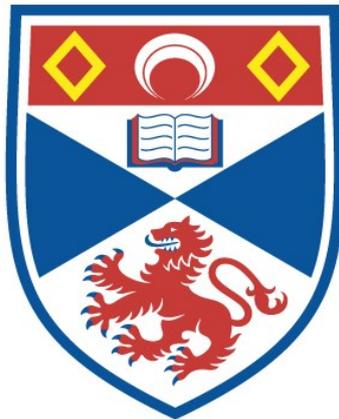


**PRACTICE MENTORS' ATTITUDES AND PERSPECTIVES OF  
INTERPROFESSIONAL WORKING AND INTERPROFESSIONAL  
PRACTICE LEARNING FOR STUDENTS: A MIXED-METHODS  
CASE STUDY**

**Veronica O'Carroll**

**A Thesis Submitted for the Degree of PhD  
at the  
University of St Andrews**



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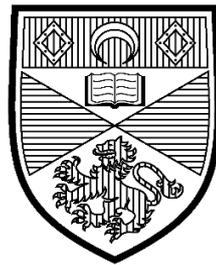
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**Practice Mentors' Attitudes and Perspectives of Interprofessional  
Working, and Interprofessional Practice Learning for Students:  
A Mixed-Methods Case Study**

Veronica O'Carroll



University of  
St Andrews

This thesis is submitted in partial fulfilment for the degree of PhD  
at the University of St Andrews

February 2017

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# Contents

Declaration.....	1
Acknowledgements.....	2
Contents list .....	3
List of appendices.....	8
List of figures.....	9
List of tables .....	9
Table of abbreviations used in this thesis.....	10
Abstract.....	11

## Contents List

Chapter 1 Introduction and background.....	12
1.1 Chapter overview.....	12
1.2 The drivers for working and learning together.....	12
1.3 Defining interprofessional working.....	15
1.4 Defining interprofessional education and interprofessional practice learning.....	16
1.5 The increasing momentum for interprofessionalism.....	17
1.6 Aims of the thesis.....	18
1.7 The importance of the study.....	19
1.8 Chapter summary.....	19
Chapter 2 Literature review.....	20
2.1 Chapter overview.....	20
2.2 Systematic search strategy.....	21
2.2.1 Search terms.....	21
2.2.2 Screening and assessment of papers.....	22
2.3 Assessment of the quality of the studies.....	23
2.4 Identification of themes.....	25
2.4.1 The effect of professional background on attitudes to IPW and IPE.....	27

2.4.2	The effect of previous experience of IPE on attitudes to IPW and IPE.....	28
2.4.3	Other variables which influence attitudes.....	30
2.5	Identifying gaps in the literature.....	30
2.6	Implications for future research and practice.....	32
2.7	Limitations of the review.....	33
2.8	Main research questions and hypotheses.....	33
2.9	Chapter summary.....	34
 Chapter 3 Methodology and research design.....		 35
3.1	Chapter overview.....	35
3.2	Theoretical framework for the study.....	35
3.3	Theoretical frameworks related to IPW and IPPL.....	36
3.3.1	Theory related to the relationship between attitudes and behaviour.....	38
3.4	A mixed-methods case study approach.....	40
3.5	Characteristics of a case study.....	41
3.5.1	Issues of generalisability and transferability with case studies.....	42
3.6	The use of mixed-methods to address the study objectives.....	43
3.7	A conceptual framework for the integration of methods.....	44
3.8	Chapter summary.....	46
 Chapter 4: Part I Methods.....		 47
4.1	Chapter overview.....	47
4.2	Study site and population: defining the case.....	47
4.3	Ethical approval and access to the study site.....	48
4.4.	Study sample.....	49
4.4.1	Sampling strategy.....	50
4.5	Recruitment.....	52
4.5.1	Phase 1: Support from key gatekeepers.....	54
4.5.2	Phase 2: Face to face recruitment opportunities.....	55
4.5.3	Phase 3: Widening recruitment opportunities and ensuring inclusivity.....	56
4.6	Quantitative data generation.....	58
4.6.1	Use of a multiple-group measurement scale to measure attitudes to IPW.....	59

4.6.1.2 Use of an adapted version of the readiness for interprofessional learning scale (RIPLS) to measure practice mentors' attitudes to IPPL.....	62
4.6.2 Rationale for combining scales.....	64
4.7 Test-retest reliability of an online survey to measure attitudes to IPW, and IPPL for students.....	65
4.7.1 Test-retest results.....	66
4.7.2 Changes made as a result of measuring the reliability of the survey.....	67
4.8 Ethical considerations and protecting survey participants.....	68
4.8.1 Informed consent.....	69
4.8.2 Confidentiality.....	69
4.9 Quantitative data analysis.....	70
4.9.1 Descriptive statistics.....	71
4.9.2 Inferential statistics.....	71
4.10 Chapter summary.....	73
Chapter 5: Part II Methods.....	74
5.1 Chapter overview.....	74
5.2 Qualitative data generation.....	74
5.2.1 Semi-structured interview sampling strategy.....	75
5.2.2 Format of the semi-structured interviews.....	76
5.3 Ethical considerations and protecting interview participants.....	80
5.3.1 Informed consent.....	80
5.3.2 Confidentiality.....	81
5.3.3 Reflexivity and the researcher in the middle.....	82
5.4 Qualitative data analysis.....	84
5.5 Ensuring rigour in the analysis of qualitative data.....	88
5.6 Chapter summary.....	88
Chapter 6: Part I Results.....	90
6.1 Chapter overview.....	90
6.2 Sample profile.....	90
6.3 Mean scores for attitudes to interprofessional working.....	92

6.3.1 Attitudes to interprofessional working and the effect of governing body.....	94
6.3.2 Attitudes to interprofessional working and the effect of gender.....	94
6.3.3 Attitudes to interprofessional working and the effect of area of work.....	95
6.3.4 Attitudes to interprofessional working and the effect of number of years qualified.....	95
6.3.5 Attitudes to interprofessional working and the effect of prior experience of IPE.....	96
6.3.6 Attitudes to interprofessional working and the effect of prior type of IPE experience.....	97
6.4 Mean scores for attitudes to interprofessional practice learning.....	98
6.4.1 Attitudes to IPPL and the effect of governing body.....	100
6.4.2 Attitudes to IPPL and the effect of gender.....	100
6.4.3 Attitudes to interprofessional practice learning and the effect of area of work.....	101
6.4.4 Attitudes to interprofessional practice learning and the effect of number of years qualified.....	101
6.4.5 Attitudes to interprofessional practice learning and the effect of previous IPE experience.....	102
6.4.6 Attitudes to interprofessional practice learning and the effect of type of previous IPE experience.....	102
6.5 Chapter summary.....	103
 Chapter 7 Part II Results.....	 104
7.1 Chapter overview.....	104
7.2 Semi-structured interview sample characteristics.....	104
7.3 Enablers of IPW.....	106
7.4 Barriers to IPW.....	115
7.5 Enablers of IPPL.....	131
7.6 Barriers to IPPL.....	135
7.7 Chapter summary.....	145

Chapter 8 Discussion.....	146
8.1 Chapter overview.....	146
8.2 Summarising the background issues driving the study.....	146
8.3 Returning to the study objectives and addressing the research questions.....	147
8.4 Chapter summary.....	166
 Chapter 9 Conclusion.....	 168
9.1 Chapter overview.....	168
9.2 Summary of the findings.....	168
9.3 Contribution to interprofessional research.....	169
9.4 Contribution to interprofessional practice.....	170
9.5 Limitations of the study.....	170
9.6 Recommendations for research.....	173
9.7 Recommendations for practice.....	173
9.8 Concluding remarks.....	175
 References.....	 176

## List of Appendices

Appendix 1: Glossary of terms.....	194
Appendix 2: Research appraisal tool.....	195
Appendix 3: Summary of the assessment of included studies.....	196
Appendix 4: Copy of ethics approval letter.....	203
Appendix 5 PhD timeline.....	205
Appendix 6: Study advertisement.....	207
Appendix 7: Copy of ethics approval for amendments.....	208
Appendix 8: Survey used to measure attitudes to IPW, and IPPL for students.....	209
Appendix 9: Survey participant information sheet.....	220
Appendix 10: Interview participant information sheet.....	223
Appendix 11: Interview consent form.....	226
Appendix 12: Interview transcription guidance.....	227
Appendix 13: Interview topic guide.....	230
Appendix 14: Debriefing information sheet.....	231
Appendix 15: Excerpt from a research diary: personal reflections on the rationale for the study.....	233
Appendix 16: Excerpt from the thematic analysis of the interview data.....	236
Appendix 17: Skewness and kurtosis values, and associated z-scores for attitudes to IPW.....	237
Appendix 18: Skewness and kurtosis values, and associated z-scores for attitudes to IPPL for students.....	240

## List of Figures

Figure 1.	Process for identifying relevant studies.....	22
Figure 2.	Schematic presentation of the reasoned action model.....	39
Figure 3.	The sequential priorities model.....	45
Figure 4.	Number of survey participants at each phase of recruitment.....	53
Figure 5.	Structure of rating groups and targeted professions.....	62
Figure 6.	Attitudes to IPW: Mean scores of health care and social work professions.....	92
Figure 7.	Attitudes to IPPL: Mean scores of health care and social work professions.....	98
Figure 8.	Thematic map of the enablers of IPW.....	107
Figure 9.	Thematic map of the barriers to IPW.....	116
Figure 10.	Thematic map of the enablers of IPPL.....	132
Figure 11.	Thematic map of the barriers to IPPL.....	136
Figure 12.	Study findings and the reasoned action model.....	165

## List of Tables

Table A.	Summary of inclusion and exclusion criteria.....	21
Table B.	Summary of search terms and key words.....	21
Table C.	Summary of studies included in the review.....	26
Table D.	The multiple group measurement scale.....	60
Table E.	The adapted readiness for interprofessional learning scale.....	63
Table F.	Characteristics of the sample of health care professions included in the intra-rater reliability analysis.....	66
Table G.	Sample demographic profile of the survey participants.....	91
Table H.	Attitudes to IPW and professions' mean scores.....	93
Table I.	Attitudes to IPPL and professions' mean scores.....	99
Table J.	Comparison of number of survey and interview participants.....	104
Table K.	Sample demographic profile of semi-structured interview participants.....	105

## Table of Abbreviations Used in This Thesis

AHP	Allied health profession
CAIPE	Centre for the advancement of interprofessional education
GMC	General Medical Council
GP	General Practitioner
GPhC	General Pharmaceutical Council
HCPC	Health and Care Professions Council
HEIs	Higher education institutes
IOM	Institute of Medicine
IPE	Interprofessional education
IPL	Interprofessional learning
IPPL	Interprofessional practice learning
IPW	Interprofessional working
MPE	Multiprofessional education
NMC	Nursing and Midwifery Council
SSSC	Scottish Social Services Council
WHO	World Health Organisation

## **Abstract**

The demands on health and social care organisations require professions to work more collaboratively. During pre-registration training, health care and social work students learn within practice settings, supported by practice mentors. These settings are rich learning environments to experience interprofessional working (IPW) and for students to learn together through interprofessional practice learning (IPPL). There is, however, evidence that students' experiences of both are varied or limited. The value placed on IPW, and IPPL, is therefore of interest. This thesis will investigate practice mentors' attitudes to IPW and IPPL, and explore their perspectives of the enablers and barriers to these occurring in practice settings.

A mixed-methods case study approach was used to measure the attitudes of practice mentors from health and social work, and to identify enablers and barriers to IPW, and IPPL for students. Online surveys and semi-structured face to face interviews were carried out with a range of professions within one Scottish health board and associated local authority.

Results showed that attitudes to IPW, and IPPL for students were generally positive. Attitudes were not significantly affected by governing body, gender, area of work, years of experience, or prior experience of IPE. IPW was perceived to be enabled by shared processes and policies, IPPL for staff, effective communication, established teams, and shared processes and policies. Proximity to other professions and shared spaces encouraged informal communication and positive interprofessional relationships. Regular structured IPPL opportunities for students were limited. However, where opportunities did occur, this was linked to areas where practice mentors perceived that there was a strong interprofessional team identity.

Although attitudes to IPW, and IPPL for students are positive, further work is needed to identify systems for improving IPW, to strengthen professions' identity as interprofessional teams, and to increase IPPL opportunities for students.

# 1. Introduction and Background

## 1.1 Chapter overview

In this introductory chapter, the key areas of concern in relation to health and social care professions working together, and students from different programmes of training learning together will be discussed. The aim and scope of the study presented in this thesis will be identified, as will its value and contribution to research and health and social care practice.

## 1.2 The drivers for working and learning together

As the demands on health and social care services increase within the 21<sup>st</sup> century, health and social care professionals strive to meet the increased demands on their systems of working, amidst an increasingly complex context of care. As stated by the Institute of Medicine [IOM] (2015, p.11):

*“Soaring population rates, climate change, rapid urbanisation, technological innovation, and globalisation all are intersecting in ways that would have been unthinkable just a few decades ago.”*

It is evident that there is an increased awareness of the impact of ineffective systems of working on the quality and safety of care delivered to service users, brought to our attention by a series of high profile reports related to health and social care (Kennedy, 2001; Laming, 2003, 2009; Francis, 2013; Keogh, 2013). These reports have consistently pointed out that safe, quality care has been compromised by inefficient systems of working, a culture of ineffective communication and teamwork between different professions, damaging hierarchies, and a lack of candour. In considering whether lessons have been learned from these incidences and whether investigations have influenced change, it can be argued that the pace of change has been slow. Twelve years after the Bristol Infirmary Heart Inquiry (Kennedy, 2001), the Mid Staffordshire Report (Francis, 2013), one of the most recent high profile inquiries, highlighted that little progress had been made in changing the damaging, target driven culture of the health service. This report provided a detailed account of the lack of basic care, compassion, professionalism, leadership, and system failures

which contributed to the failings of a health care organisation. These failings resulted in the death of up to 1200 individuals, physical and emotional damage to service users and their families, and shattered the confidence that the general public had in the health service. In the report's series of recommendations, Francis (2013) stressed that changes in organisational culture were required to improve care, including changes in the way that different professions work together. He emphasised contributions from all team members needed to be valued to ensure that effective "collective care", which puts the service user first, could be provided.

It is believed that improving interprofessional working (IPW) between health and social care professions can help with the increased demands on health and social care services, and improve the quality of care delivery (World Health Organisation [WHO], 2010; IOM, 2015). IPW is defined by Thomas, Pollard and Sellman (2014, p.13) as:

*"The process whereby members of different professions and/or agencies work with each other and with patients/service users, to provide integrated health and/or social care".*

One of the most recent drivers for IPW within the United Kingdom has been the introduction of the Health and Social Care Act (2012) and Public Bodies (Joint Working) (Scotland) Act (2014). The act aims to provide a more coordinated, cost effective approach to the provision of health and social care, by integrating services from health boards and local authorities. Furthermore, to address the increasing demands on services, it aims to reduce the numbers of unnecessary admissions to hospitals, by providing care for people at home. These expected outcomes are echoed nationally in the Scottish Government's vision for the year 2020 to provide quality care, improve the health of the population, and improve value and financial sustainability (Scottish Government, 2013a). In the reorganisation of services and changing landscape of health and social care, different groups of professions are required to work more collaboratively (Association of Directors of Social Work, 2013). However, as discussed in the literature, there are a number of complexities and challenges in practice which can impact on the effectiveness of collaborative working.

The challenges associated with IPW have included time and workload pressures, limited resources, lack of understanding of roles and responsibilities, competing

priorities, and access to other professions (Snelgrove and Hughes, 2000; Hughes and McCann, 2003; Larkin and Callaghan, 2005; Bailey, Jones, and Way, 2006; Kvarnström, 2008; Braithwaite, Westbrook, Nugus, Greenfield, Travaglia and Runciman, 2012). In relation to the lack of understanding of roles and responsibilities, significant changes in the scope of practice for some professions has added to this confusion. For example, roles which have been traditionally associated with doctors, have been taken on by advanced nurse practitioners (The Royal College of Nurses [RCN], 2012). Uncertainty with professional accountability has led to uncertainty in role boundaries (Goldman, Meuser, Rogers, Lawrie and Reeves, 2010; Harmer, 2010; Rashid, 2010).

Further to the high profile inquiries referred to in this section, issues with organisational culture negatively impacting on IPW in health and social care have been previously discussed in the literature (Gordon, 2012; Leape *et al.*, 2012). Conflict between different professions and hierarchies have been found to exist, not only interprofessionally, between different professions, but also intraprofessionally, with professions from the same discipline (Brown, Lewis, Ellis, Stewart, Freeman and Kasperski, 2011; Powell and Davies, 2012). Aggressive and disrespectful behaviour occurring between professions have been reported to affect morale, stifle teamwork and communication, and have a “toxic impact on patient safety” (Leape *et al.*, 2012). Equally, more subtle behaviours; “a gesture, a stance in a hallway, a quick comment made during ward rounds,” can also impact on IPW (Gordon, 2012). Gordon goes on to suggest that those who are often most vulnerable are new members of already established teams, as they are initially subjected to a period of initiation, where trust must be earned before they become accepted into the team.

Barr and Low (2013) suggest that integration and reorganisation of services may not be enough to manage these challenges. Like Francis (2013), they reinforce the need to improve the culture, for professions to realise their shared mission to provide quality care to services users, and engage with policies to drive the mission. Teamwork which crosses professional boundaries and shifts from separate goals to shared goals and accountability is required to improve the way that professions work together (Laming, 2003, 2009; Francis, 2013). West and Lyubovnikova (2013) argue that assumptions are often made within health care organisations that teamwork automatically occurs, simply by labelling a group as a team, without considering who

team members are, and how teams function. They suggest that the factors which make teams work effectively and ineffectively need to be understood.

Interprofessional education (IPE) is defined as “when two or more professions learn with, from and about each other” (Centre for advancement of interprofessional education [CAIPE], 2002). The aim of IPE is to improve IPW by helping professions to understand and appreciate roles and responsibilities, break down professional boundaries, and improve the delivery of care (CAIPE, 2002; WHO, 2010; Barr and Low, 2013). It is valued as a way of preparing pre-registration health care and social work students to work together by learning together. IPPL for students during their practice placements provides the opportunity to enhance university based IPE and will help students gain first-hand experience of IPW in action (Bar and Low, 2013; IOM, 2015).

### **1.3 Defining interprofessional working**

In relation to different professions working together in a collaborative manner, a variety of terms are referred to in the literature to describe this concept, such as: multidisciplinary, interdisciplinary, and transdisciplinary working (D’Amour, Ferrada-Videla, San Martin Rodriguez and Beaulieu, 2005). According to Reeves, Lewin, Espin and Zwarenstein (2010), the term interdisciplinary relates to individuals from different academic disciplines working interactively, whereas the term interprofessional refers to professions from health and social care working in a collaborative manner. In this thesis, the term interprofessional working (IPW), as defined by Thomas, Pollard and Sellman (2014), is used throughout. This definition (as presented in Section 1.2) was felt to be in keeping with the context and scope of this study. It encompasses the drive for effective IPW, not only between different health care professions, but also between health care and social work professions. During a time of significant change in health and social care policy, brought about by the introduction of the Health and Social Care Act (2012), it is important to gain insight into the attitudes and perspectives of the professions affected by these changes. This definition also captures the variety of terms which are used to refer to individuals in receipt of care from these services. These terms include: patients, service users, and clients, and are often terms which are used in different contexts within health and social care. Throughout this thesis, the term ‘service user’ is used to encompass

these different contexts. A full glossary of terms used in this thesis, is provided in Appendix 1.

#### **1.4 Defining interprofessional education and interprofessional practice learning**

Despite a growing body of evidence relating to IPE, there continue to be misconceptions and confusion related to this educational process and what constitutes effective IPE (Reeves, Zwarenstein, Goldman, Barr, Freeth, Hammick *et al.*, 2009; Reeves, Goldman, Gilbert, Tepper, Silver, Suter *et al.*, 2011). As well as the term IPE, the terms multiprofessional education (MPE) and interprofessional learning (IPL) are often used interchangeably within the literature to describe learning involving more than one professional group (Freeth, Reeves, Koppel, Hammick and Barr, 2005b). Medical and nursing students receiving the same lecture, being delivered didactically, is a good illustration of multiprofessional education (MPE). In this instance, learning may be occurring side by side, but their understanding of each other is limited (Gordon, 2012). In contrast, IPE is a much more interactive learning experience. For example, students from two or more professions jointly discussing a client's case and identifying the roles and responsibilities of different members of a health and social care team. Students are encouraged to share, respect, appreciate and understand each other's professional knowledge, skills, expertise and contribution to the team. Furthermore, IPE can be differentiated from IPL, as IPE refers to an educational process bringing two or more professions together, and IPL refers to the outcome of IPE (Freeth, Hammick, Reeves, Koppel and Barr, 2005a; Barr and Low, 2013).

It is important that the uniqueness of IPE is recognised and valued in its goal to enable students to cross professional boundaries, and to understand the customs, practices, and culture of other professional groups (Freeth *et al.*, 2005a). CAIPE (2002) provide the most widely accepted definition of IPE which emphasises the uniqueness and distinctiveness of this educational process, involving mixed professions learning in an interactive manner. Barr and Low (2013) highlight that for IPE to be effective, the learning needs to be interactive so that skills for IPW are reinforced and positive relationships are built between different professional groups. As the study presented in this thesis focused on IPE within the context of health and social care practice

settings, the term interprofessional practice learning (IPPL), as referred to by Barr and Low (2013), is used in this thesis when referring to IPE and IPL occurring within practice settings.

### **1.5 The increasing momentum for interprofessionalism**

According to Barr *et al.* (2011) “discrete initiatives” to try and improve IPW were apparent from the 1960s. However, as noted by Barr, Helme, and D’Avray (2011), momentum for interprofessionalism gathered at the turn of the century, attributed to changes in health and social care, and education policy, as part of the Government’s modernisation strategy. Barr *et al.* (2011) go on to explain that the Government called upon pre-registration programmes of training for health and social care to provide programmes of common learning. The vision was that shared learning would prepare students to work in a more flexible and efficient way. The deaths of 35 children identified in the Bristol Heart Inquiry, and the deaths of Victoria Climbié and Baby Peter (Kennedy 2001; Laming, 2003; 2009) reaffirmed that changes needed to occur to improve IPW. However, the focus was no longer just on improving efficiency, as previously promoted by the Government’s modernisation strategy, but was predominantly on ensuring the delivery of safe care.

A review written by Barr (2002) reflected on the past, present and future of IPE. Barr asserted that ambiguity and uncertainty around IPE stemmed from the lack of an evidence base and lack of clarity around the meaning of IPE. This uncertainty and ambiguity may have accounted for the delay in support for IPE by the governing bodies for health and social care. From 2003 onwards, standards of education for health and social care programmes of training, and subject benchmarks began to place some emphasis on the need for students to learn with other professions (Scottish Social Services Council [SSSC], 2003; General Medical Council [GMC], 2009; Nursing and Midwifery Council [NMC], 2010; Health Care Professions Council [HCPC], 2012).

As part of their pre-registration training, health care and social work students spend a proportion of time learning within practice settings. As there are several students from different professions who often share the same placement location, practice settings offer the potential for accessible IPPL for students. However, it is argued that practice settings remain an untapped and unrecognised prime environment for IPPL

(Smith and Karban, 2006, IOM, 2015). Whilst positive examples of IPW and IPPL have been previously reported in the by some studies (Cashman, Reidy, Cody, and Lemay, 2004; Ponzer, Hylin, Kusoffsky, Lauffs, Lonka, Mattiasson, 2004), other studies have noted that students have limited experience of IPPL, and their observations in practice often draw attention to ineffective IPW (Stew, 2005; Pollard, Miers and Rickaby, 2012). Negative attitudes to IPE has been reported as one of the reasons why IPE initiatives sometimes fail (Freeth *et al.*, 2005; Curran, Sharpe and Forristall, 2007; Rees and Johnson, 2007) but this research has mainly focussed on IPE within academic settings.

As recommended by the IOM (2015), further engagement is required from organisations in health and social care and education to encourage a consistent thread of IPE along the education-to-practice continuum. IPPL would provide a continuum of IPE from the university setting to the practice setting but requires the alignment between both settings, and the support of practice mentors (Hammick, 1998; WHO, 2010; Barr and Low, 2013; IOM, 2015). However, if opportunities for students to engage in IPPL remain untapped (Smith and Karban, 2006; IOM, 2015) and students' experiences of effective IPW are variable, this raises concerns related to professions' attitudes to IPW, and IPPL for students, particularly those professions who mentor, guide and support students learning within practice settings.

## **1.6 Aims of the thesis**

As discussed in the beginning of this chapter, the literature highlights that providing health care and social work students with positive experiences of effective IPW and IPPL will prepare them for future effective collaborative working. However, there is some evidence to suggest that students' experiences of effective IPW and IPPL is varied and limited. Furthermore, a review of the literature which was performed as part of this study revealed that little is known about the attitudes and perspectives of practice mentors towards IPW, and IPPL for students. The aim of this thesis is to present a study which investigated the attitudes of health care and social work professions, and their perspectives of IPW, and IPPL for students. Chapter 2 of this thesis discusses the specific aims of this study and associated research questions and hypotheses. Context and perspective were key to the aim and scope of the study. Firstly, the study was carried out within the context of practice settings, where

health care and social work students learn as part of their training. As a single case study, this context focused on one health board and local authority within a region in Scotland. Secondly, the attitudes and perspectives of health care and social work professions, specifically professions who mentor students during their practice placements, were sought.

### **1.7 The importance of the study**

This study makes an original contribution to the field of IPW and IPE for two main reasons. Firstly, it advances knowledge related to the attitudes of health care and social work practice mentors to IPW, and IPPL for students. Although it is an investigation within a single health board and local authority, the findings may be transferable to other contexts. It has the ability to “shed light on a larger class of cases” (Gerring, 2007, p.20) and add to existing knowledge and experience (Stake, 1978; 1995; Yin, 2014).

Secondly, the findings of this study make an important contribution to future practice and policy related to IPW and IPPL. The integration of health and social care relies on effective IPW amongst frontline professionals and for students to be prepared for IPW in their future careers. It is vital that their perspectives are sought to: understand their attitudes, identify the challenges associated with interprofessional working, and to identify ways to negotiate around these challenges. This study may play an important part in identifying measures to improve IPW in practice, and to improve students’ experiences of IPPL.

### **1.8 Chapter summary**

This chapter established the background to issues related to IPW in health and social care, and the drivers for IPPL for students during their pre-registration training. Key terms and concepts were defined, and a rationale for a study which investigated practice mentors’ attitudes and perspectives of IPW, and IPPL for students was justified. A summary of the study’s importance and contribution to knowledge pertaining to IPW in health and social care practice, and the education of health and social care professions has been provided. It has been identified that this knowledge may have implications for improving IPW, and improving students’ experience of IPPL.

## **Chapter 2. Literature Review**

### **2.1 Chapter overview**

In this chapter, a systematic review of the literature to evaluate the relevant evidence base is provided. The processes which were used to gather relevant literature are described and key themes identified from the analysis and evaluation of the literature are discussed. This chapter concludes by identifying the contribution of existing research and the limitations in current research. The research questions and hypotheses posed in this current study to address these limitations are then identified.

### **2.2 Systematic search strategy**

A systematic search was performed, using The Cochrane Database of Systematic Reviews, Education Resources Information Centre (ERIC), MEDLINE, and the Cumulative Index to Nursing and Allied Health Literature (CINAHL). Relevant papers were also identified from a hand search of the Journal of Interprofessional Care and by interrogating references from relevant papers. As previously discussed in Chapter 1, Section 1.5, the turn of century is viewed as a significant turning point for IPW and IPE (Barr *et al.*, 2011), where education and health and social care systems responded to changes in Government policy. Consequently, this search focused on literature published between 2000 and 2014. Table A provides a summary of the inclusion and exclusion criteria which was used to determine the selection of relevant studies for this review. A more detailed summary of the included studies is provided in Appendix 3.

Table A. Summary of inclusion and exclusion criteria

Inclusion criteria	Exclusion criteria
<ul style="list-style-type: none"> <li>• Studies measuring and comparing health and social work staff attitudes to IPE and IPW within practice settings</li> <li>• Studies using quantitative, qualitative or mixed-methods</li> <li>• Empirical studies published in peer reviewed journals between January 2000 and December 2014</li> <li>• Studies written in the English language</li> </ul>	<ul style="list-style-type: none"> <li>• Students' attitudes (only) to IPE and IPW</li> <li>• Academic staff attitudes (only) to IPE and IPW</li> <li>• Studies exploring the attitudes of only one professional group</li> <li>• Editorials</li> <li>• Descriptive articles</li> <li>• Opinion pieces</li> </ul>

### 2.2.1 Search terms

As shown in Table B, the search terms interprofessional, multidisciplinary, and interdisciplinary were used in combination with the following key words: learning, education, working, collaboration, attitudes, staff and health care. These terms and key words were searched within the fields of title, abstract and full texts. Truncations and Boolean operators were used to find alternative endings to key words and allow for variability of terms adopted in the literature.

Table B. Summary of search terms and key words

Search terms	Key words
Interprofessional / multidisciplinary / interdisciplinary	learn* and attitude\$1
	learn* and attitude\$1 and staff
	education and attitude\$1 and staff
	work*and attitude\$1
	work* and health care
	collaboration and health care

Notes: Search terms and key words used within the fields of title, abstract and full text. Truncations (denoted by the symbols \* and \$) were used to find alternative endings to key words.

## 2.2.2 Screening and assessment of papers

The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) adapted from Moher, Liberati, Tetzlaff and Altman (2009) was used as a framework to provide a step by step process for identifying the relevant and appropriate literature. Figure 1 reports on the number of studies included and excluded at different phases of the literature search. A total of 925 records were identified through a systematic search of the databases and additional sources, as discussed in Section 2.2. On initial screening of the titles and abstracts of papers, this was narrowed down to 99 records, using the set exclusion criteria. Following a secondary screening of these records, the full texts of 59 papers were read to determine whether they met the inclusion criteria identified in Section 2.2, Table A. Thirty-five papers were selected after excluding the following: studies within the context of academic settings, studies reporting on students' attitudes to IPW and IPE, and studies reporting on the attitudes of only one professional group.

