstrating both the inspiration and motivation to change espoused behaviours (Petty et al., 1997; Tesser and Shaffer, 1990; Fishbein and Ajzen, 1972). The extent to which the feedback comments appear to have been found to be personally relevant to the students (Aiken, 2002) and to have influenced the knowledge domain of attitude would suggest that any positive changes have been across all the three domains (knowledge, affective and behavioural).

The breadth of evidence supporting the suggestion of the change in frame of reference implicit within transformational learning would appear to add strength to the influence of the session on attitude change (Attebury, 2017; Shor et al., 2017; Young, 2013; Clarke and Holtum, 2013; Rush, 2008).

Most students who submitted their feedback indicated a notable level of positive engagement and critical reflection. However, it is important to note that this effect was not universal across the cohort. The two students who left negative comments (pages 142 and 153) could be assumed to be an under-estimation, as students who felt a lack of engagement are likely not to have left any feedback at all. Again, it can be concluded that the session is not a positive learning experience for all the students and a dissonant and rejecting response by some needs to be anticipated. Because the impact of the service user session has been widely noted across the institution, it is thought that the creation of opportunities for a greater depth of dialogue between the students

and the service users, with closer facilitation by a member of the teaching team, might support students who find the session challenging and possibly distressing.

8.2.4 Focus groups

Inclusion of focus groups was perceived as being a very relevant data collection method towards the end of the research as it provided the opportunity to investigate my own ontological and epistemological stances in the light of the three tranches of data already analysed. There was a propitious correlation between the focus groups and the mixed discipline group work on the IPE module. The focus group data has been interpreted as adding a valuable qualitative element to the quantitative data achieved by the two questionnaires administered previously (Section 3).

While the staff and student focus groups appeared to have similar understandings of the meaning of collaboration, the contexts they discussed were disparate, with the students being more positive and practice focused than the staff. It is recognised that it is likely that espoused (Wittenberg-Lyles et al., 2010), rather than actual behaviours were described by the students, perhaps in part because of the power differential between them and myself as module leader. I had not expected any staff member to articulate that their profession did not collaborate with other professions as illustrated by the expression '*because we often work in isolation*' (page 176). It cannot be discounted that such assumptions may be communicated to students during IPE teaching.

It is perhaps more realistic to recognise that different professions collaborate to varying extents, in diverse environments utilising different strategies, and a single understanding of the term is too narrow when working with a breadth of professions, and perhaps instigates alienation in some. It is suggested that a greater awareness of potentially diverse epistemologies (Section 6.1.1) needs to be given greater cognisance in the planning of IPE, so that the outcomes more consistently have the potential to positively influence the attitudes towards collaboration of students from across the breadth of professions. Similarly, staff and students explored the context of the service user within health and social care from diverse perspectives; perhaps for staff, working in an academic environment creates a level of objectivity that the students did not appear to subscribe to, as they articulated greater emotional involvement. That staff and students have diverse perceptions is suggestive of a disconnect that could be a risk to successful IPE

because illustrative contexts used by staff during facilitation may be unfamiliar and appear less relevant or apposite to the students.

To add to this level of risk the staff focus group appeared to articulate a lack of confidence in teaching clinically based content, therefore it is unlikely that they will be able to confidently lead students to more successful collaboration across professional groups. When the challenges facing staff in teaching a breadth of different professions is also considered (Lie et al., 2016; Bainbridge and Wood, 2012; Anderson et al., 2011; Clark, 2011; Steinert, 2005), it would seem that there is a considerable need to support staff in IPE in general and facilitation of mixed professional groups in particular. This is a challenge that will be further considered (Section 8.7).

The student focus group also expressed several anxieties, such as managing conflict between professions and having confidence in their competence as newly qualified professionals.

However, their main concern was collaborating effectively within a system that is overtly hierarchical (Burford et al., 2013), which was also acknowledged by the staff focus group. It is suggested that both the staff and student groups are experiencing anxieties and therefore the effect on information perception and processing is likely to be cumulative. The impact may be a negative influence on the teaching and learning in IPE (Hodson et al., 2013; Brewer, 2003). It is possible that both the perspectives and confidence levels of the staff facilitator are critical in the convincing facilitation of mixed professional groups so that students have the opportunity to learn in a confidently managed environment.

A further aspect of note was the activities on the module, such as the exploration of practice-based scenarios and case studies. Although inter-group contact was identified as being influential there seemed to be a need for students, and perhaps, staff to have some level of informal time together to allow them to discover, establish and build commonalities that extend beyond professional boundaries. This might be effectively accomplished by social events, such as games or quizzes scheduled before or after teaching sessions and out of the classroom environment.

As was noted previously, the feedback (Sections 1.4 and 3.10.7), and from the data in this chapter, the engagement of students in IPE can be variable. One factor of concern in this is the lack of medical students on the module. Although a number of external visiting speakers in the auditorium are medical, such as medical consultants and executives from local NHS Trusts, there is very limited opportunity for dialogue between the students and these speakers. The doctors'

relative position within the hierarchy of social care has been shown to be a source of anxiety, and there is a risk of the whole medical profession becoming scapegoats, with hostile or antagonistic opinions being expressed about them and going unchallenged (Aiken, 2002).

8.2.5 Interviews

The interviews provided an opportunity to further investigate issues raised both in the student focus group and the previous tranches of data. As in the focus group, the students understood and agreed with the importance of collaboration in contemporary health and social care. There was affirmation for IPE being undertaken in the academic environment as it at least distanced, if not negated, the pressures of the clinical environment. A second advantage was that the academic environment was perceived as being a less overtly, and perhaps oppressively, hierarchical when compared to that encountered and experienced on placement. The alternative view that undertaking IPE in the practice setting should also be considered for a critical balance. That IPE in the practice setting would be more authentic, and therefore more transformative, is acknowledged. However, the requirement for good facilitation within a practice setting would remain. This study indicates that issues of staff anxiety and the development of buddy teaching (page 244) are more effectively addressed in the academic, rather than the clinical environment.

However, the data suggested tensions between students maintaining their own self-esteem, as an element of their social and professional identity, and being able to equally value the attributes of other professions. Because the students regarded their professions as having different attributes, it follows that these will be the ones that they value most highly. Consequently, it is probable that they will appreciate other attributes to a lesser extent. Therefore, perhaps it is not enough to create mixed professions groups regardless of professions present (Section 8.7) because of the differing assumptions and ways of thinking. If the values and attributes of students in the groups are very different from each other then it is likely that finding common ground will be very challenging. The participants did not identify any negative attributes as being associated with their own profession, so perhaps the need to maintain self-esteem, and therefore minimise the risk of anxieties, are realistic and a greater imperative than identifying and valuing positive attributes of other professions.

When considering collaboration on placement, that the negative attributes of those who are easy to collaborate with are overlooked while those who are identified as challenging still have

identifiable positive attributes, suggests that cognitive dissonance is an influence. Positive attributes most commonly identified were ‘friendly’, ‘hard-working’ and ‘flexible’ with the antonyms ‘closed’ and ‘gloomy’ being ascribed as making someone difficult to collaborate with. It is concerning that ‘intelligent’ was also seen as an attribute that made someone challenging to collaborate with as this may be related to as a threat to self-esteem, or a reference to the medical profession, who are commonly recognised as being of greater intelligence.

Influences of amenable personalities and co-location were identified as positive factors and ‘prestige’ and ‘hierarchy’ were named as inhibitory. That one participant had very different opinions to the others might be seen to reinforce the suggestion that different personalities are a factor that inhibits collaboration. A challenge exists in taking these personality differences into account. In assigning students to mixed-professional groups for a short, but relatively intense, period of time there is a risk that the co-existence of perceived personality traits will be ascribed to other members of the same profession, in a similar manner to the illusory correlation explained previously (Section 8.5.2), i.e. students may over-estimate notable personality traits being associated with particular professions. To compound this problem, personality traits may be wrongly interpreted. For example, a student who is shy and reticent may be interpreted as being lazy and unwilling to engage (Appendix 20). Such attributes may then subsequently be ascribed to members of the same profession in the future, with a corresponding decrease in collaborative behaviours.

8.2.6 Synthesis of results

Overall results are synthesised in this section and presented in two phases. Firstly the results from each tranche of data will be summarised, compared and contrasted. The second element will extract key elements that have demonstrated how a focus on students’ attitudes towards collaboration has been a product of this thesis that others will be able to relate to and draw insights from.

A significant key finding of this research is that there is a basis in reality for the ‘marmite’ phenomenon (Section 1.4, page 10). As has been previously articulated, but should not be underestimated, the initial quantitative data confirmed that students come to the IPE module with pre-conceptions of other professions with a positive bias towards their own professions, and the theoretical framework supports the finding (Allport, 1954). This is likely to be a result of current

models of health and social care education where for the majority of the curricula, students are educated within uni-professional groups. These results were reinforced by the clear salience of heuristic thinking and stereotypes demonstrated by the students' drawings. Social identity theory rationalises the in-group positive bias, but it is an unfortunate consequence that this is concomitant with correspondingly lower opinions of other professions associated with out-group bias, because there are then negative implications for interprofessional collaboration (See Table 8.1, pages 223-4).

The data achieved when comparing the results of the two questionnaires demonstrated that the inter-group contact, and module teaching was less influential for some students than the evident enduring positive in-group bias. When the drawings are considered with the questionnaire results it cannot be discounted that illusory correlation leads to an over perception of some attributes, such as doctors more often being male in some of the other professions. The influence of self-fulfilling prophecies suggests that these may then be preferentially perceived and remembered. The effect of this may be compounded by the suggestion that such superficial, heuristic thinking has a stronger influence on the perceptions and attitudes than the experiences from everyday life, such as that of the media, ethnicity and culture.

There is further support for the mixed success of the inter-group contact and teaching sessions. It should not be understated that service user narratives are very powerful in teaching students to see different perspectives. A stronger focus on the centrality of the service user experience will support collaborative behaviours and relationships. An unanticipated aspect of the data was that the session was rejected by a small minority of students, who it appears, have not learned or benefitted from the narratives. There is a dilemma in that, if so many students find it such a powerful learning experience, what alternatives can be created for those who clearly do not?

An explanation behind the findings that not all students benefit from IPE, and perhaps some will never benefit from the format currently used, is the effect of anxiety, as mentioned on page 230. Students experiencing anxiety was an expected finding, but the strength with which members of the teaching team also articulated such emotions was not. In retrospect, it seems reasonable to expect that the module will provoke anxieties. What should not be underestimated is the cumulative effect of anxious students in mixed group work that is facilitated by a member of staff who may be equally anxious. Taking into account the differing epistemologies of staff and

students demonstrated in the focus groups it is interpreted that the opportunities for miscommunication within IPE are well grounded, prevalent, to be expected even, perhaps inevitable.

Although there were benefits of IPE in the academic environment identified by the students during the interviews, it seems possible that the implicit tensions outweigh the advantages for some students. The balancing act of valuing their own profession to maintain their self-esteem while appreciating the attributes of other professions seems to be a significant challenge. The identification of different attributes of each profession on the rating sheets suggests that it not enough to simply put different professions together and expect them to collaborate successfully as different professions value different attributes to a greater or lesser extent.

Moreover, particularly when collaboration in mixed professional groups on the module is challenging, it appears likely that personality differences, such as being reticent rather than outgoing, are likely to be a compounding factor. Although there was a tendency to overlook negative attributes in those who are perceived as easy to collaborate with, the influences of amenable personality traits such as friendly, hard-working and flexible should not be underestimated. The students who simply do not have such overt personality traits and appear reticent, diffident or closed may be perceived as difficult to collaborate with and may then find the mixed discipline group overly challenging to engage with. When the implications of cognitive dissonance compounding such discomfort are also considered it could again lead to the conclusion that, for some, IPE is counter-productive and has a negative influence on attitudes towards collaboration.

In conclusion it seems that the IPE module does influence students' attitudes towards collaboration. Table 8.1 has presented a concise and cohesive summary of the research findings. For some students IPE is a positive learning experience which has the potential to impact on their future practice. However, it is also apparent that other students experience IPE as a less positive and impactful learning opportunity. Several factors with the potential to have a detrimental effect have been identified. Factors include the impact of prevailing in-group bias, the inconsistent effect of inter-group contact, students with different personalities and staff and student anxieties have all been recognised as being influential.

8.2.7 Review of the attitude lens

Table 8.2 (page 234) details aspects of the IPE curricula, aligned to the attitudinal domains so that practitioners in other institutions responsible for IPE may evaluate their own curricula.

As explored previously (Section 1.5), although the term attitudes is frequently used in conjunction with IPE, both in terms of teaching and assessment, there is little literature which gives conscious attention to the role of attitudes in IPE. It was also noted that there were some parallels with the aspects of collaboration. It was argued that the importance of attitudes was linked with behaviours, or more specifically intended or espoused behaviours. Students experiences of IPE are varied, and some aetiologies have been explored and proposed in this thesis. As the stated aim of IPE is to improve collaboration, the role of attitudes within this was identified as an important aspect for exploration.

As evaluative judgements, attitudes can be regarded as having synergistic cognitive, affective and behavioural domains. Examination of the three domains has been found to have the potential to be of use in IPE so that the varied experiences can be more consistent. Confounding factors for IPE can be identified within the proposal that repeated, strong, logical arguments that are personally relevant, credible, within intellectual grasp (Whitfield and Jordan, 2009; Crano and Prislin, 2006; Wood, 2000; Tesser and Shaffer, 1990; Cialdini et al., 1981), and which involve an element of affect (Gawronski and LeBel, 2008) are likely to be more influential on both implicit and explicit attitudes, resulting in attitudinal change and therefore altered attitude related behaviours. Specifically, factors such as the very large and very diverse groups, each within their own professional culture, are a complication if messages are to be personally relevant and credible to every student. Some comfort may be gleaned from the suggestion that, although a spectrum is acknowledged there are like-minded people in different professional groups (McMichael and Gilloran, 1984). The suggestion is that if activities and elements of IPE teaching are tailored to the three attitudinal domains some of the more varied experiences may be ameliorated.