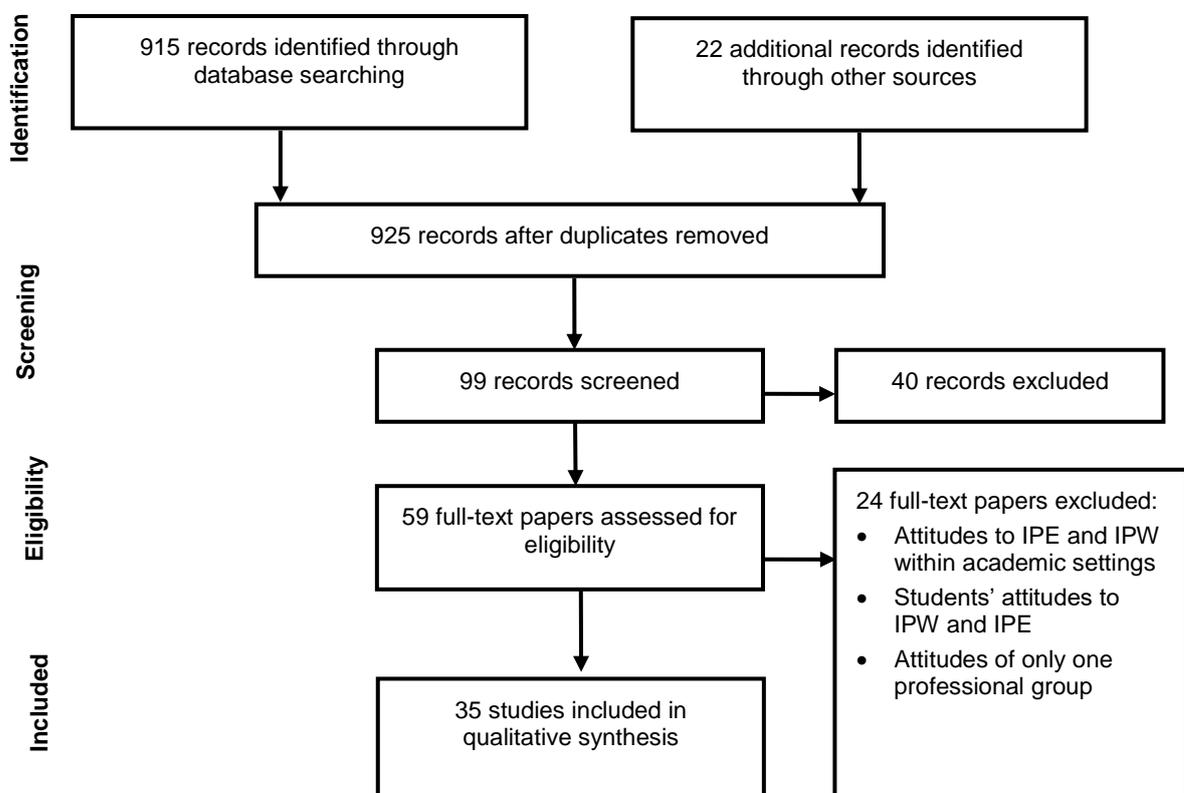


Figure 1. Process for identifying relevant studies

### **2.3 Assessment of the quality of the studies**

The full texts of relevant studies were accessed and interrogated using Hawker, Payne, Kerr, Hardy, and Powell's (2002) framework for appraising research (Appendix 2). This framework has been previously used for reviewing literature within the field of IPE and provides an effective tool for reviewing studies where mixed methodologies are used (Ireland, Gibb and West, 2008). The three stages for appraising research outlined by Hawker *et al.* were used as a guide: assessment of the relevancy of the studies using the inclusion and exclusion criteria, extracting data to assist in the process of identifying themes, and scoring the methodological rigour of each study. In this review, an assessment of methodological rigour in the studies identified led to the identification of strengths and limitations which fell into two broad themes: research design and study samples. The remainder of this section provides a discussion of these themes.

#### ***Strengths and limitations in research designs***

Some studies used quantitative methods to collect data for statistical analysis, which was valuable in measuring the effect of certain variables on attitudes, such as professional background, gender, or level of job satisfaction (Reid, Bruce, Allstaff and McLernon, 2006; Chang, Ma, Chiu, Lin and Lee, 2009; Braithwaite, Westbrook, Nugus, Greenfield, Travaglia and Runciman, 2013). However, this data did not provide a detailed understanding of specific enablers and barriers to IPW and IPE. Furthermore, there were missed opportunities to explore the effect of other variables, such as prior experience of post qualifying IPE on staff attitudes to IPE and IPW (Reid *et al.*, 2006).

Although, a case study approach, as adopted by Baxter and Brumfit (2008) and Egan-Lee, Baker, Tobin, Hollenberg, Dematteo and Reeves, (2011) adds to the body of research and builds on the findings from other studies, many of the researchers investigated the attitudes of staff within one department or one hospital (Snelgrove and Hughes, 2000; McCray, 2003; Baxter and Brumfit, 2008; Wittenberg-Lyles, Oliver, Demiris and Regehr, 2010; Lingard, McDougall, Levstik, Chandok, Spafford and Schryer, 2012) or with teams known to work very closely together (Reeves and Lewin, 2004; Bailey *et al.*, 2006; Reid *et al.*, 2006; Robben *et al.*, 2012; Costa, Barg, Asch and Kahn, 2014). Although statistically significant differences between

professional groups in terms of the value they placed on IPE were reported in some of the studies (Reid *et al.*, 2006; Robben *et al.*, 2012), it would be difficult to generalise from the findings based on one department or unit, in view of the different systems of working that may exist. The context and structure of the team may affect how a team works (Snelgrove and Hughes, 2000; Baxter and Brumfit, 2008) and attitudes to IPW may be influenced by how established the team is (Gibbon, Watkins, Barer, Waters, Davies, Lightbody *et al.*, 2002; Pollard and Miers, 2008).

A more in-depth investigation of professions attitudes and perceptions of IPW and IPE was evident where researchers used mixed-methods (McCray, 2003; Reeves and Lewin, 2004; Russell, Nyhof-Young, Abosh, and Robinson, 2006; Baxter and Brumfit, 2008; Anderson, Cox and Thorpe, 2009; Anderson and Thorpe, 2010; Wittenberg-Lyles *et al.*, 2010; Lingard *et al.*, 2012; Robben *et al.*, 2012). These researchers could gain in-depth insights into staff attitudes and an understanding of the challenges associated with IPW in their organisations. Furthermore, where the location of the study included several different departments, such as the multiple case study by Baxter and Brumfit (2008), the attitudes of professions working within a range of departments could be compared.

### ***Strengths and limitations in study samples***

Sampling techniques, sample size and representativeness of samples were varied across studies, highlighting limitations and strengths for each of the studies. Although use of mixed-methods was identified as a strength in research design, one of the challenges of using mixed-methods was maintaining the sample size for the duration of some studies. For example, in the study by Anderson, Thorpe and Hammick (2011), pre and post semi-structured interviews were used to measure facilitators' attitudes to IPE before and after facilitating IPE for students. There was a marked reduction in the number of study participants who were interviewed post IPE facilitation, which Anderson *et al.* attributed to clinical and academic work pressures. The transitory nature of teams and high turnover of staff within a health care setting may be a contributory factor here. This is important to consider for future research and for identifying ways in which sample size can be maintained.

Three of the studies included staff from both health care and academic settings, but representation of different professional groups was unclear in some studies (Colyer,

2008; Anderson *et al.*, 2009; Anderson and Thorpe, 2010; Baker, Egan-Lee, Martimianakis and Reeves, 2011). Without consideration for different learning environments, it was difficult to identify enablers and barriers to IPW and IPE which may have been specific to each of these contexts. For many of the studies, sample demographics were unspecified which made it impossible to identify specific characteristics of different professional groups (Gibbon *et al.*, 2002; Reeves and Lewin, 2004; Lindblad, Kjellgren, Ring, Maroti and Serup, 2006; Baxter and Brumfit, 2008; Anderson *et al.*, 2009; Suter, Arndt, Arthur, Parboosingh, Taylor and Deutschlander *et al.*, 2009; Anderson and Thorpe, 2010; Wittenberg-Lyles *et al.*, 2010). The studies that were successful in recruiting large samples of staff from a mixture of professional groups primarily used quantitative methods to collect data (Reid *et al.*, 2006; Pollard and Miers, 2008; Chang *et al.*, 2009; Braithwaite *et al.*, 2012). This approach may have facilitated the inclusion of large samples, however, by using only quantitative methods, the researchers' ability to investigate participants' responses to questionnaires was restricted.

#### **2.4 Identification of themes**

A total of 35 studies met the inclusion criteria for this review (Table C); no studies were excluded on the basis of poor quality. Fourteen of these studies compared the attitudes of health and social care professions; the remainder included comparisons of professions within health care only or comparisons between academic and health care staff. Whilst most of the studies focused on attitudes to IPE or IPW, only four studies explored attitudes to both IPE and IPW. The study by Baker *et al.* (2011) was the only study to include health and social care staff attitudes to both IPW and IPE for students within the context of a health care setting. Despite these limitations, this review was valuable in identifying two main themes which were:

- The effect of professional background on attitudes to IPW and IPE
- The effect of previous experience of IPE on attitudes to IPW and IPE

Table C. Summary of studies included in the review

<b>Authors</b>	<b>Year</b>	<b>Country</b>	<b>Professions included</b>	<b>IPE/IPW focus</b>
Abramson & Mizrahi	2003	USA	Health & social care	IPW
Anderson <i>et al.</i>	2006	UK	Health care	IPE
Anderson <i>et al.</i>	2009	UK	Academic & health care	IPE
Anderson & Thorpe	2010	UK	Academic & health care	IPE
Anderson <i>et al.</i>	2011	UK	Academic & health care	IPE
Bailey <i>et al.</i>	2006	Canada	Health care	IPW
Baker <i>et al.</i>	2011	Canada	Health & social care	IPE & IPW
Baxter & Brumfit	2008	UK	Health care	IPW
Braithwaite <i>et al.</i>	2012	Australia	Health care	IPE & IPW
Braithwaite <i>et al.</i>	2013	Australia	Health care	IPE & IPW
Chang <i>et al.</i>	2009	R.O. China	Health care	IPW
Colyer	2008	UK	Academic & health care	IPE
Costa <i>et al.</i>	2014	USA	Health care	IPW
Egan-Lee <i>et al.</i>	2011	Canada	Health & social care	IPE
Gibbon <i>et al.</i>	2002	UK	Health & social care	IPW
Herbert <i>et al.</i>	2007	Canada	Health care	IPW
Hughes & McCann	2003	UK	Health care	IPW
Jové <i>et al.</i>	2014	Spain	Health care	IPW
Kvarnström	2008	Sweden	Health care	IPW
Larkin & Callaghan	2005	UK	Health & social care	IPW
Lindblad <i>et al.</i>	2006	Sweden	Health care	IPW
Lingard <i>et al.</i>	2012	Canada	Health & social care	IPW
Matziou <i>et al.</i>	2014	Greece	Health care	IPW
McCray	2003	UK	Health & social care	IPW
Piquette <i>et al.</i>	2009	Canada	Health care	IPW
Pollard & Miers	2008	UK	Health & social care	IPW
Pollard <i>et al.</i>	2012	UK	Health & social care	IPE & IPW
Reeves & Lewin	2004	UK	Health & social care	IPW
Reid <i>et al.</i>	2006	UK	Health care	IPE
Rice <i>et al.</i>	2010	Canada	Health & social care	IPW
Robben <i>et al.</i>	2012	Netherlands	Health & social care	IPW
Russell <i>et al.</i>	2006	Canada	Health & social care	IPW
Snelgrove & Hughes	2000	UK	Health care	IPW
Suter <i>et al.</i>	2009	Canada	Health care	IPW
Wittenberg-Lyles <i>et al.</i>	2010	USA	Health & social care	IPW

### **2.4.1 The effect of professional background on attitudes to IPW and IPE.**

The effect of professional background on attitudes to IPW and IPE, and differences in attitudes among different professional groups was discussed by a number of researchers. Although studies reported that attitudes to IPW and IPE were generally positive, when comparisons were made between professions, differences in attitudes were noted. Reid, Bruce, Allstaff, and McLernon (2006) measured attitudes to IPW and reported that doctors had less positive attitudes to IPW, in comparison to nurses. Similar professional differences were reported by Chang, Ma, Chiu, Lin, and Lee (2009), with doctors reported to have the least positive attitudes to IPW. In addition, Braithwaite *et al.* (2012; 2013) found that allied health professionals (AHPs) had more positive attitudes to IPW and IPE than doctors and nurses. Furthermore, Piquette, Reeves and Leblanc (2009) found that nurses valued IPW more than doctors, following medical crises in an intensive care setting. These studies were carried out in a number of different countries. Their findings highlight that although there may be cultural differences across global health care teams, professional background may be a common influence on attitudes.

#### ***Professional culture and professional identity***

Rice, Zwarantstein, Conn, Kenaszchuk, Russell and Reeves (2010), Robben *et al.* (2012), and Jové, Fernández, Hughes, Guillén-Solá, Rovira and Rubio-Valera (2014) suggest that professional identity, professional culture and interprofessional hierarchies may influence attitudes to IPW. Although these studies were conducted in different countries, these researchers reported that health care staff often felt that it was unnecessary to collaborate with other professions. Doctors who had negative attitudes to IPW, were also found to have a greater perception of their role as main decision makers in the health care team (Abramson and Mizrahi, 2003; Russell *et al.*, 2006; Reid *et al.*, 2006; Rice *et al.*, 2010). As reported by Baker *et al.* (2011) these perceptions of power may have negatively impacted on attitudes to IPE. In their study, doctors were reported to be less engaged in IPE initiatives within the health care setting, in comparison to nurses and AHPs. These findings suggest that a greater sense of professional identity and professional culture, as well as a lack of understanding of roles and responsibilities may influence attitudes to IPW and IPE.

This reinforces the important role that IPE may have in helping professionals to develop an appreciation of each other's skills and expertise (Robben *et al.*, 2012).

### ***Differences in the perceived level of IPW***

Within some of the studies reviewed, there was evidence to suggest that professions differed in their perceptions of how effective IPW was within their own teams. This was evident within the studies by Chang *et al.* (2009) and Matziou, Vlahioti, Perdikaris, Matziou, Megapanou and Petsios (2014) who found that nurses reported IPW to be less effective in their teams, in comparison to doctors. One mixed-methods study by Wittenberg-Lyles, Oliver, Demiris, and Regehr (2010) found that there was consensus amongst professions that IPW was effective within their team, evidenced in their questionnaire responses. However, from the researchers' observations of a group of professions in practice, the actual level of IPW between them was found to be limited. Collectively, these studies indicate that as well as professional differences in the perceived level of IPW, there may be a lack of awareness of how effective IPW is within some teams.

## **2.4.2 The effect of previous experience of IPE on attitudes to IPW and IPE**

### ***Prior IPE as an influence on attitudes to IPW***

Experiences of IPE as an influence on professions attitudes to IPW were explored in a number of studies (Gibbon *et al.*, 2002; Bailey *et al.*, 2006; Kvarnström, 2008; Pollard and Miers, 2008; Braithwaite *et al.*, 2012; Pollard *et al.*, 2012; Robben *et al.*, 2012). In two of the studies, IPE interventions provided during undergraduate training were assessed as a positive influence on attitudes to IPW (Pollard and Miers, 2008; Pollard *et al.*, 2012). As qualified health care professionals, those with experience of IPE in their pre-registration training felt more prepared for IPW compared to those without prior IPE experience (Pollard and Miers, 2008). Pollard *et al.* (2012) found that professions with prior experience of IPE reported more awareness in their practice of the barriers to effective IPW such as professional boundaries, hierarchies, and poor communication.

Although previous experiences of IPE had the potential to improve professions' awareness of roles and responsibilities and attitudes to IPW, there was some evidence that the impact of IPE was not necessarily maintained over time. For

example, despite stated behavioural intentions to work in a more interprofessional manner following experiences of IPE, these intentions seemed to diminish over time (Bailey *et al.*, 2006; Robben *et al.*, 2012; Braithwaite *et al.*, 2013). A study by Braithwaite *et al.* (2012) demonstrated that in some instances, experiences of IPE reinforced inaccurate perceptions of professions' roles. Braithwaite *et al.* (2012) reported that following a series of varied IPE interventions and measurement of attitudes to IPE and IPW over 3 years, there were no significant changes in attitudes to IPE and IPW. However, in relation to their perceptions of doctors as the central role in a team, mean scores increased over the duration of the study, indicating that these perceptions were reinforced over time.

### ***Prior IPE as an influence on attitudes to IPE***

Some researchers considered the possible influence that prior experiences of IPE as a learner or as an educator may have on attitudes to IPE (Anderson, Manek, and Davidson, 2006; Reid *et al.*, 2006; Pollard and Miers, 2008; Anderson and Thorpe, 2010; Anderson *et al.*, 2011; Egan-Lee *et al.*, 2011; Pollard *et al.*, 2012;). In their longitudinal study, to determine health care and social work professions' attitudes to IPE and IPW from training to practice, Pollard and Miers (2008), reported that staff who had prior experience of IPE during their training were less positive about IPE as qualified professionals. As previously discussed, Pollard and Miers found that experiences of IPE as students still influenced their practice, as was evident by their positive attitude to IPW. It is interesting that staff were less positive about IPE than expected, and further investigation into the nature of their IPE experiences as students would be required to explain this result.

Prior IPE experience as an educator and the influence on attitudes to IPE was discussed by Anderson *et al.* (2006); Anderson, Cox and Thorpe, (2009); Anderson and Thorpe (2010) and Egan-Lee *et al.* (2011). These studies highlighted that prior uncertainties, doubt and ambiguity related to the value of IPE for students, decreased once staff experienced IPE as a facilitator. This was particularly evident where structured, accredited training and support was given to staff to prepare for facilitating IPE.

### **2.4.3 Other variables which influence attitudes**

The effects of other variables such as professional experience, income, job satisfaction and gender on attitudes were considered briefly by some researchers. According to Chang *et al.* (2009), staff who were most satisfied with their jobs had more positive attitudes to IPW. Some significant findings related to age, professional experience and attitudes were discussed by Reid *et al.* (2006), Herbert, Bainbridge, Bickford, Baptiste, Brajtman and Dryden (2007), Pollard and Miers, (2008), and Matziou *et al.* (2014). The team's size and structure, staff location and physical access to each other, and the variation in each professionals' operational policies were also considered as possible influences on the ability to deliver effective IPW and IPE (Larkin and Callaghan, 2005; Baxter and Brumfit, 2008). Prior experience of IPW was discussed by Jové *et al.* (2014) who found that those staff who had worked collaboratively before, were found to have more positive attitudes to IPW. The differences in attitudes between regions and locality of hospitals was also considered as a possible influence on attitudes, although researchers acknowledged that this relationship would need to be further explored (Jové *et al.*, 2014).

### **2.5 Identifying gaps in the literature**

Performing this literature review provided the opportunity to evaluate the research pertaining to attitudes to IPW and IPE, and to identify strengths and limitations in these studies, as well as gaps in research. One of the main gaps identified is that there is a dearth of studies which explore health and social care staff attitudes to IPW and IPPL for students. Although 35 studies were deemed eligible, only four of these studies focused on attitudes to both IPW and IPE (Baker *et al.*, 2011; Braithwaite *et al.*, 2012, 2013; Pollard *et al.*, 2012); two of these studies included health and social care staff (Baker *et al.*, 2011; Pollard *et al.*, 2012) and only one study by Baker *et al.* (2011) focused on health and social care staff attitudes to IPW and to IPE for students learning in the practice environment.

Two common themes were identified in relation to the factors affecting attitudes: the effect of professional background, and the effect of previous experience of IPE. Other possible influencing factors such as age, gender, professional experience and income were considered in some of the studies, although the strength of these correlations was varied and inconsistent. In relation to the first theme identified (the

effect of professional background) doctors were reported to have the least positive attitudes to IPW in five of the studies (Abramson and Mizrahi, 2003; Reid *et al.*, 2006; Russell *et al.*, 2006; Chang *et al.*, 2009; Rice *et al.*, 2010). Two of the studies found that AHPs were more positive in their attitudes to IPW and IPE, in comparison to other members of the health care team (Braithwaite *et al.*, 2012; 2013). Professional identity and perception of the doctor as the main decision maker was highlighted as a possible influence on doctors' negative attitudes to IPW. Furthermore, Baker *et al.* (2011) also reported that doctors were less engaged with IPPL initiatives for students. However, this was the only study identified in this review where attitudes to IPW and IPPL were considered from the perspective of health and social care staff.

With regards to the second theme of the effect of previous experience of IPE, two studies reported IPE during pre-qualifying training as a possible effect on attitudes to IPW as qualified professionals: Pollard and Miers (2008) found that staff had an increased awareness of their positioning in a team, and Pollard *et al.* (2012) reported that staff with prior experiences had a better understanding and awareness of the challenges to effective IPW. A lack of clarity and understanding around the true concept of IPW and IPE remains in health care and education (Reeves, *et al.*, 2011) and as reported by Egan-Lee *et al.* (2011), experience of facilitating IPE can assist with providing this clarity. The positive impact that prior IPE experience as a facilitator can have on attitudes to IPE was also reported in three of the studies in this review (Anderson *et al.*, 2006; Anderson *et al.* (2009); Anderson and Thorpe, 2010). However, as Pollard and Miers (2008) reported, positive attitudes to IPE during pre-qualifying training may not necessarily continue from training into qualified practice. This highlights that further research is required to investigate the effect of prior experience of IPE on attitudes to IPW and IPE. As previously claimed by Reeves, Perrier, Goldman, Freeth, Hammick and Koppel (2013), it reinforces the need for further high quality research to assess the impact of different types of IPE interventions on practice.

There were some limitations identified in relation to the quality of the studies included in this review. Many of the studies used self-reporting methods to measure attitudes and whilst it is acknowledged these methods are a commonly used means of objectively measuring attitudes, there is a risk of bias in that research participants

may already be ambassadors of IPW or IPE (Anderson *et al.*, 2009; Anderson and Thorpe, 2010; Robben *et al.*, 2012). Sample size and representativeness of the sample groups was identified as another limitation. Some studies were successful in including a wide range of professions within their studies (Reeves and Lewin 2004; Baxter and Brumfit, 2008; Rice *et al.*, 2010; Wittenberg-Lyles *et al.*, 2010; Lingard *et al.*, 2012). The observational methods used in these studies to investigate interactions between different professions within a health care context may have enabled researcher to gain access to a wider representative sample of professions.

## **2.6 Implications for future research and practice**

This review highlights that there is limited evidence related to the attitudes of health and social care professions to IPW, and IPE for students learning within the practice environment, i.e., IPPL. Health and social care professions play a primary role in ensuring the provision of safe, quality care, and for also ensuring that students who are learning in a working environment have a positive and influential experience of IPW. It is important that IPPL is valued, particularly by those who are responsible for mentoring students within practice settings, as a way of preparing students for future collaborative working.

In light of the restructuring of health and social care services in the UK, the drive for improving IPW, and the push for the IPE continuum to extend into practice settings, further research is required to investigate health and social care professions' attitudes to IPW, and IPPL. Without this knowledge, it will be difficult to determine what influences health and social care professions' attitudes to IPW and IPPL, and what enables or acts as a barrier to IPW, and IPPL for students.

Whilst there is some evidence to suggest that professional background and previous experience of IPE effects attitudes to IPW and IPE, further research is required within the health and social care setting, focusing on the experience of IPPL. This knowledge may assist in identifying systems for improving IPW amongst health and social care staff, providing students with positive experiences of IPW, and understanding of varied experiences of IPE within different contexts. Since completing this review, the findings have been disseminated and published (O'Carroll, McSwiggan, and Campbell, 2016).

## **2.7 Limitations of the review**

Two main limitations are noted in relation to the search strategy employed in this review. Firstly, by electing to focus on literature published from 2000, in line with the previously noted rise in the profile of IPE and IPW, research that pre-dated this time has been excluded. Secondly, while the search terms and keywords may have accounted for some of the interchangeable terms used to describe IPE and IPW, the search strategy did not take into account alternative terms for 'attitudes'.

## **2.8 Main research questions and hypotheses**

From the literature review, it has been suggested that there is evidence that professional background and prior IPE experience are the main influencing factors of attitudes to IPW and IPE. In addition, this review identified a number of research gaps. Firstly, there is limited understanding of the attitudes of health care and social work professions to IPW, and to IPE for students within the context of practice settings i.e. IPPL. Secondly, there is limited evidence to help identify which variables affect attitudes to IPW, and IPPL for students, and thirdly, there is a gap in research in relation to the barriers and enablers to IPW amongst health and social work professions, and IPPL for students. In response to these research gaps, the following primary research questions were posed:

- a) What are the attitudes of practice mentors to IPW, and IPPL for students?
- b) Which variables affect practice mentors' attitudes to IPW, and IPPL?

The secondary questions posed were:

- c) What are the enablers of and barriers to IPW in practice?
- d) What are the enablers of and barriers to IPPL for students?

The objectives specific to the scope of this study:

- I. To measure practice mentors' attitudes to IPW, and IPPL for students
- II. To analyse which variables affect practice mentors' attitudes to IPW, and IPPL for students
- III. To explore practice mentors' perspectives of the enablers and barriers to IPW, and IPPL for students

The two main hypotheses related to this study were:

1. There are significant differences in the attitudes of practice mentors to IPW.
2. There are significant differences in the attitudes of practice mentors to IPPL for students.

## **2.9 Chapter summary**

In this chapter, the existing knowledge pertaining to the attitudes of health and social care professions to IPW and IPPL has been identified through analysis and synthesis of relevant research within this topic area. One of the main research gaps highlighted by this review is that there is limited research which has investigated the attitudes of health and social care professions to IPW, and IPPL for students learning. The research questions posed by this study, and the associated hypotheses to address these gaps in the literature were identified. The next chapter discusses the theoretical framework and design for this study.

## **Chapter 3. Methodology and Research Design**

### **3.1 Chapter overview**

This chapter will discuss the theoretical frameworks underpinning the methodology and design of this study, and will provide an overview of the theory related to IPW, IPPL, and the relationship between attitudes and behaviour. The rationale for a mixed-methods case study approach, and the use of a framework to guide the integration of methods, will be provided. Reference to the main research questions and study objectives will help explicate the decisions which were made in relation to the methodology and the research design.

### **3.2 Theoretical framework for the study**

Gillham (2010) reinforces that good research comes from the ability of the researcher to be aware of how they relate to different theoretical approaches. The research questions inherent in a study should guide its methodological approach and research design (Crowe, Creswell, Robertson, Huby, Avery, and Sheikh, 2011; Robson, 2011). Crowe *et al.* (2011) maintain that, where necessary, researchers can often draw on more than one theoretical framework to address their research question.

Referring back to the research questions presented in Chapter 2, Section 2.8, the primary research questions posed in this study related to measuring attitudes to IPW, and IPPL for students, and identifying which variables affect these attitudes. Two non-directional hypotheses associated with the study were also identified, predicting that there would be significant differences in attitudes. In considering the underpinning research methodology and associated epistemological and ontological stances, this study could initially be perceived as leaning towards a theoretical framework traditionally associated with positivism. This approach is traditionally associated with scientific and experimental methods, usually quantitative, which are employed to test hypotheses and explain reality using tangible and concrete evidence (Gillham, 2010; Lincoln and Guba, 2013). The researcher is perceived as being able to control and manipulate variables to test hypotheses (Lincoln and Guba, 2013). Matthews and Ross (2010) and Lincoln and Guba (2013) identify that this stance links

closely with the ontological stance of objectivism in that phenomena are perceived as predictable, ordered, and existing in isolation.

However, the study's secondary questions (Chapter 2, Section 2.8) related to exploring practice mentors' perspectives of enablers and barriers to IPW, and IPPL for students required a more subjective research approach. These questions required the researcher to explore these perspectives within the context in which practice mentors worked, and students learned in. The traditional objective methods employed by an experimental researcher would not have provided the insight that was required to understand "real life phenomena" and an understanding of study participants' "real world" and their values (Lincoln and Guba, 2013). The methodology for this study, therefore, drew mainly from the theoretical frameworks of interpretivism and the ontological stance of constructivism.

As interpretivism has evolved, the quantitative methods which were traditionally associated with a more positivist paradigm are now more valued for their opportunity to examine phenomena via different "lenses" (Gillham, 2010; Lincoln and Guba, 2013). The interpretivist researcher believes that social phenomena are studied through the perspective of the participant as "social actors" (Matthews and Ross, 2010). Constructivism takes into consideration study participants' perceptions, how they may differ between individuals, and the context in which they are in (Lincoln and Guba, 2013). Social phenomena are viewed as "constructed ideas which are continually being reviewed and reworked" by the research participants as "social actors" (Matthews and Ross 2010, p.25). Unlike the traditional positivist approach where the researcher takes an objective and independent stance, participants and researchers are perceived as equal partners (Lincoln and Guba 2013).

### **3.3 Theoretical frameworks related to IPW and IPPL**

It is suggested that the theoretical underpinnings of interprofessionalism in education and in practice stem from the social sciences (Colyer, Helme and Jones, 2005). The social sciences are traditionally associated with the study of behaviour, communication and interpersonal relations (Habermas, 1971). A wide range of educational theories associated with IPE are considered within the literature and it is acknowledged that that one single theory may not fit all, when it comes to identifying

the underpinning theory for IPE initiatives (Barr and Low, 2013). Barr and Low (2013) advise that IPE initiatives should draw from a range of theories to suit the learning context but should also ensure that the basic IPE principles of “learning with, from and about,” as defined by CAIPE (2002), are followed.

In relation to investigating attitudes to IPPL, this study draws from adult learning theory (Knowles, 1984; Knowles, Shepherd, Holton and Swanson, 2005) and context-based learning (Resnick, 1987). Knowles’ adult learning theory is based around five assumptions related to how adults learn:

1. Adult learners are independent and self-directed as opposed to child learners who are dependent on knowledge from others.
2. Adult learners enhance their learning by the prior experiences they bring.
3. Adult learners have a readiness to learn which is driven to learn by the social roles they play.
4. Adult learners are interested in the immediate application of knowledge. Their orientation to learn is based on problem solving rather than being content centred.
5. Adult learners are motivated to learn by internal factors as opposed to external factors.

Whilst Knowles’ theory focused on the characteristics of adult learners, Resnick’s (1987) theory focused on the context in which learning occurs; that is, he compared learning which occurs within an academic or classroom setting, to learning which occurs within a work based setting. Resnick discussed the value of the academic setting for encouraging reflection and reasoning but emphasised that learning out with the classroom enabled “contextualised reasoning” by providing opportunities for learners to link actions to events.

The application of adult learning theory to IPE has previously been discussed by Barr, Low and Howkins (2012) who acknowledged that the nature of IPE requires groups of students from mixed professions to take responsibility for their own learning. It may be that IPPL offers advantages over IPE within an academic setting. For example, students might be more motivated to learn interprofessionally and more inclined to recognise the relevance to IPE practice; they may also benefit from witnessing IPW within the context of practice settings.

In relation to IPW, this study draws from the social psychology theory of social identity (Tajfel, 1978; Turner, 1987). This theory has previously been used to explain how professions behave and interact within health care organisations (Reeves *et al*, 2010; Mitchell, Parker and Giles, 2011; Kreindler, Dowd, Star and Gottschalk, 2012). As discussed by Tajfel (1978) and Turner (1987), security, familiarity and confidence are evident within 'inter-group' interactions where individuals have membership in a group. Tensions can arise with 'outer-group' interactions with individuals perceived as not belonging to a group. Kreindler *et al.* (2012) maintain that the theory of social identity is an effective theory for understanding why professions are often perceived as working in silos in health care organisations. They go on to suggest that understanding group interactions and individual perceptions within specific contexts can help to identify ways of changing patterns so that teamwork can be improved.

### **3.3.1 Theory related to the relationship between attitudes and behaviour**

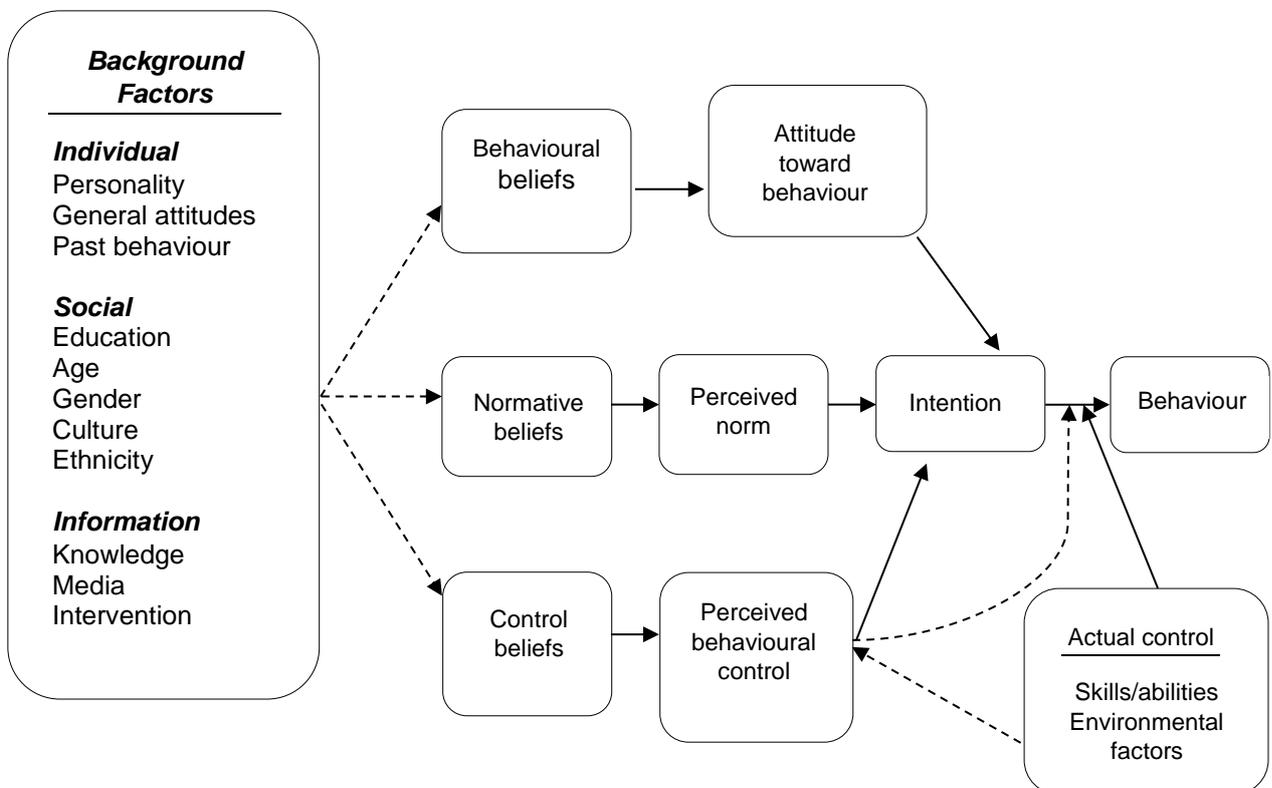
Within the field of social psychology, the relationship between attitudes and behaviour has been considered extensively (Festinger, 1957; Bem, 1970; Ajzen and Fishbein, 1977; Fishbein and Ajzen, 2010). Whilst there is significant evidence to support the view that attitudes predict behaviour (Kraus, 1995), there may be other variables that affect the attitude-behaviour relationship (Fazio and Zanna, 1981; Fazio and Ewoldsen, 2005; Fishbein and Ajzen, 2010). These authors do not completely abandon the theory of attitudes influencing behaviour but consider other theories which suggest that sometimes, the relationship between attitudes and behaviour may be affected by direct and indirect experiences, personality traits, and norms in relation to behaviour in certain situations. Fazio and Zanna (1981, p.165) asserted that:

*“Rather than asking whether attitudes relate to behaviour, we have to ask under what conditions do what kinds of attitudes held by what kinds of individuals predict what kinds of behaviour.”*

Fishbein and Ajzen's (2010) reasoned action model is one of the theories which explores attitudes and other determinants of behaviour. As illustrated in Figure 2, this model identifies three predictors of intentions and behaviour. Firstly, behavioural beliefs refer to attitudes towards the behaviour which may or may not be influenced by a number of different background factors, such as culture, personality or education. Secondly, normative beliefs are thought to influence behaviour which is

perceived to be the norm, and thirdly, control beliefs refer to behavioural controls such as environmental factors or skills and abilities. These behavioural controls can be perceived, or actual, and can affect behavioural intentions and onward performance of the behaviour. Fishbein and Ajzen (2010, p.21) maintain that a desired behaviour is achieved by a combination of the three predictors of intentions:

*“The more favorable the attitude and perceived norm, and the greater the perceived behavioral control, the stronger should be the person’s intention to perform the behavior in question.”*



**Note:** The background factors are just some of the examples highlighted in the original model. Fishbein and Ajzen explain that the dotted arrows indicate that further empirical work would need to be carried out to investigate causal links.

Figure 2. Fishbein and Ajzen’s (2010) schematic presentation of the reasoned action model.

Fishbein and Ajzen (2010) emphasise that the background factors referred to in their model, are purely a guide to which factors may affect beliefs and attitudes. They maintain that these variables warrant further investigation, within the context of any

given situation, to determine their influence. Furthermore, they advise that predictors can vary between individuals and populations, and that for some individuals, behavioural beliefs may be a greater predictor than control beliefs.

To apply an explanation of the model to the context of this study, the following example can be considered. A health care professional may have no intention of working interprofessionally and therefore not collaborate with other professions because of attitudes shaped by religion or culture. For another health care professional, they may have positive intentions to work interprofessionally, motivated by their behavioural and normative beliefs, stemming from their knowledge of the impact of effective IPW. However, environmental factors may prevent them from following their positive intention to work in a more interprofessional manner.

This model provides a useful framework to consider the attitude-behaviour relationship of practice mentors' in relation to IPW, and IPPL for students. Fishbein and Ajzen (2010) emphasise that behaviour can only be fully understood when attitudes and behavioural controls are assessed. As discussed in Chapter 1, Section 1.5, attitudes to IPE have previously been investigated, but mainly from the perspective of academics within university settings. Fishbein and Ajzen's (2010) model offers a potentially useful means of exploring how practice mentors' attitudes, or other behavioural controls, affect their intentions to work interprofessionally or support IPPL for students. If there is a need to change the way that professions work together and to change organisational culture, the challenges which exist at the frontline of health and social care need to be understood. To fully understand the relationship between attitudes and behaviour in relation to IPW and IPPL, it is important that these issues are investigated within a relevant context, and from the perspective of professions who work within practice, and who mentor students within practice settings.

### **3.4 A mixed-methods case study approach**

In section 3.2 above, it was identified that the research questions in this study informed the research methodology, which drew mainly from an interpretivist and constructivist approach. It was highlighted that whilst qualitative research methods have traditionally been affiliated to interpretivism, as this theoretical stance has evolved, the use of quantitative methods and the ability to use multiple "lenses" to

investigate phenomena has become more valued (Gillham, 2010). To meet the objectives of this study (Chapter 2, Section 2.8), multiple methods were required to enable attitudes to be objectively measured, to analyse the effect of specific variables on attitudes to IPW, and IPPL for students, and to understand practice mentors' perspectives of the enablers and barriers to IPW, and IPPL for students. A mixed-methods case study approach enabled the researcher to investigate practice mentors' attitudes and perspectives using multiple "lenses", and to understand these issues in relation to the context in which practice mentors work in, and pre-qualifying students learn.

### **3.5 Characteristics of a case study**

As defined by one of the main authors associated with this approach, Yin (2014, p.16) identified a case study as:

*"An empirical inquiry that investigates a contemporary phenomenon (the 'case') in-depth and within its real-world context, especially when the boundaries between phenomena and context may not be clearly evident."*

With such an approach, the use of quantitative and qualitative methods to collect data are valued as a way of gathering multiple forms of evidence, studying multiple variables, and expanding on knowledge and theory (Tellis, 1997; Baxter and Jack, 2008; Yin, 2014). This diversity of methods assists in creating strong evidence within a study (Yin, 1999; 2014). As discussed earlier in this chapter (Section 3.2), the theoretical framework for this study drew from an interpretivist and constructivist approach. It is suggested that case studies orientate toward an interpretivist epistemological stance (Yin, 2014) and remain "true to the moral imperatives of constructivism" (Lincoln and Guba, 2013, p.80). The flexibility of this approach enables the researcher to explore beyond objective data and gain insight into participants' perceptions and experiences (Gillham, 2010).

The literature refers to a variety of types of case study approaches and draws attention to the main distinctions between single and multiple case study designs. Yin (2014) defines a single case study as an in-depth study within one unit of analysis, whereas multiple cases include more than one unit of analysis, allowing for analysis and comparison across multiple cases. Yin maintains that a single case study is often

used where time and resources have to be taken into consideration, such as when a researcher is undertaking a study independently. In relation to other types of case studies, intrinsic and instrumental case studies are described by Stake (1995). The intrinsic case study is labelled as such when there may not be a specific question but an intrinsic interest in a particular case. In comparison, the instrumental case study has a specific question to guide the inquiry but the inquiry can be instrumental to understanding other issues. Swanborn (2010) draws a distinction between an extensive and intensive approach, with the former referring to the study of many instances or a large population. Alternatively, an intensive approach is said to focus on an in-depth study of one instance within its own context.

As a specific inquiry into the attitudes of practice mentors to IPW and IPPL, within their own working context and within one single health board, this case study relates to the case study definitions provided by Stake (1995), Swanborn (2014) and Yin (2014). This case study can therefore be defined as a single, intensive, instrumental case study of a group of practice mentors working within one health board and associated local authority. It focuses only on those professions who have a remit in mentoring or supervising health care and social work students learning within practice settings. In studying their attitudes to IPW and IPPL, it is anticipated that this case study will be instrumental in providing further insight into attitudes to IPW, IPPL for students, which variables affect these attitudes, and the factors perceived to act as enablers of and barriers to IPW, and IPPL for students.

### **3.5.1 Issues of generalisability and transferability with case studies**

The contribution of case studies to knowledge within the social sciences has been acknowledged but has, in the past, been referred to as surviving “in a curious methodological limbo” and not fitting with the traditional rules of scientific inquiry (Gerring, 2007, p.7). Case studies have been labelled as ‘*soft*’ research, and it has been argued that there are limitations in relation to transferability of case study findings, and the ability to generalise from a single case study (Yin, 2014). However, because of their flexibility, their use within the study of healthcare organisations are particularly suited to this complex environment (Yin, 1999). Single case studies can be appreciated and valued for their uniqueness and rich contribution to knowledge (Coolican, 2009; Lincoln and Guba, 2013).

In relation to this study, it is anticipated that readers, in the form of other health care and social work professions, will identify with participants' attitudes to IPW, and IPPL for students, and their perspectives of the enablers and barriers to these being effective within practice. Although this study used a single case study approach, as opposed to multiple cases, the robust methods employed to generate and analyse evidence could be repeated within another context. From this case study, it is anticipated that the insights that will be provided from this case, will be transferable to other health boards and local authorities. In keeping with research underpinned by a constructivist framework, transferability replaces generalisability (Lincoln and Guba, 2013).

### **3.6 The use of mixed-methods to address the study objectives**

Within a case study, the purpose of the study objectives is twofold. The objectives or "propositions", as termed by Yin (2014), define the boundaries of the case and ensure that the case study remains focused and feasible (Baxter and Jack, 2008; Yin, 2014). The objectives also help to guide the researcher to the most appropriate sources of evidence, and the methods which are appropriate to gather this evidence (Yin, 2014). In Chapter 2, Section 2.8, the main objectives related to the scope of this study were identified:

- I. To measure practice mentors' attitudes to IPW, and IPPL for students
- II. To analyse which variables affect practice mentors' attitudes to IPW, and IPPL for students
- III. To explore practice mentors' perspectives of the enablers and barriers to IPW, and IPPL for students

These objectives guided the researcher to draw on more than one source of evidence and to use a mix of methods to generate and analyse data. Mixed- methods research is defined by Creswell (2015, p.2) as:

*"An approach to research in the social, behavioural, and health sciences in which the investigator gathers both quantitative (closed-ended) and qualitative (open-ended) data, integrates the two, and then draws interpretations based on the combined strengths of both sets of data to understand research problems."*

According to Ritchie (2003), Morgan (2014) and Creswell (2015), the use of mixed-methods provides breadth and depth of understanding, which can be difficult to achieve if only one method is used in isolation. Although breadth of evidence may be achieved with quantitative methods, qualitative methods enable researchers to gain deeper insights into individuals' perspectives (Coolican, 2009; Palinkas, Horwitz, Green, Wisdom, Duan, Hoagwood, 2013). In relation to their use in case studies, one source of evidence can be used to strengthen, verify and add validity to the other (Stake, 1995; Yin, 1999, 2014). In this study, quantitative and qualitative methods were used in sequence to strengthen the data generated from each method and to provide "an array of evidence" (Yin, 2014). In keeping with the interpretivist and constructivist methodological approach taken in this study (Section 3.2), it enabled multiple lenses to be used to gain insight into practice mentors attitudes to and perspectives of IPW, and IPPL for students.

### **3.7 A conceptual framework for the integration of methods**

The sequential priorities model (Figure 3) described by Morgan (2014) provides a valuable framework to consider how quantitative and qualitative methods were integrated within this study. This model encourages a practical approach to prioritising and sequencing methods, to ensure that the objectives of a study are met. Morgan explains that prioritisation occurs by identifying the core and supplementary methods; that is, the method which supplies the key strengths, and the method which is viewed as adding to these key strengths. However, sequencing does not always mean that the supplementary method follows the core method; Morgan also highlights that the supplementary method can be used as a preliminary method, to provide input to the core method. For example, focus groups could be used as a preliminary method to inform the design and content of a survey (core method) in a study.

Sequential Contributions Model for Integrating Qualitative and Quantitative Methods			
Sequence of Methods		Priority of Methods	
		Quantitative Priority	Qualitative Priority
	Preliminary Contribution	<b>Preliminary Qualitative</b> qual → QUANT	<b>Preliminary Quantitative</b> quant → QUAL
Follow-Up Contribution	<b>Follow-up Qualitative</b> QUANT → qual	<b>Follow – up Quantitative</b> QUAL → quant	

Figure 3. The sequential priorities model (Morgan 2014)

The model differentiates between four different integrated designs using the notations of 'QUAL' and 'QUAN', as discussed by Morse (1991). One of the first distinctions to draw attention to with these notations is that the uppercase letters denote a core method. The next distinction made is between methods that provide preliminary input or a follow up contribution, providing an extension of the issues addressed by the core method. This is denoted by the lower case notations, 'qual' and 'quant'.

Using this model as a conceptual framework for the integration of the methods used, this study follows a core quantitative study with qualitative follow-up contribution (QUANT → qual). This is in keeping with Creswell's (2015) definition of an explanatory sequential design, as the data gained from one method (semi-structured interviews) was used to explicate the data generated from another method (surveys). Firstly, the use of a quantitative method, as a core method, was the key strength which enabled the researcher to address the primary research questions (Chapter 2, Section 2.8) related to measuring attitudes to IPW, and IPPL for students, and analysing which variables affect these attitudes. Secondly, the qualitative method enabled the researcher to address the secondary research questions, (Chapter 2, Section 2.8), related to exploring practice mentors' perspectives of the enablers and barriers to IPW, and IPPL for students. As a follow-up to the core method, this qualitative method provided the opportunity to gain deeper insights into the results from the quantitative data (Ritchie, 2003; Morgan, 2014).

Throughout the generation and analysis of the qualitative data in this study, a number of measures were put in place by the researcher to ensure rigour in the processes

that were used, and to ensure that the data generated was trustworthy (Guba and Lincoln, 1985). When using mixed-methods, the same rigour should be applied to each method and their key components, as if they had been used alone (Creswell, 2015). Chapters 4 and 5 will focus on the methods which were used to generate and analyse data in two separate parts. Rigour applied to the overall research design is threaded through the descriptions of these methods. In particular, Section 5.5 of Chapter 5 focuses on the strategies which were used in the analysis of the qualitative data to ensure that this data was trustworthy.

### **3.8 Chapter summary**

In this chapter, it has been identified that this study drew from interpretivism and constructivism as the main underpinning theoretical frameworks. This methodology was guided by the study's primary and secondary questions which required the researcher to gain an understanding of research participants' attitudes and perspectives of real life issues within their own working contexts. An overview of the IPW and IPPL theory related to this study was also provided, and it was recognised that the principles of adult learning theory and context-based learning were applied to IPPL within the context of this study. Theory related to the attitude-behaviour relationship was discussed, and the reasoned action model was identified as a useful framework to consider this relationship in relation to how attitudes to IPW, and IPPL for students transfer into practice.

This chapter introduced some further aspects of the research design by discussing the rationale for a mixed-methods case study approach. It was identified that as a single, intensive, instrumental case study of practice mentors working within one health board and associated local authority, an in-depth understanding of their attitudes and perspectives in relation to IPW, and IPPL would be achieved. Furthermore, the use of mixed-methods would enable the researcher to meet the objectives of the study and gather a strong array of evidence. The methods of data generation and analysis are discussed in the next two chapters (Chapters 4 and 5).

## **Chapter 4. Part I Methods**

### **4.1 Chapter overview**

In the previous chapter, it was identified that the theoretical perspective for this study was based on an interpretivist, constructivist approach. In relation to the design of the study, the rationale for adopting a mixed-method case study approach was discussed. This chapter provides an overview of the site of the study, the study population, and thus introduces the case. As highlighted in Chapter 3, the research questions and objectives related to this study guided the use of mixed-methods. Quantitative and qualitative methods were used in sequence to generate and analyse data. To clearly differentiate the individual contribution of the methods, each will be discussed in turn. In keeping with the sequence in which each method was employed, this chapter will therefore focus on the quantitative methods which were used in this study.

### **4.2. Study site and population: defining the case**

As discussed in Chapter 3, Section 3.4, a case study approach was adopted in this study to investigate the attitudes and perspectives of practice mentors in relation to IPW, and IPPL for students. Yin (1999; 2014) states that from the onset of a case study, the case should be clearly defined, to avoid ambiguity and to ensure that the results from the study are related to the case. The description of the study site also adds to the rigour of the study by enabling others to relate to the context, and to determine transferability to their own settings (Baxter and Jack, 2008; Lincoln and Guba, 2013). To protect the identity of the staff from this study site, the identity of this particular health board and local authority, as well as any reference to published reports associated with these organisations, will remain anonymous.

This study was carried out within one health board and local authority within Scotland. The health board consists of one main hospital offering acute in-patient services, eight community hospitals providing outpatient and rehabilitation services, and 71 health centres. Within the local authority, the social work department works in partnership with the health board in their provision of services to children and young families, and young and older adults. According to the Scottish 2011 census (National

Records of Scotland, 2016), these services serve a population of approximately 360,000, over an area of 1.325 square kilometres. It is noted by the Scottish Index of Multiple Deprivation (2012) that 12.8% of the data zones, served by this health board and local authority, are in the 15% most deprived data zones in Scotland.

The target population for this study comprised of health care professions from this single health board, and social work professions from the corresponding local authority, who as part of their professional role, had a responsibility for mentoring health care or social work students during their practice placements. Recent workforce reports carried out by the health board and local authority stated that 4997 health and social care professionals were employed by the health board, and a total of 3031 social workers by the local authority.

Although these organisations have been going through a period of transition since 2015, with the formal integration of health and social care, there is evidence that positive moves to integrate services had already begun prior to the Health and Social Care Act (2012). For example, in response to the Scottish Government's (2011) Reshaping Care for Older People policy, the health board and local authority combined community assessment and support services to provide support, rehabilitation and intermediate care for people discharged from hospital. In 2012, this collaboration was extended further to include the 'Hospital and Home' service, enabling some medical care to be delivered by nurse practitioners in service users' homes.

The health board and local authority regularly host practice placements for pre-qualifying students from approximately nine different higher education institutes (HEIs) across Scotland. These students undertake programmes of training leading to a professional qualification in social work, nursing, medicine, pharmacy, or an allied health profession. At the time of the study, the researcher was aware that IPPL was occurring regularly within one location with the acute hospital, and in three locations in the community setting.

### **4.3 Ethical approval and access to the study site**

Advice was sought from the health board's Research Ethics Committee (REC) regarding the requirements for ethics approval for this study. As per the governance arrangements for research ethics committees (Department of Health 2011), a full

ethical review by the health boards REC was not required, as no service users were involved as participants in this study. Ethical approval was granted by the University of St Andrews ethics committee (UTREC) and permission given by the health board and local authority for the researcher to access the study site (Appendix 4).

The procedures used to gain informed consent from the study participants are discussed in later sections of this chapter. However, in this section, it is important to highlight that the study took place within participants' work time and their own working areas. It was therefore necessary to gain approval from number of gatekeepers such as, the Directors of Medicine, Nursing, AHPs, and the Director of Health and Social Care Integration. These gatekeepers supported the research, understood the rationale for the study, and were sensitive to the challenges that may arise in recruiting staff as study participants. In their strategic overview of the organisations, they took into consideration the requirements of the research and the priorities of the participants. The support they provided, particularly in the recruitment phase for the study, is discussed further in Section 4.5.

#### **4.4. Study sample**

The target sample for this study were health care and social work professions from one specific health board and local authority, with a specific remit in mentoring students during their practice placements. Identifying an appropriate sample size proved challenging because each profession had a different system for recording registered mentors. It was, therefore, difficult to estimate the total number of practice mentors within the health board and local authority. It was anticipated that a sample of 200 practice mentors, with a balanced number of participants from each profession; nursing and midwifery, medical, AHPs and social work, would generate an adequate amount of quantitative data for the method of statistical analysis being used. To ensure that participants were eligible for this study, the following inclusion criteria were set:

##### ***Inclusion criteria***

- Only professions from a health care or social work background who worked within the identified health board or local authority chosen for this case study
- Only professions governed by a professional body such as the GMC, NMC, HCPC or SSSC

- Only newly qualified and experienced professions who worked within a hospital, community setting or local authority
- Only professions who were responsible for mentoring or supervising students during their practice placements

In Chapter 6, the analysis of the data collected from the online surveys presents detailed descriptive statistics of the final sample characteristics. However, as an indication of the total sample recruited for the collection of quantitative data and where cases were deemed eligible for quantitative analysis, the total sample consisted of 90 health care and social work professions, 22 from the GMC (24.4%), 21 from the HCPC (21%), 35 from the NMC (38.9%), 9 from the SSSC (10%) and 3 from the GPhC (3.3%). As discussed further in Chapter 6, not all the survey participants could be included in the quantitative analysis due to small number of participants from the professional groups of social work and pharmacy.

Setting the inclusion criteria for this study ensured that parameters were identified to target the sample of interest for this study (Cohen, Manion and Morrison, 2011) but also ensured that the sample remained representative of the population of practice mentors in a health board and local authority. Sample representativeness was a vital component of this study, particularly in the analysis of the quantitative data, and where specific variables of interest were analysed to determine their effect on practice mentors' attitudes to IPW, and IPPL for students. In Chapter 2, a review of the literature showed that there were limitations with sampling strategies, sample size and representation of samples in previous studies. In attempting to address these limitations, the researcher set out to ensure sample representativeness by employing the range of strategies presented in this chapter.

#### **4.4.1 Sampling strategy**

The sampling strategy consisted of a multi stage approach using non-random sampling strategies; criterion-i, quota sampling and snowball sampling. Criterion-i was the main sampling strategy which was used to recruit participants for the online survey. Based on the predetermined inclusion and exclusion criteria, the sample in this study consisted of health care and social work professions who mentored students during their practice placements. Criterion-i sampling, as a type of purposeful sampling method, is based on the assumption that the sample selected

will have expert knowledge and skills related to the phenomena of interest (Palinkas *et al.*, 2013). In this study, the assumption was made that practice mentors would have expert knowledge and skills related to IPW and thus may have formulated attitudes and beliefs in relation to IPW in their workplace. Whilst it was questionable whether they would have experience of IPPL for students, they still may have developed attitudes or beliefs related to students from different professions learning together. These attitudes could therefore be captured by the online survey.

Following the first initial stages of recruitment, it became apparent that there were a larger number of practice mentors from the nursing profession and medical profession recruited, in comparison to social workers and AHPs. It was therefore necessary to specifically target these latter professions for recruitment using quota sampling. This sampling method is often used where a study requires to reach a specific quota of specific characteristics within a sample (Coolican, 2009; Cohen, Mahon, and Morrison, 2011). As previously discussed in Chapter 2, a review of the literature highlighted that sample representativeness was a gap identified in previous studies related to IPW and IPPL. Employing quota sampling ensured that the sample was varied in relation to professional background, professional experience and experience of IPPL. These variables would be important later during the analysis of data, specifically in analysing the effect of different variables on attitudes to IPW, and IPPL for students. This analysis is discussed further in Chapter 6.

Ongoing attempts to reach the quota sample led to a snowball sampling strategy being employed during the collection of qualitative data for this study. Snowball sampling is another type of purposeful sampling whereby research participants become key informants by identifying other potential research participants (Cohen *et al.*, 2011; Robson, 2011; Palinkas *et al.*, 2013). In this study, interview participants became key informants by identifying colleagues who were also eligible for the study. Snowball sampling proved to be beneficial when recruitment of participants started to slow down, and where strategies to recruit more participants had been exhausted. These recruitment strategies are discussed further in Section 4.5 of this chapter.

Palinkas *et al.* (2013) advises that one of the limitations of criterion sampling is that there is a risk of excluding other participants who could also offer rich insight. As discussed in Section 4.4, health and social care professions not registered with a

professional governing body were excluded from the sample criteria. This meant that health or social care support workers, who worked in a hospital or community setting and who may also have contributed to students' learning during their practice placements, were excluded from this study. Although support workers may not have a specific remit within their role to supervise or mentor students in practice, they may still have had interactions with students and have had an influence on their experiences of IPW. This group may have offered a different perspective on attitudes to IPW, and IPPL for students, as well as insight in to the enablers and barriers in practice settings.

#### **4.5 Recruitment**

The recruitment of survey participants took place over a 20-month period between December 2013 and August 2015. Appendix 5 provides an overview of the study timeline which includes the recruitment period. The study advertisement (Appendix 6) provided a brief overview of the study and was disseminated by email via key gatekeepers, including Directors and Line Managers within the health board and local authority. Those interested in participating in the study were invited to contact the main researcher by telephone or email. No incentives were offered for participation. Following participants' initial expression of interest, the researcher provided further information about the study and the electronic link to the online survey. This link was embedded within the email, to enable direct access via a desktop computer, mobile phone or another portable device. The researcher monitored whether participants who had expressed an interest in participating went on to actually complete the online survey. A maximum of three reminder emails, within a two-month period, were sent to participants to remind them to complete the survey. After this time, if the survey was not completed, it was assumed that the participant had decided not to participate in the study.

Email recruitment, as opposed to the researcher physically entering the study site to recruit participants, was the preferred method identified by the health board, local authority and by departmental managers. This was deemed to be most appropriate and ethical in view of participants' priorities in care delivery. In the context of this study, email proved to be effective, as it provided an efficient way to maintain contact between the researcher and participants. For example, one participant emailed the

researcher to highlight that the electronic link to the online survey was not working. The researcher was able to promptly rectify the issue which was due to a temporary technical fault with the online platform. Three participants contacted the researcher to clarify if they were illegible to take part in the study, and another two participants used email to inform the researcher that they had decided to withdraw from the study.

As discussed in Section 4.4 of this chapter, the researcher aimed to recruit a sample of 200 practice mentors to participate in the online survey. However, achieving this target proved challenging, and as discussed further in the results chapter (Chapter 6), the final sample for the online survey consisted of 90 practice mentors, 45% of the initial target sample. As illustrated in the graph shown in Figure 4, there were three phases involved in the recruitment of participants. Within each phase, the recruitment strategy was reviewed to ensure an adequate sample of practice mentors was achieved.

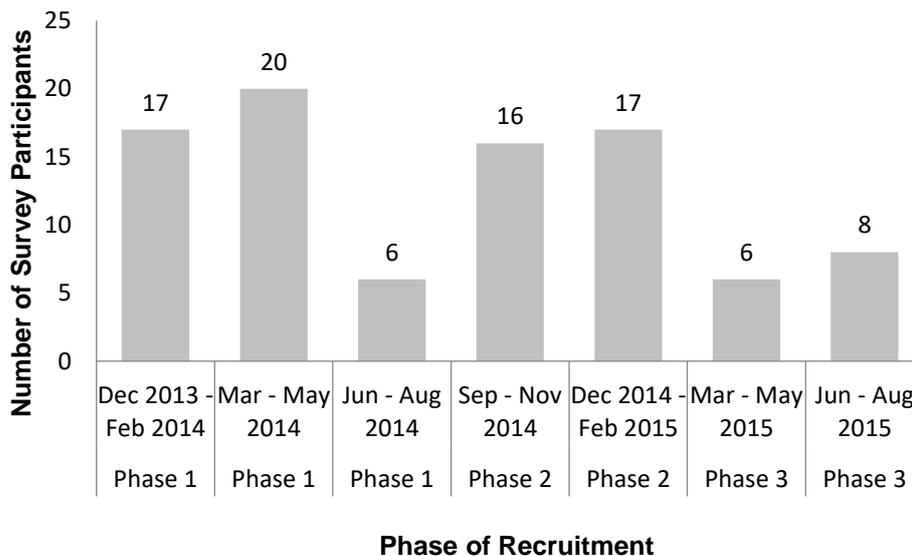


Figure 4. Number of survey participants at each phase of recruitment

#### **4.5.1 Phase 1: Support from key gatekeepers**

Following ethical approval and permissions granted to access the study site, contact was made initially with the Directors of Medicine, Nursing, and AHPs from the health board. In view of the researcher's professional background within health care, the contact details for these individuals within the health board were easily accessible. The researcher corresponded by email and also met with some of these key gatekeepers, where they requested to meet, to inform them of the aim and purpose of the study. Meeting face to face was a valuable opportunity to gain additional background information in relation to the study context, and insight into their perspective of the enablers of and barriers to IPW and IPPL. These perspectives were offered voluntarily during these meetings and contributed to the field diary maintained throughout the duration of the study.

Key gatekeepers' involvement in the recruitment at this stage was valuable and maintaining their support proved to be the most effective and direct way of yielding the most recruits for this study. Their target professional group were mainly managers and heads of department with the hospital and community setting. It was agreed that email correspondence to line managers of health care and social work professions, would be more appropriate at the early stages of recruitment, to raise awareness of the study and to ensure that the appropriate sample population was targeted (Section 4.4). The researcher was copied into the email correspondence between the directors and line managers. This enabled a record of contact details to be maintained for later follow up correspondence between the researcher and the line managers.