Attitudinal domain	Positive influences	Negative influences
Cognitive	<ul style="list-style-type: none"> • Group dynamics influenced knowledge of other groups • Understanding impacted generalisations and pre-judgements • Understanding social identity theory and in-group/out-group bias • Understanding positive and negative impacts of hierarchy • Learning different perspectives and the ability to relate to own professional role • The limitation of the number of different professionals who worked together so that learning was perceived as more relevant • Transformational learning e.g. service user narratives • Compatible epistemologies and cultural identities 	<ul style="list-style-type: none"> • Negative bias to other professionals stemmed from out-group bias • Impact of staff anxiety on communication • Students did not recognise the relevance of activities outside their own professional concerns • Cognitive dissonance • Disconnect between staff and student epistemologies • Professional identities • Incompatible epistemologies
Affective	<ul style="list-style-type: none"> • Group dynamics generated affinities between members of different professions • Stereotypical thinking was an illustration of positive and negative emotion • Emotional response to service user narrative • The limitation of group membership so student anxiety was decreased • Staff buddying so staff anxiety was decreased 	<ul style="list-style-type: none"> • Students did not engage as a consequence of anxiety • Staff anxiety impacted on facilitation • Scapegoating on the module as a result of the absence of medical students • Intra-professional socialisation
Behavioural	<ul style="list-style-type: none"> • Espoused behaviour changes in response to service user narratives • Decreased group membership resulted in increased understanding and empathy • Personality preferences in seeing mixed groups as an opportunity 	<ul style="list-style-type: none"> • Personality preferences in seeing mixed groups as threatening or irrelevant • Lack of self and professional confidence

Table 8.2 Table to illustrate articulation of positive and negative implications of attitudinal domains

8.3 Strengths and limitations of the study

The case study approach was thought to be an overall strength as it allowed the study to develop iteratively and incorporate relevant data collection methods as my knowledge increased. In view of the complexity of the theoretical framework, the case study approach fitted well with the IPE module being investigated. Although care has been taken to identify limitations of each of the data collection methods, it is not clear whether the use of multiple methods restricts the impact of the limitations or if it magnifies it.

As a consequence of the case study strategy adopted there are a number of strengths and limitations identified with the five different methods of data collection. As previously noted (Section 1.7) because of the large cohort sizes in IPE it was possible to achieve sufficient completed questionnaires to permit convincing statistical analysis. The answers achieved appeared to demonstrate valid differences, perhaps because the answers were being compared rather than individually examined. It is possible that the large size of the cohort conveys an element of anonymity and security when the students complete the questionnaires. However, the limitations of a self-report tool for assessing attitudes should not be overlooked. The number of returned drawings and elements of service user feedback are similar strengths that are a result of the cohort size. The students' drawings were an interesting and innovative set of data; results and conclusions of analysis could be indicative of implicit attitudes and suggest implications and consequences for IPE.

8.3.1 Strength 1

The utilisation of different data analysis methods can be perceived as a strength as any errors will not be cumulative. The statistical analysis of the questionnaires, including implementation of Cronbach's alpha yielded convincing results. The content analysis of the drawings, and the use of NVivo™ were both achievable, logical and systematic methods of analysing tranches of data that might easily have been construed as inchoate.

8.3.2 Strength 2

It was a strength of the focus groups that the staff and student groups were held on separate occasions. Had mixed focus groups been held I do not think the same level of candour would have been achieved. The power differential between myself and the students would have been

even more overt had members of staff also been present. Members of staff are unlikely to have been willing to express insecurities and anxieties about teaching students in front of them.

8.3.3 Strength 3

The interviews that were held were reasonably successful and the attribute rating sheets provided useful icebreakers, foci and vehicles to allow students to express sentiments that they might otherwise not have.

8.3.4 Limitation 1

While the case study approach was successful in retrospect, conducting the data analysis with sequential cohorts has been a confounding factor and is thought to be a limitation. It was not possible to create opportunities to collect data with the more diverse cohort in Semester A while being in the module leader role, which restricted the opportunities to access a breadth of professions for data collection. Also, in general the data collection methods did not permit following up on specific aspects, e.g. it would have been useful to attempt to ask students who did not return questionnaires to participate in focus groups or interviews for greater depth of information.

8.3.5 Limitation 2

It was a limitation that the paramedic students did not return completed questionnaires in sufficient numbers for analysis of their answers to be included. It is possible that their small cohort size inferred greater in-group salience and bias (Carpenter and Dickinson, 2016; Huddy, 2004; Brown, 2000; Allport, 1954) as these are noted to be more overt in minority groups (Rijswijk et al., 2006; Huddy 2004; Ellemers, 1999) or group-think (Reeves et al., 2010; Hewstone, 1989). Had the questionnaire provided the opportunity for students to indicate which of the four fields of nursing they were studying, further analysis, possibly in cohort sizes comparable to the paramedics, might have been achievable.

8.3.6 Limitation 3

As with any questionnaire, the lack of opportunity to achieve data from those choosing not to participate is a limitation and so it was not possible to gauge representativeness of results as non-responder attitudes cannot be assessed. Responders possibly feel more positive about IPE than

non-responders (Sedgewick, 2011, 2013; Scheerder et al. 2009; Tunstall-Pedoe et al., 2003) but this has to remain speculation in the absence of solid data.

8.3.7 Limitation 4

Had I spent longer researching questionnaire use in IPE prior to creating and administering the questionnaire I might have identified a published tool that was suitable for my study which would have overcome the minor errors made.

8.3.8 Limitation 5

A frustrating limitation was with my abilities as moderator in the focus groups. With further experience I would have been able to be more objective and I could have had the opportunity to question the members of staff who laughed in response to some statements. With my knowledge of IPE, I did not realise at the time that I needed to ask members of the group why they were laughing and as a result, only limited suppositions can be made. Another aspect which could have been followed up in greater detail was that of the challenges of facilitating IPE (Sections 3.10.7 and 6.3.3). With hindsight allowing the staff an opportunity to discuss what might support them in facilitating IPE would have been useful.

8.3.9 Limitation 6

Although recognised as a possible influence (Section 3.10.6) the effect of the use of unhelpful language and acronyms, such as jargon that may not have any meaning outside of one professions own frame of reference to either promote, or negate, collaborative behaviours was overlooked in the planning of the focus groups and therefore, except perhaps in conjunction with the differing epistemologies, no conclusions can be drawn on this aspect.

8.4 The theoretical framework

In retrospect, the theoretical framework might be viewed as a slightly discordant coalescence of theories. That said, it has been valuable in terms of allowing a variety of perceptions and epistemologies to be considered throughout the thesis. The research has explored the IPE module with the aims of gaining an increased understanding of how the IPE module works for students, and how it may be made better for students and staff. The second aim was to identify

mechanisms to improve collaboration between professional groups, gaining a deeper understanding of factors, including attitudes, that could get in the way and inhibit collaboration. I remain of the opinion that using a broad theoretical approach was advantageous as a more restricted focus would have compromised the extent to which I could increase my knowledge and understanding, and by extension identify developments and transferable insights.

It was acknowledged in the opening chapter of the thesis that inclusion of the theories behind prejudice (Allport, 1954) was not innovative (Section 1.9.1) but the implications of both student and qualified professionals in health and social care making pre-judgements and generalisations about other professions was so compelling that it made an appropriate foundation for further investigation. That mixed professional groupwork is an essential, yet challenging, aspect of IPE, reinforced the justification for its inclusion as a key part of my research inquiry. Also, in my position as module leader I was concerned that members of the teaching team making generalisations about health and social care professional groups, such as the example given previously of doctors being arrogant and nurses being caring (Section 2.2.5), might have had an influence on students' learning.

The definition of IPE (Section 1.2) was influential in aspects of intergroup contact, such as stereotyping and heuristic processing, being included (Brown, 2000; Pettigrew, 1998). Because the students (and staff) on IPE are from different and disparate professional groups, each with specific professional cultures, the ramifications of the intergroup contact required a greater depth of consideration, as it might be thought of as the crux of the module. During my observations of the students' experiences during the mixed professional groupwork on the module in previous years, I had noted students experiencing IPE in very different ways, and I thought an interpretive approach to the research might help me to understand what was happening for different students (Morrison, 2012).

An additional influence on the intergroup contact was the impact of social identity theory (Turner, 1982; Tajfel, 1970). Successful IPE requires the students to work productively in mixed professional groups and to be able to do this they must recognise, acknowledge and respect the dissimilar values, skills and attributes of other professional groups. It is challenging for them to be able to do this while maintaining their own self-esteem and this underpins how the module is able to influence students' attitudes towards collaboration.

However, these theories did not appear to offer insights into one of my imperatives for wanting to gain a greater understanding of IPE, which was the dichotomous nature of feedback being received from successive cohorts, i.e. either very positive or very negative. It was thought that there might be two contrary theories that could offer a basis for the two extremes of reaction. The theory of cognitive dissonance (Festinger, 1957) was thought relevant to explore the negative feedback elements with transformational learning (Mezirow and Ass., 2000) identified as having the potential to provide an underpinning theory for the positive aspects of the feedback

In retrospect, the thesis might have been more conventional and accessible without a focus on attitudes as an additional focus might be interpreted as a detriment to the cohesiveness of the work. However, the focus originated with the pragmatic aim of gaining an increased understanding of what these were and how they arose and were sustained within the various health groups coupled with being able to use my knowledge to improve my leadership of the module. For me, the research investigation was as much about improving IPE within my, and other institutions, as it was about professional and personal development.

8.5 Reflection on the use of the case study methodology

The research was designed using a case study methodology as an organisational strategy (Grix, 2010) with the aim of compiling a cohesive body of evidence that could be used to inform developments to IPE modules. In parallel with the development of the theoretical framework I thought that such a methodological approach would facilitate the consideration of the module from multiple perspectives. Scrutiny of data achieved using a variety of methods from various perspectives, including my own, added to the rigour of the research. The influence of my own assumptions was recognised as having the potential to impact on the objectivity of data analysis (Stake, 1995).

With the aim of clarifying the boundaries of the case study so that elements of description were synergistic with those of analysis (Cohen et al., 2011; Denzin and Lincoln, 2011; Denscombe, 2010; Merriam, 2009; Robson 1993; Guba and Lincoln, 1981) five research questions were developed iteratively during the study:

- What conclusions can be made, and indicators for further research gained, from a questionnaire designed to elicit an understanding of students' explicit attitudes towards working with other professions?
- What inferences can be drawn from healthcare students' drawings of members of other professions?
- How might service user narratives influence students' attitudes towards collaboration?
- Using the two qualitative data collection methods of a focus group and individual interviews, what information can be gained about the learning, teaching and assessment facilities afforded by the IPE module on the influence of the students' attitudes towards collaboration?
- What information can be determined from a focus group with members of the teaching team that is either in accordance with, or dissimilar to, opinions expressed by students' or my perceptions as module leader?

These questions have been used as a vehicle for me to examine my assumptions and beliefs about the IPE module as my ontological and epistemological stances are deeply embedded within the research. Insights that answer these questions will be articulated and synthesised in Section 8.7.

Throughout the process I have identified two drivers which might initially be thought of as confounding. My clinical experiences have been important in shaping the way in which I see the world. After working within an environment where successful, multiprofessional working was fundamental to patients' wellbeing and safety it has taken the doctorate process for me to be able to consider my understanding more objectively. Consideration of the premise that 'not everyone thinks the same as I do', suggests that multiple realities are inevitable and not everybody will behave and work in the same way, even if they have the same goals. These dissimilarities can be both potentially constructive but also an arguable cause of the breakdown of successful collaborative working. This has underpinned my work as an IPE module leader as well as my doctoral research.

The second driver was perceived as being the sense of ownership I felt inherent in the role of module leader. As mentioned, IPE had previously been high-profile within the institution

(Section 1.4) and the perceived personal pressure and a desire not to be seen to fail were both substantial. Additionally, both the increasing regard for the NSS results as an important institutional factor and my own conviction of the importance of successful collaboration to the service user experience were no less influential. Therefore, I had long felt under pressure to improve positive student ratings on the module while trying to recognise and reconcile multiple realities and perspectives.

8.6 Overview of research process

The research process has been both outlined and described in detail (Section 2.1.3 and Section 2.1.4). The complexity and uneven nature of this process is somewhat resonant with IPE itself. On reflection, the study may have been enhanced if more data could have been collected with the larger, more diverse cohort in Semester A. However, with the substantial demands of the module leader role along with the larger cohort of the module being taught so early in the academic year the consequence was that there was no option but to collect most of the data with the smaller cohort in the second semester. Although, this might suggest that the data collected was not representative across the whole of IPE, this was not the principal aim of the research. The case study approach was deliberately chosen in the knowledge of its limited ability to generalise the findings (Section 2.1.3). The initial aim was to increase my own knowledge and understanding, and to have the opportunity to identify aspects of the teaching that might be developed and the potential to offer further insights. The specific cohort from which data was collected was not thought to be pertinent to the desire to understand ‘what is going on here?’ (Becker et al., 1961). The stated adjunct to this aim was the opportunity to identify insights which could be offered to IPE leaders in other institutions, which as has been explained, vary considerably both in focus and mode of delivery. The uneven nature of this study has the potential to resonate with a broader range of institutions when compared to a more singular approach.

8.7 Implications for practice

In common with both qualitative and quantitative research practice, two questionnaires achieved a useful point from which to start. I first created and introduced the drawing activity because I

thought it would be an engaging activity that would be useful in illustrating the role of thinking in stereotypes. However, since analysing the data from both the questionnaires and the drawings it seems these methods were more significant than I initially realised. The questionnaires demonstrated that the students come to the IPE module with preconceptions and aspects of the drawings suggested implications for potential impact on behaviours.

The tranche of data collection from the students' drawings has allowed me the opportunity to teach this aspect of IPE in greater detail, encouraging the students to understand that cognitive shortcuts, such as stereotypes, may be inevitable. I use the opportunity to emphasise that it is the impact on potential collaborative behaviours which is of significant importance. Additionally, I introduce the students to some strategies to support monitoring potential impacts in an attempt to help them to become more aware of how new skills can be used. An example of such a strategy is the analogy of the hairdresser's mirror illustrating the point that 'not everyone sees the same things as I do'.

The potential role of anxiety has been evident across the data sets and is not currently overly evident within recently published literature. That both staff and student anxiety have the potential to inhibit the positive impact of the module has been highlighted and should be further disseminated both within the institution and beyond. Measures that have been put in place to counter-act this latent effect are ensuring diligent and frequent communication with both the cohort and the teaching team and developing resources and guidance packs that inform both groups on the content, structure and organisation of the module. Each semester a 'briefing session' is now run for members of the teaching team which facilitates discussion of key issues. Discussions with line managers on the challenges in facilitating IPE, compared to 'normal' teaching should be a priority.

When considering the teaching team, it is perhaps even more important that as a School, we have been able to implement more consistent team teaching for the IPE module, in recognition of the challenges staff face. When planning the teaching, members of staff who are known to be experienced, skilled and confident in facilitating mixed professional groups are paired with those who are less so. Since completing the collation of the results, I have realised that staff anxiety is possibly of greater concern than I had previously realised, and in future interactive, discursive activities for the staff briefing sessions can be created so this aspect of IPE teaching can be made

more overt. It is possible that, by communicating with line managers individual staff needs can be discussed and supported through the appraisal system.