As evident in the first phase of recruitment (Figure 4), disseminating the study advertisement via department line managers initially proved to be an effective strategy for recruiting practice mentors to the study. However, it was evident that recruitment numbers began to decrease towards the end of phase 1. In response to this, the researcher made direct contact with the line managers during the middle stage of phase 1, to remind them of the study and to seek their assistance with further recruitment. A possible explanation for this decrease in numbers is that the study advertisement may or may not have been disseminated by all key stakeholders, or that the email was not acted on following dissemination. In keeping with

the ethical considerations of this study, service user care overrode practice mentors' participation in the study. These care priorities may have taken precedence over any initial interest, if at all, in the study.

Identifying equivalent key gatekeepers from the department of social work in the local authority proved to be more challenging. One of the reasons for this may have been due to the researcher's limited knowledge of the organisation and appropriate sources of contact. Two key contacts were eventually established, firstly with a staff and student training manager from a social work department, and secondly with a university whose social work students undertook their practice placements within the local authority as part of their pre-registration training. Both contacts advised on the most appropriate recruitment strategy. This was to disseminate the study advertisement directly to social workers known to mentor students during their placements.

#### **4.5.2 Phase 2: Face to face recruitment opportunities**

As shown in Figure 4 (Section 4.5), it was evident that recruitment of study participants was boosted within the second phase of recruitment by a number of opportunities to meet face to face with nursing line managers from the community setting, and practice mentors within the acute setting. During this phase, interviews had also commenced. As part of the snowball sampling strategy, interview participants identified other potential recruits within their own departments and disseminated the study advertisement via email or in hard copy within their own workplaces. This recirculation of the study advertisement may have successfully reminded practice mentors of the study or stimulated the interest of some professions who were previously unaware of the study.

The opportunity to meet face to face with nursing line managers enabled the researcher to explain the purpose of the study, gain their support for their study, and their assistance in disseminating the study advertisement to nurses working within the community setting. The researcher was also invited to attend two training sessions with practice mentors from the nursing profession and as part of the sessions, was given time to talk about the study and to recruit participants. Those interested in participating were invited to write their email addresses on a piece of paper at the end of the session. The researcher then emailed these participants

after the meeting, sending them the participant information sheet and an electronic link to the online survey. Requests from two practice mentors for a hard copy of the survey were also accommodated by sending copies with a return stamped address envelope to the work addresses they provided. These were sent within one week of the session occurring.

Although the initial response from potential participants at these training sessions was encouraging, the number of actual participants was less than the number of individuals who had indicated during the session that they were interested in participating. Following the session, few practice mentors went on to complete the online survey and neither of the practice mentors who had requested the hard copies of the survey returned these to the researcher. It was assumed that having had more time to think about the study, some may have decided not to take part; or that, work priorities superseded their intention to participate.

#### **4.5.3 Phase 3: Widening recruitment opportunities and ensuring inclusivity**

In the third phase of recruitment, it was apparent that there had been limited success in recruiting social work practice mentors to the study. This prompted the researcher to consider other strategies to improve recruitment of this professional group. The appointment of a Director of Health and Social Care Integration within the study site, and around the time that the study commenced, was a prime opportunity for the researcher to make contact with this key gatekeeper, and to seek additional support in disseminating information about the study to social work practice mentors. The researcher met with the Director of Health and Social Care Integration and explained the recruitment strategy previously employed. Following this, the Director of Health and Social Care Integration liaised with line managers from the local authority, and recirculated the study advertisement with further endorsement of the study. This was successful in reaching the final number of social work practice mentors included in the total sample (Chapter 6, Table G).

During this phase of recruitment, a pharmacist contacted the researcher to express an interest in participating in the study, and also to highlight that there may be other pharmacists within the health board who would have a remit in mentoring students in practice. On reviewing the study advertisement (Appendix 6) and original research proposal, it was evident that the inclusion of pharmacists had not been made explicit.

As members of the health care team, and as professionals governed by the General Pharmaceutical Council (GPhC), they met the study's inclusion criteria (Section 4.4). They were eligible to participate in the study and should have been inclusive members of the target sample population. To make the study inclusive of pharmacists, the wording of the study advertisement was therefore amended to make explicit that health care professionals governed by the General Pharmaceutical Council (GPhC) could participate. This amendment was approved by UTREC and noted by the health board's research department (Appendix 7).

The addition of another professional group to the survey posed a challenge for ensuring clarity of the wording within the survey used to measure attitudes to IPW. As discussed in Section 4.6.1 of this chapter, the wording of each item in this survey was made relevant to each profession. In view of this challenge, a separate online survey with amended wording was created for pharmacists, to ensure clarity and relevance for this professional group. The researcher also sought feedback from one of the pharmacy survey participants, who confirmed that the items in the survey were clear and easy to understand.

On circulating the amended study advertisement to potential recruits from the pharmacy profession, the researcher took the opportunity to contact key gatekeepers once again, to inform them that recruitment for study was coming to an end. Their help in recirculating the study advertisement and endorsing the study was requested. As discussed earlier in Section 4.5 of this chapter, the electronic link to the online survey was embedded within email correspondence with study participants to enable easier access and engagement with the study. Initially, this link was only given to those participants who agreed to take part in the study. However, on discussion with PhD supervision team, in order to maximise the number of recruits in this final phase of recruitment, a decision was made to embed the direct link to the survey within the study advertisement.

On seeking advice from the health board's research department regarding additional ways of disseminating the study advertisement, it was suggested that the study advertisement could also be disseminated via the health board's electronic staff bulletin. This bulletin was emailed to all health board professionals on a weekly basis and was also displayed on the health board's staff intranet webpage. Following

a request to the health board's communication department, permission was granted for the study advertisement to be displayed on the intranet and to be included in the weekly bulletin, initially for a period of two weeks. After this period of time, the researcher successfully negotiated another week, as one last attempt to reach potential recruits.

These final strategies were implemented with some apprehension, particularly when a decision was made to cast the recruitment net wider. In relation to embedding the direct link to the online survey into the survey advertisement, the initial concern with this strategy was that the researcher would not have the same control over who accessed the survey. This could have increased the number of non-eligible participants. In addition, it was felt that the opportunity to establish rapport and trust between the researcher and participants could be lost due to the fact that direct communication was minimised. However, as evident from Figure 4 (Section 4.5), in this third and final phase of recruitment, the number of recruits was minimal in comparison to other phases, and ineligible participants was not an issue.

#### **4.6 Quantitative data generation**

In Chapter 3, Section 3.7, it was identified that an explanatory sequential design was applied to the generation of data for this study, using a quantitative method as the core method, and first in the sequence of data generation (Morgan 2014; Creswell, 2015). The purpose of this method was to generate a breadth of evidence to address the primary research questions related to measuring attitudes and analysing which variables affect attitudes. As identified in Chapter 2, Section 2.8 and Chapter 3, Section 3.6, the study objectives related to the primary research questions were:

- To measure practice mentors' attitudes to IPW, and IPPL for students
- To analyse which variables affect practice mentors' attitudes to IPW, and IPPL for students
- To explore practice mentors' perspectives of the enablers and barriers to IPW, and IPPL for students

The first stage of data generation involved the completion of an online survey which was adapted from two pre-validated scales, previously used in interprofessional research by Curran *et al.* (2007) and Kenaszchuk, Reeves, Nicholas and Zwarenstein (2010). The remainder of this chapter will provide an overview of the

design of the online survey. A rationale for combining two pre-validated scales to measure practice mentors' attitudes to IPW, and IPPL for students will be provided, and the results of the test-retest reliability measures for the survey which was used in this study will be discussed.

#### **4.6.1 Use of a multiple-group measurement scale to measure attitudes to IPW**

In their review of measurement scales used to investigate opinions of health care professionals, Kenaszchuk *et al.* (2010) identified that many of the existing instruments were limited in the number of professional groups that could be compared, and in their relevance to multiple professions. They adapted Adams, Bond, and Arber's (1995) Nursing Opinion Questionnaire and designed the multiple-group measurement scale to measure interprofessional collaboration between multiple health care professions. In measuring the validity and reliability of this scale through exploratory factor analysis, Kenaszchuk *et al.* (2010) identified the following three sub-scales; communication, accommodation and isolation. The sub-scale of communication consists of four items related to communication between professions. In the sub-scale of accommodation, six items require respondents to consider how accommodating or considerate they felt other professions to be. Within the final sub-scale, respondents are required to respond to three items, and to consider how far they agreed or disagreed that professions work in isolation. The scale as a whole consists of a mixture of positively and negatively orientated items, requiring participants to respond using a 4-point Likert scale. Numerical values are attached to each response (1=strongly disagree to 4= strongly agree). For negatively orientated questions, this scoring is reversed.

The design of the scale, and specifically the wording within each item related to the sub-scales, enables respondents to rate more than one profession in a 'round robin' format. Within each item in the scale, it is made clear which profession are the rating group, and which profession are targets. In Table D, the items associated with these sub-scales, and how the wording in each item differentiates between professions as raters and targets, is illustrated.

Table D. The multiple group measurement scale

Sub-scale	Item
Communication	1. [We] have a good understanding with [them] about our respective responsibilities. 3. I feel that patient treatment and care are not adequately discussed between [us] and [them]. 9. [They] anticipate when [we] will need their help. 10. Important information is always passed on between [us] and [them].
Accommodation	11. Disagreements with [them] often remain unresolved. 2. [They] are usually willing to take into account the convenience of [us] when planning their work. 4. [We] and [they] share similar ideas about how to treat patients. 5. [They] are willing to discuss [our] issues. 6. [They] cooperate with the way we organise [our] care. 7. [They] would be willing to cooperate with new [our] practices.
Isolation	8. [They] do not usually ask for [our] opinions. 12. [They] think their work is more important than the work of [us]. 13. [They] would not be willing to discuss their new practices with [us].

Permission to use Kenaszchuk *et al's.* (2010) multi group measurement scale for the purposes of this study was sought from the main author. In its original form, three versions of the scale were created to enable nurses, doctors and AHPs to respond to the items as raters. As this study included more than three professional groups, it was necessary to devise four versions of the scale and to categorise the surveys according to the four main professional governing bodies: NMC, GMC, HCPC, and GPhC. Maintaining Kenaszchuk *et al's.* (2010) 'round robin' design, and clarifying which professions were raters and targets in the wording of each item, ensured that the survey was relevant to multiple disciplines. As discussed by Sullivan-Bollyai and Grey (2002) a neutral response can often be the most common response in a survey.

This was found to be an issue in a study by Braithwaite *et al.* (2013) who reported that a high number of neutral responses in their questionnaire distributed to health care professions may have suggested that study participants were uncomfortable with commenting on some aspects of IPW. Their results may therefore be limited by the fact that participants may not have provided definitive responses to the questionnaire. A 4-point Likert scale was, therefore, used in this survey to encourage more definitive responses from participants, and to avoid a high rate of neutral responses.

In Section 4.5 of this chapter, it was previously highlighted that participants were provided with an electronic link to the online survey. This link, classed as the master link, directly opened a generic web page relevant to all professions. On this web page, instructions were provided for participants to check their eligibility for the study, and to select their governing body. By selecting their governing body, this directly diverted participants to the correct survey.

Following the same format as the original multiple-group measurement scale, the rating profession was clarified at the start of each item, followed by the target group. To ensure inclusivity, where possible, different disciplines were specified in this labelling. For example, in the survey for professions who identified with the NMC, the rating group were labelled as nurses or midwives. It is acknowledged that this same strategy was not applied to other professions, such as AHPs. However, considering the number of disciplines within this professional group, it was felt this would impact on clarity of the questions. Furthermore, the researcher was aware that it was not possible to represent every combination of discipline or profession within a health care organisation. For instance, within some contexts, it may be usual that only social workers and health visitors work together frequently, but not in other contexts. In considering this limitation in the design of the survey, an additional item was added to the demographic questions at the start of the survey, to enable participants to specify their profession and to indicate how frequently they worked with other professions. Thereafter, it was assumed that each profession would self-identify their own profession as a rater, and the professions that they worked with frequently. To facilitate the 'round robin' rating, the 13 items were repeated in the survey and the targeted profession changed accordingly. The rating groups and their targets are outlined in Figure 5.

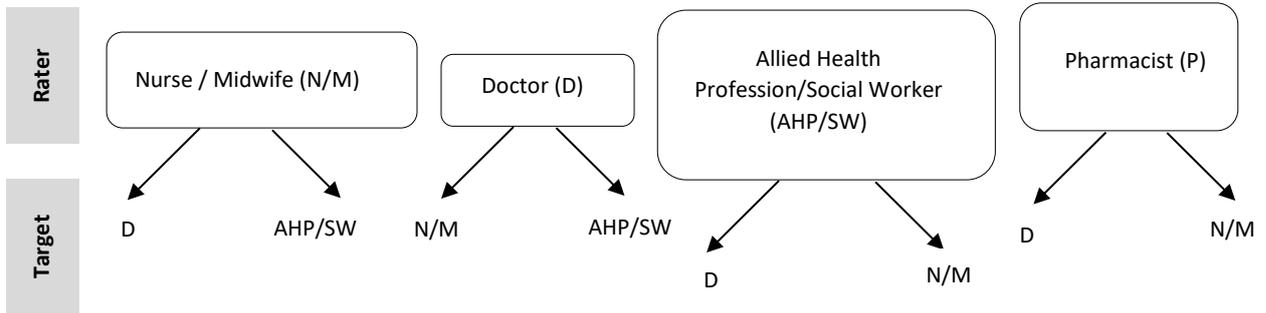


Figure 5. Structure of rating groups and targeted professions

#### 4.6.1.2 Use of an adapted version of the readiness for interprofessional learning scale (RIPLS) to measure practice mentors' attitudes to IPPL

In its original form, Parsell and Bligh (1999) designed the Readiness for Interprofessional Learning Scale (RIPLS) to measure students' attitudes to shared learning. Through exploratory factor analysis, Parsell and Bligh (1999) identified 19 items consisting of three factors; teamwork and collaboration, professional identity, and roles and responsibilities. As shown in Table E, Curran *et al.* (2007) adapted the scale by removing some of the items to create a 15-item scale. They also amended the wording of each item so that it was relevant to tutors with a role in teaching health care students, and so that their attitudes to IPE for students could be investigated.

Table E. The adapted readiness for interprofessional learning scale

Sub-scale	Item
Teamwork and Collaboration	<p>1. Interprofessional learning will help students think positively about other health care and social work professionals.</p> <p>4. Patients would ultimately benefit if health care and social work students worked together to solve patient problems.</p> <p>9. Learning with students from other health and social work professions helps undergraduates to become more effective members of a health care team.</p> <p>6. Communication skills should be learned with integrated classes of health care and social work students.</p> <p>10. Interprofessional learning among health care and social work students will increase their ability to understand clinical problems.</p> <p>11. Interprofessional learning will help students to understand their own professional limitations.</p> <p>12. For small-group learning to work, students need to trust and respect each other.</p> <p>14. Team-working skills are essential for all health care and social work students to learn.</p> <p>15. Learning between health care and social work students before qualification would improve working relationships after qualification.</p>
Professional Identity	<p>2. Clinical problem-solving can only be learned effectively when students are taught within their individual department/school.</p> <p>3. Interprofessional learning before qualification will help health care and social work students to become better team-workers.</p> <p>5. Students in my professional group would benefit from working on small group projects with other health care and social work students.</p> <p>7. Interprofessional learning will help to clarify the nature of patient problems for students.</p> <p>8. It is not necessary for undergraduate health care and social work students to learn together.</p> <p>13. Interprofessional learning among health care and social work students will help them to communicate better with patients and other professionals.</p>

#### **4.6.2 Rationale for combining scales**

A review of the literature in Chapter 4 highlighted that there is a dearth of studies which have investigated health care and social work professions to IPW and IPPL. It was therefore difficult to identify a suitable measurement scale which addressed these issues. This study therefore combined two pre-validated measurement scales by Curran *et al.* (2007) and Kenaszchuk *et al.* (2010) to ensure that the survey would be relevant to multiple professions working and supporting students learning within the context of practice settings. Appendix 8 shows an example of the full version of the survey which was used in this study.

In addition to the scales used to measure attitudes to IPW, and IPPL for students, another three further sections were added. These included a section to collect demographic information from participants. As discussed in Chapter 3, Section 3.3.1, and illustrated in Figure 2, the reasoned action model (Fishbein and Ajzen, 2010) suggests that attitudes may be affected by a number of background factors. The choice of background factors to investigate in this study were guided partly by the research gaps identified in the review of previous research (Chapter 2). The demographic section in this survey therefore included questions to collect background information from the study participants, such as participants' profession, governing body, gender, years of experience, and previous experience of IPE (Appendix 8). This information was vital for the statistical analysis of this data, as discussed further in Chapter 6.

The other additional section included in the survey were an area for free text comments. The free text area was included to encourage participants to add any additional comments related to IPW or IPPL. It was anticipated that this would provide the opportunity for some participants, who may have been unwilling to take part in a follow up interview, to provide some additional information to clarify their responses, or to provide additional information related to their own contexts. The final section enabled participants to opt in or opt out of the semi-structured interviews. The survey included a request for contact details for those participants who opted in to the semi-structured interviews. This ensured that the researcher could contact participants after they completed the survey, to arrange a convenient time to carry out the interview.

#### **4.7 Test-retest reliability of an online survey to measure attitudes to IPW, and IPPL for students.**

To investigate the reliability and validity of the multiple-group measurement scale, Kenaszchuk *et al.* (2010) used the scale to determine nurses' opinions of interprofessional collaboration between nurses and doctors, within an acute care setting. Although reliability and validity of the identified sub-scales was confirmed, and the scale was used to again in a mixed-methods study (Kenaszchuk, Conn, Dainty, McCarthy, Reeves and Zwarenstein, 2012), in both of these studies, the multiple-group measurement scale was only used to elicit the opinions of nurses. In the first use of the scale, Kenaszchuk *et al.* (2010) advised that the scale would need to be tested with more than one professional group.

In the paper by Curran *et al.* (2007), measurements of reliability and validity of their adapted version of RIPLS were not reported. However, the researcher contacted the main author to query how the validity and reliability of the adapted version of the scale were tested. The researcher was informed that face validity of the modified scale was confirmed with a sample of faculty of health care professionals representing medicine, nursing, pharmacy and social work. Furthermore, it was highlighted that a high Cronbach's alpha score supported internal consistency of the modified scale.

In view of this study using a combination of two pre-validated scales to measure attitudes to IPW, and IPPL for students, it was necessary to investigate reliability of the survey in its combined form. A test-re-test method was therefore used to measure intra-rater reliability of the survey. A sample of 15 health care and social work professions working within a different health board and local authority from the main study site, were invited to complete the same survey on two separate occasions. The same sample inclusion and exclusion criteria adapted in this study (Section 4.4) was used for recruitment of participants for the purposes of measuring the reliability of this survey. Applying these same criteria ensured that a representative sample of health and social work practice mentors were recruited.

Participants were contacted by email, provided with information about the study and informed that their contribution was for the purposes of piloting the survey and measuring its reliability. A direct link to the online survey, hosted by a secure online

platform, Bristol Online Surveys, was provided within the email and implied consent taken by their completion of the survey. Two weeks after their completion of the online survey, participants were contacted again by email, with a request to repeat the survey.

#### 4.7.1 Test-retest results

Of the initial sample of 15 potential participants, a total of 10 completed the test and retest survey. Four of the potential participants did not respond to the invite to take part, and data from one other participant was excluded due to no response to the request to repeat the retest survey. Table F provides an overview of the demographics and characteristics of the included four groups of health care professions.

Table F. Characteristics of the sample of health care professions included in the intra-rater reliability analysis

<b>Total Test-Retest Sample (n=10)</b>		<b>Nurse</b>	<b>Midwife</b>	<b>Doctor</b>	<b>AHP</b>
<b>Gender</b>	Male	0	0	1	0
	Female	2	1	4	2
<b>Area of work</b>	Community	1	0	2	0
	Acute	1	1	3	0
<b>Previous IPE experience</b>	Yes	2	1	4	1
	No	0	0	0	0
	Uncertain	0	0	1	1
<b>Type of IPE experience</b>	Educator	0	0	0	1
	Learner	0	0	2	0
	Both	2	1	2	0
	Uncertain	0	0	1	1

The characteristics of the test-retest participants were varied, particularly with respect to their professional backgrounds and prior experience of IPE. These variables were considered in detail in the analysis of the data for the main study.

Kappa, as “a measure of reliability and the proportion of agreement corrected for chance” (Fleiss, 1973, p.613), was used to measure the level of agreement between participants’ responses. This analysis showed that there was a moderate level of reliability, with some exceptions or areas of disagreement, for this survey which combined two pre-validated scales used in interprofessional research. A kappa value of 0.418 indicated that the test and re-test results were largely similar, with some exceptions (Fleiss, 1973). As a statistically significant value, these results suggested that the survey had moderate test-retest reliability, and was acceptable to use for the purposes of the main study.

#### **4.7.2 Changes made as a result of measuring the reliability of the survey**

Measuring the reliability of this survey provided a valuable opportunity to determine the value of the recruitment strategies employed in this test-retest phase, the effectiveness of the platform used to host the online survey, and the value of the additional items which were added for the purposes of this study. In relation to recruitment strategies, once a purposeful sample of health care and social work professions had been identified, email correspondence proved to be an effective and efficient method of communication. Participants were able to easily access the online survey via a link embedded in the email, and the researcher was able to use this form of correspondence to request participants to complete the survey for the second time. A trail of email correspondence was maintained, and referred to, to ensure that the request to complete the survey for the second time was sent to participants two weeks after they had completed the survey for the first time. However, it is important to acknowledge that although the sample size was appropriate for the purposes of measuring the reliability of the survey, this sample size may have provided an unrealistic expectation of the how easy it would be to apply the same process of monitoring response rates, with a larger sample of participants across one health board and local authority.

In relation to the functionality of Bristol Online Surveys, as the electronic platform which was used to host the online survey, there were no issues reported by participants in accessing the survey. In turn, the researcher could easily access their responses from the system. As the date and time of the participants’ response to the survey was automatically logged within the system, it was possible to identify

when the test survey had been completed by participants. This enabled the researcher to adhere to the planned timeline of two weeks between the test and retest of the survey. Following collection of the test-retest data, this platform enabled an efficient onward exportation of the data to SPSS for further analysis.

Piloting the survey with a small sample consisting of 10 health care professionals from four different professions provided the opportunity to assess the clarity of the items in the survey, and the effectiveness of the 'round robin' design. On identifying the variability in the test-retest participants' working contexts, it was considered that with a larger sample there would be a possibility that some groups of professions would work with only a select few of others, depending on their working context. Additional items were therefore incorporated into the main survey, so that participants could stipulate how frequently they worked with different professions. The test-retest version of the survey also included a question to determine participants' age group. This was included to consider the influence of experience on attitudes to IPW and IPPL. In considering the fact that some health and social care professionals may train as mature students, deemed this question of little value. This question was therefore amended in the final version used in this study so that participants were asked to indicate the number of years they had as opposed to their age group. In its final form, the survey used to measure attitudes to IPW, and IPPL for students consisted of approximately 50 items in total (Appendix 8).

#### **4.8 Ethical considerations and protecting survey participants**

Throughout the duration of this study, careful consideration was given to ensure that ethical principles were applied from the planning and design of the study, to the implementation and onward dissemination of the results (Holloway and Wheeler, 2010; Oliver, 2010; Punch and Oancea, 2014). As each method posed different challenges and considerations, it was evident that there were some differences in the strategies which were adopted to ensure that participants were protected. Appendix 4 is a copy of a letter of correspondence from the university's research ethics committee which granted approval for this study. The strategies which were employed to ensure the protection of participants involved in the generation of quantitative data are discussed in the next sections of this chapter (Sections 4.8.1

and 4.8.2). In relation to the generation of qualitative data, the strategies to ensure that participants were protected are discussed in Chapter 5, Section 5.3.

#### **4.8.1 Informed consent**

As discussed in Section 4.4 of this chapter, practice mentors were asked to contact the researcher by email to express their interest in participating in the study. Following this contact, the researcher responded to their email to thank them for their interest in the study. Participants were asked to read through the survey participant information sheet (Appendix 9), which was sent as an attachment to the email, and were advised to read through this prior to accessing the online survey. Implied consent was obtained from participants by completion and return of the online survey. Participants were informed that they could withdraw from the study at any point, without providing any reasons for doing so.

Telephone and email contact details of the researcher and the researcher's PhD supervisor were provided, to enable participants to ask any further questions about the study. In addition, the contact details of various support sources were provided in the survey participant information sheet. This was reiterated in the participant information sheet and on the first page of the online survey. For the two participants who requested hard copies of the survey, as discussed in Section 4.5.2 of this chapter, a similar process was followed to ensure informed consent and time to consider their involvement in the study. These participants were provided with the participant information sheet during the training session, and an additional copy was also enclosed with the hard copy of the survey. These were sent by post to these participants and included a stamped addressed envelope for them to return the survey.

#### **4.8.2 Confidentiality**

All of the software programmes used for collecting and storing data were approved by the university research ethics committee. Access to these programmes were password protected and all associated electronic files were securely stored in a designated location for the storage of research data, within a system hosted by the University of St Andrews. Access to this storage area was also password protected. As stipulated by the University's research ethics protocol, all data associate with this study will be destroyed three years after completion of this PhD thesis.

As recruitment for this study and onward correspondence with participants was mainly carried out by email, this email correspondence included personal identifying information belonging to participants, such as their name, contact details, their department and role. A password protected university email account was used for this correspondence and all correspondence was treated as confidential. The participant information sheet was used to explain and reassure participants that this confidentiality would be ensured (Liehr and Marcus, 2002).

Once the quantitative strand of the study was complete and no further survey participants were recruited, the data was transferred from the Bristol Online Survey platform to SPSS for statistical analysis. Where participants had entered free text comments in the final section of the survey, this information was extracted from the survey platform and transferred to NVivo 10 (2012) software programme, as an approved qualitative data management programme. All data was anonymised by use of a participant identification number, and where participants were later involved in interviews, the same identification number was used to link participants' interview transcript, survey data, and any field notes associated with this data. Throughout the process of reporting results from the survey data, it was not possible for any of the data to be identified as belonging to a participant.

#### **4.9 Quantitative data analysis**

The quantitative data generated in this study was analysed using the Statistical Package for the Social Sciences software (SPSS, version 22). Prior to exporting the survey data from the Bristol Online Survey platform, unique identification numbers were allocated to the responses. This enabled instances of missing data, errors and outlying scores to be checked prior to statistical analysis. An SPSS data file was prepared by creating abbreviated labels for each of the dependent and independent variables. The dependent variables in this study included attitudes to IPW, and attitudes to IPPL for students. Numeric codes were assigned to the survey's Likert scale responses (1 = Strongly Disagree to 4 = Strongly Agree) and negatively orientated questions were reverse scored (1 = Strongly Agree to 4 = Strongly Disagree). The independent variables included: gender, area of work, years of experience, professional governing body, previous IPE experience, and type of IPE

experience. A record was maintained of all codes and variable labels used, to enable easier identification during analysis.

#### **4.9.1 Descriptive statistics**

Descriptive statistics were performed to summarise the characteristics of the sample and to provide a summary of the mean scores from the IPW and IPPL survey. These are reported in Chapter 6, Section 6.2. Although descriptive statistics are often viewed as a way of simply enumerating and organising data (Cohen *et al.*, 2011), identifying the sample characteristics helped to determine the relevant independent variables, which were analysed with inferential statistics to test the hypotheses in this study. Evaluating the results of the descriptive statistics also enabled errors and missing data to be identified. These were then cross-checked with the original completed survey and with interview data, to determine if omissions in the survey responses were addressed in the interview. A numerical code of '99' was attributed to the remaining instances of missing data. This assisted in the identification of patterns of commonly omitted items and ensured that the calculations of mean scores were accurate. Where there were instances of missing data, the "exclude cases pairwise" option in SPSS was used to ensure that the missing cases were excluded from the analysis (Pallant, 2013).

#### **4.9.2 Inferential statistics**

The use of mixed factorial analysis of variance (ANOVA) was identified as the most appropriate method of statistical analysis of the quantitative data in this study. As discussed in Chapter 2, Section 2.8, this study tested the following hypotheses:

- There are significant differences in the attitudes of practice mentors to IPW
- There are significant differences in the attitudes of practice mentors to IPPL for students

This statistical test enabled differences in attitudes to IPW and IPPL to be investigated between multiple groups of professions, and the measurement of the effect of multiple variables (governing body, gender, area of work, number of years' experience as a professional, previous IPE experience, and type of experience) on attitudes to IPW, and IPPL for students. Significance levels were set at  $p < 0.05$ .

There has been much debate around the most appropriate statistical methods used with Likert scale data. The main point of contention relates to the classification of Likert scale data as ordinal or interval. According to Field (2009), Coolican (2009), and Pallant (2013), the assumptions which should be satisfied for the use of parametric tests are: data at interval level, normally distributed data, independence of measurements, and homogeneity of variance. However, Carifio and Perla (2008) and Norman (2010) argue that parametric statistics can be used even with data that is not normally distributed. Data generated from a Likert scale can be classified as interval data and can still be robustly analysed with parametric statistics.

Prior to examining the effect of the independent variables on attitudes to IPW, and IPPL for students, the mean scores and standard deviation were evaluated, to determine if attitudes were positive or negative. Outlying scores were identified and double checked in the original survey to rule out any errors. The influence of any outlying mean scores were taken into consideration by examining the 5% trimmed mean and comparing this value with the overall mean. According to Pallant (2013), outlying cases can be retained when the overall mean and trimmed mean are similar, due to the minimal influence that the outlying mean score will have on the overall mean.

Although statistical tests such as ANOVA are viewed as robust to violations of normality assumptions (Norman, 2010), it is viewed as good practice to evaluate the distribution of data, and to comment on departures from normality (Kim, 2013). According to Tabachnick and Fidell (2014), normal distribution is confirmed by skewness and kurtosis value of zero. Assessing significance of departures from normality can be determined by calculating the skewness and kurtosis z-scores (by dividing the skewness and kurtosis values by their respective standard deviations). Kim (2013) explains that departures from normality can be deemed significant if the z-score falls above or below the level of 1.96 for a sample size of less than 50, and 3.29 for a sample of more than 50 and less than 300. To evaluate the distribution of data and departures from normality in this study, histograms for each independent variable and sub-scale of the survey were analysed as a visual evaluation of the distribution of the data, and the skewness and kurtosis values and associated z-scores were analysed to determine the extent of any departures in normality. This is discussed further in the results chapter (Chapter 6).

In addressing the other assumptions to be met with the use of parametric tests, independence of measurements was facilitated by the data collection strategies. As described in earlier in this chapter (Section 4.5) study participants were sent the electronic link to the online survey so that they could complete the survey individually, as opposed to a group setting, where other participants may have influenced responses. In addition, as part of the inferential statistical analysis, homogeneity of variance was tested via Mauchly's test of sphericity. The results of this test are discussed in Chapter 6.

#### **4.10 Chapter summary**

This chapter introduced the unit of analysis for this case study and has identified that that this study took place within one health board and local authority within Scotland. In specifically targeting health and social work professions who mentor students during their placements, a range of sampling strategies were used to recruit participants to this study. A number of challenges arose for the researcher in relation to recruiting a representative sample group. However, as highlighted in this chapter, gatekeepers were instrumental in gaining access to the study site and raising awareness of the study.

As a mixed-methods case study, it has been previously discussed that this study used quantitative and qualitative methods in sequence to generate and analyse data. This chapter focused on the quantitative methods, as the core method and first in the sequence. An online survey which was adapted from two pre-validated scales (previously used in interprofessional research) facilitated the measurement of practice mentors' attitudes to IPW, and IPPL for students, and the analysis of which variables affect these attitudes. This chapter presented the results of the test-retest measures of reliability which confirmed that it was an appropriate tool to use for the purposes of this study. Chapter 5 focuses on the qualitative methods which were second in the sequence of methods employed by this study. As a follow-up contribution to the core quantitative methods, semi-structured interviews were used to explore practice mentors' perspectives of the enablers of and barriers to IPW, and IPPL for students.

## **Chapter 5. Part II Methods**

### **5.1 Chapter overview**

This chapter focuses on the qualitative methods which were used in the generation and analysis of data in this study. It will describe the format of the semi-structured interviews and the measures undertaken to promote trust and rapport, and to ensure informed consent and confidentiality. Finally, this chapter will discuss the use of the framework that was used to guide the analysis and interpretation of the qualitative data generated during this study.

### **5.2 Qualitative data generation**

Face to face semi-structured interviews were used to follow up on the data collected from the online surveys, and to address the secondary research questions related to practice mentors' perspectives of the enablers of and barriers to IPW, and IPPL for students (Chapter 2, Section 2.8). Although these methods occurred in sequence for each participant, the researcher carried out the semi-structured interviews in parallel with quantitative data generation and analysis. That is, as participants completed the online survey, the researcher identified participants who were willing to be interviewed. The process of qualitative data generation began while the researcher continued to collect quantitative data from other participants.

In addressing the research objectives associated with this study, it was highlighted that the use of a survey alone would have not provided the opportunity to gain insight into practice mentors' experiences of IPW and IPPL, the meanings attached to their attitudes, or their perspectives of enablers and barriers within different practice settings. In Chapter 3, Section 3.4.1 of this thesis, the relationship between attitude and behaviour was discussed. The use of semi-structured interviews therefore provided a window into the perspectives of practice mentors and enabled the researcher to gain an understanding of the relationship between attitudes and behaviour in relation to IPW and IPPL.

In the design of this study, telephone interviews were considered as an alternative way of performing the interviews. According to Ward, Gott and Hoare (2015), telephone interviews can be less inhibiting for participants as the interview can occur

within an environment familiar to participants, and less resource intensive for the researcher who could perform the interview from their research base. However, being able to enter the participants' workplace in this study, provided the researcher with a rich insight into their working environment and contributed to the understanding of some of the enablers and barriers to IPW, and IPPL for students.

### **5.2.1 Semi-structured interview sampling strategy**

In Chapter 4, Section 4.6.2, it was identified that the final section of the online survey enabled participants to opt in or opt out of the semi-structured interviews. The interview sample therefore drew from those participants who indicated in the online survey that they had agreed to take part in a semi-structured interview. The researcher was mindful that, with the transitory nature of some of the teams in health care, there was the possibility that participants might move to another health board or local authority between the time of completing the survey and participating in the interview. To safeguard against losing recruits from the semi-structured interviews, survey participants who indicated their willingness to be interviewed were, therefore, contacted within one month of them completing the online survey.

As discussed in Chapter 4, Section 4.5.3, a number of strategies were used within the last phase of recruitment, to maximise the number of survey participants, and in turn to maximise the recruitment of interview participants. One of these strategies was the inclusion of the direct web link for the online survey on the study recruitment advertisement. Following this change in the recruitment strategy, the researcher noticed a reduction in the number of participants recruited. In addition, although some participants indicated their willingness to be interviewed, there was limited responses from these participants when the researcher contacted them to arrange the interview. This reduction in participants can be explained by the fact that the direct link to the online survey may have been the first and only direct contact that the researcher had with some participants. The opportunity to establish rapport and trust may have been lost by not having the initial direct contact with participants at the point of recruitment.

Whereas representivity and generalisability are of importance in quantitative sampling, strategies associated with qualitative sampling are more concerned with capturing diverse experiences (Ryan, Coughlan, and Cronin 2009; King and

Horrocks, 2010). To enhance the comparative potential of the data set, a broad range of participants were purposively sampled to take part in semi-structured interviews. Demographic information collected in participants' survey responses facilitated this purposeful sampling. Furthermore, it was ensured that this sample included a broad range of characteristics, in terms of gender, area of work, professional experience, prior experience of IPE, and type of IPE experience. In addition, the researcher aimed to include some of the participants with outlying lower or higher scores from the online survey. These strategies ensured a depth and richness of qualitative data generated (Morgan, 2014).

### **5.2.2 Format of the semi-structured interviews**

Semi-structured interviews were carried out by the researcher over a 16-month period between December 2014 and April 2016. Participants who had indicated in the online survey that they were willing to be interviewed were contacted by email. In the email correspondence, the researcher reminded participants of their recent involvement in the study and reiterated the aim of the interview. A participant information sheet (Appendix 10) and a copy of the consent form (Appendix 11) were included as attachments in the email. This was done to remind participants of the purpose of the study and to inform them of what the interview would entail. As discussed in Section 5.3, this aimed to ensure that participants were fully informed and also provided an additional opportunity to withdraw from the study.

The physical environment in which interviews occur is important to consider and it should be ensured that participants feel comfortable to discuss their personal experiences (Davies, 2007; King and Horrocks, 2010). Within the email correspondence, a selection of dates and times for the interview were provided, along with the option of being interviewed at their workplace, or the researcher's base. Travel expenses were offered to participants who expressed a preference to be interviewed at the researcher's base.

Most participants expressed a preference for the interview to be carried out within their workplace, and only four participants stated a preference to meet at the researcher's base. Whilst participants' own workplaces may have been a more convenient location to fit around work priorities, their own familiar surroundings may also have helped put participants at ease. Furthermore, as the rooms or areas in

which the interviews took place were identified and arranged by participants, they also had control over the set-up of the room in advance of the researcher arriving. Where participants indicated a preference for the interview to take place in their workplace, the researcher requested that they arrange a quiet area where they would feel comfortable to speak. In the main, participants chose their own private offices or meeting rooms; two interviews took place within a café area at the workplace at the request of participants. King and Horrocks (2010) suggest that a public area can often be a more neutral space for an interview to take place and can help with encouraging a relaxed and informal atmosphere. It is acknowledged that this setting may have not offered as much privacy as a private office or meeting room. However, it was deemed important for participants to identify a setting that they felt comfortable to discuss their own personal experiences and which contributed to establishing rapport and trust (Davies, 2007).

Prior to the start of the interview, participants were asked if they had read and understood the participant information sheet (Appendix 10) and were invited to ask any questions for clarification. A written consent form (Appendix 11) was completed by participants, and permission to audio record the interview was requested by the researcher. An audio recordable pen was used to record sound and notes made during the interviews. This was effective in picking up sound in public areas where noise levels were greater than in more private office spaces, as was the case in the two interviews which took place in café locations. It was an unobtrusive method of audio recording and possibly a less inhibiting device to use in comparison to other audio recording devices. It also provided an interesting talking point prior to the interview starting, where the researcher explained how the pen functioned. This seemed to help put participants at ease and was a helpful in setting the tone of the interview as an informal discussion.

An interview topic guide (Appendix 13) was utilised to allow a focused yet open approach to data generation, whilst ensuring that the discussion aligned to the study objectives. The researcher started off the interview by referring to the terms IPW and IPPL, and reminding participants of what these terms meant in relation to the study. As discussed in Chapter 1, previous literature has highlighted that there is often confusion related to the use of interprofessional terminology. Reminding participants of these terms and their meaning aimed to ensure that they understood

the focus of the questions they were asked during the interview. The researcher started off with an introductory open question:

*“Tell me about where you work and what professions you usually work with”*

Ryan *et al.* (2009) suggest that the interview should begin with a question that participants would feel comfortable answering. This was felt to be an easy non-threatening question to begin the interview and one which led appropriately in to the first question from the topic guide related to their thoughts on enablers of and barriers to IPW. As participants opened up with their experiences, opportunities were taken by the researcher to ask more probing questions to encourage participants to elaborate on their responses. Examples of these probing questions included: *“Can you tell me a little bit more about that?”* or *“Can you provide an example of when that happened?”*. These probing questions demonstrated active listening and helped with gaining more in-depth insight into practice mentors’ experiences (King and Horrocks, 2010).

Brief field notes were also made by the researcher at appropriate times during the interviews. These notes were kept to a minimum to avoid distracting participants, and to ensure that the researcher could maintain active listening (Ryan *et al.*, 2009). Following the interview, the researcher added reflective comments to any brief notes that were made during the interview. These reflective comments were beneficial in the analysis of the interview data, as discussed in Chapter 7.

In addition to providing a rich insight into practice mentors’ perspectives, the interviews presented opportunities to check and verify information from the survey. An extract from an interview transcript provided below is a specific example of this. On verifying the participant’s response to a question in the survey related to how frequently they worked with other professions, it was noted that the participant had answered the question in error:

*Researcher: There was a couple of questions at the start that were asking you about how frequently you work with other professional groups and you had indicated nurses, doctors, AHPs at least once a month. Is that right?*

*Participant: How often do I work with them?*

*Researcher: Yeah*

*Participant: Well, it's probably daily*

*Researcher: Is it daily?*

*Participant: I must have misunderstood that question.*

*Researcher: That's okay; this is the beauty of doing the interviews is that I can kind of clarify.*

*Participant: Well I suppose, a day can go by without me interacting with the nurse or a doctor or a health worker, but it's likely to be rare but it could go by and if I'm not speaking to one, I am usually emailing.*

*Researcher: Okay, so it's a bit more frequently than once a month, would you say?*

*Participant: Yeah, I don't know where I got that.*

Mindful of participants' work priorities as health and social care professions, thirty minutes were allocated to each interview. Whilst the discussion points from the interview topic guide (Appendix 13) were covered within this time during all of the interviews, on average, the actual interviews took approximately 40 minutes. Where the interviews extended beyond the allocated time, the researcher politely interrupted to point out the time and to check if participants were in agreement to continue.

A research assistant was recruited to transcribe the audio recordings from approximately half of the interviews. Clear guidance was provided to the research assistant in relation to consistent formatting of the transcriptions (Appendix 12). This guidance ensured consistency in the transcriptions, and ensured the secure storage and transfer of files. Assistance with the transcriptions was particularly beneficial when quantitative and qualitative data collection was occurring in parallel. Once all of the quantitative data had been collected, the remaining interviews were transcribed by the researcher. As described in Section 5.5 of this chapter, this enabled the researcher to become further immersed in the data and facilitated the process of thematic analysis.

## **5.3 Ethical considerations and protecting interview participants**

### **5.3.1 Informed consent**

Participants were fully briefed before participating in the interviews. The researcher contacted participants 48 hours before the interview to confirm arrangements to meet, and to remind them to read through the participant information sheet before the interview (Appendix 10). The consent form (Appendix 11) was also attached to this email. This consent form consisted of a series of statements against which participants were asked to sign if in agreement with each statement. These statements were based on key information from the participant information sheet, including how confidentiality would be maintained and how data would be stored. A statement to check participants were in agreement for the interview to be audio recorded was also included. Participants were asked to read the consent form prior to the day of the interview, and were advised that the researcher would go through the consent form with them on the day of the interview. This ensured that the participant had the opportunity to read through the information, contact the researcher to ask any further questions, and decide whether they wanted to proceed with their participation in the interview. On the day of the interview, the researcher brought a second paper copy of the interview participant information sheet and the consent form and allowed time prior to the interview for the participant to read this again, if required, or to ask any questions related to the study.

The researcher was aware that negative memories of prior experiences of IPW that participants may have had in the past, could resurface in the interviews. It was, therefore, important to consider how the risk of harm to participants could be minimised (Holloway and Wheeler, 2008; Punch and Oancea, 2014). To minimise harm during the interviews, the researcher was considerate of the way in which questions were posed in the interviews, and was sensitive to participants' verbal and non-verbal cues. At the end of the interview, the researcher invited participants to ask any questions about the study. A copy of the participant debriefing information sheet (Appendix 14) was given to participants to remind them of the purpose of the study, how their data would be stored, and who to contact if there were any questions or concerns about the study. This information was also reiterated verbally by the researcher.

### **5.3.2 Confidentiality**

Inviting the participant to identify a time and location for the interview ensured that the interview was convenient for the participant, and at a time that they would be able to negotiate away from their work responsibilities. Where participants requested for the interviews to take place within their workplace, it was difficult for the researcher to predetermine an area where the interview would be carried out. As previously discussed in Section 5.2.2, the researcher therefore requested if a quiet, private location could be identified by the participant. An advantage of this was that participants were able to identify an area that they felt was an appropriate and comfortable area for the interview to take place. For the majority of the interviews, participants identified an office, or a meeting room. Two participants requested to meet in a public café area within their workplace. Prior to commencing the interview with these participants, the researcher checked if they were happy to talk in a public area.

All of the data collected from the interviews was only accessible to the researcher, the research supervisors, and research monitoring authorities who may have required access to the data. Strategies to ensure anonymity are vital in any piece of research, to ensure that participants cannot be identified or traced (Punch and Oancea, 2014). Where participants worked in the same or nearby departments, their involvement in the study was not shared with other participants. In the process of transcribing the interviews, pseudonyms were used in place of department names or names of colleagues identified by participants. Some of the professions surveyed and interviewed had specialised roles within the health board, some of whom were the only person to have that role within the health board. Anonymity was maintained by not divulging their specific job title. As shown in Chapter 7, only the area of work and profession were included in the presentation of direct quotes from the semi-structured interviews.

All data was anonymised by use of an identification number linking the participants' interview transcript to their survey data and any field notes associated with this data. Following completion of an interview, the researcher uploaded the audio file to a password protected file computer and deleted the original audio recording from the audio recording device. All data was securely stored in a designated location for the

storage of research data at the University of St Andrews. As stipulated by the University's research ethics committee, all data will be destroyed after a period of three years following completion of this thesis.

### **5.3.3 Reflexivity and the researcher in the middle**

Berger (2015, p.220) describes reflexivity as “turning of the researcher lens back on to oneself”. It requires the researcher to reflect on their positioning in a study, and the possible effect that they have on the research process and outcomes (Atheide and Johnson, 1998; Davies, 2007; Yin, 2014). As this study was carried out within a setting where the researcher was known by some gatekeepers and some of the research participants, the researcher was aware of the need to be reflexive, to minimise bias, and ensure rigour in the study.

Although not an employee of the health board, in the researcher's past role as a lecturer in IPE, regular communication occurred with practice mentors and students within the health board. The researcher had also worked within a different health board, as a nurse, and as a practice mentor, and therefore had some prior knowledge and familiarity with health care systems and processes. In considering positioning in this study, the researcher could relate to the work of Breen (2007) and consider their positioning neither as an insider, nor as an outsider, but as a researcher in the middle.

The position as a researcher in the middle proved to be advantageous in the planning and implementation of the study. Having some knowledge of the management structures within the health care setting, the researcher had prior knowledge of the main personnel and key gatekeepers. As discussed in Chapter 4, Section 4.5.1, their support made an important contribution to the recruitment of participants and in facilitating access to the study site. In comparison, when the researcher was recruiting participants from the local authority, the researcher's position was an outsider. The researcher did not have the same knowledge of the management structures and gatekeepers in this context. This may have accounted for the slower rate of recruitment and smaller sample of social workers recruited to the study.

During the interviews, it was evident that some participants were mindful of the researcher's position. They seemed to be conscious of how they spoke about other

professions. *"I don't mean to be bad about (profession) but..."* and phrases similar to this were evident in a number of interviews and may have been an indication that participants were concerned about how they may have been portrayed by the researcher. Alternatively, or in addition, participants may have been conscious of the researcher's professional background and concerned that they would have offended the researcher. To promote trust within the interview, it was important the researcher was open and honest with participants about her professional background and her stance as a researcher in the middle. Equally, it was important to highlight to participants, her outsider role as a researcher and the purpose of the research. The researcher's role was reiterated to participants in the interview to reassure them that the researcher was impartial.

According to Gillham (2010), the researcher should remain open minded and move beyond their assumptions, particularly when the context of the study, and the topic area are well known to them. Although reflexive diaries are not usually associated with quantitative research, due to the emphasis on the objective role of the researcher, they can be used in mixed-methods research to document the researcher's thoughts and feelings, as well as documenting the decisions made during the research process. Throughout this study, the use of a reflective research diary and discussions with the researcher's PhD supervisors was used as a method of monitoring the researcher's positioning in the study. Furthermore, electronic memos were maintained during the process of quantitative and qualitative data generation, and as a record of the rationale for decisions made.

The characteristics of a case study often include what Stake (1978) describes as "personalistic observations", which are a valuable source of data and add to the understanding of the case. As stated by Wright-Mills (1959, p.196):

*"You must learn to use your life experiences in your intellectual work: continually to examine and interpret it."*

Wright-Mills (1959) goes on to advise that documenting "fringe thoughts" such as those that come from everyday experiences, dreams, and snippets of conversations with others can later be used to form a very important part of academic work in terms of shaping arguments, being self-reflective and "keeping your inner world awake". The reflective research diary enabled the researcher to capture the "personalistic

observations”, as discussed in relation to case studies (Stake, 1978) and “fringe thoughts,” as described by Wright-Mills (1959), which were later important in the analysis of the results of this study (Chapters 6 and 7). Appendix 15 provides an excerpt from the reflective research diary which was used throughout the process of this study. This excerpt provides some insight into the researcher’s personal reflections on the rationale for the study.

#### **5.4 Qualitative data analysis**

The framework approach described by Ritchie and Spencer (1994) enabled the researcher to undertake the analysis of qualitative data generated in this study in a systematic way, by following the five recommended interconnected stages. These stages were:

- Familiarisation
- Identification of a thematic framework
- Indexing
- Charting
- Interpretation

This approach is often favoured by multidisciplinary research groups because of its accessibility, transparency and rigour at each stage of the process of analysis (Braun and Clark, 2006; Smith and Firth, 2011; Gale, Heath, Cameron, Rashid and Redwood, 2013; Ward, Furber, Tierney and Swallow, 2013). As discussed earlier in this chapter, qualitative data was mainly generated via semi-structured interviews with participants. However, some qualitative data was also generated from free text comments provided by some participants at the end of the online survey. The next section focuses on the application of each stage of the framework approach, to the analysis of the qualitative data generated in this study.

##### ***Familiarisation***

In the first stages of data analysis using the framework approach, familiarity with the data occurs through a range of processes that generate an overview of some of the key issues and themes. Using the analogy of scaffolding, Ritchie, Spencer and O’Connor (2003, p.221) refer to this stage as “akin to building the foundation of the structure”. As the researcher becomes immersed in the data and gains “an overview

of its richness, depth, and diversity” (Ritchie and Spencer, 1994, p.179), the foundational blocks of key themes emerge (Srivistava and Thomson, 2009). This familiarisation is aided by a range of processes, depending on the research methods employed (Robson, 2011). In this study, immersion in the data and familiarisation began as the interviews were conducted. Further familiarisation occurred from listening to audio recordings of the interview in the process of transcription, and repeated reading of field notes and interview transcripts. Recurrent phrases were highlighted and notes were made in field notes and transcripts to capture and record the initial ideas of the emerging themes. These notes were invaluable at the later stages of analysis and interpretation, as a record of how themes developed, particularly the unexpected sub-themes as described in Chapter 7.

### ***Identification of a thematic framework***

During this stage of analysis, a thematic framework is created as a way of housing the data which can be categorised and indexed into overarching sub-themes (Ritchie and Spencer, 1994). The framework approach is not rooted in any specific theoretical or philosophical approach; rather, its flexibility enables the researcher to inductively or deductively analyse data, depending on the research question (Ritchie and Spencer, 1994; Bruan and Clark, 2006; Gale, *et al.*, 2013). In this study, the analytical approach was both deductive and inductive.

The first pieces of “scaffolding” in the construction of the thematic framework were aided by returning to the research aim and questions. Qualitative methods were used to gain an understanding of practice mentors’ perspectives of the enablers of and barriers to IPW, and IPPL for students. Guided by research questions (Chapter 2, Section 2.8), the major overarching themes within the thematic framework were defined as:

- Enablers of IPW
- Barriers to IPW
- Enablers of IPPL
- Barriers to IPPL

A deductive approach was used to identify data in the interviews and free text comments from the online survey, which related to these overarching themes.

Once this initial framework was established, an inductive method was used to further identify the major overarching themes. Through this analysis, a number of primary and secondary sub-themes emerged. Srivistava and Thomson (2009) suggest that an inductive approach allows the data to determine the themes, if an open mind is maintained, as opposed to deductively identifying themes using priori issues from the research question. The identification of these sub-themes was based on repeated patterns within the data, such as common experiences described by participants, and recurring phrases and terms.

### ***Indexing***

The qualitative data analysis software programme NVivo 10 (2012) was used to organise the data from the interview and free text survey comments. This software enabled the researcher to collate words, phrases and quotes from participants' interviews and survey free text comments which were related to the main overarching themes and sub-themes. These extracts were organised within the thematic framework defined earlier in this section. The original context of these extracts were also easily accessible, through electronic links to the original transcript, enabling the researcher to re-check the meaning of the extract and its source at later stages of the analysis (Bruan and Clark, 2006).

Throughout this process, a number of themes emerged which were not linked to the original research questions. This data was filed for later analysis and labelled as 'themes which may be of later interest' (Braun and Clark, 2006). Ritchie, *et al.* (2003) state that during later stages of analysis and interpretation, these initially excluded themes can become clearer and take on new light. An example of a theme of interest in this study, was 'learning perceived as IPPL'. During the interviews, participants described multiprofessional learning activities which students were engaged in during practice settings, which they *perceived* as interprofessional. Initially, this theme was not viewed as a sub-theme to barriers to IPPL. However, during the later stages of interpretation, as links and relationships were established between themes, 'learning perceived as IPPL' and misconceptions of IPPL were deemed as important issues when considering barriers to IPPL. 'Learning perceived as IPPL' was therefore later included as a sub-theme of barriers to IPPL.

## ***Charting***

To build on the foundational blocks of the identified themes, the process of charting enables the researcher to gain a wider overview of the data, “determining meaning, salience and connections” (Ritchie and Spencer, 1994, p.177). In this study, four different charts were created, each of which were related to the main overarching themes of enablers of IPW, barriers to IPW, enablers of IPPL, and barriers to IPPL. Within each chart, each of the cases (a participant interviewed or a participant who provided a survey free text comment) were organised by row. A summary of their responses, related to the identified sub-themes, were organised by column. For example, Appendix 16 shows an excerpt from a chart created for the sub-themes related to barriers to IPPL.

In this process of charting, further immersion within the data occurred through repeated reading of extracts and cross checking with field notes and full versions of the interviews. This was done to check and re-check that that comments were not misinterpreted, and to ensure that data was indexed in the correct theme. At this point in time, the researcher was very much aware of the interconnectivity between each stage of the framework approach, not as a simple linear process, but one that requires the researcher to move back and forward through each stage (Ritchie and Spencer, 1994). Returning to Ritchie and Spencer’s (1994) scaffolding analogy, as confidence grew in the structure of major, primary and secondary sub-themes, thematic maps were formulated to explore links and relationships between themes (Braun and Clark, 2006). These thematic maps are presented in the results section in Chapter 7, Figures 8 to 11.

## ***Interpretation***

After patterns in the data have been identified, the “serious and systematic process of detection now begins”, leading to the development of strategies and ideas for change (Ritchie and Spencer, 1994, p.186). Associations and connections between participants were established, explanations for the attitudes, behaviours and experiences illuminated in the data were sought, and quotes from the interviews and survey free text comments were used to tell the story (Ritchie and Spencer, 1994; Braun and Clark, 2006). Discussions with health care professionals and managers who were not involved in the study were also valuable at this stage. This provided a

forum to discuss initial ideas and thoughts, and to gain an understanding of wider organisational issues.

### **5.5 Ensuring rigour in the analysis of qualitative data**

The framework approach not only enabled the task to be broken down into manageable sections, it also meant that it was easier to maintain an audit trail at each stage of the process, which is vital for ensuring transparency and rigour (Guba and Lincoln, 1985; Gale *et al.*, 2013; Ward *et al.*, 2013). As an additional check of reliability, a research assistant reviewed a sample of sub-themes to verify that the data extracted from the interviews and survey free text comments related to these themes. On discussion with the research assistant, she reported general consensus overall that the content was appropriately matched to the sub-themes. There were only two instances where data was re indexed to different sub-themes following this discussion. These changes were noted in the researcher's reflective diary. Where there was uncertainty over what was meant by a participant's response, the researcher was able to provide further context around the quote.

As an impartial verifier, the research assistant did not have a health or social care background and did not have any expertise within the field of interprofessionalism. Although seeking verification of themes from an individual with knowledge within the field may have been beneficial in offering another expert perspective, an independent view was valuable; "a detached perspective can offer interpretations which the more involved eye cannot see" (Hughes, 1994, p.40). It was considered that an IPE expert perspective would be too close to that of the researcher's and may have increased the risk of bias (Morse, Barrett, Mayan, Olson and Spiers, 2002). The research assistant's involvement as an impartial verifier not only contributed to rigour in the study, but enriched the process of analysis for the researcher by encouraging further reflection on the rationale for the identified sub-themes.

### **5.6 Chapter summary**

This chapter focused on the methods employed in this study to generate qualitative data. Focusing on each method which was used in this study was not for the purposes of segregating or diminishing the strengths and value of each method, but instead to demonstrate the rigour applied in the use of each method. Semi-structured interviews were used to generate qualitative data, to explore practice mentors' perspectives of

the enablers of and barriers to IPW, and IPPL for students. In this chapter, it was identified that the sample of interview participants drew from those who had indicated in the online survey their agreement to take part in the semi-structured interviews. From this group, a purposeful sampling strategy was used to ensure that the interview sample included participants with a range of characteristics, including profession, gender, area of work, professional experience, prior experience of IPE, and type of experience. As discussed in Chapter 4, these characteristics were of specific interest in relation to analysing which variables affect attitudes to IPW, and IPPL for students. In relation to the qualitative methods used in this study, these characteristics enabled the researcher to explore a range of different perspectives.

An overview of the format of the semi-structured interviews was provided and ethical considerations, in relation to informed consent, confidentiality and generally ensuring the protection of interview participants were discussed. The semi-structured interviews were undertaken by the researcher, mainly within the participants' workplaces, at their request. This may have been the preferred location for participants, in view of the fact that the interviews took place within their work time, and that limited time could be spared away from work priorities. It was also discussed that the familiarity of their working area may have been a more comfortable and less threatening environment for them to discuss their personal experiences of working with other professions and supporting students learning in practice. As discussed in Section 5.4.3. of this chapter, this environment, and some of the study participants were also familiar to the researcher. This required a number of measures to ensure reflexivity, such as a field diary to reflect on experiences throughout the study and maintain awareness of the researcher's positioning, and instilling trust in participants.

In the final sections of this chapter, the framework which was used as a guide to analysing the qualitative data in this study was discussed. The framework approach guided the analysis of qualitative data generated during the semi-structured interviews. Using the main research questions associated with this study, a deductive approach was taken to identify data related to the four main overarching themes related to the study questions: enablers of IPW, barriers to IPW, enablers of IPPL, and barriers to IPPL. Following this, an inductive approach was taken to identify and interpret the sub-themes which emerged. The interpretation of these sub-themes are discussed in the Chapter 7.

## Chapter 6. Part I Results

### 6.1 Chapter overview

In Chapter 4, the methods used to collect and analyse the quantitative data generated in this study were described. This current chapter focusses on the results from the quantitative analysis and addresses the study's primary research questions and hypotheses (Chapter 2, Section 2.8). The results related to practice mentors' attitudes to IPW, and IPPL for students will be presented first, followed by the results from the analysis of the effect of a number of different variables on these attitudes.

### 6.2 Sample profile

A total of 90 health care and social work professionals responded to the online survey, with the majority of responses from the professions governed by the NMC (Table G). According to a workforce report published in 2012 by the health board included in this study, it was reported that clinical and non-clinical professions comprised of 15.6% of males and 84.4% were females with a mean age of 44. The sample in this study was therefore fairly representative, in terms of gender and years of experience; over half of the sample were female (66.7%) and 31.1% of participants were qualified for more than 25 years. As shown in Table G, 47.8% worked within a community setting. This may reflect the large number of community hospitals (8) and health care centres (71) in the region of the health board, as discussed in the presentation of this case study (Chapter 4, Section 4.2). In relation to prior experience of IPE, 78.9% of participants reported that they had prior experience of IPE and 42.2% reported that this experience was both as an educator and as a learner.

Although there were small numbers of missing data within the IPW survey responses, it was noted that there were 5 cases (6.4%) where responses to question 10 of the IPW survey had been omitted. Question 10 of the survey was an item within the sub-scale of accommodation which asked participants to rate how far they would agree or disagree with the following statement:

*"[They] would be willing to cooperate with [our] new practices."*

Four of the non-responders were female but all were from varied areas of work, professional backgrounds, had varied years of experience, and previous experience

of IPE either as an educator or as a learner. It is difficult to determine the reason why this item was omitted, as there were no additional comments made in the free texts comments by these participants. However, it was evident that a number of participants highlighted in the free texts comments section in the online survey that they would have preferred a neutral response in the Likert scale. Participants may have been undecided in their response to this item and found it difficult to give a definitive agree or disagree response.

Table G. Sample demographic profile of the survey participants

Independent Variable		n (%)
<b>Governing Body</b>	NMC	35 (38.9%)
	GMC	22 (24.4%)
	HCPC	21 (23.3%)
	SSSC	9 (10%)
	GPhC	3 (3.3%)
	<b>Total</b>	<b>90 (100%)</b>
<b>Gender</b>	Female	60 (66.7%)
	Male	30 (33.3%)
	<b>Total</b>	<b>90 (100%)</b>
<b>Area of work</b>	Community	43 (47.8%)
	Acute	30 (33.3%)
	Both community and acute	8 (8.9%)
	Local authority	9 (10%)
	<b>Total</b>	<b>90 (100%)</b>
<b>Years' qualified</b>	1-10 years	17 (18.9%)
	11 - 15 years	21 (23.3%)
	16 - 20 years	11 (12.2%)
	21 - 25 years	13 (14.4%)
	More than 25 years	28 (31.1%)
	<b>Total</b>	<b>90 (100%)</b>
<b>Previous experience of IPE</b>	Yes	71 (78.9%)
	No	14 (15.5%)
	Unsure	5 (5.5%)
	<b>Total</b>	<b>90 (100%)</b>
<b>Type of IPE Experience</b>	Learner	20 (22.2%)
	Educator	13 (14.4%)
	Both	38 (42.2%)
	Neither	14 (15.5%)
	Unsure	5 (5.5%)
	<b>Total</b>	<b>90 (100%)</b>

### 6.3 Mean scores for attitudes to interprofessional working

Figure 6 provides an overview of practice mentors' mean scores in each of the sub-scales of the IPW survey: communication, accommodation and isolation. As discussed in Chapter 4, Section 4.6.1, survey participants were asked to respond to each item using a 4-point scale (1=strongly disagree to 4=strongly agree). For negatively orientated questions, this scoring was reversed. Scores were attributed to each point on the scale; scores above two indicating more positive attitudes to IPW. The mean scores shown in Figure 6 demonstrate that the attitudes of practice mentors were generally positive.