However, in the light of this study (Section 8.2.4) it could be suggested that it is not possible for a single person, of whatever profession, to consider all of the implications of any teaching activity, and that they should all be planned by a cross professional group drawn from the teaching team to a greater extent. The challenge in this is that, once more, the IPE module would be working in a different way to the institutional norms and the requirements would have to be agreed and sanctioned at management level.

A recent development that has been a direct result of this research is that across both IPE modules, a buddy teaching system is now employed. All mixed-group facilitation is undertaken by pairs of facilitators. Members of the teaching team are assigned a buddy, who has complementary skills and is, importantly, from a different professional group. This appears to have lessened staff anxiety and improved student feedback. However, it is a persistent challenge to secure agreement from line managers that this is a valuable and effective teaching method. Line managers are responsible for teaching allocations and in times of financial and staffing constraints such a measure is not always readily accepted.

An unanticipated adjunct of studying IPE at doctoral level is the general level of respect for my increased knowledge and understanding. This has been most appreciated when it has been demonstrated by the Senior Executive Group who have always supported developments made as a result of this study.

One development that has been possible since conducting and analysing the interviews is that we have been able to review how the cohort is divided into groups. Prior to this study, mixed professional groups of students were created on the basis of an even as possible distribution of each of the professions. Since developing my knowledge, as a result of this study, the cohort is divided so that the mixed professional groups of students have commonalities and synergies between the different professions so that there is an increased perception of shared cultures and contexts. Currently, in practice this is done on the basis of acute and community care and activities, so students are placed with others with whom they are likely to come into contact with on placement. For example, paramedic students are allocated to groups with midwives, mental health and learning disability nurses and social work students. Similarly, professions who are

predominantly hospital based, such as radiographers, dieticians and physiotherapists will often be allocated to the same groups.

It is not possible to create perfect synergy, as can be seen in Table 1.1 the cohort sizes of the different professions vary significantly. For example, in practice the adult nursing students are allocated across the whole cohort as their profession is the largest and perhaps the most diverse. This has facilitated the development of activities that are bespoke to each of the groups of professions. In addition, the expertise of speakers invited to the auditorium is on the basis of the professions of the students who will be present with the consequence being that although the students do not get identical experiences to each other, the same content is taught but with different emphases.

One last aspect of the module that has been developed as a result of this work is the service user session. Some service users continue to present their stories in the auditorium and this remains a valued element of the module curriculum. Since gaining a greater insight into the impact of the narratives it has been possible negotiate the increased funding required to increase extent of the integration of service users. The auditorium sessions are now followed by tutorials, run jointly by an academic member of staff and a service user. The service users outline their story, and this is then used as ‘the case in the room’. This facilitates dialogue and discussion of the opportunities and barriers faced by both the service user and the service providers.

I have recently had the opportunity to develop how I teach collaboration, which is another aspect of the module that has been developed as a result of this thesis. I now believe that the concept of collaboration is more than a single idea, and that diverse professions will have different connotations of the aspects and imperatives of collaborative practice. I believe that collaborative practice is fundamental to contemporary health and social care, and the differing relevance for each different professional group needs to be clarified and articulated.

One remaining development that, in the light of this study, seems important is the creation of the opportunities for informal time that is also recognised as purposeful. I think there should be opportunities for student-student and student-staff interaction so that potential stereotypes and pre-conceptions can be diminished through pleasant, interpersonal contact and all individuals can recognise as individual personalities that transcend professional boundaries. The challenge in this is in ensuring that the time is seen as purposeful and meaningful.

The final point that should be emphasised is that across the data sets there is a suggestion for some students that the inter-group contact has less of an influence than the pervasive and enduring in-group bias. The data evidences that inter-group contact cannot be assumed to be consistently and equally effective for all students. As all the students in the cohort have the same teaching and learning opportunities as each other there must be alternative explanations. It has been suggested that the variety in the amount of clinical placement, perception of hierarchy and salience of professional/group membership may underpin these differences.

It would be a significant development if this could be embraced as an opportunity rather than a challenge. Although the institution introduced IPE as two distinct 15-credit modules, and there are convincing rationales for continuing with the format, taking the data in this thesis into account there is also a convincing argument for developing the curriculum. One of the strengths of the IPE provision is its overtness both within the institution and to professional and regulatory bodies. There is scope to increase the flexibility by which students meet proscribed learning outcomes. Rather than specified IPE weeks, a variety of opportunities, within both the academic and clinical environments, could be made available students. Students would then use the flexibility to select which opportunities were most suited to their needs. Subsequent assessment could then be in the form of a portfolio, or presentation event, where students were given the opportunity to showcase their learning.

Key points that will be disseminated to other practitioners responsible for IPE

- Tailoring IPE activities to three attitudinal domains for greater potential to positively influence students' collaborative behaviours
- Consideration of psychological implications of attitudes for teaching effectiveness as demonstrated with the stereotyping activity
- Consideration of the advantages of buddy teaching across IPE
- Placing of students with some commonalities in training and experiences in groups together so that there is increased successful task compliance and completion and students are more able to see parallels with practice
- Recognition of student and staff anxiety, and its possible effects on the success of IPE
- Introduction of a flexible framework for IPE to allow students greater freedom in selecting how to achieve proscribed learning outcomes.

- Consideration of students as individual learners with distinct personalities, rather than a ‘one size fits all’ approach

8.8 Suggestions for further research

Since dividing the cohort into groups on the basis of acute and community care, my own perception, and that of some of the members of the teaching team, is that the sessions are less stressful. It would be interesting to investigate this further, either by focus group or semi-structured interviews to gain greater understanding of this perception and perhaps to identify further developments that could be made.

As mentioned in section 1.2, IPE at my institution is comprised of two 15-credit modules, the first one at level four. It might prove to be a useful learning opportunity, for both the students and myself, to conduct the drawing activity with the new first years, retain their drawings and then revisit the activity in the final year IPE module. It is thought that there would be a sufficient time interval for the students to not have significant recall of their drawing, as the interval would be two years. Interrogating the sets of drawings as data to identify similarities and differences would add further insight to that gained in this study and might indicate further developments that could be instigated.

One element of data collection that had been considered for this study but was not carried out was the observation of profession specific teaching sessions across a breadth of health and social care professions. The aim of this would be to examine whether any causes of professional habitus could be identified in profession specific teaching. Achieving this would permit greater insight into professional socialisation in the academic environment.

I would like to carry out a comparative study of the semi-structured interviews with a student taking the role of interviewer. It is possible that removing the probable power imbalance might achieve different results. It would be possible to interrogate how language and jargon are used by students to support, or inhibit, collaborative behaviours.

Originally, it had been my intention to include an Implicit Association Test as one of the aspects of data. However, I was unable to create a convincing test that could be conducted on paper and

the complexities of finding appropriate facilities and creating a suitable test were beyond the scope of the study. However, it would make an interesting adjunct to my findings to date.

8.9 Final reflections

Making IPE the focus of my research study has taught me a great deal. I have been convinced of the merit in exploring constructs such as ‘attitudes’ and ‘collaboration’ as mechanisms of identifying potential, and actual, ways of making IPE teaching more effective for both staff and students.

My ontological stance, as discussed in Section 1.10 encompasses a belief that the range of perceptions across the breadth of those involved in IPE is both an affordance and an opportunity, but also potentially a detriment and a frustration. Recognising and understanding the impact of the idea that my own assumptions may be the same or very different from others involved in IPE was important in creating the opportunity to investigate and understand a breadth of concepts and factors encountered and highlighted during the research process. An iterative and interpretivist paradigm together with methodological rigour allowed multiple claims and assumptions to be examined and brought into a cohesive whole in the manner of a diligently completed tapestry.

The relative professional isolation of contemporary health and social care education, where curricula are generally taught in uni-professional settings, by members of the same professions has been recognised as shaping students’ values and beliefs so that they are equipped with socially acquired profession-specific culture that allows them to become qualified professionals in their chosen specialism. However, use of the academic environment for IPE has been recognised as having the advantage of both distancing the pressures of the clinical environment and making hierarchies between professions as less overt.

The alternative view that undertaking IPE in the practice setting has not been ignored. The view that IPE in the practice setting would be more authentic, and therefore more transformative, is acknowledged. However, the requirement for good facilitation within in a practice setting would remain. This study indicates that issues of staff anxiety and the development of buddy teaching (page 244) are more effectively addressed in the academic, rather than the clinical environment.

The research identified and affirmed my perception that students come to the module with pre-conceptions. The data supported the supposition that for some the impact of the enduring in-

group bias required to maintain self-esteem is greater than the influence of the mixed professional intergroup contact, and for some may be an insurmountable barrier. Being more strategic in how students are allocated into mixed professional groups, as a result of this research, has been demonstrated to have the potential to ameliorate student anxieties creating greater opportunity to increase the perception of commonalities.

The drawing activity has been demonstrated to be an engaging and effective method of helping students to understand the potential effects of in-group bias and superficial, heuristic thinking on their collaborative behaviours. The potential of such habitual behaviours highlights how cognitive, or more thoughtful, processing can support the development of more impactful collaborative behaviour with associated improvements in the service-user experience.

Mechanisms and theories underpinning the place of service user narratives in IPE have been articulated and the strength of sentiments expressed can be regarded as reasonable predictors of future behaviours. This effect has been strengthened as a result of the research as the module now offers greater opportunity for dialogue between service users and students. That the potential for the narratives to have a confounding effect has been included in the considerations.

Creation of table 8.2 (page 236) has resulted in a tool which may be used to evaluate how tailoring IPE activities to the three domains of attitude to a more positive effect. The introduction of an IPE framework is proposed as a solution that facilitates the recognition of individual students, and specific professions as being of key significance in creating learning opportunities that have greater potential for all to benefit and increase their knowledge, skills and attitudes towards collaboration for the benefit of the service user.

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10 Appendices

10.1 Appendix 1: Chronological Synopses of widely published of failures in care

Introduction

The following information has been included as it provides some context for the place of IPE in collaborative working. It is not intended to be a comprehensive account of all events that might be construed as relevant, but to offer some context for those unfamiliar with the focus of the thesis and explain the essence of some of the more published and acknowledged failures in care in contemporary health and social care. Individual inquiries may be, and possibly often are, regarded in isolation. However, each might have more than a single purpose, and may be variously interpreted as correct or achievable, or not.

Maria Colwell

Maria Colwell was murdered by her step-father in 1973. The report into her death found that decisions were made on insufficient evidence; reactions to incidents were insufficient; there was insufficient co-ordination between education and social services departments; there was a failure to pass on vital information and communication systems were faulty.

Report of the Inquiry into child abuse in Cleveland, 1987

The report was triggered following an increase in diagnoses of child sexual abuse. The report found professionals were inconsiderate of parents; communication was often ineffective or not attempted. Professionals failed to provide appropriate evidence, poor decision making and procedural errors were evident, as was unresolved tensions between agencies.

Victoria Climbié

Victoria Climbié died as a result of abuse aged eight in 2000. The inquiry cited a widespread lack organisational effectiveness, significant system failures with organisations failing to work together and a paucity of good practice.

Alder Hey

A report published in 2001 stated that the medical profession did not comply with the Human Tissue Act (1961) and did not seek consent to retain body parts after a child's death. Professional relationships and cross institutional collaborations were integral to the illegal practices.

Bristol Heart Surgeons

The report published in 2001 stated that the practice of senior professionals, who were incompetent, was not identified. The power and status of a select group of clinicians dictated the culture. A series of communication and systemic failures contributed to organisational failure.

Harold Shipman

Harold Shipman murdered 215 patients over a 24-year period. The final report was published in 2005. The lessons learned included

- An independent controlled drugs inspectorate should be established
- There are inherent dangers in long term one to one working relationships between doctors and practice nurses
- Nurses and other healthcare professionals should be objective about the conduct of doctors
- There should be a change in culture towards people who raise concerns

Baby Peter

Baby Peter died in 2007 aged 17 months. He was on the Child Protection Register and numerous agencies were actively involved in his care. The Serious Case Review concluded that there had been a lack of interagency collaboration, insufficient interagency communication and insufficient intervention.

Daniel Pelka

Daniel Pelka was murdered in March 2012 by his mother and her partner. The Serious Case Review concluded that there had been a lack of information sharing between agencies, poor record keeping, assumptions around culture and language and missed opportunities for action

July 2015 Daniel's mother committed suicide in prison

January 2016 The partner of Daniel's mother was found dead in prison

Winterbourne View

The failings of care at Winterbourne View were investigated and published in 2012 following a television documentary. There was criminal abuse of people by the staff and the culture of abuse was allowed to continue and grow. Warnings were not attended to. There was widespread failure in the services provided. As a result of the investigation eleven people were prosecuted.

Francis Report

The Francis Report was published in 2013. The extensive findings can be very briefly summarised as;

- The organisation culture did not focus on the patients, and there was undue focus on positive information
- Measurement of standards of compliance did not focus on service to patients
- The degree of tolerance of poor standards and risk to patients was too high
- Many agencies failed to communicate their concerns
- Assumptions were made that monitoring was the responsibility of another
- There were problems with the culture with nursing and medicine

Morecambe Bay Inquiry

- The Inquiry Report was published in 2015. The extensive findings can be briefly summarised as follows;
- The maternity services at Furness General Hospital were seriously dysfunctional and clinical competence was substandard
- Working relationships were extremely poor, particularly between different staff groups, such as obstetricians, paediatricians and midwives;
- There was a growing move amongst midwives to pursue normal childbirth ‘at any cost’;
- There were failures of risk assessment and care planning that resulted in inappropriate and unsafe care;
- The response to adverse incidents was grossly deficient, with repeated failure to investigate properly and learn lessons.
- These factors led to the unnecessary deaths of 1 mother and 11 babies.

Kennedy Review (2013)

The review investigated the treatment of patients, generally women, with a diagnosis of breast cancer who were treated by the ‘charismatic and charming’ surgeon Mr Ian Paterson. Mr

Paterson's colleagues became concerned about his surgical practice and while fellow clinicians attempted to get the organisation to address their concerns, they accepted his practice, knowing it to be poor. The organisation was determined to be hierarchical and oppressive. Care that was patient-centred was lacking. The review concluded that Mr Paterson had knowingly put hundreds of women at risk of actual harm by performing needless and unrecognised surgical techniques.