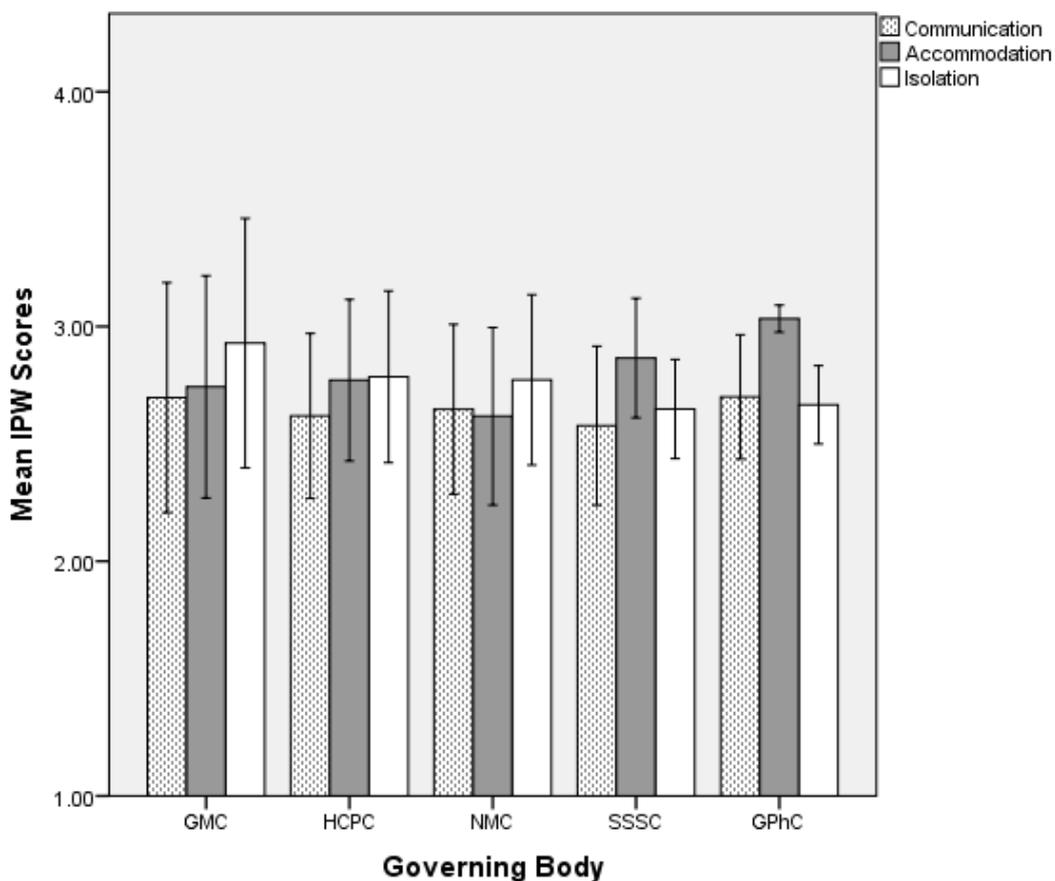


Figure 6 Attitudes to IPW: Mean scores (+/- 1 SD) of health care and social work professions

As identified in Chapter 4, a mixed factorial analysis of variance (ANOVA) was used to analyse the effects of six different variables on attitudes to IPW, between and within groups. ANOVA is known for its robustness where there are moderate departures from normality in the distribution of data (Norman, 2010; Kim, 2013) but robustness

of this test relies on equal sample sizes within each group (Field, 2009; Pallant, 2013). Due to the smaller number of social workers, pharmacists, participants who reported working across both acute and community settings, and participants who reported that they were unsure if they had prior experience of IPE, it was necessary to remove the data provided by these groups from the analysis. Table H provides an overview of the mean scores for each of the groups that were included in this analysis.

Table H. Attitudes to IPW and mean scores of groups included in the statistical analysis

Demographic		Communication	Accommodation	Isolation
Governing Body	GMC	2.70	2.74	2.93
	HCPC	2.62	2.77	2.79
	NMC	2.65	2.62	2.77
	<b>Overall <i>M</i> and <i>SD</i></b>	<b><i>M</i> = 2.65 (<i>SD</i> = .395)</b>	<b><i>M</i> = 2.69 (<i>SD</i> = .400)</b>	<b><i>M</i> = 2.82 (<i>SD</i> = .418)</b>
Gender	Male	2.60	2.64	2.82
	Female	2.68	2.71	2.82
	<b>Overall <i>M</i> and <i>SD</i></b>	<b><i>M</i> = 2.65 (<i>SD</i> = .395)</b>	<b><i>M</i> = 2.69 (<i>SD</i> = .400)</b>	<b><i>M</i> = 2.82 (<i>SD</i> = .418)</b>
Area of work	Community	2.66	2.67	2.82
	Acute	2.73	2.80	2.90
	<b>Overall <i>M</i> and <i>SD</i></b>	<b><i>M</i> = 2.69 (<i>SD</i> = .384)</b>	<b><i>M</i> = 2.72 (<i>SD</i> = .406)</b>	<b><i>M</i> = 2.85 (<i>SD</i> = .413)</b>
Years' qualified	1-10 years	2.68	2.69	2.69
	11 - 15 years	2.69	2.72	3.00
	16 - 20 years	2.76	2.78	2.87
	21 - 25 years	2.50	2.47	2.68
	More than 25 years	2.64	2.74	2.80
	<b>Overall <i>M</i> and <i>SD</i></b>	<b><i>M</i> = 2.65 (<i>SD</i> = .395)</b>	<b><i>M</i> = 2.69 (<i>SD</i> = .400)</b>	<b><i>M</i> = 2.82 (<i>SD</i> = .418)</b>
Previous experience of IPE	Yes	2.65	2.73	2.81
	No	2.66	2.58	2.82
	<b>Overall <i>M</i> and <i>SD</i></b>	<b><i>M</i> = 2.65 (<i>SD</i> = .390)</b>	<b><i>M</i> = 2.70 (<i>SD</i> = .407)</b>	<b><i>M</i> = 2.81 (<i>SD</i> = .413)</b>
Type of IPE Experience	Learner	2.61	2.65	2.71
	Educator	2.62	2.69	2.66
	Both	2.68	2.78	2.90
	Neither	2.66	2.58	2.82
	<b>Overall <i>M</i> and <i>SD</i></b>	<b><i>M</i> = 2.65 (<i>SD</i> = .390)</b>	<b><i>M</i> = 2.70 (<i>SD</i> = .407)</b>	<b><i>M</i> = 2.81 (<i>SD</i> = .413)</b>

### **6.3.1 Attitudes to interprofessional working and the effect of governing body**

The overall mean scores for each of the sub-scales (communication, accommodation and isolation) indicated that participants governed by the GMC, HCPC and NMC had positive attitudes to IPW (Table H). As discussed in Chapter 4, Section 4.9.2, the significance of departures from normality were assessed by calculating the skewness and kurtosis z-scores. Appendix 17 Table I provides an overview of the skewness and kurtosis values and associated z-scores which were used to assess the distribution of data and to determine departures from normality. Data for participants governed by the GMC were negatively skewed and were non-normally distributed within the accommodation sub-scale. The data within the sub-scale of isolation satisfied the assumptions of normality, in not exceeding the acceptable value of 1.96. Within the HCPC group, data also satisfied the assumptions of normality in all three sub-scales of the survey. However, within the NMC group, the z-scores for skewness and kurtosis within the sub-scale of isolation were out-with the value of 1.96. As a sample of less than 50 participants, the data within this group were non-normally distributed, with significant departures from normality (Kim, 2013).

Prior to investigating the effect of governing body on attitudes to IPW, Mauchly's test of sphericity confirmed that the conditions of sphericity were met ( $\chi^2(2) = 2.85, p = .240$ ). To investigate the effect of governing body on attitudes to IPW, data were analysed using a 3 (governing body) x 3 (IPW sub-scales) mixed factorial ANOVA. The between subject tests revealed that there was no significant main effect of governing body,  $F(2, 75) = .641, p = .530$ . However, within subjects' tests showed that there were significant differences between the sub-scales of communication and isolation ( $p = .000$ ), accommodation and isolation ( $p = .017$ ), but not between sub-scales communication and accommodation ( $p = .341$ ),  $F(2, 150) = 10.85, p = .000$ .

### **6.3.2 Attitudes to interprofessional working and the effect of gender**

The overall mean scores indicated that male and female participants had positive attitudes to IPW (Table H). As evident from the skewness and kurtosis z-scores (Appendix 17 Table II), data for male and female groups for all three sub-scales were negatively skewed. There were significant departures from normality in the data provided by male participants within the sub-scales of communication and accommodation.

Mauchly's test of sphericity confirmed that the conditions were met ( $\chi^2(2) = 2.44, p = .295$ ). To investigate the effect of gender on attitudes to IPW, data were analysed using a 2 (gender) x 3 (IPW subscale) mixed factorial ANOVA. Between subject tests revealed that there was no significant main effect of gender,  $F(1, 76) = .359, p > .551$ . The within subjects' tests showed that there were significant differences,  $F(2, 152) = 11.24, p = .000$ , between the sub-scales of communication and isolation ( $p = .000$ ) and accommodation and isolation ( $p = .005$ ) but not between the sub-scales of communication and accommodation ( $p = .868$ ).

### **6.3.3 Attitudes to interprofessional working and the effect of area of work**

The overall mean scores indicated that participants working in community and acute settings had positive attitudes to IPW (Table H). An overview of the values of skewness and kurtosis are provided in Appendix 17, Table III. Data was found to be non-normally distributed, with evidence of significant departures from normality, and negatively skewed data within all three sub-scales for participants working with the community setting. There were no significant departures from normality in the data from participants working in the acute setting. Overall, there were a number of outliers evident within this data; these outliers were retained within the analysis due to the minimal impact of these scores on the overall mean.

Mauchly's test of sphericity indicated that the conditions were met ( $\chi^2(2) = 2.40, p = .302$ ). To investigate the effect of area of work on attitudes to IPW, data were analysed using a 2 (area of work) x 3 (IPW sub-scales) mixed factorial ANOVA. Between subjects' tests revealed that there was no significant effect of area of work,  $F(1, 68) = 1.181, p = .281$ . Once again, the within subjects' tests showed that there were significant differences,  $F(2, 136) = 8.61, p = .000$ , between the sub-scales of communication and isolation ( $p = .000$ ), and accommodation and isolation ( $p = .020$ ) but not between the sub-scales communication and accommodation ( $p = .966$ ).

### **6.3.4 Attitudes to interprofessional working and the effect of number of years qualified**

The overall mean scores (Table H) indicate that participants with varied number of years' experience had positive attitudes to IPW. As evident from the skewness and kurtosis values and associated z-scores (Appendix 17, Table IV) there were

significant departures from normality in the sub-scales of accommodation and isolation within the category of 1-10 years' experience, and accommodation within the categories of 16-20 years and 21-25 years. Data within these categories were also negatively skewed. Once again, there were a number of outliers identified in this data which were retained in the analysis due to the minimal impact of these outlying scores on the overall mean.

In investigating the effect of number of years qualified on attitudes to IPW, Mauchly's test of sphericity indicated that the conditions were met ( $\chi^2(2) = 1.80, p = .406$ ). To investigate the effect of number of years qualified on attitudes to IPW, data were analysed using a 5 (number of years qualified) x 3 (IPW sub-scales) mixed factorial ANOVA. Tests of between subjects' effects revealed that there was no significant main effect of number of years qualified,  $F(4, 73) = 1.038, p = .394$ . Tests of within subjects' effects did however confirm that there was a significant difference,  $F(2, 146) = 8.63, p = .000$ , between the sub-scales of communication and isolation ( $p = .000$ ) accommodation and isolation ( $p = .011$ ) but not between the sub-scales of communication and accommodation ( $p = 1.000$ ).

### **6.3.5 Attitudes to interprofessional working and the effect of prior experience of IPE**

The overall mean scores indicated that participants with or without prior experience of IPE had positive attitudes to IPW (Table H). Appendix 17, Table V provides an overview of the skewness and kurtosis values and associated z-scores. Assumptions of normality were violated in the sub-scales of accommodation in the data from participants with prior experience of IPE. Although the sample size was larger in this group ( $n = 61$ ), skewness and kurtosis z-scores was out with the accepted value of -3.29, for a sample size greater than 50, and less than 300 (Kim, 2013). In the sub-scale of isolation for participants without prior IPE experience, data within this group was also negatively skewed and non-normally distributed. There were a number of outliers identified within the communication sub-scale for both groups and within the sub-scale of isolation. This data was retained within the analysis, due to the minimal impact of these outlying scores on the overall mean.

Mauchly's test of sphericity indicated that the conditions were met ( $\chi^2(2) = 2.81, p = .245$ ). To investigate the effect of prior experience of IPE on attitudes to IPW, data

were analysed using a 2 (prior experience of IPE) x 3 (IPW sub-scales) mixed factorial ANOVA. The between subjects' tests revealed that there was no significant main effect of previous experience of IPE,  $F(1, 73) = .153, p = .696$ . The tests of within subjects' effects showed that there was a significant difference,  $F(2, 146) = 7.57, p = .001$ , between the sub-scales of communication and isolation ( $p = .005$ ), and between accommodation and isolation ( $p = .007$ ) but not between the sub-scales of communication and accommodation ( $p = 1.000$ ).

### **6.3.6 Attitudes to interprofessional working and the effect of prior type of IPE experience**

The overall mean scores shown in Table H indicate that participants with varied experience of IPE, as an educator, a learner, both experience as an educator and a learner, or with neither experience had positive attitudes to IPW. In assessing the skewness and kurtosis values and associated z-scores (Appendix 17, Table VI), it was evident, particularly in the distribution of data within the IPE experience as an educator group, that there were significant departures from normality, evidenced by the kurtosis z-scores in the sub-scales of accommodation and isolation. Significant non-normal distribution was also evident within the group with neither experience as a learner or as an educator in the sub-scale of isolation. The outlying scores within the sub-scales of communication and isolation did not impact on the overall mean score and were therefore retained within the analysis

Mauchly's test of sphericity indicated that the conditions were met ( $\chi^2(2) = 2.42, p = .299$ ). To investigate the effect of prior type of IPE experience on attitudes to IPW, data were analysed using a 4 (prior type of IPE experience) x 3 (IPW sub-scales) mixed factorial ANOVA. The between subjects' tests revealed that there was no significant main effect of type of previous IPE experience,  $F(3, 71) = .734, p = .535$ . The within subjects' tests showed that there was a significant difference,  $F(2, 142) = 6.02, p = .003$ , between the sub-scales of communication and isolation ( $p = .005$ ), but not between the sub-scales of accommodation and isolation ( $p = .061$ ), or between communication and accommodation ( $p = 1.000$ ).

#### 6.4 Mean scores for attitudes to interprofessional practice learning

As discussed in Chapter 4, the survey used to measure attitudes to IPPL required participants to respond to items on a 4-point Likert scale (1=strongly disagree to 4=strongly agree). Scores above two for each item indicated positive attitudes. Figure 7 provides an overview of practice mentors mean scores in each of the sub-scales of the IPPL survey: teamwork and collaboration, and professional identity. The mean scores demonstrate that the attitudes of practice mentors, from the professions of health care and social work, were generally positive.

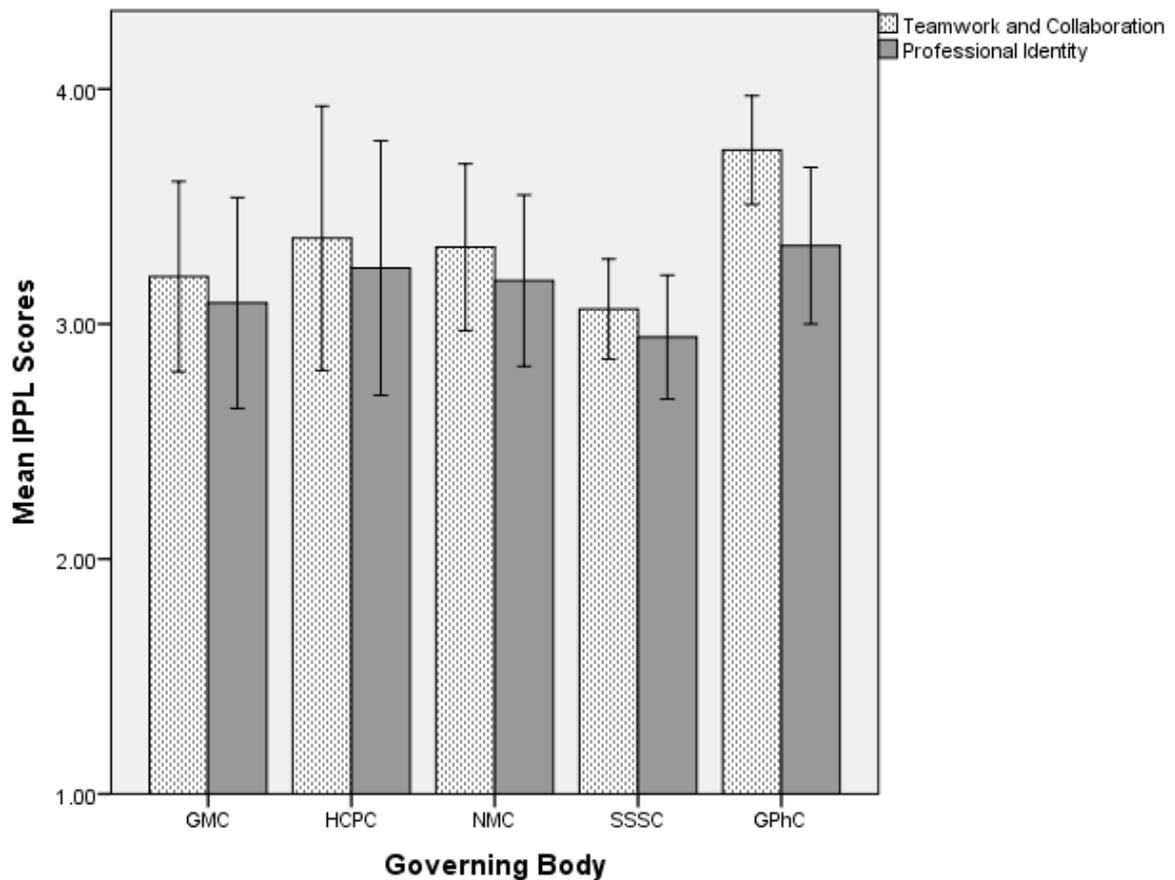


Figure 7. Attitudes to IPPL: Mean scores (+/- 1 SD) of health care and social work professions

As discussed previously in Section 6.3 of this chapter, due to the smaller number of social workers, pharmacists, participants who reported working across both acute and community settings, and participants who reported that they were unsure if they had prior experience of IPE, it was necessary to remove the data provided by these groups from the analysis. Table I provides an overview of the mean scores for each of the groups that were included in this analysis.

Table. I Attitudes to IPPL and mean scores of groups included in the statistical analysis

Demographic		Teamwork and Collaboration	Professional Identity
Governing Body	GMC	3.20	3.09
	HCPC	3.36	3.24
	NMC	3.33	3.18
	<b>Overall <i>M</i> and <i>SD</i></b>	<b><i>M</i> = 3.30 (<i>SD</i> = .431)</b>	<b><i>M</i> = 3.17 (<i>SD</i> = .439)</b>
Gender	Male	3.38	3.26
	Female	3.26	3.13
	<b>Overall <i>M</i> and <i>SD</i></b>	<b><i>M</i> = 3.30 (<i>SD</i> = .431)</b>	<b><i>M</i> = 3.17 (<i>SD</i> = .439)</b>
Area of work	Community	3.24	3.15
	Acute	3.43	3.21
	<b>Overall <i>M</i> and <i>SD</i></b>	<b><i>M</i> = 3.32 (<i>SD</i> = .446)</b>	<b><i>M</i> = 3.18 (<i>SD</i> = .441)</b>
Years' qualified	1-10 years	3.34	3.08
	11 - 15 years	3.55	3.44
	16 - 20 years	3.12	3.08
	21 - 25 years	3.18	3.06
	More than 25	3.23	3.11
	<b>Overall <i>M</i> and <i>SD</i></b>	<b><i>M</i> = 3.30 (<i>SD</i> = .431)</b>	<b><i>M</i> = 3.17 (<i>SD</i> = .439)</b>
Previous experience of IPE	Yes	3.33	3.19
	No	3.12	3.05
	<b>Overall <i>M</i> and <i>SD</i></b>	<b><i>M</i> = 3.29 (<i>SD</i> = .430)</b>	<b><i>M</i> = 3.16 (<i>SD</i> = .439)</b>
Type of IPE Experience	Learner	3.30	3.11
	Educator	3.19	3.12
	Both	3.39	3.25
	Neither	3.11	3.05
	<b>Overall <i>M</i> and <i>SD</i></b>	<b><i>M</i> = 3.29 (<i>SD</i> = .431)</b>	<b><i>M</i> = 3.16 (<i>SD</i> = .439)</b>

#### **6.4.1 Attitudes to IPPL and the effect of governing body**

The overall mean scores for each sub-scale (teamwork and collaboration, and professional identity) indicated that participants governed by the GMC, HCPC and NMC had positive attitudes to IPPL (Table I). Appendix 18, Table I provides an overview of the skewness and kurtosis z-scores. There were significant departures from normality within the sub-scale of teamwork and collaboration for professions governed by the HCPC, as indicated by the kurtosis z-score which was greater than 1.96. In addition, there was one outlier within this data which did not impact on the overall mean score. All other data within this category satisfied the assumptions of normality.

To investigate the effect of governing body on attitudes to IPPL, data were analysed using a 3 (governing body) x 2 (IPPL sub-scales) mixed factorial ANOVA. The between subjects' tests showed that there was no significant effect of governing body,  $F(2, 75) = .794, p = .456$ . The tests of within-subjects' effects showed that there was a significant difference,  $F(1, 75) = 23.88, p = .000$ , between the sub-scales of teamwork and collaboration ( $p = .000$ ), and professional identity ( $p = .000$ ).

#### **6.4.2 Attitudes to IPPL and the effect of gender**

The overall mean scores indicated that male and female participants had positive attitudes to IPPL (Table I). As shown in Appendix 18, Table II, there were some significant departures from normality in the distribution of data from female participants and the sub-scale of teamwork and collaboration. This is evident by the kurtosis z-score above the accepted level of 3.29 for a sample greater than 50 (Kim, 2013).

To investigate the effect of gender on attitudes to IPPL, data were analysed using a 2 (gender) x 2 (IPPL sub-scales) mixed factorial ANOVA. The between subjects' tests indicated that there was no significant main effect of gender,  $F(1, 76) = 1.37, p = .246$ . The tests of within subjects' effects revealed a significant difference,  $F(1, 76) = 22.30, p = .000$ , between the sub-scales of teamwork and collaboration ( $p = .000$ ), and professional identity ( $p = .000$ ).

### **6.4.3 Attitudes to interprofessional practice learning and the effect of area of work**

The overall mean scores in Table I indicate that participants working within the community and acute settings had positive attitudes to IPPL. As evident by the kurtosis z-score (Appendix 18, Table III), there was a significant departure from normality in the data within the sub-scale of teamwork and collaboration for practice mentors working within the community setting. There were two outlying scores within the acute group and professional identity sub-scale and one outlying score within the community and sub-scale of professional identity. These outlying scores did not have an impact on the overall mean and were therefore retained within the analysis.

To investigate the effect of area of work on attitudes to IPPL, data were analysed using a 2 (area of work) x 2 (IPPL sub-scales) mixed factorial ANOVA. The between subjects' tests showed that there was no significant effect of area of work,  $F(1, 71) = 1.46, p = .231$ . The tests of within subjects' effects revealed a significant difference between the sub-scales teamwork and collaboration, and professional identity ( $p = .000$ ).

### **6.4.4 Attitudes to interprofessional practice learning and the effect of number of years qualified**

The overall mean scores (Table I) indicate that participants with varied professional experience had positive attitudes to IPPL. As evident by the kurtosis z-score for community setting and the sub-scale of teamwork and collaboration (Appendix 18, Table IV), there were significant departures from normality in the sub-scale of teamwork and collaboration for participants with 16-20 years' experience. and in the sub-scale of professional identity for participants with 21-25 years' experience. There were a number of outlying scores within the sub-scale of professional identity for participants with 21-25 years' experience. These outliers did not have an impact on the overall mean and were therefore retained within the analysis.

To investigate the effect of number of years qualified on attitudes to IPPL, data were analysed using a 5 (number of years qualified) x 2 (IPPL sub-scales) mixed factorial ANOVA. The between subjects' tests revealed that there was no significant effect number of years' experience,  $F(4, 73) = 2.54, p > .05$ . A false positive result

( $p = .047$ ) indicated a possible type 1 error which can occur where ANOVAs are performed for a number of dependent variables (Pallant, 2013). However, the within subjects' tests showed that there was a significant difference,  $F(1, 73) = 24.74$ ,  $p = .000$ , between the sub-scales teamwork and collaboration, and professional identity ( $p = 0.00$ ).

#### **6.4.5 Attitudes to interprofessional practice learning and the effect of previous IPE experience**

The overall mean scores indicated that participants with and without previous experience of IPE had positive attitudes to IPPL (Table I). Data within the sub-scale of teamwork and collaboration was non-normally distributed, as indicated by the kurtosis z-score which was greater than 1.96 (Appendix 18, Table V). There was only one outlier within the category of no previous experience of IPE for both sub-scales. This data was retained within the analysis as the overall mean was not affected by this outlying score.

To investigate the effect of previous IPE experience on attitudes to IPPL, data were analysed using a 4 (previous IPE experience) x 2 (IPPL sub-scales) mixed factorial ANOVA. The tests of between subjects' effects revealed there was no significant main effect of previous IPE experience,  $F(1, 73) = 2.02$ ,  $p = .160$ . The within subjects' tests revealed a significant difference,  $F(1, 73) = 10.10$ ,  $p = .025$ , between the sub-scales teamwork and collaboration, and professional identity ( $p = .002$ ).

#### **6.4.6 Attitudes to interprofessional practice learning and the effect of type of previous IPE experience**

The overall mean scores indicated that participants with previous experience of IPE as either an educator, a learner, both or with neither experience as an educator or learner had positive attitudes to IPPL (Table I). As shown in Appendix 18, Table VI, there were significant departures from normality for data within the category of prior experience of IPE as a learner, and the sub-scale of professional identity, evidenced by the skewness z-score which was greater than 1.96. There were also significant departures from normality in the data within the category of neither experience of IPE as an educator or learner, evidenced by the kurtosis z-score which was greater than

1.96. There were a number of outliers within the previous experience as a learner category for professional identity which were retained within the analysis.

To investigate the effect of type of previous IPE experience on attitudes to IPPL, data were analysed using a 3 (type of previous IPE experience) x 2 (IPPL sub-scales) mixed factorial ANOVA. The between subjects' effects revealed that there was no significant main effect of type of IPE experience,  $F(3, 71) = 1.23, p = .307$ . The tests of within-subjects' effects showed that there was a significant difference,  $F(1, 71) = 17.79, p = .000$ , between the sub-scales teamwork and collaboration, and professional identity ( $p = .000$ ).

## **6.5 Chapter summary**

This chapter has presented the results of the analysis of the quantitative data generated from the online survey used in this study. A mixed factorial ANOVA was used to analyse the effect of six different independent variables on attitudes to IPW, and IPPL for students. In relation to attitudes to IPW, the overall mean scores indicated positive attitudes to IPW. The between subjects' tests showed that there was no significant effect of governing body, gender, area of work, number of years qualified, IPE experience or type of IPE experience. However, the within subjects' tests revealed that there were significant differences between the sub-scales of communication and isolation, but not between accommodation and isolation or between the sub-scales of communication and accommodation.

In relation to attitudes to IPPL, the between subjects' tests revealed that there was no significant effect for governing body, gender, area of work, number of years qualified, IPE experience or type of IPE experience on attitudes to IPPL. However, the within subjects' tests showed significant differences between the sub-scales of teamwork and collaboration, and professional identity. In Chapter 8, these results are interpreted and discussed in further detail to address the research questions and study hypotheses.

## Chapter 7. Part II Results

### 7.1 Chapter overview

This chapter focusses on the results from the qualitative analysis of data generated from the semi-structured interviews undertaken with participants. It will present the main overarching themes and the sub-themes which were identified from the thematic analysis of the data. These results will address the study's secondary research questions (Chapter 2, Section 2.8) related to practice mentors' perspectives of the enablers of and barriers to IPW, and IPPL for students.

### 7.2 Semi-structured interview sample characteristics

Table J provides a comparison of the number of online survey participants from each governing body who agreed to take part in the semi-structured interviews, and the actual number of participants who were interviewed. The total sample for the semi-structured interviews consisted of 22 health care and social work professions (35.5% of the total number of participants who agreed to participate in the interviews). In addition, 24 health and social care professions provided free text comments in the final section of the online survey. Nine of these participants were interviewed. The remaining 15 either opted out of the interviews or were not selected for interview by the researcher.

Table J. Comparison of number of survey and interview participants

<b>Governing Body</b>	<b>Total Survey Sample n (%)</b>	<b>Total Sample Agreed to be Interviewed n (% of total survey sample)</b>	<b>Total Sample Interviewed n (% of total sample agreed to be interviewed)</b>
<b>GMC</b>	22 (24%)	18 (81.8%)	4 (22.2%)
<b>GPhC</b>	3 (3.3%)	2 (66.7%)	1 (50%)
<b>HCPC</b>	21 (23.3%)	12 (57.1%)	5 (41.7%)
<b>NMC</b>	35 (38.9%)	25 (71.4%)	10 (40%)
<b>SSSC</b>	9 (10.0%)	5 (55.5%)	2 (40%)
<b>Total</b>	<b>90 (100%)</b>	<b>62 (68.9%)</b>	<b>22 (35.5%)</b>

As discussed in Chapter 5, Section 5.2.1, to enhance the comparative potential of the data set, a broad range of participants were purposively sampled to take part in a semi-structured interview. The demographic information that was collected in the online survey facilitated this purposeful sampling strategy. As shown in Table K, a sample with a broad range of characteristics, in terms of gender, area of work, professional experience, prior experience of IPE, and type of IPE experience, was achieved. Professions governed by the NMC were the largest group to participate in the semi-structured interviews ( $n=10$ ). Over half of the sample from all professional groups worked within the community setting ( $n=12$ ). Most of the participants had between 21 years to 25 years' experience as a qualified professional ( $n=7$ ) or more than 25 years' experience ( $n=8$ ). Many of the participants stated that they had prior experience of IPE both ( $n=18$ ). Most of this group with previous IPE experience identified that this was as an educator and as a learner ( $n=9$ ).