Summary

The repeated aspects suggest that, despite multiple investigations there appears to be limited evidence of tangible improvements. Of myriad possibilities for improving procedures the most promising would appear to be a more cohesive service that demonstrates improved collaboration.

10.2 Appendix 2: A table to indicate the timetable and professions taking part in elements of data collection

Order of data collection	Data source	Professions involved in data collection	Date of data collection
1	Questionnaires	Pharmacy Nursing (adult, child, mental health, learning disability) Paramedics	January 2014
2	Drawings of Professions	Pharmacy Nursing (adult, child, mental health, learning disability)	January 2014
3	Feedback to service users	Pharmacy Nursing (adult, child, mental health, learning disability)	January 2014
4	Focus groups - staff	Diagnostic radiography Adult nursing Child nursing LD nursing Midwifery	September 2015
5	Focus groups - students	Pharmacy Nursing- adult Nursing -child, Nursing -mental health Nursing -learning disability	September 2015
6	Interviews	Diagnostic radiography Children's nursing Adult nursing Paramedic Midwifery Dietetics MH nursing	October 2015

Individual students were only involved in one element of data collection, as the study was conducted over a number of years, spanning several cohorts.

10.3 Appendix 3: Questionnaire

Does the module ‘Enhancing Health and Social Care through Interprofessional Education (IPE)’ have an effect on students’ attitudes towards collaboration?

Questionnaire instructions

The aim of this questionnaire is to gain an understanding of students’ attitudes towards collaborating with other professionals. Your completion and return of this questionnaire will be taken as consent to take part in the study. Your participation is greatly appreciated and all answers will be treated in the strictest confidence.

It should take no longer than 10 minutes to complete the questionnaire and when you have done so please post it in the sealed box provided at the front of the room. If you wish to take a while longer completing the questionnaire, there will be a sealed box in the foyer of the auditorium at the beginning of the IPE week.

Please use the tick boxes provided.

Thank you for taking the time to complete the questionnaire

Questionnaire Section 1

Unique Identifier (to enable comparison of data across collection points)

- (i) Write your day and month of birth as a 4 digit number e.g. 19th March is 1903 (write one digit in each box)

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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- (ii) Where did you go for your last holiday?
.....

Questionnaire Section 2

Demographic data

- (i) Indicate your gender (please circle one answer)

Male Female

- (ii) Age group (please circle one answer)

Under 20 21-30 years 31-40 years over 40

- (iii) Professional group (please circle one answer)

Nurse Paramedic Pharmacist

Questionnaire Section 3

Questions about student nurses

1 I would describe nursing students as; (tick one box)

- Very compassionate (4)
- Quite compassionate (3)
- Slightly compassionate (2)
- Not compassionate (1)

2 For each of the pairs of characteristics below tick one box that best matches your view of a typical nursing student.

	Extremely (3)	Very (2)	A little (1)	Neither (0)	A little (-1)	Extremely (-3)	
(a) kind							unkind
(b) dominant							submissive
(c) respectful							disrespectful
(d) caring							uncaring
(e) devoted							indifferent
(f) confident							hesitant
(g) approachable							unapproachable
(h) arrogant							humble
(i) academically superior							academically inferior
(j) hard working							lazy

3 How much do you agree that student nurses are;

	Strongly disagree (2)	Disagree (1)	Neither agree nor disagree (0)	Agree (-1)	Strongly agree (-2)
(a) Good team workers					
(b) Poor listeners					
(c) Good at taking responsibility					

Questionnaire Section 4

Questions about paramedic students

1 I would describe paramedic students as; (tick one box)

- Very compassionate (4)
- Quite compassionate (3)
- Slightly compassionate (2)
- Not compassionate (1)

2 For each of the pairs of characteristics below tick one box that best matches your view of a typical paramedic student.

	Extremely (3)	Very (2)	A little (1)	Neither (0)	A little (-1)	Extremely (-3)	
(a) kind							unkind
(b) dominant							submissive
(c) respectful							disrespectful
(d) caring							uncaring
(e) devoted							indifferent
(f) confident							hesitant
(g) approachable							unapproachable
(h) arrogant							humble
(i) academically superior							academically inferior
(j) hard working							lazy

3 How much do you agree that student paramedics are;

	Strongly disagree (2)	Disagree (1)	Neither agree nor disagree (0)	Agree (-1)	Strongly agree (-2)
(a) Good team workers					
(b) Poor listeners					
(c) Good at taking responsibility					

Questionnaire Section 5

Questions about student pharmacists

1 I would describe pharmacy students as; (tick one box)

- Very compassionate (4)
- Quite compassionate (3)
- Slightly compassionate (2)
- Not compassionate (1)

2 For each of the pairs of characteristics below tick one box that best matches your view of a typical pharmacy student.

	Extremely (3)	Very (2)	A little (1)	Neither (0)	A little (-1)	Extremely (-3)	
(a) kind							unkind
(b) dominant							submissive
(c) respectful							disrespectful
(d) caring							uncaring
(e) devoted							indifferent
(f) confident							hesitant
(g) approachable							unapproachable
(h) arrogant							humble
(i) academically superior							academically inferior
(j) hard working							lazy

3 How much do you agree that pharmacy students are;

	Strongly disagree (2)	Disagree (1)	Neither agree nor disagree (0)	Agree (-1)	Strongly agree (-2)
(a) good team workers					
(b) poor listeners					
(c) good at taking responsibility					

Questionnaire Section 6

Questions about medical students

1 I would describe medical students as; (tick one box)

- Very compassionate (4)
- Quite compassionate (3)
- Slightly compassionate (2)
- Not compassionate (1)

2 For each of the pairs of characteristics below tick one box that best matches your view of a typical medical student.

	Extremely (3)	Very (2)	A little (1)	Neither (0)	A little (-1)	Extremely (-3)	
(a) kind							unkind
(b) dominant							submissive
(c) respectful							disrespectful
(d) caring							uncaring
(e) devoted							indifferent
(f) confident							hesitant
(g) approachable							unapproachable
(h) arrogant							humble
(i) academically superior							academically Inferior
(j) hard working							lazy

3 How much do you agree that medical students are;

	Strongly disagree (2)	Disagree (1)	Neither agree nor disagree (0)	Agree (-1)	Strongly agree (-2)
(a) Good team workers					
(b) Poor listeners					
(c) Good at taking responsibility					

Questionnaire Section 7

For the following questions tick one box that best matches your view

	Strongly disagree (2)	Disagree (1)	Neither agree nor disagree (0)	Agree (-1)	Strongly agree (-2)
(1) Collaboration in healthcare is easy					
(2) I need to learn more about collaborating with other professionals					
(3) Learning to collaborate with other professionals is important					
(4) Team working skills are important in health care					
(5) My team working skills are good					
(6) Good communication skills are important in healthcare					
(7) My communication skills are good					
(8) I know about nurses' professional role					
(9) I know about pharmacists' professional role					
(10) I know about paramedics' professional role					
(11) I know about a doctors' professional role					

Thank you for taking the time to complete this questionnaire

10.4 Appendix 4: Letter requesting participation

Does the module ‘Enhancing Health and Social Care through Interprofessional Education (IPE)’ have an effect on students’ attitudes towards collaboration?

Hello All

As part of my doctorate I am investigating whether the enhancing health and social care through interprofessional education module has an effect on students’ attitudes towards collaboration. At the beginning and end of the first IPE teaching week I will be asking you to complete and return a short questionnaire. The questionnaires will be asking your views about students from other professions.

There is no requirement to either complete or return a questionnaire. All questionnaires will be strictly anonymous, and the data will only be used as part of my studies. I will not be analysing any of the data until after the examination boards.

I would be grateful if you would take the time to complete and return the questionnaires. If you do decide to take part your completion and return of the questionnaires will be taken as consent to use the information you give. You are free to withdraw at any stage before submitting your completed questionnaires, however once you have posted the questionnaire into the sealed box you will not be able to withdraw from the study. A decision to not take part at all, will not affect any of your teaching or progress on the module.

If you decide to take part in this study, you will be involved for approximately 10 minutes. Each questionnaire should take no longer than 7-10 minutes to complete.

After data collection, the supervisor will keep the questionnaires in a locked cabinet as stated in the university guidelines. These will then be destroyed when the study is complete.

Thank you

Names and contact details removed to maintain confidentiality

10.5 Appendix 5: Detailed numerical scores of questionnaires.

Interpretation of tabulated data.

In the following tables the question number is indicated in the first column. For each question (2 a-j and 3a-c) a numerical score was assigned (see notations in italics on questionnaire). The mean of these scores for each question was calculated in SPSS. The standard deviation indicates the spread of the data. The Z value is a standardized score that describes how many standard deviations away the second score is from the first (a large Z scores indicates a bigger change in opinion). The p-value indicates whether the change is random or if it indicates some significance. Where the p-value is less than 0.05 the result is regarded as significant. In general, a significant value will have a relatively large change in the mean, with a decrease in the standard deviation between the two questionnaires.

Nurses on nursing students						
Question number	Pre-course		Post-course		Z-value	p-value
	Mean	S.D.	Mean	S.D.		
1	3.69	0.47	3.76	0.43	-1.34	0.180
2a	2.19	0.59	2.43	0.55	-2.67	0.008
2b	1.41	0.89	1.48	0.80	-0.50	0.616
2c	2.29	0.64	2.36	0.58	-1.00	0.317
2d	2.52	0.55	2.52	0.55	0.00	1.000
2e	2.33	0.61	2.31	0.78	-0.26	0.793
2f	1.79	0.68	2.02	0.72	-1.91	0.056
2g	2.05	0.85	2.36	0.62	-2.56	0.011
2h	-0.52	1.44	-0.71	1.52	-1.06	0.292
2i	-0.60	0.89	1.00	1.08	-2.02	0.043
2j	2.31	0.90	2.50	0.59	-1.40	0.162
3a	1.17	1.03	1.29	1.22	-1.15	0.248
3b	-1.05	0.88	-1.29	0.86	-1.79	0.073
3c	0.98	1.00	1.00	1.01	-0.55	0.580

The data demonstrated in this table indicates that when nurses considered other nurses there were significant increases in perceived levels of kindness, approachability and level of academic ability (figures in bold).

Nurses on medical students						
Question number	Pre-course		Post-course		Z-value	p-value
	Mean	S.D.	Mean	S.D.		
1	2.83	0.61	3.11	0.67	-2.05	0.041
2a	1.50	0.51	1.75	0.77	-2.18	0.029
2b	1.97	1.13	2.11	0.78	-0.50	0.615
2c	1.42	0.87	1.83	0.77	-2.72	0.007
2d	1.53	0.77	1.78	0.80	-1.97	0.049
2e	2.28	0.66	2.22	0.64	-0.54	0.593
2f	2.06	1.12	2.39	0.64	-1.62	0.106
2g	0.83	1.16	1.33	1.04	-2.33	0.020
2h	1.06	1.12	0.89	1.14	-0.80	0.422
2i	2.00	0.93	2.25	1.00	-1.93	0.053
2j	2.17	0.65	2.36	0.59	-1.70	0.090
3a	0.64	0.64	0.75	0.94	-1.01	0.315
3b	-0.47	0.77	-0.44	1.00	-0.20	0.844
3c	0.64	1.02	1.08	0.77	-2.23	0.026

The data demonstrated in this table indicates that when nurses considered medical students there were significant increases in perceived levels of compassion, kindness, respectfulness, caring, approachability, academic ability, ability to take responsibility (figures in bold).

Nurses on paramedic students						
Question number	Pre-course		Post-course		Z-value	p-value
	Mean	S.D.	Mean	S.D.		
1	2.95	0.57	3.19	0.74	-2.18	0.029
2a	1.81	0.81	1.92	0.72	-0.94	0.346
2b	1.87	0.95	1.68	0.91	-1.54	0.124
2c	1.89	0.66	2.00	0.67	-1.00	0.317
2d	1.62	0.83	1.87	0.79	-2.07	0.039
2e	2.00	0.82	2.32	0.53	-2.45	0.014
2f	2.30	0.88	2.22	0.82	-0.47	0.635
2g	1.89	0.70	1.81	0.97	-0.26	0.798
2h	0.41	1.26	-0.03	1.14	-2.38	0.017
2i	0.89	0.97	0.95	1.00	-0.47	0.637
2j	2.01	0.64	2.24	0.60	-1.90	0.058
3a	0.95	0.78	1.05	0.85	-1.24	0.217
3b	-0.68	0.91	-0.78	0.89	-0.56	0.575
3c	0.97	0.93	0.92	0.83	-0.16	0.872

The data demonstrated in this table indicates that when nurses considered paramedic students there were significant increases in perceived levels of compassion, caring, devotion and a significant decrease in how arrogant paramedics were thought to be (figures in bold).

Nurses on pharmacy students						
Question number	Pre-course		Post-course		Z-value	p-value
	Mean	S.D.	Mean	S.D.		
1	2.13	0.70	2.66	0.85	-3.10	0.002
2a	1.05	0.93	1.71	0.90	-3.34	0.001
2b	1.32	1.12	1.13	1.07	-1.13	0.260
2c	1.42	0.86	1.71	0.84	-2.52	0.012
2d	0.74	1.01	1.37	0.97	-2.86	0.004
2e	1.74	0.86	1.90	0.89	-1.02	0.310
2f	2.03	0.64	1.97	0.82	-0.33	0.745
2g	0.87	1.12	1.71	0.65	-3.79	0.000
2h	0.58	1.20	-0.08	1.36	-2.38	0.017
2i	1.53	1.22	1.44	0.95	-0.44	0.660
2j	1.68	0.81	2.03	0.68	-2.31	0.021
3a	0.11	0.95	0.84	0.97	-3.12	0.002
3b	-0.29	0.77	-0.79	0.87	-2.82	0.005
3c	0.37	0.97	0.76	0.82	-1.88	0.060

The data demonstrated in this table indicates that when nurses considered pharmacy students there were significant increases in perceived levels of compassion, kindness, respect, caring, approachability, work ethic, and team-working. There was a significant decrease in how arrogant pharmacy students were perceived and also a significant decrease in the perception of their being poor listeners (figures in bold).