Table K. Sample demographic profile of semi-structured interview participants

Demographic		Interview Sample	Free Text Comments (not interviewed)
Governing Body and Specific Profession	GMC	GP ( $n=3$ )	GP ( $n=1$ )
		Medical Consultant ( $n=1$ )	Anaesthetist ( $n=2$ )
			Doctor (medical) ( $n=2$ )
			Psychiatrist ( $n=1$ )
		<b>Total 4(18.2%)</b>	<b>Total 6(40%)</b>
	HCPC	Clinical Psychologist ( $n=1$ )	Clinical Psychologist ( $n=1$ )
		Occupational Therapist ( $n=1$ )	Speech and Language Therapist ( $n=2$ )
		Physiotherapist ( $n=1$ )	Physiotherapist ( $n=2$ )
		Radiographer ( $n=1$ )	AHP [not specified] ( $n=1$ )
		Dietician ( $n=1$ )	
		<b>Total 5(22.7%)</b>	<b>Total 6(40%)</b>
	NMC	Adult Nurse ( $n=1$ )	Adult Nurse ( $n=1$ )
		District Nurse ( $n=3$ )	Practice Nurse ( $n=1$ )
		Health Visitor ( $n=2$ )	
		Mental Health Nurse ( $n=2$ )	
		Midwife ( $n=1$ )	
		Learning Disabilities Nurse ( $n=1$ )	
		Midwife ( $n=1$ )	
		<b>Total 10(45%)</b>	<b>Total 2(13.3%)</b>
	SSSC	Social Worker ( $n=2$ )	Social Worker ( $n=1$ )
<b>Total 2(9.1%)</b>		<b>Total 1(6.7%)</b>	
GPhC	Pharmacist ( $n=1$ )		
	<b>Total 1(4.5%)</b>	<b>Total 0(0%)</b>	

<b>Gender</b>	Male	7(31.8%)	4(26.7%)
	Female	15(68.2%)	11(73.3%)
<b>Area of work</b>	Community	12(54.5%)	4(26.7%)
	Acute	5(22.7%)	9(60%)
	Both	3(13.6%)	1(6.7%)
	Council	2(9.1%)	1(6.7%)
<b>Years' qualified</b>	1-10 years	4(18.2%)	2(13.3%)
	11 - 15 years	1(4.5%)	6(40%)
	16 - 20 years	2(9.1%)	1(6.7%)
	21 - 25 years	7(31.8%)	1(6.7%)
	More than 25 years	8(36.4%)	5(33.3%)
<b>Previous experience of IPE</b>	Yes	18(81.8%)	12(80%)
	No	2(9.1%)	2(13.3%)
	Uncertain	2(9.1%)	1(6.7%)
<b>Type of IPE Experience</b>	Learner	5(22.7%)	1(6.7%)
	Educator	4(18.2%)	3(20%)
	Both educator and learner	9(40.9%)	8(53.3%)
	Neither	2(9.1%)	2(13.3%)
	Uncertain	2(9.1%)	1(6.7%)

An interview topic guide was used during the semi-structured interviews (Appendix 13) to ensure that the researcher's questions were consistent with the secondary research questions and associated study objectives. As stated in Chapter 2, Section 2.8, this was the third objective of the study:

- To explore practice mentors' perspectives of the enablers and barriers to IPW, and IPPL for students

Enablers and barriers to IPW, and IPPL for students later became the main overarching themes to guide the analysis of the qualitative data and onward identification of primary and secondary sub-themes. The remainder of this chapter will therefore present the results of this analysis, focusing on each overarching theme in turn.

### 7.3 Enablers of IPW

As illustrated in Figure 8, four primary sub-themes related to enablers of IPW emerged from the qualitative data. These were effective communication; established teams; IPPL for qualified professions, and shared processes and policies. As secondary sub-themes of effective communication, a further four enablers emerged: planned communication, unplanned communication, proximity,

and electronic communication. The remainder of this section explains each of these themes.

**Effective communication**

Effective communication was one of the commonest enablers mentioned in the interviews, with twenty participants highlighting a range of different factors which they perceived enabled effective communication. As this was such a large primary sub-theme, it was sub-divided into a further four secondary sub-themes: planned communication, unplanned communication, proximity, and electronic communication.

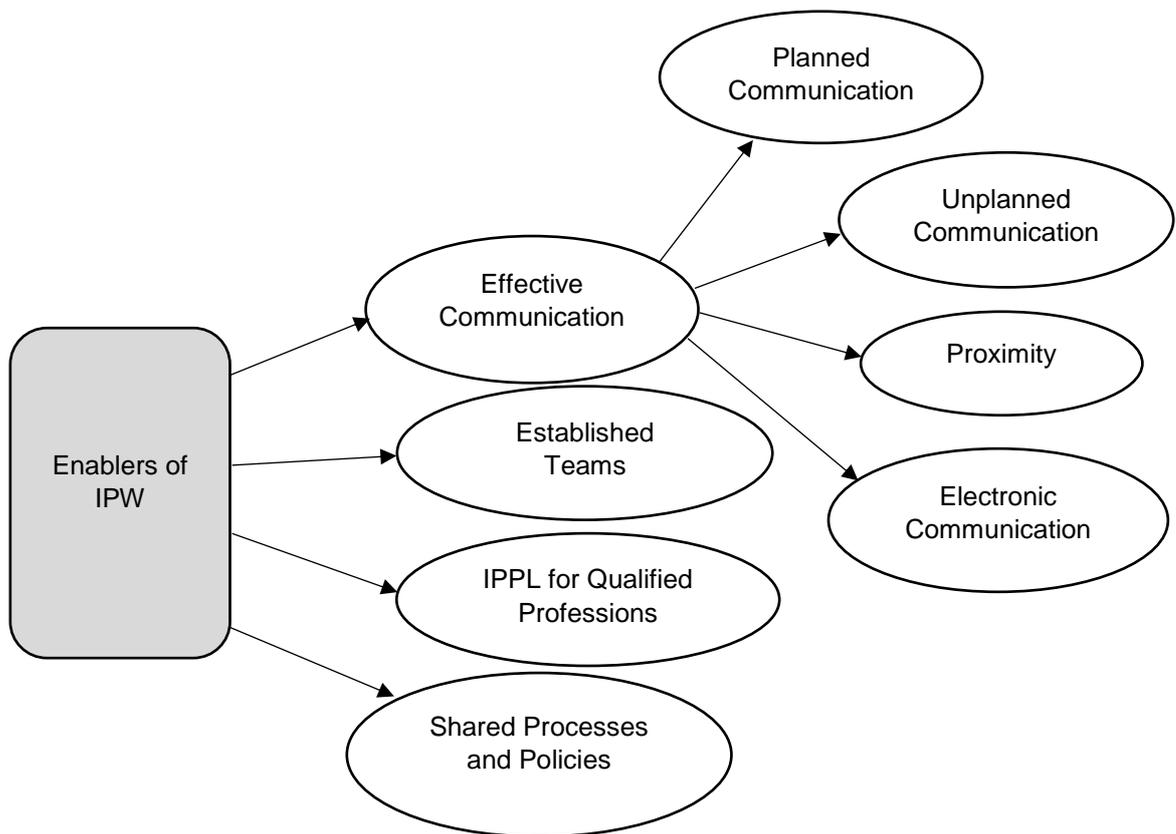


Figure 8. Thematic map of the enablers of IPW

### **Planned communication**

Regular planned meetings such as multidisciplinary meetings, safety debriefings and structured short meetings which occurred on a regular basis, were highlighted in 13 of the interviews as an enabler of IPW. These were perceived as being of particular value where multiple professions came together on a regular basis to discuss and review plans of care following input from different professions. For many participants, these meetings were a reminder of their shared goal of delivering effective care and the value of having input from different professions:

*“I think the most important thing I see in them [the multi-disciplinary team meetings] is, ‘look we are all in this together, look there is a potential problem here, c’mon, let’s get a wee grip, let’s get talking about now’... we can all try our best to control it [the potential problem].” (Adult Nurse, community, interview 12)*

One social worker discussed the value of structured formal meetings in maintaining communication between different professions and also as a means of preventing issues from occurring at a later stage which could be attributed to lack of communication. However, this social worker also perceived that there was the potential for these structured meetings to become devalued and not regularly attended, as other work priorities took precedence:

*“I think they are worthwhile, I’m a big fan of them. They seem to bear a lot of fruit, so, but it is a kind of work that is, it could fall into the category of preventative, prophylactic type work that it’s the kind of stuff that prevents other stuff going on but often goes on the wayside if you have got a lot of other things on and then you don’t have time for that.” (Social Worker, local authority, interview 22)*

### **Unplanned communication**

Whereas planned communication was perceived as an enabler of IPW, for the ability to maintain structured lines of communication between professions, informal and ad hoc instances of communication also emerged as a common theme within the interviews. Fourteen health care and social work professionals highlighted that unplanned communication was as an enabler of IPW. Furthermore, where planned

and unplanned communication occurred, these were viewed as complementary to each other. The sub-theme of unplanned communication seemed to be quite closely linked to the secondary sub-theme of proximity. Some of the participants pointed out that opportunistic discussions and informal referrals often occurred “in the passing” in the corridor, during breaks in the staff room, or a brief conversation over the telephone:

*“We do have informal information from the OTs as well, just kind of ad hoc, they’ll phone up and say ‘So and so came down, they managed to do so and so...’ Yeah, that works as well.” (Mental Health Nurse, community, interview 10)*

### **Proximity**

Close proximity between professions was a recurrent theme, with just over half of the participants, mainly from the community setting, highlighting that close physical proximity to other professions enabled IPW. Phrases such “around the corner”, “just along the corridor” or “just up the stairs” defined this as a short distance between professions, either in the same building or within the same department. As previously discussed, proximity seemed to further encourage unplanned communication between professions:

*“It literally is, just upstairs and they’ll come down and speak to us about patients too, if there is someone I have been in with and I am just a bit worried about, I tend to pop in just to check and I can go and speak to them about that...” (GP, community, interview 2)*

With close proximity, there seemed to be a sense that professions felt that others were more approachable, and as a result, were more likely to engage in unplanned and ad hoc conversations:

*“They’ve [nurses] got to know me and hopefully they feel that they can approach me because we know each other quite well, that does help.” (Consultant, community, interview 1)*

Although the theme of proximity seemed to be more evident within the interviews undertaken within the community setting, proximity was also perceived as an enabler

to IPW where professions highlighted that they worked in close proximity within the acute setting,

*“I think geography has a lot to do with it. I think if we were a team that had their main base somewhere else in the hospital, just came in, saw patients and went away, we wouldn’t have the same level of multidisciplinary working.”*  
(Physiotherapist, acute, interview 16)

Working in close proximity to different professions was also perceived to affect professional relationships and their identity as a team. For some, this proximity was more than just coming in and out of each other’s space; there was sense that the team were more readily available to help each other and took a shared approach to troubleshooting problems as they arose:

*“It’s a much closer working relationship, so when you come along and say ‘I’ve got a real problem, I need your help now’, I say, ‘Ok, what is it we need to do’?... you work together and you can solve problems together.”* (GP, community, interview 3)

Shared working spaces and social spaces such as open plan offices and staff rooms were perceived as an enabler of IPW. Many participants stated that the opportunity to share a staff room with their colleagues from other professions provided a social area to chat informally and to informally discuss work issues. These shared spaces seemed to encourage positive interprofessional working relationships:

*“Just from a social point of view, everyone gets together in the coffee room, we all meet and we discuss things...we’ll often discuss cases over coffee with people we are not quite sure what to do with.”* (GP, community, interview 2)

Although IPW was perceived to be enabled within the closer proximity of an open plan office, shared by more than one profession, as highlighted by one social worker and one district nurse, there were also challenges related to working in such close proximity in an open plan area. Noise levels were felt to impact on work and concentration levels, and overhearing other professions conversations were distracting. However, as illustrated in the following two quotes, these negative points seemed to be outweighed by the value of being able to get to know other members

of the team on a more personal level, and as an opportunity to answer queries more quickly than if professions were located in different departments:

*“We are now in open plan which with it brings all its issues, but in reality, what has been good and I can see what has been good about that is, that I now know who the criminal justice workers look like. I know what they look...and for that we are becoming real people to each other....it comes down to person, being a person first and then being a professional second or you know if somebody has a baby or somebody has a grandchild.” (Social worker, local authority, interview 21)*

*“And you know, you just hear things and you think, ‘Oh I know that.’ That sort of thing happens, you know, quite quickly.” (Occupational therapist, community, interview 13)*

### **Electronic communication**

Electronic communication included systems such as email, online referral systems and electronic records which were used to document any information related to care provided to service users. In all of the interviews, participants pointed out that these systems were increasingly used in health and social care. For some of the participants, they were perceived as enabling effective communication, particularly within the community setting. Electronic records were maintained for service users which could be then accessed by other professions. It seemed to be perceived as an effective means of keeping other professions updated on any changes or interventions in treatment or care:

*“It’s actually much better if we put an [electronic record] entry in and we will certainly do that now if we are taking a sample that the GPs haven’t asked us for.” (District Nurse, community, interview 5)*

This system was also seen as an effective way of alerting colleagues to non-urgent issues and was sometimes viewed as a more effective alternative to email communication. This was found to be particularly effective where colleagues needed to be contacted during a clinic. An instant messaging facility was perceived as a quicker and more direct way to get the information to their colleague, allowing their colleague to respond at a convenient time:

*“If they [GPs] are busy with patients we’ll put it on their computer as a triage of what we’re wanting them to do and what we’re wanting them to say and then quite often they, if they’ve seen that, they’ll come through and seek us out and speak to us.” (District Nurse, community, interview 7)*

Emails were highlighted as an effective way of communicating non-urgent information to other professions, such as non-urgent referrals between professions in health care, and between professions from health care and social work. It was also identified as a way of updating other professions within the same department and particularly to ensure that communication was maintained in the instance of a colleague’s absence from a face to face meeting.

*“Sometimes for different reasons, one or two members may not be able to attend, they are still involved closely with patient care and they will still be kept up to speed with meeting notes... They [other health care professionals] are very diligent to make sure that the team is aware of what they are wanting to add. He [the chair of the meeting] will give an update by email.” (Learning Disabilities Nurse, acute, interview 14)*

### **Established teams**

In 13 of the interviews, it was identified that teams of mixed professions had worked together for a long period of time. The terms “established teams” and “strong teams” were used frequently during these interviews. Particularly within the community setting, it was noted by participants that established teams had good knowledge of their service users. This was felt to be invaluable for providing effective care, and for ensuring continuity in care delivery, where input from multiple professions was required. As evidenced by the following quote, this knowledge was also useful when conflict within the team was sometimes apparent. There was a sense that this conflict was more tolerable and accepted within teams that identified themselves as being well established:

*“They work out how your character works, you work out how their character works. You realise where there can be areas of conflict. You know how to steer around those areas of conflict.....” (GP, community, interview 3)*

With established teams, came awareness and understanding of roles and responsibilities, appreciation and mutual respect of each other. Participants provided examples of their colleagues from other professions knocking on their door to seek advice or to get a second opinion. This was particularly evident with established teams within the community settings:

*“All the GPs would come to us [the District Nurses] and ask for advice or what could we do and how quickly we could do it or what [would we] suggest or what if they feel any areas that they are not comfortable in that they know any of us have got any expertise in...we honestly do have total professional respect for each other and it’s both ways.” (District Nurse, community, interview 6)*

Two participants discussed actively ensuring that roles and responsibilities were clear. Within these interviews, there were interesting contrasting reasons for why conscious efforts were made to ensure this understanding. As discussed by one participant who worked within a mental health setting, there was sense that roles and responsibilities were made explicit to ensure the safety of staff and service users, and in particular, new members of staff working within a specialised area:

*“Me personally, I think there’s clear understanding and if we have a new member of staff on the ward and they weren’t sure what somebody’s role was, there would always be one of the other nurses that would be able to explain what the role of the person is. I think it’s probably the type of patients that we have, being a forensic setting, we do make sure that everybody is aware of each other’s roles.” (Mental Health Nurse, community, interview 11)*

In contrast, for the other participant, working within the context of obstetrics in an acute setting, there was a perceived need for a clear delineation of the roles and responsibilities of midwives. This participant highlighted that this strategy ensured protection of their workload and prevented some of the doctors “offloading” some of their responsibilities on to midwives.

### ***Interprofessional practice learning for qualified professions***

Seven participants emphasised that being involved in joint training with other professions enabled IPW. Those that worked within community settings referred to protected learning time; that is, ring fenced, in-service time for professions to attend

staff training sessions. Joint training was valued as a way improving interprofessional working relationships because it helped with developing an awareness of roles and responsibilities. In the main, such training activities appeared to be interprofessional in their delivery, as informal group discussions and “the conflag” which was described, implied interaction during their learning. This opportunity for informal discussion was felt to be of particular value:

*“You will get professionals, you know, with a degree of humour, slagging each other off and then being actually able to say ‘well, the psychologist did that because x, y and z’, so being able to get together in a less formal environment and talk about the different roles do is really very helpful... it just felt like a really nice environment to demystify what each other did without any particular sensitivities and because we were from different areas as well.” (Clinical Psychologist, acute and community, interview 18)*

This training was also felt to contribute to enable ongoing IPW after the event, as described by the following quotes from two participants working with the community setting and the local authority. These participants utilised the training sessions to build a network of professions that they felt they would be able to contact in the future if their input was required. This networking was facilitated by the exchange of emails before or after correspondence related to staff training:

*“There are occasions where you go to these training and you think, ‘oh that’s that person and oh I will phone them’ ... you are no longer just a name on a bit of paper or a person at the end of the phone.” (Social Worker, local authority, interview 21)*

*“Networking really helps, you know putting a name to a face and actually knowing what they do because we all work in our own little silos and until you actually need somebody, you don’t know what you need them for, you don’t know what’s there.” (Health Visitor, community, interview 8)*

### **Shared processes and policies**

This theme was related to systems and policies shared by different professions within health care and also between health care and social work, and was highlighted as an enabler of IPW on six of the interviews. The Getting It Right for

Every Child (GIRFEC) national framework for the implementation of the Children and Young People (Scotland) Act (2014), was referred to as an example of a policy which guided health care and social work professionals' practice in the community, acute and local authority settings. These participants stressed that GIRFEC encouraged a coordinated approach between health, social care and other agencies, such as education and police. In doing so, this shared policy was perceived as making an important contribution to enabling IPW:

*"I feel that this breaking down barriers and finding that teachers, social workers, nurses are all doing aspects of the job that are very similar and especially now with GIRFEC we've all got very, you know we are all protecting children and you've just got slightly different roles in that. The more we communicate and understand each other roles, and we are all using the same paperwork and format now, then that can only be a good thing." (Health Visitor, community, interview 8)*

Other examples of shared processes included shared documentation, information boards used by more than one profession to document key details about service users, and routine multi-disciplinary meetings and safety briefings. These shared processes were viewed as enablers of IPW.

#### **7.4 Barriers to IPW**

Within the major theme of barriers to IPW, a range of issues were highlighted by 21 interview participants, and by 3 participants in the free text comments of the online survey. Given the complexity of this overarching theme, this was sub divided into six primary sub-themes, and four secondary sub-themes (Figure 9). It was evident that some of these themes overlapped with those from other main overarching themes. For example, organisational culture emerged here as a barrier to IPW, and was also identified as a barrier to IPPL. Similarly, whereas established teams, effective communication and shared processes and policies were enablers of IPW, where participants reported that these factors were lacking, were perceived by some participants as some of the main barriers to IPW.

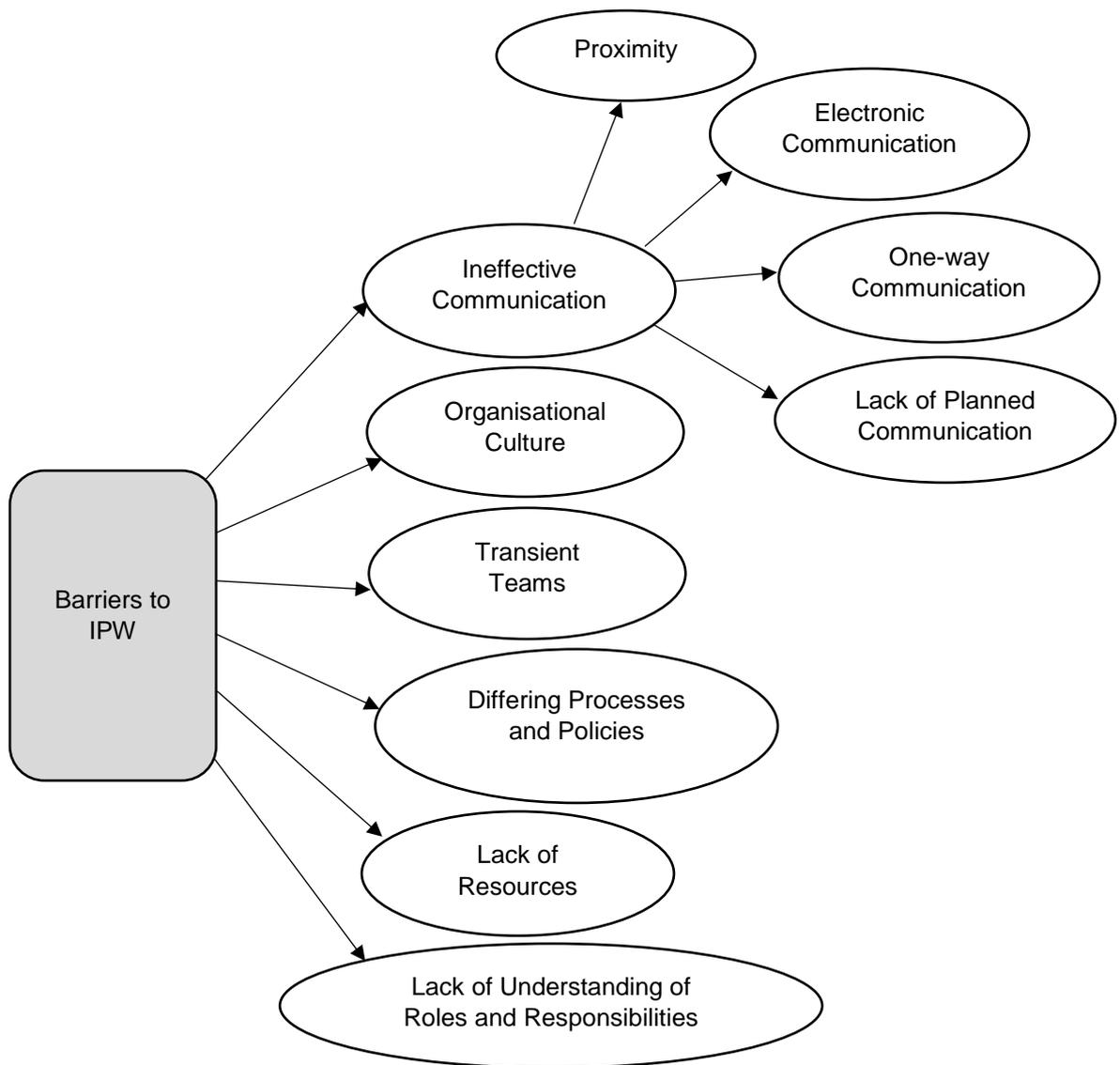


Figure 9. Thematic map of the barriers to IPW

***Ineffective communication***

As was evident within the theme of enablers to IPW, communication emerged as one of the largest primary sub-themes in relation to barriers to IPW, with a range of different issues highlighted by participants. This sub-theme was broken down into a further four secondary sub-themes, to reflect the patterns of issues raised by participants. These included: proximity, electronic communication, one-way communication, and lack of planned communication. Once again, similar themes to

those identified as enablers of IPW were noted, apart from the theme of one-way communication.

### ***Proximity***

As a secondary sub-theme of ineffective communication, this theme was noted by in eight of the interviews. As previously discussed within the overarching theme of enablers of IPW, participants who shared the same building or department perceived that different professions working in close proximity to each other, enabled IPW. Within the five years prior to the study being carried out, restructuring of services and departments occurred within the community setting in this study site. New community hospitals were built to house multiple services under one roof. This meant that some health centres and departments were relocated to separate buildings in different locations. In relation to the theme of proximity, it was interesting that participants felt that these changes had disrupted IPW for a variety of different reasons. For those teams where different professions had been relocated to different buildings in different locations, participants highlighted that not being in the same building were perceived as barriers to IPW. Opportunistic, informal discussions were missed and communication was felt to be less effective. Despite email and telephone as a possible way of overcoming this challenge, participants stated that they often found that it was difficult “to get hold of” other professionals. This seemed to be particularly challenging within the community setting where it was highlighted that both health care and social workers were moving between different locations on a day to day basis:

*“I think with social work especially... [it is] so hard to get people in and you end up, you know, you’re ping-ponging phone calls back-and-forwards for days sometimes, or even a couple of weeks before you actually manage to get the person that you’ve been trying to get....” (Health Visitor, community, interview 9)*

*“You have to ring and phone to a district nurse and it’s not necessarily going to be one of you practice district nurses and you don’t know who it is... It wouldn’t prevent me from contacting those people when I felt that it was really necessary but it somehow makes it harder.” (GP, community, interview 4)*

A number of participants who had been moved to join other departments as services became centralised relayed the anxieties they experienced as a result of their team being disbanded. They described feelings of isolation, loss, and resentment at being moved against their will. There was a sense of grieving for their smaller intimate teams that they had been part of, prior to the relocation:

*“It wasn’t our own home either, we felt we were visitors in a bigger organisation and we also felt that we were getting dragged into NHS screaming and kicking, no longer part of the practice team...it was a wrench for us all of us.” (District Nurse, community, interview 6)*

Another district nurse within the same team confirmed this sense of loss and resentment was confounded by the lack of a coffee room as a safe place for team members to discuss work informally. As previously discussed in relation to enablers of IPW, shared spaces such as staff rooms and coffee rooms were perceived as an enabler of IPW, encouraging unplanned and informal communication. As illustrated in the following quote, moving to a location where there was no staff room was perceived as an additional blow to the team identity and confounded the feelings of loss:

*“Before, we all intermingled in the same coffee room. Here, we were told that we weren’t allowed to have a coffee room, we all had to use the canteen and there is conversations we have at lunch times that are not suitable for public consumption and you know we’ve lost the friendly chit chat with other people.” (District Nurse, community, interview 5)*

Whereas open plan office space was seen as an enabler to IPW, the same participants also highlighted the downsides which included increased noise levels, distractions and lack of privacy. One social worker described the impact of restructuring of services within the context of social work. She explained that she had been moved from a small room with her colleagues from the same department, to an open plan office with other social workers with different focus to their role. The loss of a safe place to talk informally with her colleagues was noted as an issue:

*“Recently, somebody somewhere made some massive complaint about [our department] because they thought the way we spoke was derogatory or*

*something we said and also they didn't like when they walked passed, they could see the information on the screen... If I had a choice, I would rather that we had our own team again, you know, our own space.” (Social Worker, local authority, interview 21)*

Although an open plan office was valued in terms of proximity to other colleagues, there was still the sense of grieving for the small team structures from prior working contexts. These contrasting views of open plan offices suggest that a certain level of proximity between professions is possibly acceptable.

### ***Electronic communication***

Although email and other electronic platforms used by health care and social work professionals were perceived as an enabler to IPW, a number of issues were discussed in relation to electronic communication as a barrier to IPW. Two health care professionals from the community setting and two social workers emphasised in their interviews that although records were maintained electronically, these records were not always accessible between the health care setting and the local authority:

*“We do have a recording system where we record case notes and the police have access to that so they see the same document as we do and other social workers and other aspects of like if they are in criminal justice or adults, they'll see the same system. Education don't see that, health don't see that. We don't share a system, which does seem silly.” (Social Worker, local authority, interview 21)*

Whereas shared policies, such as GIRFEC, were perceived as an enabler to IPW, this enabler seemed to be negated by issues with electronic communication. Participants reported that important records could not always be accessed by a range of professions. Therefore, there was the potential for professions to miss key information which may have helped with more effective IPW.

Participants also highlighted that there were issues with members of the team choosing not to use electronic communication platforms consistently or forgetting to document information. Participants from the community settings described issues related to systems working ineffectively in certain parts of a single building, or a whole

area within the health board not having access to an electronic system. As illustrated in the following quote, this issue was felt to have a particular impact on the ability to communicate in relation to child protection issues:

*“Other areas are getting all these things through from the police and we get very little so it’s definitely electronic systems that work and the child protection one, there is things going on that we are very aware of that we are not hearing about.”*  
(Health Visitor, community, 8)

While email and other electronic messaging platforms used between health care professions were seen as contributing to effective communication and an enabler of IPW, three participants stated that they preferred telephone or face to face communication over email or electronic messaging. One consultant from a community hospital setting felt that telephone communication was preferable for making referrals to other professions. She felt that more information could be given over the telephone, than in an email. Whilst instant electronic messaging was highlighted earlier as an effective way of passing information on to other professions if they were involved in a consultation, in contrast to this, a GP stated that he found that these messages disrupted clinics as he was conscious of the messages coming through during consultations. Furthermore, face to face communication was valued as a way of being able to read his colleagues’ body language to help determine their concerns:

*“Everybody just sits and looks at a screen instead of speaking to each other. You know, as instant message comes through...the district nurse says, ‘so and so got an infected ulcer, what would you like to do?’... Looking somebody in the eye and actually speaking to them gives you a far better indication of what they are concerned about or whether they are concerned or not, you know.”*  
(GP, community, interview 3)

### **One-way communication**

Frustrations were expressed regarding communication which was felt to be one sided. Participants reported that they often felt that they would initiate communication with other professions to update them on service users’ progress but rarely had this reciprocated. This ineffective form of communication was discussed

in five of the interviews by a range of participants from the acute, community and local council settings. The issue of one-way communication was highlighted as occurring in a variety of different situations: between health care and social work professionals, between community and acute contexts, between health care professionals, and particularly in relation to discharging service users from the acute to the community setting. Communication difficulties were particularly noted between health and social care professions during weekends:

*“We’ve had a lot of the patients on the weekend admitted to the hospital, ‘home care’ would’ve known that cause it’s the weekend, but nobody passed the information on to us... We phone home care and say, ‘So and so is being admitted,’ if we know we’ve got a home carer going in but it doesn’t come back that way”. (District Nurse, community, interview 7)*

One-way communication was felt to impact negatively on interprofessional relationships and also in progressing care forward for service users. As illustrated by the following quote from a social worker, it seemed that that feedback was not always deemed necessary. This particular quote suggests that there may be some degree of hesitancy between professions, in relation to sharing information, particularly if an assumption is made that specific information may it may not be useful to another profession:

*“I would pick up the phone to a doctor, I don’t think I have ever really had a doctor pick up the phone to me in a case and say that we are really worried about or anything.... “If the health visitors phone us... and you think really, ‘Why are you trying to find that information out? You are not necessarily trying to find out because you are trying to then act on it. You want to just know.’ So, we have got to be aware of that. I don’t mind sharing information about anything at any time if I think there is a reason it has to be shared which nine times out of ten it does.” (Social Worker, local authority, interview 21)*

### ***Lack of planned communication***

This theme emerged chiefly within interviews with nursing staff working within health visiting and district nursing roles. Although a small secondary sub-theme of ineffective communication, with only four participants highlighting it as an issue, it

contradicted what was discussed in relation to the value of unplanned opportunistic communication, previously discussed as an enabler of IPW. Within the context of health centre settings, whilst “nipping next door”, “along the corridor” or “just up the stairs” was valued as an effective way of communicating, the lack of opportunity to sit down and have formal meetings was seen as having an impact on effective communication and a barrier to IPW. This may be linked to lack of time or motivation from staff to arrange regular meetings. However, formal regular meetings seemed to be only arranged where it was felt that they were necessary. This was perceived as a missed opportunity to keep up to date with plans of care for service users and to keep up to date with changing roles and responsibilities in the team. Furthermore, as suggested by the following quote, it seemed to be a missed opportunity for strengthen relationships in the team:

*“We don’t have multidisciplinary meetings, you know, if there is a multidisciplinary meeting it’s for a specific child, it’s not something we would do as a group, just to share relationships or anything like that.” (Health Visitor, community, interview 9)*

This was found to be particularly challenging in community care contexts in terms of coordinating care amongst and range of different professionals and for maintaining contact between health care and social work.