Pharmacists on pharmacy students						
Question number	Pre-course		Post-course		Z-value	p-value
	Mean	S.D.	Mean	S.D.		
1	3.63	0.59	3.63	0.59	0.00	1.000
2a	2.34	0.78	2.29	0.73	-0.50	0.614
2b	1.37	1.28	1.13	1.14	-1.22	0.222
2c	2.45	0.60	2.32	0.70	-1.06	0.290
2d	2.24	0.75	2.29	0.73	-0.47	0.637
2e	2.32	0.70	2.18	0.83	-0.97	0.333
2f	2.21	0.78	2.18	0.80	-0.26	0.797
2g	2.32	0.93	2.34	0.71	-0.05	0.963
2h	-0.76	1.73	-0.34	1.48	-1.73	0.084
2i	1.53	1.18	1.26	1.11	-1.59	0.111
2j	2.34	0.85	2.18	0.87	-1.60	0.109
3a	1.42	0.55	1.29	0.84	-1.16	0.248
3b	-1.11	1.09	-1.00	0.90	-0.95	0.340
3c	1.40	0.59	1.45	0.60	-0.58	0.564

The data demonstrated in this table indicates that when pharmacy students considered other pharmacy students there were no significant changes in any attributes.

Pharmacists on nursing students						
Question number	Pre-course		Post-course		Z-value	p-value
	Mean	S.D.	Mean	S.D.		
1	3.00	0.48	3.36	0.72	-2.48	0.013
2a	1.86	0.59	1.94	0.98	-0.71	0.478
2b	0.92	1.20	1.14	1.02	-1.20	0.232
2c	1.75	0.97	1.86	1.07	-0.46	0.643
2d	1.92	0.94	2.19	0.79	-1.43	0.152
2e	1.86	0.87	2.11	0.89	-1.11	0.266
2f	1.50	1.03	2.06	0.75	-2.21	0.027
2g	1.44	1.36	1.97	1.00	-1.94	0.053
2h	-0.42	1.42	-0.06	1.45	-1.36	0.174
2i	0.03	0.94	0.31	1.21	-1.28	0.200
2j	1.67	1.10	1.81	1.09	-0.35	0.729
3a	0.94	0.47	1.11	0.82	-1.42	0.156
3b	-0.36	0.83	-0.78	0.96	-2.18	0.029
3c	0.56	0.73	0.89	0.75	-2.03	0.042

The data demonstrated in this table indicates that when pharmacy students considered nursing students there were significant increases in perceived levels of compassion, confidence, approachability, and taking responsibility, while there was a decrease in the perception of their being poor listeners (figures in bold).

Pharmacists on medical students						
Question number	Pre-course		Post-course		Z-value	p-value
	Mean	S.D.	Mean	S.D.		
1	3.24	0.79	3.28	0.59	-0.31	0.755
2a	1.69	0.85	1.76	1.09	-0.22	0.825
2b	2.00	0.96	1.79	1.15	-1.11	0.265
2c	1.86	0.83	1.79	1.29	-0.23	0.816
2d	1.97	0.78	1.93	1.00	-0.41	0.684
2e	2.17	0.80	2.07	1.03	-0.77	0.439
2f	2.00	1.28	2.14	0.92	-0.52	0.606
2g	1.38	0.98	1.45	1.24	-0.20	0.842
2h	0.45	1.45	0.45	1.57	-0.12	0.903
2i	1.69	1.34	1.38	1.27	-1.05	0.293
2j	2.00	1.25	2.14	0.95	-0.29	0.773
3a	0.66	0.94	0.83	1.04	-1.29	0.197
3b	-0.48	0.87	-0.72	0.88	-1.21	0.225
3c	1.00	0.80	1.00	0.96	0.00	1.000

The data demonstrated in this table indicates that when pharmacy students considered medical students there were no significant changes in any attributes.

Pharmacists on paramedic students						
Question number	Pre-course		Post-course		Z-value	p-value
	Mean	S.D.	Mean	S.D.		
1	2.94	0.63	3.28	0.74	-2.48	0.013
2a	1.69	0.86	1.58	1.52	-0.17	0.863
2b	0.83	0.97	0.89	1.26	-0.31	0.756
2c	2.19	0.75	1.83	1.30	-1.53	0.126
2d	1.94	0.79	1.78	1.27	-0.48	0.630
2e	1.89	0.95	1.97	1.28	-0.38	0.701
2f	2.14	0.68	2.03	1.25	-0.42	0.677
2g	1.56	1.18	1.97	0.91	-1.57	0.117
2h	0.00	1.43	-0.14	1.46	-0.54	0.587
2i	0.64	1.07	0.47	1.13	-0.80	0.424
2j	2.06	0.79	1.89	1.26	-0.71	0.475
3a	0.97	0.88	1.17	0.81	-1.43	0.154
3b	-0.72	0.70	-0.83	0.91	-0.77	0.443
3c	0.89	0.67	1.22	0.87	-2.68	0.007

The data demonstrated in this table indicates that when pharmacy students considered paramedic students there were significant increases in perceived levels of compassion and ability to take responsibility (figures in bold).

10.6 Appendix 6: Cronbach Alpha (α) Scores

Question 2 – pre-module questionnaire		
	α score	α Score after removal of item (h)
Section 3 (student nurses)	0.71	0.76
Section 4 (paramedic students)	0.74	0.78
Section 5 (pharmacy students)	0.64	0.79
Section 6 (medical students)	0.61	0.74

Question 2 – mid-module questionnaire		
	α score	α Score after removal of item (h)
Section 3 (student nurses)	0.61	0.80
Section 4 (paramedic students)	0.71	0.80
Section 5 (pharmacy students)	0.71	0.81
Section 6 (medical students)	0.82	0.85

In order to assess the internal consistency i.e. the reliability, of the questionnaire, and the extent to which the sub-scales were interpreted in the same way, Cronbach's alpha was calculated for question two (Tavakol and Dennick, 2011; Cronbach, 1990). The figures in Appendix 5 indicate that removal of item (h) 'arrogant... humble' results in a satisfactory score, as a figure below 0.7 is indicative of inconsistency (Mahler et al, 2015). It is thought this may be due to the reverse scoring of this item.

10.7 Appendix 7: Example of Excel™ spreadsheet illustrating data extraction from students' pictures

Student Number	Student Professional	Picture	Facial expression			Hairstyle			Clothes			Indicators		Head gear	Artefacts	Other
			Up	Neutral	Down	Male	Female	Neut	Male	Female	Neutra	Sexuali	Intelliger			
1	MH nurse	Doctor		1		1				1					stethoscope	
2	MH nurse	Doctor		1		1					1				stethoscope	
3	MH nurse	Doctor			1				1	1						
4	MH nurse	Doctor		1		1				1					stethoscope	
5	MH nurse	Doctor			1	1				1					stethoscope	
6	MH nurse	Doctor			1			1			1		spectacles		stethoscope bag	
7	MH nurse	Doctor			1			1			1				stethoscope bag	
8	MH nurse	Doctor			1			1	1						stethoscope clipboard pens	clipboard pens
9	MH nurse	Doctor	1					1			1				stethoscope clipboard pens	
10	MH nurse	Doctor	1			1					1				stethoscope badge saying doctor	
11	MH nurse	Doctor			1			1			1				stethoscope	
12	MH nurse	Doctor	1					1			1				stethoscope	

10.8 Appendix 8: Notice on studynet – request for student volunteers to take part in focus group

An examination of the extent to which a Health and Social Care Interprofessional Education (IPE) module influences students' attitudes towards collaboration

As part of my doctorate I am investigating whether the enhancing health and social care through interprofessional education module influences students' attitudes towards collaboration.

I would like to ask you to volunteer to take part in a focus group to discuss the above title. The first respondent from each profession (adult nursing, mental health nursing, dietetics, paramedic science, midwifery, social work, physiotherapy, diagnostic radiography, radiotherapy radiography) to reply to this message will be invited to take part. There will be a maximum of nine participants.

Participants will be selected from the responses gained and notified of their selection within one week. Selected students will be sent a personalised invitation. It is intended that the focus groups will be held in a study room of the College Lane LRC. Each participant will be paid the sum of £20 cash at the end of the focus group and asked to sign a form confirming receipt of payment. Seasonal refreshments will be included during the session.

During the focus group field notes will be made. The session will be recorded on a digital voice recorder and recordings will only be accessed by myself and my supervisory team. All data will be strictly anonymous, and the data will only be used as part of my studies. I will not be analysing any of the data until after the final (referred/deferred) examination boards in July.

Students who do decide to take part will be asked to sign a consent form. You will be free to withdraw at any stage before the conclusion of the focus group. A decision to not take part will not affect any of your teaching or progress on the module. If you decide to take part in this study, you will be involved for approximately one hour. After data collection, the supervisor will keep the data files in a locked cabinet as stated in the university guidelines. These will then be destroyed when the study is complete.

If you are interested in developing knowledge and understanding of Interprofessional education and furthering your experience of the focus group as a data collection method please reply to this message.

Thank you

Jenny Lorimer

Supervisor

(contact details deleted)

10.9 Appendix 9: Confirmation to students to take part in a focus group

An examination of the extent to which a Health and Social Care Interprofessional Education (IPE) module influences students' attitudes towards collaboration

Thank you for volunteering to take part in a focus group to discuss the above title. You will be joined at the group by the first respondent from each of the other professions to a maximum of nine participants.

The focus group will be held at..... on..... in and it will last for approximately one hour.

Each participant will be paid the sum of £20 cash at the end of the focus group and asked to sign a form confirming receipt of payment. Seasonal refreshments will be included during the session. Please let me know if you have any specific dietary requirements.

During the focus group field notes will be made concerning contextual data such as where participants are sitting. The session will be recorded on a digital voice recorder and recordings will only be accessed by myself and my supervisory team. All data will be strictly anonymous, and the data will only be used as part of my studies. I will not be analysing any of the data until after the final (referred/deferred) examination boards in July.

You will be asked to sign a consent form. You will be free to withdraw at any stage before the conclusion of the focus group. A decision to not take part will not affect any of your teaching or progress on the module.

After data collection, the supervisor will keep the data files in a locked cabinet as stated in the university guidelines. These will then be destroyed when the study is complete.

I look forward to meeting and working with you

Jenny Lorimer

Supervisor

(contact details deleted)

10.10 Appendix 10: Request to IPE module staff to participate in a focus group

An examination of the extent to which a Health and Social Care Interprofessional Education (IPE) module influences students' attitudes towards collaboration

As part of my doctorate I am investigating whether the enhancing health and social care through interprofessional education module influences students' attitudes towards collaboration.

I would like to ask you to volunteer to take part in a focus group to discuss the above title. There will be a maximum of nine participants.

Participants will be selected from the responses gained and notified of their selection within one week. It is intended that the focus groups will be held in a study room of the College Lane LRC. Each participant will be given a small gift at the end of the focus group. Seasonal refreshments will be included during the session.

During the focus group field notes will be made concerning contextual data such as where participants are sitting. The session will be recorded on a digital voice recorder and recordings will only be accessed by myself and my supervisory team. All data will be strictly anonymous, and the data will only be used as part of my studies.

If you do decide to take part will be asked to sign a consent form. You will be free to withdraw at any stage before the conclusion of the focus group. it is expected that the focus group will last for approximately one hour.

After data collection, the supervisor will keep the data files in a locked cabinet as stated in the university guidelines. These will then be destroyed when the study is complete.

If you are interested in taking part please reply to this message.

Thank you

Jenny Lorimer

Supervisor

(contact details deleted)

10.11 Appendix 11: Confirmation to IPE module staff to take part in a focus group

An examination of the extent to which a Health and Social Care Interprofessional Education (IPE) module influences students' attitudes towards collaboration

Thank you for volunteering to take part in a focus group to discuss the above title. You will be joined at the group by other members of the teaching team from the other professions to a maximum of nine participants.

The focus group will be held at on in and it will last for approximately one hour.

Each participant will be given a small gift at the end of the focus group. Seasonal refreshments will be included during the session. Please let me know if you have any specific dietary requirements.

During the focus group field notes will be made concerning contextual data such as where participants are sitting. The session will be recorded on a digital voice recorder and recordings will only be accessed by myself and my supervisory team. All data will be strictly anonymous, and the data will only be used as part of my studies. I will not be analysing any of the data until after the final (referred/deferred) examination boards in July.

You will be asked to sign a consent form. You will be free to withdraw at any stage before the conclusion of the focus group. After data collection, the supervisor will keep the data files in a locked cabinet as stated in the university guidelines. These will then be destroyed when the study is complete.

I look forward to working with you on this project

Jenny Lorimer

Supervisor

(contact details deleted)

10.12 Appendix 12: Pre-planned questions designed for the two focus groups

Student focus group	Staff focus group
Are you in your final year of study?	What profession are you from?
Where do you want to work when you are qualified?	How many years have you taught on this IPE module?
Please give an example of collaboration you have encountered while on placement.	Please give an example of collaboration you have encountered in your professional working life
Did the collaboration make a difference to the service user?	Does collaboration make a difference to the service user? If so, in what ways?
What do you think collaboration means?	What do you think collaboration means?
What knowledge and skills are needed for collaboration?	What knowledge and skills are needed for collaboration?
What are the barriers to collaboration?	What are the barriers to collaboration?
What activities on the IPE module were important in your learning, and what did they teach you?	What activities do you think are important to the students in their learning on the IPE module?
How do you think you might behave differently on placement as a result of IPE?	How do you think the students might behave differently on placement as a result of IPE?
If you were asked about your ability to collaborate at a job interview for your chosen profession what would you say?	If you were asking a question about a candidate's ability to collaborate at a job interview you're your chosen profession what would you look for in an answer?

10.13 Appendix 13: Table demonstrating initial data extraction process and ascribed inferences (student focus group)

Type of data	Brief description	Advantages	Limitations
Articulated	Material given in direct answer to either the moderator's, or other participant's questions. Will commonly include opinions, attitudes and experiences	Relatively easy to draw inferences and increase understanding.	Relies on the use of good questions and spoken (rather than unspoken) content.
Attributional	Material given that alludes to a question in an indirect way. May come from a desire not to be critical or controversial. May arise out of group interaction.	Focus group needs to be structured to allow to occur	Analysis needs to demonstrate the logic of attribution. Requires greater level of inference, so may be discounted or incorrectly attributed.
Emergent	Unanticipated material that arises out of group interaction and may be of importance to individual cultures and values. May create new insights.	Allows greater understanding and most closely related to interaction	Can be most easily misinterpreted and needs careful justification

Type of data	Brief description	Data extract	Inference
Articulated Material given in direct answer to either the moderator's, or other participant's questions. Will commonly include opinions, attitudes and experiences	Collaboration on placement	<p>Collaboration between the pharmacist and the GP which helped the customer to understand why the formulation was changed...and those reasons were passed on to the customer and he was quite happy with it.</p> <p>It's like an everyday thing</p> <p>Sometimes it's the receptionist as well and you have to speak to them to get to the doctor... or sometimes it's the nurse prescriber or something else</p> <p>all the MDTs coming together to give a progress of a patient so there was collaboration...everyone involved in the persons care all come together and sit around a setting like this and they give a progress of where the patient has gotten to, what the next step of the patient is going is going to be. So its communication and working together</p> <p>I have witnessed many examples...but what stayed with me was during a certain placement it was a specialist placement... so the patient actually took an active role in its own care and that stayed with me.</p>	<p>Collaboration having impact on SU</p> <p>Observed and regarded as common</p> <p>Not just recognised professionals</p> <p>Everyone involved in SU care</p> <p>Meet together</p> <p>Communication and working together</p> <p>Common occurrence</p> <p>Example including the SU</p>

	Collaboration on placement	<p>hospital and there was a nurse came up to the pharmacist and she gave him the drug chart and said this patient cannot swallow now ... to see which tablets could be crushed or if they could use a different formulation and the nurse was able to give them to the patient.</p> <p>the stroke unit for all of our patients that's really a major interprofessional working environment, there a lot of professions, who really have to work together to get a good discharge or result and that has to be quick as well for a stroke because the past few weeks are the most vital, so people have really got to be top of their game. I think that's the best time I've seen it.... she asked me if I wanted to go with her to watch to see the way she did it, like the method and I think that was much better than her going and checking and writing down everything.... so, it was really good that they were teaching us the basics that we could do every day on the ward. I think that's really important interprofessional</p> <p>I think for me it was a good collaboration because I was easily able to ring the pharmacist and doctor my mentor let me do it, this is your patient, so you need to make sure, the patient is given morphine</p> <p>we work with a lot of different teams on a regular basis, so my example might be, I was in a day centre with one man who was on my case load and he might have needs we can't address like drug and alcohol needs and we would call in that team and work closely with them</p> <p>they kept an eye on our patient throughout her stay at A&E so it was good, it was really important for us to have that communication with them every single day to know what was going on with the patient if they were safe, was their care being provided as it needed to be,</p> <p>thanks to the collaboration of the team who was involved to do the job, is part of his role ...the result and if it was to benefit the patient who had to have the morphine</p> <p>the meeting that we had, the patient was about to go to the community, so he was told what services would be available for them ... to know that, so this is what they have done since they've been there, this is where they have got to, this is where they are going... But also, to give them a choice of where they are going, not just telling them, you'll be going there, but what do you think about going there, do you have any other ideas, asking their carers what do they think and working together so that the patient is going somewhere not only where they want to be but is also best for them as well. So, I think that's another good thing</p> <p>and a shared objective so, thinking of the stroke unit again, there was a meeting each week where all the professions could get together and decide on the discharge date... that's going to prolong their discharge, prolonging discharge, staying in hospital...you see it before your eyes. and you know people can die, it was</p>	<p>IP collaboration to modify usual practice</p> <p>Stroke unit as interprofessional environment Have to work together to achieve good result Have to be quick People at top of their game Different profession demonstrating a technique-teaching the basics (instead of writing instructions)</p> <p>Asking advice from another profession Responsibility and accountability</p> <p>Collaboration as regular occurrence SU with needs that one profession can't address Work closely with other professions</p> <p>Joint working to manage SU Communication important Keeping SU safe</p> <p>Collaboration to benefit the SU</p> <p>Joint meeting to manage SU care Include SU Collaboration to allow SU choice Collaboration with carers Joint decision making</p> <p>Shared objective Regular joint meetings Joint decision making</p>
	Collaboration on placement		

		<p>really difficult, it's an important balance but one I saw in the community, we noticed poor care, it was quite linked to the way they were using the bed...but to prove that they weren't using the equipment properly we had to get OT in, so occupational therapy had to assess that all the equipment was not appropriate, was not being used properly so then we could take forward that and that's really important because pressure ulcers are not good</p> <p>so it can improve their compliance because if the nurse was to go on trying to look up different guidelines they might not know where to go, if they do then it might just take them that bit longer because it's not something they do every day whereas the pharmacist....an awful lot quicker and get the patient to take the medicine on time</p> <p>Working together, for one goal</p> <p>giving helping hand to reach the aims and objectives and to produce something</p> <p>I'd say that it involves patients as well, I'd say collaborating not only with other professions but also with the patient themselves to work towards a shared goal</p> <p>collaboration involves people working of their own accord, individuals or other things towards achieving a greater goal</p> <p>Communication</p> <p>Strong communication skills and trust and honesty as well. So if someone is being honest you are going to trust them more ...plus it involves knowledge as well so the more knowledge you have the easier collaboration</p> <p>knowledge about different business skills or information about interactions on the clinical knowledge that will add to my knowledge as well.</p> <p>I was going to say knowledge about conflict resolution is very important and needed in collaboration</p> <p>Definitely knowing when to step back or you know</p> <p>be an advocate for the patient, you can't always step back so, but I think a big skill, and a big knowledge for me is understanding other people's roles, so that you do find quite a lot on placement that people don't fully understand your role, so they don't know who to call when they need something done.</p> <p>in my experience has been hierarchies, I think like it's an age-old sort of model that the doctor is at the top, nurses are lower than that</p>	<p>Shared management of SU Sharing knowledge and expertise</p> <p>Improving care Working with other professions to share knowledge more timely care More efficient use of time</p> <p>Working together; Single goal Help each other to reach goal</p> <p>Involves SU Shared goal</p> <p>Individual working can achieve greater goal</p> <p>Communication</p> <p>Good communication skills; Trust; Honesty Knowledge More knowledge makes easier collaboration</p> <p>Knowledge Interactions in clinical environment</p> <p>Conflict resolution</p> <p>Knowing when to step back</p> <p>Advocacy Knowing others roles</p> <p>Hierarchy as barrier, traditional model, doctors at top</p>
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		<p>Scary guys</p> <p>a hierarchy and I think it's quite ingrained in the medical field and surgical as well. So I think that can be quite a large barrier, maybe not appreciating other people's roles because you're higher than them and such</p> <p>I've got something to say, but no-one's going to listen to you. Nobody wants to hear what you have to say because you are only....</p> <p>Because you are nothing, you are just a student and you don't have experience to be a nurse or a doctor the nurse is in charge of the patient, the sister... spending time with the doctor and the patient and you might have something to say but nobody wants to listen to you</p> <p>I think ill-defined roles, your own or others, when you don't know what your role is, your limitations and your boundaries, or what others' roles are, you're having a big barrier here</p> <p>I think being assertive can sometimes be a barrier because for example if a doctor asks me to do something, but I don't feel confident enough I would hope that I would confident enough to pass it on to another member of the team to ensure that patients' needs were being met regardless, of that I don't feel confident</p> <p>sessions may be with the smaller groups with other professions with scenarios or activities, so I realise what is the professional role of the nurse. That was really helpful</p> <p>because of the different skills from the different professionals and also, we were having different scenarios so that was really interesting how nurses interpret the scenario, how pharmacists, because we were looking more at the hospital for clinical stuff like medication, the nurses also were thinking about the service users and different aspects so all of these different knowledges came together and it was really interesting</p> <p>what we learned was work as a team with the nurses in the hospital, certainly to meet the requirements and expectations of the service user</p> <p>It was understanding what the nurses point of view was, what they think about the services and the way they work with the pharmacist</p> <p>It gave me the outside the box perspective when you can see the service that you're providing from the service user perspective</p>	<p>Fear</p> <p>Hierarchy (in medicine) as significant barrier Influences appreciation of other's roles</p> <p>Hierarchy and lack of voice</p> <p>Consequences of limited experience; Lack of voice</p> <p>Limitations, role boundaries Lack of knowledge of other's roles</p> <p>Lack of confidence – potential to influence SU care</p> <p>Group work Learning about other professions</p> <p>Different spheres of knowledge Different perspectives Different professionals having different skills</p> <p>Team working to meet SU expectations</p> <p>Different perspective and different ways of working</p> <p>Seeing things from different (and SU) perspective</p> <p>Importance of SU perspective and voice</p>
	IPE activities		
	IPE activities		

	<p>the patient is very important because they have got something to say</p> <p>To get to see the impact of interprofessional collaboration working well</p> <p>Especially that man who came, looking after his wife. That was quite emotional. Yes definitely</p> <p>Because you can feel ... from the patient perspective you can how your work what we do and the effect on the patient, how is it going to be important for them, for all you do in your role</p> <p>Dr ... I think he came and talked about how we can work as a team with the discharge. This helped me to understand the importance of collaboration</p> <p>it taught us a lot about what kind of care she was expecting at the hospital and all the care that was provided to her, so it teaches us we really have to take care of the patient in a certain way that is helpful</p> <p>you get into nurse brain and you don't consider other things and there was an activity where we had to there was a list of abbreviations... and I think you forget not everyone always knows what you are talking about and other people know different things to you. So that was interesting.</p> <p>Dr ... kind of cemented the whole patient centred care model... showing them that everyone is collaborating towards that one goal it showed me like the way the way I want to practice when I am a pharmacist, I would want that for my family if they were in hospital</p> <p>I felt like the talk we got about not assuming someone else will do it, just do it yourself, be responsible, I think I will take that approach and take more responsibility</p> <p>I think it's to learning rely on other professionals' expertise... When I don't understand anything I just I know I can rely on pharmacists to explain it or spell it for me</p> <p>we will be working with different health care professionals and we will be speaking to them, so they will help us to build more confidence and that will help people who work with pharmacists to be more confident and also mutual understanding between a nurse, understand how they work and think and it will also encourage reflective practice</p> <p>when I qualify, it's not just going to me, I'm going to have to work with others so I'm going to have to appreciate everyone involved in the care of the patient to help</p>	<p>Positive impact of collaboration</p> <p>Inclusion of emotion</p> <p>How individuals work impacts on SU SU perspective</p> <p>Team working understanding importance of collaboration</p> <p>understanding SU expectations</p> <p>different areas of knowledge different perspectives</p> <p>patient centred care importance of single goal aspiration for future behaviour</p> <p>less assumptions taking more responsibility</p> <p>learning to relying on others' professionals ability to approach other professions for advice</p> <p>increased confidence, mutual understanding and reflection, understanding other professions</p> <p>Increased recognition of others Appreciation of others' roles</p>
Skills for collaboration		

		<p>the patient to move on.... everyone's role is important in helping the patient move on</p> <p>It's encouraged me to realise that I don't have to know everything, and I can ask other professionals who are going to know more than me about certain things, So, it's made me think I can ask other people and respect their expertise.</p> <p>This made me feel that I have to do my best and try to find a solution for every patient because they all have different needs</p> <p>I'm looking forward to when there are more people who have had IPE, when it's a bit further on, because you will come across a lot of people, hierarchy issues and that sort of thing, so after IPE has filtered through a bit more that sort of thing is going to move away and people are going to be more understanding and work together more.</p> <p>I was asked actually, it wasn't that particular question, but I was asked 'can you give an example where you worked effectively as a member of a multiprofessional team'. So, I gave some examples, but because as nurses you spend half the course on placement there are a lot of examples that you can pick up from the wide range of placements that you do and its always different each time with the people you work with so I think there's a lot of opportunities</p> <p>I have been promoted to team leader so there is collaboration between my manager, the deputy manager and the managers in the different departments that, so I have to work with all the managers... there's a lot of collaboration between me and the managers and the other people on the shop floor so I experience that every day.</p> <p>I would be able to exchange the specific relevant information rather than just using that communication protocol with the doctors when something goes wrong with the patient</p> <p>What the other professional would like to know.</p> <p>our collaboration would be a great benefit for the patient because each single profession can contribute differently, to the best available treatment and the patient can get the maximum benefit from this.</p> <p>Like using a tool or things like that to get yourself more confident, you've got so much experience in certain areas, using a tool such as SBAR or something to get so that you communicate properly would be a good example. Overcoming your own barriers when it comes to communicating with other professionals.</p>	<p>Appreciation of others' knowledge Confidence Respect</p> <p>Expectation of good performance Patient centred care</p> <p>IPE as important to culture change IPE to reduce hierarchies IPE to promoting collaboration</p> <p>Collaboration as common Placement providing opportunities to learn from collaboration, different each time</p> <p>Learning from experience</p> <p>Learning to communicate with other professions</p> <p>Learning with other professions</p> <p>Collaboration to benefit SU; professions making different contributions to maximise service</p> <p>Use of tools or strategies to gain confidence and develop communication skills; overcoming own barriers</p>
Barriers to collaboration			

Attributional Material given that alludes to a question in an indirect way. May come from a desire not to be critical or controversial. May arise out of group interaction.	<p>sometimes there is like synchronisation problems with the prescribing.... try and make it work sometimes it works and sometimes it doesn't work. I think it is an area that definitely needs to be improved</p> <p>it may sometimes build on their independence... they would be able to build therapeutic relationships with those people and you know, build on their independence and their recovery back into the life we all live.</p> <p>I think having a CPA though with all the different professions there it means they are all kind of on the same wavelength and it can give continuity of care and then the patient is comfortable and less anxious and confident in the professionals that they kind of know what they are doing</p> <p>and at the end of the day the patients they expect the pharmacist to be collaboration with them and talk though the contents that they provide the information to the patient so that they understand so the pharmacist he makes sure that the patient understands the information provided to them so that he can follow the process</p> <p>I think it's important when you all know each other's roles and</p> <p>So that is collaboration between the normal customer assistant and the pharmacist where the one is seeking knowledge from them</p> <p>Always let the other people talk and always express what they feel about and what you want to say about a situation because they may say something you would never think about or you might do it differently. Always listen to the other extremely carefully and then express your opinion and come up with a solution. I think it is very important in a professional team</p> <p>I was going to say that it's kind of like getting your opinion across and getting your ideas out there without but without being aggressive or anything like that, being constructive, critical.</p> <p>Helping not be judgemental also someone may have less understanding, their role or something, treat them as individuals, so then you understand them better, or work together better</p> <p>Communication and interpersonal skills are I think are the most important ones. Being assertive can overcome barriers rather than being a barrier</p> <p>And also, it will help us to remember things for example when we have examples of carers and we learn about their lives ...we have all these emotions we will remember it. Because we did like loads of lectures, and to be honest, I don't</p>	<p>Problems working together</p> <p>Supporting SU to recover</p> <p>Professions working together and similarly; continuity of care; SU less anxious and more confident in professionals</p> <p>Collaborating with the patient to ensure understanding and improve compliance</p> <p>Knowledge and understanding of other roles</p> <p>Sharing knowledge across professional boundaries</p> <p>Different perceptions Importance of listening Joint problem solving</p> <p>Communication, constructive</p> <p>Not being judgemental Treat as individuals Sharing knowledge to work together better</p> <p>Importance of communication and interpersonal skills Assertiveness to overcome barriers</p> <p>emotion in helping to remember, more memorable than lectures</p>
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		<p>remember a lot of things (laughter) like I remember more from the examples from the carers than the hours in the auditorium</p> <p>When we saw the guest speakers, I don't know, but for me I felt like it was weird, it was like I already had a connection, like I was looking after them already. I don't know how to explain it</p>	unexplainable emotional connection
Emergent Unanticipated material that arises out of group interaction and may be of importance to individual cultures and values. May create new insights.		<p>... so you end up blaming them and it becomes a blame game rather than actually working together to solve problems which we should do.</p> <p>I think the pharmacist, that's what he can do to collaborate with the GP to help the patients. In the hospital its more for the nurses to collaborate with the pharmacist and the doctors and they get more things to do to collaborate so that that makes a difference to the service user. On the other hand, in the community pharmacy all you can do is talk to the GP or do stuff like that to help the patient which makes a difference to the service user, but nurses they get more (opportunity) to make a difference to the service users.</p> <p>collaborating is being able to compromise, on what you know or what you think and believe, because to collaborate with people you can't stick to what you want or what you think to be, and so sometimes you need to be flexible to be able accept what people are thinking, what is needed to help them. It's very complex....</p> <p>Like negotiating, being open minded, trusting one another, you have to trust other people that they are going to perform their jobs correctly. I think instead of trying to think of other people's roles as well. I think the trust is really important. You can think sometimes that people want to take on the other person's role because they feel that person is not doing it fast enough</p> <p>agree I think it's important to not be afraid to ask for help in collaboration</p> <p>They assume someone else is doing it as they don't really know who is supposed to be doing it, who is responsible for these actions, so knowing one another roles as part of team, things can be done quicker and that is really important</p> <p>healthcare assistant she kind of, instead of accepting the collaboration she kind of saw it as a threat to, I'm a student nurse, who am I to kind of tell her what to do, and in fact she actually disengaged with what I asked her to do</p> <p>A lot of them feel they've been there for a long period of time so how dare we come in and delegate a task to them, so it's a bit of...</p> <p>Confrontational</p>	<p>Blaming other professions rather than working together to solve problems</p> <p>Different collaborative partnerships depending on type of placement to make a difference to the SU</p> <p>Compromise Flexibility complexity</p> <p>negotiating; Open minded; trust other professionals; Trust very important</p> <p>willingness to ask for help</p> <p>Assume instead of knowing who is responsible Knowing others' roles Things get done quicker</p> <p>Lack of authority making collaboration difficult</p> <p>Difference between knowledge and experience leading to confrontation</p>

		<p>when communication doesn't flow, so in the example that you have given there wasn't enough communication to, I don't know how to say it, because when I said break in communication it becomes a barrier,</p> <p>and people start treating you in a different way when you come back onto shift the barrier may be time because you have like a lot of prescriptions ...and then call the doctor, and they also very talk to him ...a barrier in community pharmacy and the workload</p> <p>communication as well so the way we have to deal with a lot of prescriptions, the doctor and the consultant and the receptionist will just say oh the doctor is busy... it depends on the person you are speaking to and the communication within the team is very important for the patient</p> <p>In some cases, I've experienced some nurses gossiping about each other or gossiping about doctors in front of the patient, and if I was that patient and I saw the doctor, I mean its human nature</p> <p>that's going to happen in a lot of clinical areas, everyone's not going to get on, there is going to be a conflict of personalities and that's going to happen, but I think it's just maintaining a mutual goal, concentrating on the patient.... It's the patient who is benefitting from the collaboration regardless of your personal feelings</p> <p>... deputy pharmacy and pharmacy manager and they have strong communication between each other and within the team in order to achieve the aims and objectives of the company</p> <p>that professionalism isn't it, you need to be more professional and not do that</p> <p>I think sort of being understanding, you know, the human factor, we all make mistakes but when you're working with other professions ...so being patient and understanding, and stepping back and saying, OK, let's resolve this together rather than playing the blame game</p> <p>It's all about support, we have to support each other because if you don't have that have that support you won't collaborate because you won't have anyone to rely on</p> <p>So, it made me ask myself so many questions, if I do qualify, what am I going to be doing... so, it made me question myself so many times. But I thought it was helpful that they came to talk to us to let us know. It wasn't just about us writing but it was about us seeing it as well</p> <p>If the patients tells you, what does it mean, what was it like for them It was personal</p>	<p>Breakdown in communication creating a barrier</p> <p>Difficulties working in a team</p> <p>Time and workload as barriers</p> <p>Communication as a barrier</p> <p>Workload making communication difficult</p> <p>Communication important for the patient</p> <p>Negative impact of gossip</p> <p>Personality conflict</p> <p>Su centred care, mutual goals</p> <p>Single (company) objectives</p> <p>Professionalism</p> <p>Tolerance</p> <p>Patience and understanding</p> <p>Resolving problems together</p> <p>Blame</p> <p>Mutual support and reliance</p> <p>Emotion in altering perception</p> <p>Personal experience</p> <p>Message is different when service user gives it</p>
	overcoming barriers		

		<p>I think emotion adds meaning and then meaning helps learning</p> <p>From the patients' perspective, emotion can make the difference between the way they perceive the service being provided as well</p> <p>I think I think it's one thing telling us to reflect on a patients' experience, and how we felt and what we could have done right and wrong and it's another service user telling you how, what they've been going through on their journey because then you get a different, the reflection is different</p> <p>I think the patient perspective, or the carer perspective, is really emotive it makes you remember, you know, our shared goal, it's all about the patient really and that reminds us what we're going through isn't just sort of paperwork, it's not just repetitive steps that you follow, that actually there's someone at the end of that and they could be affected</p> <p>We're still students so I think we're not always actively involved all the time, a lot of the time its observing other people interprofessionally working in placement so, reading or hearing about other people's feelings about their interprofessional working or someone has a lot of experience I think is quite beneficial</p> <p>you could tell me a story, but it would be your perspective, an outsiders perspective, but when they're telling the story themselves, emotionally it wants you make to want to help them, you take that on in your own practice</p> <p>I think when it comes to the activities, I think attitude was a big one, that I think was a big issue. I had a big issue with attitudes... people weren't into it, there were a lot of people not interested. People's attitudes towards IPE were like, well they felt like they didn't need to do it. I already do this in placement, so I don't need this... A lot of them seemed to be unable to relate to it.... it's very frustrating when you're wanting to participate and people in everyone else in your group are not interested</p> <p>it was quite good, we got on well, we spoke about where we want to work, what we actually do so it was quite interesting. I think the lecturer, the lady who took us; she was quite good as well, so she made us relax</p> <p>I think also because you're with different students in there I think sometimes you move away from the activity and you start asking each other about each other's courses and experiences.</p> <p>it was beneficial, it was interesting to learn about everyone else's roles because the nurses have a lot more placement than us and it's good to hear about their experiences and that helps us, and how we can help them</p>	<p>SU/carers perspective is emotional and more memorable; shared goals; patient centred care; service can affect a person</p> <p>As students not always actively involved; observing as a way of learning; learning about people's feelings is beneficial</p> <p>Emotional connection on SU telling own story (own perspective); empathy</p> <p>Learning from observation Learning from other people's feelings</p> <p>Su perspective involving emotion</p> <p>Some people unable to relate to, or not interested in IPE</p> <p>Group got on well; interesting; facilitator good, made students relax</p> <p>Not always activities, talking about experiences also important</p> <p>Interesting to learn about others' roles and from their experience; helps learning; learn how to help them</p>
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		<p>when you are collaborating in practice you don't always have time to have a five-minute chit-chat, so I think it was important to have that ice-breaker, but also to remember that in practice if you don't know someone, if you are not familiar with them you still have to work with them</p> <p>I think it would be good if we could get more variety in our teams to have specific exercises where you get us to do things to simulate collaboration in a sense.</p> <p>you will come across a lot of people, you know, hierarchy issues and that sort of thing. After IPE has filtered through bit more I think that's going to move away and people are going to be a bit more understanding and a bit more working together.</p>	<p>Icebreaker useful – familiarity? Even if not familiar, still have to work together</p> <p>More variety of professions in teams would be useful</p> <p>Specific exercises to simulate collaboration would be beneficial</p> <p>Influence of IPE to change culture issues such as hierarchy</p>
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10.14 Appendix 14: Summary of staff and student focus group comparison analysis

The summary table below demonstrates the inferences under each of the themes collated in a clustering process (Miles and Huberman, 1994). Identical inferences are paired onto the same row, for example the mention of hierarchy and its impact. Dissimilar inferences have been put into groups, for example the perceived challenges of collaboration. Some inferences contained identical words and phrases, but in different categories of the discussion, e.g. the students mentioned the need to modify usual practice as an aspect of collaboration, but the staff saw the same concept as a challenge. Where these were identified the text was italicised but were retained in the original group.

Aspects of collaboration	Staff comments	Student comments
	Shared goals	Shared objectives
	Common in practice	Common in practice
	Regular joint meetings	Regular joint meetings
	Sharing	Sharing knowledge and understanding
	Co-ordination	Working together closely
	Planning	Joint decision making
	SU centred care Improved SU outcomes	SU less anxious and more confident Increases SU understanding and compliance Keeping SU safe SU choice Includes SU Impact on SU
	<i>Mutual reliance</i> Intensive management Discussion Structured Own work depends on it Proximity Integral to practice Esp. in complex situations Essential	Extends beyond professionals Involves everyone Communication <i>Need to modify usual practice</i> Have to be quick Need to perform at best Being taught by other professionals (on practice) Asking other professionals Responsibility <i>Accountability</i> One profession can't address all needs Collaborating with carers Improving care More timely care More efficient Greater goal Continuity of care

Challenges in collaboration	Staff comments	Student comments
	Impact of hierarchy	Hierarchy
		Hierarchy causes lack of appreciation of others roles
	Communication difficult	Communication breakdown
	Difficult for newly qualified professionals	Limited experience
	Time	Time
	Fear	Fear
	Personal and professional differences Staff movement problematic Professional reputation important Lack of appreciation and respect No single person in charge Lack of understanding Lose of professional identity Only see elements –don't see whole picture SU perspective as a luxury Conflicting information <i>Prepared to work in a different way</i> SU as passive Collaboration not really acknowledged <u>Most</u> parties well motivated Lack of clear goal Different objectives Diversity/different practice Different perspectives Thinking own is best 'interesting' Challenging for academic staff Not necessary for some professions Communication: Information transmission difficult	Role boundaries Blaming others Assumptions about other's roles Workload Lack of voice Lack of knowledge <i>Lack of confidence</i> Lack of authority

Skills required for collaboration	Staff comments	Student comments
	Listening	Listening
	Open-minded	Open minded
	Communication	Communication
	Trust	Trust
	Knowledge and understanding of other roles	Knowing others' roles
	Appropriately assertive	Assertiveness
	Willing to compromise	Willing to compromise
	Skills as common rather than profession specific	Interpersonal skills
	Flexible	Flexibility
	Able to see other perspectives	Honesty
	Knowledge and understanding of own role	Knowledge
	Comes with experience	Conflict resolution
	Respect	Knowing when to step back
	Patient	Advocacy
	<i>Confident in own role</i>	Reflection
	<i>Accountable</i>	Not being judgemental
	Leadership	Treat as individuals
		Sharing knowledge
		Negotiating

	Staff comments	Student comments
Relevant activities on IPE module	Group work and problem solving	Group work
	Informal time to build relationships	Talking also important
	Seeing other perspectives	seeing other perspectives Emotion to alter perspective
	Importance of interaction	Team working
	High impact sessions e.g. SU narratives (distance can help develop insight)	SU message different and memorable SU perspective SU expectations Emotion
	Sharing experiences Relating theory to practice Credibility of speakers – from practice Relevance to all professions not always clear	Learning about other professionals Different areas of knowledge Other professionals with different skills Different ways of working Positive impact and importance of collaboration Patient centred care Importance of single goal Source of aspiration Icebreaker useful Some people not interested or able to relate to Facilitator made students relax Learning to help others
Does it make a difference?	More aware	Increased mutual understanding
	Greater knowledge and understanding of other professions (and need to involve)	More likely to approach other professionals
	More compassionate More caring More enthusiastic and willing to question and challenge Altered perspective More aware of the need to adapt own practice to improve service Increased understanding of patient centred care More aware of balance of behaviours – challenge appropriately Espoused vs. actual behaviour	Less assumptions <i>Rely on other professionals</i> Increased confidence Increased understanding of the importance of reflection Increased recognition of others Appreciation of others roles Respect Patient centred care Important for culture change- decreased hierarchies Lots of opportunities to learn Learning from experience Communication with other professionals Promoting collaboration Tools and strategies Overcome barriers Get things done quicker

10.15 Appendix 15: A table to demonstrate the occurrence of themes as articulated, attributed and emergent data

The table below indicates whether individual themes of data, were articulated, attributed or emergent and illustrates which themes were repeated, which were dyadic, i.e. arising in both the student and staff focus groups.

Issue	Common themes between staff and student focus groups					
	Staff focus group			Student focus group		
	Articulated	Attributed	Emergent	Articulated	Attributed	Emergent
Sharing	√	√	√	√	√	
Common in practice	√	√	√	√	√	
Regular meetings	√			√		
Shared goals	√		√	√	√	√
Co-ordination	√	√	√	√	√	
Planning	√		√	√		
SU centred care	√	√	√	√	√	√
Improved SU outcomes	√		√	√		
Hierarchy		√	√	√		√
Communication difficult		√	√		√	
Difficult for NQP	√	√	√	√	√	
Time		√	√	√	√	
Fear			√	√		
Listening	√		√		√	
Open-minded	√	√			√	
Communication		√	√	√	√	
Trust	√			√	√	
K & U of others' roles	√	√		√	√	√
Assertive	√	√	√		√	
Compromise	√	√		√	√	√
Personal prof. skills	√		√	√	√	
Flexible	√				√	
Group work	√	√		√		√
Informal time	√	√				√
Other perspectives	√	√	√	√	√	√
Importance of interaction	√	√	√	√	√	√
SU session	√	√	√		√	√
Increased awareness	√		√	√		√
Involving others	√		√	√		

10.16 Appendix 16: Indicative questions for semi-structured interviews with IPE students

- 1 Which programme are you studying?
- 2 What are the most important characteristics of a member of your profession?
- 3 Please circle the attributes (qualities) you most commonly associate with your profession

- 4 Which professions do you work with on placement?
- 5 Which one is the easiest to collaborate with and why?
- 6 Please circle the attributes (qualities) you most commonly associate with this profession

- 7 Which one is the most challenging to collaborate with and why?
- 8 Please circle the attributes (qualities) you most commonly associate with this profession

- 9 In your IPE group which professions were the other students from?
- 10 Which profession(s) were the easiest to collaborate with and why?
- 11 Please circle the attributes (qualities) you most commonly associate with this profession

- 12 Which profession(s) were the most challenging to collaborate with and why?
- 13 Please circle the attributes (qualities) you most commonly associate with this profession

- 14 Do you think your attitude towards working with members of other professions has changed as a result of the IPE module? Please explain and give examples(s) where applicable

15 Apart from people, are there any other factors that affect your ability to collaborate with other professions?

10.17 Appendix 17: Suggested Attribute Indication Sheet

Title of
sheet.....

Healthy	Unkind	Flexible	Inflexible
Rude	Forgiving	Miserable	Warm
Gloomy	Open	Dull	Generous
Quick	Timid	Friendly	Weak
Irresponsible	Closed	Honest	Lazy
Ignorant	Strong	Irritable	Intelligent
Hard working	Cautious	Dishonest	Responsible
Confident	Selfish	Cheerful	Humorous
Cold	Kind	Slow	Polite

10.18 Appendix 18: Attributes of own profession

Profession	Important attributes
Mental health nursing	Good listening skills Self-aware Kind Willingness to work with others, whatever their situation Awareness of others Non-judgemental Resilience Sense of humour
Dietetics	Good listener Knowledge Ability to see patients as individuals Team working skills
Diagnostic radiography	Ability to learn – knowledge Empathy Professionalism Understanding Respectful Polite Caring Objectivity Physical ability
Adult nursing	Organisation Time management skills Kind Reliable Competence (at role) Enthusiasm to help others
Child nursing	Communication skills Patience <u>Empathy</u>
Paramedic science	Professionalism Self-awareness Ability to work with others Ability to become emotionally detached Good work ethic Problem solving

Attributes identified as important for members of own profession. Attributes cited by more than one participant are indicated in bold text.

10.19 Appendix 19: Reasons cited for professions being easy to collaborate with

Collaboration on placement		
Participant profession	Profession easy to collaborate with	Reasons
Mental health nurse	Community -Social work Hospital - doctors	Social workers Similar job role - coordinating Mutual understanding Same environment Doctors Same environment Recognition of need for teamwork – one person does not have all the answers Mutual respect
Dietetics	Adult nurses	Approachable Keen to exchange information Open friendly
Diagnostic radiography	Doctors and nurses	Depends on the individual
Adult nurse	Physiotherapists and doctors	Working towards same goal Help each other
Child nurse	Other nurses	
Paramedic	<u>Non-urgent calls</u> - Nurses <u>Urgent calls</u> - Doctors	Generation 'age' and personality
Collaboration on IPE module		
Mental health nurse	Child nurse	<u>Similar personality</u> Pro-active, willing to work & contribute Nice Open to other's thoughts & opinions Charismatic <u>Chatty</u> Similar level in hierarchy
Dietetics	Social work & midwife	<u>Chatty & easy to talk to</u> Made others feel comfortable Not related to their profession
Diagnostic radiography	Adult nurse	<u>Similar personality</u> Outspoken 'I like people to be outspoken'
Adult nurse	Midwife and paramedic	Similar types of job roles Something in common <u>Easier to talk to</u>
Child nurse	All other professions	All very open <u>Got on really well</u> There for the same thing – to learn from each other

10.20 Appendix 20: Reasons cited for professions being challenging to collaborate with

Collaboration on placement		
Participant profession	Profession difficult to collaborate with	Reasons
Mental health nurse	Hospital based social workers	Lack of understanding of each other's roles Undermining Dismissive
Dietetics	doctors	Less open to being interrupted (when doing paperwork) Closed body language Hierarchy – doctors make decisions- Not on same level
Diagnostic radiography	Depends on the individual	
Adult nurse	Speech & language therapist	No collaborative working Just do their job, leave instructions and leave Lack of interactions
Child nurse	doctors	
Paramedic	Doctors & nurses	Generation 'age' and personality
Collaboration on IPE module		
Participant profession	Profession difficult to collaborate with	Reasons
Mental health nurse	Adult nurse	Didn't always turn up, interpreted as lazy, selfish & not interested 'Dismissive' comment about mental health patients
Dietetics	radiotherapist	Less willing to engage in conversation Closed Less willing to share information
Diagnostic radiography	Mental health nurse	Quiet & reserved Very softly spoken Dissimilar personality
Adult nurse	Diagnostic radiographer	Not very much in common
Child nurse	Paramedics	Don't work in same environment Lack of commonality Different pace of work
Paramedic	Adult nurse	Didn't always turn up, interpreted as lazy Didn't seem interested Perceived as lacking in intelligence

10.21 Appendix 21: Changing attitudes towards collaboration in IPE

Participant profession	Perceptions
Mental health nurse	<p>Attitude not changed drastically as already think it's really important to work with others</p> <p>Important for people to understand each other's roles</p> <p>Greater understanding of others working practices (not just roles)</p> <p>Need to talk to others to increase own understanding</p> <p>Lack of understanding can cause tensions</p> <p>Need to know others have similar personalities to your own</p> <p>Encouraged me to talk to and ask questions of others</p> <p>Learned the importance of not making assumptions</p>
Dietetics	<p>I like to think I had a good attitude towards collaborating (before IPE)</p> <p>Nice to see different faces, nice to hear about their course and their placement experiences</p> <p>Isn't a huge emphasis on working with other professions on placement</p> <p>Liked being with different people for a change</p> <p>Liked the lecturer facilitating a discussion, particularly the Morecambe Bay report; it applies to us all because we all work for the same organization and we all have the patients' interests at heart; it's transferable</p> <p>The most important thing in the health service; working together for the patients' best interests</p> <p>Don't learn enough on IPE to know what other professions do</p>
Diagnostic radiographer	<p>Half the professions who you get paired with in IPE you don't work with... the main profession you do work with isn't represented in IPE... I would say specifically do it with nurses and doctors</p> <p>I don't think there are coherent differences, in terms of personality types and team working between professions</p> <p>Knowing what... do ... knowing how you can specifically help them... more knowledge based</p> <p>It isn't to understand their role, it's to understand their clients... there are better ways of doing that than with IPE teamwork, because they don't know the role anyway because they are students. That is the main fault</p> <p>I haven't gained anything specifically from other professions but I have gained team working skills</p> <p>For me it would be better if it was a standard lecture format</p> <p>It actually made me quite stressed and angry because the responses from a lot of the group were kind of weird... no conclusive conclusion at the end... there was nothing concrete</p> <p>I would much rather have had proper information about what other professions do</p> <p>If I was being brutally honest.... If I wanted to learn about other professions I would go and read about it</p> <p>I haven't been negatively influenced but I haven't been positively influenced either</p> <p>I haven't gained much knowledge; tutorials are good... but only in respect of enhancing team working abilities, so good for collaboration</p> <p>It was making me kind of stressed being in those lectures and it was making a lot of people a bit stressed</p>

	<p>A huge level of different abilities in the cohort Trying to cater to everyone in one big block with the same lectures is kind of futile... give them a choice For people like me it's too basic, but for a lot of people they need basic</p>
Adult nurse	<p>Attitude towards other professions has really changed There was most things I didn't know about other professions; I will have a different mind-set about those professions compared to before when I was probably narrow minded; I was always thinking about ourselves (nurses) but now I respect what they do as well as the other professions because I'm aware of what they actually do Has made me realise how everyone is important in the MDT and because of that I have gained respect for them, we are all important as a team; if someone was missed out of the MDT then things wouldn't happen; we can't work without each other Before I used to think we are more important than those people or those people are more important than us, but it's changed my mindset and I've put everyone on the same level; because without nurses they can't do their job and without them we can't do our job as well We worked together as a team If someone had not tried very hard or not bothered that would have given me a different perception about the person themselves but not their profession I'll be working with these people so it was some sort of experience that I've gained and it's really valuable to my profession</p>
Child nurse	<p>Much better understanding of what people do ... gets rid of the stereotype you have The others being friendly, which they are not always on the ward; when you're on the ward is as if you are interfering with someone else's job... worrying about stepping on other people's toes When you're at the hospital it's definitely this kind of hierarchy... we are all still students... for them to be able to explain what they did and then to encourage what we could do to help as well I think you haven't quite got the mindset that people get in the hospital No worry about offending people or about asking silly questions... we understood each other more... it was nice to get to know each other The SU session was really helpful; it was just a different way of understanding; understand from someone else's point of view In placement, they tell you what you want to hear</p>
Paramedic	<p>IPE doesn't change my attitudes because I work with very few of them Comment about we drive yellow buses really hit a nerve with a lot of people Learning disability nurses, just glorified teaching assistants as far as I'm concerned We have got a lot of respect for social workers... one of the most hated people as a social worker because whatever you do, nobody thinks they've made the right decision Students from one session think we just drive around... the problem is that we've had members of the public say it to us... I'm not interested in you now, sit on the bed I'm going to hospital and I'll just hand you over to the nurse and you can be there problem ... it's almost a self-fulfilling prophecy ... it hit a nerve</p>

People never remember the good stuff, they always remember the bad staff and it's the same with stereotypes; if you're wronged by a person you instantly jump to conclusion- oh it's because you're...

People don't care they've been hailed as heroes, they care more than they've been insulted

A moan ethic within the paramedic culture, on placement you are trained by people with that culture, you observe it, you think it's acceptable, you think it's how you should act as a paramedic, you replicate it

Even though things are rather better in my service at the moment people still moan

People would rather have something to moan about than have something to be praised about

We just generalize

So, I shouldn't be making judgements of a group based on one person

Negative has very much more influence than all those positive comments and it's a lasting impression

They were all school leavers whereas I'm a mature student... the ones who were getting on with it were also all mature students... a lack of life experience

10.22 Appendix 22: Perceived barriers to collaboration in practice

Participant profession	Perceptions
Mental health nurse	<p>Individuals (any profession)</p> <p>Environment – not being co-located</p> <p>Lack of understanding of roles in huge</p> <p>Lack of appreciation that everyone has the same kind of goal of being there for the service user</p>
Dietetics	<p>How busy it is</p> <p>Physically finding, or getting hold of other professions within set timescale; taking them away from the task they are doing</p> <p>Every patient is different</p> <p>We would benefit from having more structured communication between us</p> <p>Lots of people don't really understand what a dietitian does</p> <p>Some people are more insecure about asking than other people; some people are less willing than others. Would help instigate questions and communication if we had an idea of what other professionals did before we met them</p>
Diagnostic radiographer	<p>People – human factors</p> <p>Lack of proper money makes collaboration very difficult... just isn't enough money</p> <p>It's horrifically badly managed</p> <p>Collaboration is very hard because everyone is very stressed</p> <p>Bad governance... creates divisions between people</p>
Adult nurse	<p>If people are more approachable and people actually see the importance of everyone in the team</p> <p>Depends on the individual, depends on the person</p>
Child nurse	<p>Everyone hates doctors because they are not flexible and they talk too fast and they don't write things down and they don't communicate very well</p> <p>Knowledge... knowing who to contact, what their role is, communication, how to contact them</p> <p>Sometimes it's like you should know the answer and you shouldn't need to speak to different professions</p> <p>You shouldn't be asking and you should know and people are going to form an opinion of you if you ask</p> <p>Lack of knowledge</p> <p>They might think she's stupid she doesn't know what she's doing rather than she's too nosy she wants to know everything</p> <p>It's the expectations of what you should know and that maybe you should have come into contact with these people already and know what they do</p>
Paramedic	<p>You're only as good as your last favour</p> <p>If you do anything wrong that will last for ages</p> <p>We get a lot of abuse from patients, we get a lot of people who think we're their slaves just because they pay their taxes</p> <p>Apart from liking the job we don't get many other benefits</p> <p>People forget we are all humans ourselves, just as the service users we treat are all humans... we all forget sometimes what's going on in each other's lives</p> <p>We forget that they are not infallible</p>

So, when we turn up to these jobs, not to say that I judge, but I know that sometimes their attitude changes
The need to make allowances for people, although there are some people who then abuse that privilege, manipulate that person into doing work for them

10.23 Appendix 23: Ethics Approval Notice

[REDACTED]

MEMORANDUM

TO Jane Lorimer

CC [REDACTED]

FROM [REDACTED], Social Sciences, Arts and Humanities ECDA Chairman

DATE 10/1/14

Protocol number: EDU/PG/UH/00407

Title of study: Does the module 'Enhancing Health and Social Care through Interprofessional Education (IPE)' have an effect on students' attitudes towards collaborations?

Your application for ethical approval has been accepted and approved by the ECDA for your school.

This approval is valid:

From: 20/1/14

To: 31/1/14

Please note:

Approval applies specifically to the research study/methodology and timings as detailed in your Form EC1. Should you amend any aspect of your research, or wish to apply for an extension to your study, you will need your supervisor's approval and must complete and submit form EC2. In cases where the amendments to the original study are deemed to be substantial, a new Form EC1 may need to be completed prior to the study being undertaken.

10.24 Appendix 24: Ethics Approval Notice (continued)



ETHICS APPROVAL NOTIFICATION

TO Jane Lorimer
CC [REDACTED]
FROM [REDACTED] Social Sciences, Arts and Humanities ECDA Chairman
DATE 28/09/2015

Protocol number: **aEDU/PG/UH/00407(2)**

Title of study: An examination of the extent to which a Health and Social Care Interprofessional Education (IPE) module influences students' attitudes towards collaboration.

Your application to extend and modify the existing protocol as detailed below has been accepted and approved by the ECDA for your School.

Modification: As per the attached 'Details of Modification'

This approval is valid:

From: 28/09/2015

To: 30/06/2016

Please note:

Any conditions relating to the original protocol approval remain and must be complied with.

Approval applies specifically to the research study/methodology and timings as detailed in your Form EC1 or as detailed in the EC2 request. Should you amend any further aspect of your research, or wish to apply for an extension to your study, you will need your supervisor's approval and must complete and submit a further EC2 request. In cases where the amendments to the original study are deemed to be substantial, a new Form EC1 may need to be completed prior to the study being undertaken.

Should adverse circumstances arise during this study such as physical reaction/harm, mental/emotional harm, intrusion of privacy or breach of confidentiality this must be reported to the approving Committee immediately. Failure to report adverse circumstance/s would be considered misconduct.

Ensure you quote the UH protocol number and the name of the approving Committee on all paperwork, including recruitment advertisements/online requests, for this study.

Students must include this Approval Notification with their submission.