*“We haven’t had a case conference for at least three years. Just don’t seem to do them anymore. it’s a bit difficult coordinating everything”. (District Nurse, community, interview 8)*

### **Organisational culture**

Within 15 of the interviews, references were made to a range of different issues related to organisational culture as a barrier to IPW. A number of participants noted the presence of hierarchies and power differentials between different professions within their working contexts. In one interview, a midwife provided an example of the presence of hierarchies and power differentials between professions within her department, particularly evident during multiprofessional team meetings:

*“They [obstetricians] would never consider a midwife chairing a team meeting, it would always be an obstetrician. The team meeting is led by the obstetricians*

*and it runs to their agenda... yes we do work as a team, but there's a leader in the team and that leader happens to be the obstetrician and nothing, we don't have anything that fosters, or we don't have anything that would support you know, genuine team working." (Midwife, acute, interview 15)*

One GP stated that she had been aware of "a culture that was a barrier to IPW" in the form of a large divide between nurses and doctors. She went on to state that in previous working contexts, she had found that this divide made it difficult for her to seek advice from her nursing colleagues. However, within her working context at the time of the interview, this was not felt to be an issue, evidenced by the positive examples of working relationships she referred to in her interview. However, it was not made explicit whether these previous negative experiences had been in similar clinical contexts. One of the social workers highlighted that she was aware that some of her social work colleagues were "scared to speak to doctors" and as a result were reluctant to challenge decisions made by doctors during multi-agency meetings. Another participant stated that she was aware that some of her nursing colleagues were often reluctant to challenge consultants or doctors of a higher medical grade, particularly in the context of infection control.

Another participant from a community setting suggested that professional divisions were sometimes apparent with more junior or newer GPs in their team:

*"Sometimes maybe they've (GPs) have been a bit stressed, it can come across like, 'Well, I'm the doctor, you're the nurse,' kind of thing. I don't think that happens so much with me and [our senior GP colleagues] ...because we've been here a long time, but we have noticed it with more, newer or more junior staff." (District Nurse, community, interview 7)*

In contrast to this, within the context of an obstetrics and gynaecology department in an acute setting, a midwife highlighted that some senior doctors were less engaged with IPW, in comparison to their junior colleagues:

*"Well, the more junior grades [of doctors] tend to be, I suppose, more appreciative and acknowledge your contribution to interprofessional working. The consultant-obstetricians, depending on who they are, and I'm not saying*

*this is the case with all consultant obstetricians, don't often engage with the process." (Midwife, acute, interview 15)*

In comparing these two different working contexts, a number of different factors could be taken into consideration to explain these differences. As noted by the district nurse in the first quote, the community team had worked with each other for a long period of time and therefore may have been a more established and less transient team than the team within the acute context. Another additional factor to consider is the possibility of new junior doctors' behaviour being role modelled on their previous experiences of working with senior colleagues in acute settings, if IPW was deemed to be less valued by some.

Hierarchical working structures were not always highlighted in the interviews as specifically existing between professions. Some of the accounts given by participants suggested that hierarchies also existed within professional groups of the same discipline (intraprofessional) working within the same care setting, and intraprofessionally, between same professions working in different care contexts. Divisions between different care contexts were noted by one participant who referred to tensions between GPs in the community setting and consultants in the acute setting:

*"Within the last 5 years, there is a lot more us and them, secondary care [acute setting] and primary care [community setting] ... We are just second class citizens in a lot of ways... General practitioners are the dumping ground for everything. For whatever faculty, it's too difficult for or it's too much hassle or it's too awkward, and it's not really their remit; everything just gets dumped on to the GP, be it secondary care [or] social services". (GP, community, interview 3)*

For some of the participants, the issues were less complex than hierarchies as a barrier to IPW, and more related to individual personalities that impacted on team dynamics:

*"You will come [across] at some point, some people who don't want to be flexible... they're quite dogmatic about the approach and prescriptive with the*

*people that they're dealing with...occasionally, not often, but I find that very much gets in the way [of IPW].” (Health Visitor community, 9)*

There was a sense that personality differences were part and parcel of any team and although impacted on IPW, was not a complete barrier to IPW.

### ***Transient teams***

Teams that changed regularly in their membership due to staff moving between departments or departments on a temporary basis were viewed as a barrier to IPW by 15 interview participants across a range of different working contexts. Participants highlighted issues such as referrals being made inappropriately to other professions or inaccessibility of other professions' services. This seemed to be related to a lack of awareness of the availability of some services available in some areas, not being familiar with specific roles and responsibilities and how these differed across different contexts, and being a 'visitor' to an established team:

*“I can think of places I have worked, in wards in hospitals, where I wasn't aware or other doctors weren't aware of what could be offered for this patient, and maybe something could have been offered that was appropriate and something could have been done... I think unless you are working with people regularly, you don't automatically pick up on what they do.” (GP, community, interview 2)*

One participant who frequently moved between acute and community contexts depending on referrals made to her was aware that working relationships were more positive with those teams that she felt she knew better. When she arranged to see clients within a health centre where she didn't know all of the staff very well, she felt that this added to tensions in working relationships:

*“Although I think there are specific positive relationships with individual staff that you got to know but because we are not there all the time, we don't know most of the staff very well and so there tends to be quite formal relationship probably based on what we think we know about the other professions do.” (Clinical Psychologist, interview 18)*

### ***Differing processes and policies***

The differing processes and policies used by professions were reported as a barrier to IPW by nine interview participants. Linked to this were concerns related to the integration and possible issues arising around professional governance. A pharmacist raised the issue of differing policies governing the administration of medicines in the community setting:

*“They’ve [the health care system] have actually got health care assistants coming out administering medicines, which they perfectly can do, but we’ve got band 3 carers in the social care system who don’t [administer medicines] The questions that we are starting to ask particularly from the health side is well, health staff do all these things, why don’t social staff do the same thing. Well social staff get paid for all this yet they don’t so all these jobs, why not? So you see the potential friction coming in.”* (Pharmacist, acute, interview 17)

As well as changes in processes and policies, the perceived impact that the integration of health and social care had on line management and leadership was raised as an issue. As illustrated in the following quote, although changes had already been implemented, the perceived enormity of the impact of these changes instilled feelings of uncertainty and anxiety:

*“What worries me more than anything is the integration with social care and now we have different policies and procedures, different leadership, everything is different, it worries me that, that coming together. I don't know where we sit with that. Some people will be getting led by health protection Scotland and some people will be getting led by the care commission and that's a big big change.”* (Adult Nurse, community, interview 12)

Participants highlighted examples of differing systems of referrals between health care professions and between health and social care. Regardless of whether professions worked in close proximity or not, it seemed that there were differences in whether these referrals were accepted only as formal written referrals or were accepted as verbal or face to face referrals:

*“We will either walk along and speak to a dietician and hopefully they will take our referral, sometimes they will ask us for a form but sometimes, they won’t.”*

*As district nurses and we like people to come and talk to us but unfortunately a lot of our colleagues, need the piece of paper and it's not them, it's the system that they work in and the organisation that they work for. They cannot take a referral face to face, they have to send it through [an electronic communication system] or through social work." (District Nurse, community, interview 6)*

In terms of the importance of written records and maintaining accurate records, it is understandable that the formal process of written referrals was followed by some professions. However, participants expressed frustration that this process was adopted inconsistently.

Differing processes and policies were also perceived to impact on the ability for different professions to make joint decisions. An example was provided by a GP who suggested that decision making was at times constrained by specific policies that nursing staff were expected to follow:

*"Protocols from the nursing hierarchy don't apply to me. I am my own individual doctor, I can do anything provided I am doing it for the right reason, I can back it up within the limits of my expertise, so I can step out of this protocol because of that is right for my patient." (GP, community, interview 3)*

Within these different systems of working, different professional models were highlighted as a barrier to IPW. As one participant explained, the difference between the medical model and psychology model meant that professions often differed on their assessment of how serious a specific service user issue was:

*"It's a little bit in the way that we think about things and that can cause some barriers as well." (Clinical Psychologist, acute and community, interview 18)*

### **Lack of resources**

Lack of resources emerged as a large sub-theme within the main theme of barriers to IPW, with 15 participants emphasising that lack of resources impacted on effective IPW. The types of resources that were referred to in the interviews included money constraints, lack of time and lack of leadership. One participant expressed strong feelings regarding these resources being the main driver for the integration of health and social care. In her interview, she expressed a strong sense of resentment for

lack of resources being the main motive behind integration, as opposed to improving IPW between health and social care:

*“The motive is definitely not about communication and us, it’s about money, resources and space and shutting buildings.” (Social Worker, local authority, interview 21)*

In relation to money, participants spoke of budget constraints and varying budgets between different professions due to different streams of funding. These were perceived as a barrier to IPW and felt to impact on the delivery of quality care:

*“You look at person centred care but it’s not always about that, money can always get in the way and money always has.” (Mental Health Nurse, community, interview 10)*

Issues related to how resources were allocated in the community setting was highlighted by one participant. Differences in allocations meant that the services of some professions were not included in their area because their specific area was deemed as less deprived. This was felt to impact on the level of interaction that health visitors had with other professions from other services.

In relation to lack of time, participants stressed that failures in communication did not arise from deliberate intentions not to communicate with other professions, but because of perceived lack of time and busy workloads, it was noted that omissions in communication were often made. Furthermore, it was suggested that professions were constantly prioritising workloads on a day to day basis which meant that other profession specific duties often took the place of attending formal structured multidisciplinary meetings. As stated by one participant, there seemed to be a continuous need to find the right balance so that time was managed effectively. However, this meant that multiprofessional meetings could not sometimes be attended:

*“It’s fine tuning that so you’re not spending all day sitting in meetings with your colleagues but equally you’re are not doing none of that either.” (Clinical Psychologist, acute and community, interview 18)*

Although there seemed to be an acknowledgement that all professionals were coping with the same challenge of managing workload and managing their time, some coping strategies were perceived as impacting negatively on IPW. As previously discussed, non-attendance at formal structured meetings and one-way communication emerged as primary sub-themes to ineffective communication as a barrier to IPW. Other coping strategies which further impacted on IPW included inappropriate referrals or unnecessary referrals to other professions. As illustrated in the following two quotes, this seemed to be an awareness that this strategy was used by a number of professions:

*“Everybody is now so busy, so stressed, they are doing everything to try and make sure it’s not their problem and therefore patients are suffering and therefore teamwork is suffering because if I can bounce it somewhere, it’s not my problem, its somebody else’s.” (GP, community, interview 3)*

*“Realistically we don’t have that resource and the referrals keep going up and we have to say no we can’t take everybody and that’s what creates the tensions.” (Clinical Psychologist, acute and community, interview 18)*

### ***Lack of understanding of roles and responsibilities***

Lack of understanding of roles and responsibilities was highlighted as a barrier to IPW by 13 interview participants and one survey participant. This seemed to be an issue between professions working within community and acute teams, and between professions working in health and social care. This theme also linked closely to the theme of transient teams, as participants described uncertainty related to some roles and responsibilities within new teams that they had not worked with before. As discussed earlier within the theme of transient teams as a barrier to IPW, this uncertainty was more apparent where participants were required to move around departments, for example, to see a service user that had been referred to them or to run a clinic.

Integration of health and social care and new services such as the ‘Hospital at Home’ services also brought new tensions as a result of overlaps in roles and responsibilities and uncertainty in role boundaries roles within similar professions, and across health and social care services:

*“I heard an interesting story about from a district nursing sister who looked after one of these patients and whilst that care was going on, a patient was discharged on IV antibiotics. The hospital at home team didn't do the leg ulcers, and my colleague, it wasn't in her time frame to give the personal care to the patient. So suddenly this lady who got a leg ulcer dressed and carers going in had a house full of people and I don't think there is any great learning and communication in there. That must have very stressful [for the lady].” (Adult Nurse, community, interview 12)*

Lack of understanding of roles and responsibilities was also perceived to be evident between different health care professions within the community and acute setting. The following quote emphasises that even though smaller numbers of professions worked together in the community setting, there was still a sense that some roles remained misunderstood:

*“Allied professions don't know what we do. They don't know what they should be referring to us...what types of patients, the specific things that we do...so I feel that although I think we know their roles fairly well, they might disagree, they definitely sometimes just don't know what the role of the district nurse is.” (District Nurse, community, interview 7).*

*“I'd say probably GPs don't have that great an understanding of really what we do and sometimes you get treated as a triage nurse.” (Health Visitor, community, interview 9)*

Lack of understanding of roles and responsibilities was also noted as an issue across different working contexts. The following quote from a nurse working within mental health services highlighted that this often led to interprofessional tensions between professions working in the community setting and the local authority:

*“There's always conflict on who's going to do what between nursing staff and social work staff and I think nursing staff are expected to do quite a lot more whereas we may see it as a social work job.” (Mental Health Nurse, community, interview 10)*

As discussed in one of the interviews, assumptions were often made based on stereotypes of each other's professions. This seemed to confound the issue of lack of understanding of roles and responsibilities as a barrier to IPW:

*"I do think that our colleagues know our roles, I think sometimes they think we do some things that we don't. I think they think we are going to go in and wake the child up and get them to go to school, which we don't do but sometimes I think we do that [make assumptions] too." (Social Worker, local authority, interview 21)*

Similarly, lack of understanding of roles and responsibilities added to tensions across working contexts such as the community and acute setting. Furthermore, intraprofessional tensions between staff from the same professional background were also noted to act as a barrier to IPW:

*"I don't think people really understand what a GP's job is and what they should and shouldn't, can do, can't do... Hospitals treat us as we are their house officers." (GP, community, interview 3)*

## **7.5 Enablers of IPPL**

Prior to discussing the sub-themes of enablers of IPPL, it is important to highlight that of all participants who were interviewed, there were only three participants who reported that they facilitated structured IPPL with students during their placements. Two of these participants worked within the same setting of a health centre and were involved in IPPL facilitation with an IPE coordinator who was linked to a university. One other participant coordinated and facilitated IPPL in a small community hospital and was also linked to a university as an academic tutor. The researcher was aware of one other location within the acute setting where IPPL occurred regularly. However, none of the practice mentors involved in this activity, came forward to take part in the study. Regardless of participants' involvement in IPPL, during the interviews all participants were asked what they thought enabled IPPL or would enable IPPL if the opportunity arose within their own working contexts. The two sub-themes which emerged from their interviews included resources and motivation (Figure 10).

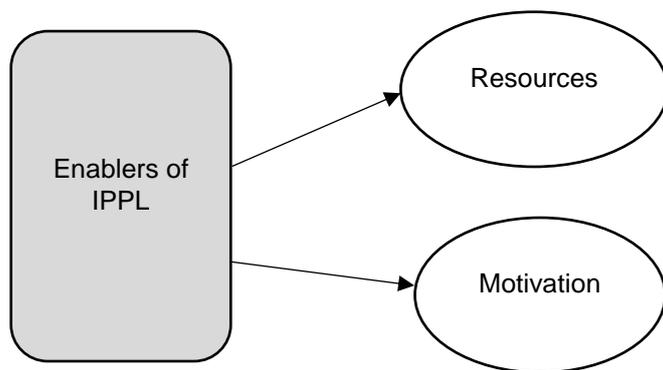


Figure 10. Thematic map of the Enablers of IPPL

### **Resources**

There were six references made to resources, both human and environmental, as perceived enablers of IPPL. The types of human resources that were discussed included: access to a wide range of departments and other professions, the presence of an interprofessional mix of students (or indeed any students at all), and the involvement of service users in learning activities. An interprofessional mix of students was highlighted as a challenge by the social workers interviewed in this study who were based in local authority buildings, and therefore did not have access to other professions or to students from other programmes of training.

As suggested in the following quote below, larger teams working in close proximity with other professions seemed to capitalise on the ability to access to other professions and other students. There was a sense that this offered more diverse learning experiences for students in practice:

*“We do work with CPNs, so they are in the building and the district nurses are in the building so when we do have students, they get a wide variety of experience. There is also a care home which NHS and social care run so they get a chance to go there and see how the care sector works differently, the social work sector. Physios come in, OTs come in we have various psychiatric services so there is a wide variety of opportunities there for our students.”*  
*(Health Visitor, community, interview 9)*

In one health centre, an IPE coordinator had worked with practice mentors to set up interprofessional activities with nursing and medical students. The two participants who were interviewed from this health centre identified that the support of an IPE coordinator was an enabler of IPPL. The IPE coordinator was perceived as a key resource in identifying when students from different professions were on placement together and helping to coordinate students coming together during their placements. As illustrated in the following quotes, these were seen as the most onerous tasks which they felt was too difficult on top of other work priorities. Once this coordination had occurred, the practice mentors felt that the input into facilitation during the IPPL activity was less onerous:

*“It does not involve a lot of work by any member of staff. The work is involved with the students and the IPE coordinator that is where the workload is.” (GP, community, interview 4)*

*“If that [input from the IPE coordinator] wasn’t there...I don’t think it would happen. It’d be too much, too much an obstacle.” (District Nurse, community, interview 8)*

In relation to environmental resources, interview participants made reference to time, as a key resource and enabler of IPPL. One participant highlighted that careful consideration of timing of general learning opportunities for students, particularly within the acute setting, was important for ensuring that priority was given to the care of service users:

*“If they [students] come down at a time that’s convenient to teaching. Most times is appropriate, well-staffed, and in the scanner we can usually do it.” (Radiographer, acute and community, interview 20)*

Possible differences in time as a resource between the acute and community setting were noted. As discussed in the following quote from a district nurse, there was time between home visits to reflect on students’ experiences of IPW:

*“We’ve got a lot of time when we’re in the car discussing things and you know, it’s not rush, rush, rush all the time... time constraints are not there for us.” (District Nurse, community, interview 8)*

## **Motivation**

Three participants from the community setting and one social worker from the local authority setting, highlighted that motivated colleagues in the team was an enabler, not just of IPPL, but also for students generally learning within practice settings. Words such as 'effort', 'enthusiasm', and 'willingness' were used to indicate this motivation. One participant suggested that this motivation could be related to the value that the individual places on students learning generally within practice settings, as well as the value placed on IPPL:

*"I am really pro student, see the value of them coming in, see the value of them being there.... If you believe in it [IPPL] and you are passionate about it, you will promote it." (Social Worker, local authority, interview 21)*

Participants noted that when their colleagues were motivated about students learning in practice, their support and encouragement also extended to other practice mentors involved in facilitating IPPL. As illustrated by the following quote from one participant who regularly facilitated IPPL with nursing and medical students, this motivation reflected positive working relationships with his colleagues who were willing to support the activity:

*"We have such a good relationship with the charge nurse and nurses on the wards... so I just come in and say, 'Are there any students'? and they'll say, 'Here you are, off you go.'" (GP, community, interview 3)*

This motivation also seemed to stem from reciprocal agreements within teams to support students learning within the practice setting. Some participants referred to arrangements made with other practice mentors from other professions, for students to "spend some time" with other professionals, or to "sit in on a clinic" led by a different profession to their own. Participants highlighted there was often a mutual gain from IPPL. For example, one participant stated that they were able to "offload" their colleagues of students for a while and share the role of supporting students' learning:

*"We have medical students. We are more than willing to take AHP students out and we frequently do so because if they are taking, it's tit for tat." (District Nurse, community, interview 7)*

*“There’s a kind of reciprocal agreement, like the health visitors will say, ‘Can you take one of our students out for the day?’ ” (Dietician, community and acute, interview 19)*

It is important to emphasise that these reciprocal arrangements seemed to be multiprofessional in nature, rather than IPPL, as students from other professional groups were typically not engaged in this activity at the same time. This is further discussed later in this chapter as a potential barrier to IPPL. However, participants perceived that this agreement between practice mentors benefitted the students and enabled them to learn about the roles and responsibilities of other professions.

## **7.6 Barriers to IPPL**

Four primary sub-themes emerged from the overarching theme of barriers to IPPL. These included: lack of resources, lack of motivation, missed opportunities for IPPL, and organisational culture (Figure 11). As a secondary sub-theme to resources, practicalities and logistics of organising IPPL also emerged as a recurrent theme. Similarly, a further recurrent secondary sub-theme of lack of motivation was uncertainty of the value of IPPL.

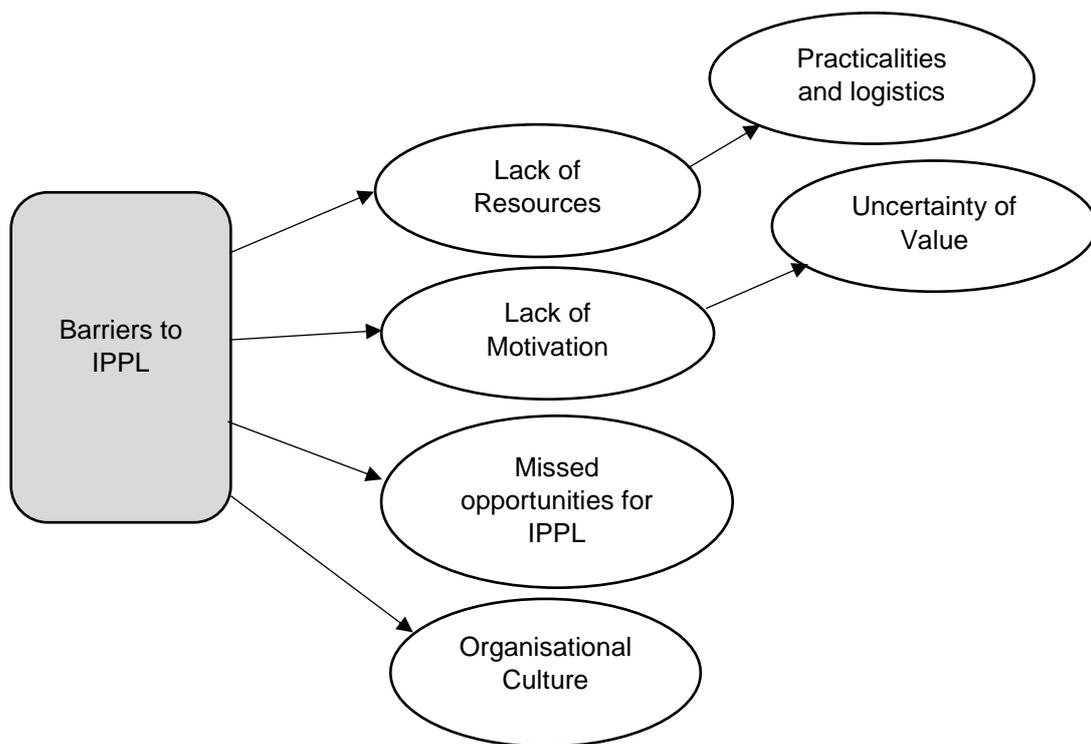


Figure 11. Thematic map of the barriers to IPPL

### ***Lack of resources, and practicalities and logistics***

Whereas resources were identified as an enabler of IPPL, the primary sub-theme of lack of resources emerged as the largest sub-theme related to barriers to IPPL. Twenty-one interview participants noted concerns regarding issues related to lack of resources associated with IPPL. Some of these issues were further refined to the secondary sub-theme of practicalities and logistics.

In the interviews, it was highlighted that in some practice areas, there was a low ratio of practice mentors to students:

*“Mentors are getting fewer and fewer, students are getting more and more.”  
(Mental Health Nurse, community, interview 10)*

This was felt to have an impact on the availability of placements for students. Participants stressed that this issue was confounded by some mentors being off work due to long term sickness, or mentors not being replaced after retirements or

staff leaving for other employment. This was an issue for practice mentors from health care and social work professions:

*“We have not had a student in a long time because we have not had a practice teacher.” (Social Worker, community, interview 21)*

*“We’ve lost a mentor and now there’s two mentors on night shift.” (Mental Health Nurse, community, interview 10)*

The reduction in practice mentor numbers resulted in some practice areas having to restrict the number of student placements to one student at a time, or not being able to offer any student in placements. The former was perceived as a major barrier to IPPL, as these placement areas could not support an interprofessional mix of students.

There also seemed to be an awareness that student numbers were increasing within academic programmes of training and as suggested by the following quote, some differences in the number of students from different professions allocated to a placement:

*“We have occasionally been asked to have medical students sit in on our sessions but we say absolutely not, for several reasons, one because the numbers of medical students are enormous.” (Clinical Psychologist, community and acute, interview 18)*

The differences between student numbers in the acute and community setting and different speciality areas was also highlighted as a potential barrier. Participants acknowledging that limited number of students may be an additional resource issue:

*“In the big centres it would be so much easier because there are a lot more of them (students from mixed professions) and also there are places that the students could go.” (Dietician, community, interview 19)*

*“I am one of the mentors for nursing students but the ironic thing is that there are no students on this ward. The needs [of clients in the department] are far too acute for it to be an appropriate placement for students.” (Learning Disabilities Nurse, community, interview 14)*

Where IPPL occurred in one community setting, the issues around the ratio of students to service users was highlighted as a barrier to IPPL. As a practice area where structured IPPL activities occurred, these interviews provided insight into this issue as an actual experienced barrier to IPPL. The specific IPPL activity described by participants involved students engaging in an activity with service users in their own home. The GP and district nurse would identify service users who were willing to take part in the learning activity. This often meant that the same service users were involved in the IPPL activity with students on more than one occasion, depending on the number of placements. As reported by the district nurse, there was concern over the involvement of the same service user for multiple groups of students doing the same activity over a number of placements:

*“I think the patient would get a bit fed up if you discuss the same things.” (District Nurse, community, interview 7)*

This may be more of an issue specific to the community setting, where health and social care teams are more likely to be caring for the same service users over an extended period of time. In comparison, within some acute settings, some service users could be receiving care within acute services for a shorter period of time. Therefore, there is the potential for students to have contact with a larger number of service users in acute settings.

As an environmental resource, lack of time was highlighted by a number of participants as a barrier to IPPL. Although there was the sense that IPPL was valued, participants identified that lack of time and workload priorities were potential barriers to IPPL:

*“Staff are just so busy, they don’t have time to meet their own learning needs without spending, you know formal time teaching, providing interprofessional learning.” (Midwife, acute, interview 15)*

*“We’ve all got a lot of work to do, we’re all very busy.” (Radiographer, acute, interview, 20)*

Lack of space for students and rooms specifically used for teaching were also perceived as potential barriers to IPPL, both within the acute and community setting. This was evident with participants who stated that they could only take a small

number of students from their own profession at one time, some only one student at a time, due to lack of space and the size of their teams:

*“We literally don’t have the space to put anybody.” (Health Visitor, community, interview 9)*

*“We don’t have huge, you know, lots of teaching space in here.” (Midwife, acute, interview 16)*

*“It’s a bit of a challenge even finding an empty room even to have a workshop with them [students].” (Dietician, community and acute, interview 19)*

The challenge of dealing with the practicalities and logistics involved in bringing different groups of students together emerged as a large secondary sub-theme to resources, with 18 participants identifying a number of related barriers to IPPL. There was the acknowledgment also of the practicalities of having more than one student with one service user. This was particularly noted by three participants who worked in specialised areas, where one to one consultations usually occurred with service users. There was concern that more than one student with a service user may be intimidating and that the presence of any students, let alone a group of students from different professions, may impact on care delivery:

*“Staff over here absolutely refuse to let anybody in the control room who doesn’t need to be in there...if the patient’s particularly unwell.” (Radiographer, acute, interview 20)*

*“The needs [of clients] are far too acute for it [the department] to be an appropriate placement for students... Security has got to override every other consideration. There are times when we have to say that we can only accept this type of student, not that kind of student and these are the reasons and it’s done on a case by case risk assessment basis.” (Learning Disabilities Nurse, acute, interview 14).*

*“Someone sitting in on a psychology session is not like having someone witnessing a five-minute appointment with a GP. It’s quite a big impact for the client or the patient.... It would be just too disruptive to have lots of people sitting*

*in on lots of occasions.” (Clinical Psychologist, acute and community, interview 18)*

Concerns regarding the practicalities and logistics required for IPPL was mentioned in the majority of the interviews. Concerns were expressed regarding guaranteeing an interprofessional mix of students within the placement area at one time and reference was made to students “coming and going”, particularly by those participants working within the community setting:

*“You don’t get a nursing and medical student together for maybe four or five months and they come together and you are not in tune, you’ve not thought about it and when you do think about it they have only got four days left each.” (GP, community, interview 3)*

*“We’ll have a student for 6 weeks, the OTs might have a student for a different period of time, the nurses for a different period of time. We all start and finish at different time so it’s the logistics of that.” (Physiotherapist, acute, interview 16)*

As previously discussed in relation to resources and enablers of IPPL, the support of an IPE coordinator was identified as an important enabler of IPPL. The practice mentors who facilitated structured IPPL activities in their placements stressed that without the support of the IPE coordinator, the practicalities and logistics would be a potential barrier to the activity continuing:

*“I think an external driving force will make it happen and no external driving force, it will slip by the wayside. Not through people wanting to do it down or not thinking it useful, just in the great scheme of everything that goes on.” (GP, community, interview 3)*

### **Lack of motivation and uncertainty of value**

Resources and motivation were sub-themes identified as enablers of and also as barriers to IPPL. In relation to motivation, as a mirror opposite to what emerged as an enabler of IPPL, 15 participants referred to ‘lack of willingness’, ‘lack of effort’ and ‘lack of enthusiasm’ for IPPL. Issues around the confidence of practice mentors in organising IPPL, and teaching students from other professional groups was also discussed, as evident by one GP who stated:

*“I think often they (practice mentors) are there and often they are worried about getting people together on an ad hoc basis or uncertain about how to approach IPL, if they have no experience of that professional body.” (GP, community, interview 2)*

One participant highlighted that this motivation was often lacking from students. Where there was an expectation for medical students to be proactive in learning about the roles of midwives, these learning opportunities were often not taken up:

*“When they (medical students) first come, they are expected to get in touch with me, so that I can speak to them, and have a chat with them, tell them about maternity care provision.... Sometimes they do it, sometimes they don’t bother.” (Midwife, acute, interview 15)*

As a secondary sub-theme to motivation, the theme of uncertainty of the value of IPPL emerged in the analysis of the interview data and free text comments from the online survey. Eleven participants noted this as an issue in the interviews and two participants commented on it in the survey. This included uncertainty of the value of IPPL over other learning opportunities for students, and concern that IPPL may be an additional activity which would add to the students’ learning load:

*“I don’t know how effective that (IPPL) would be, particularly when both sets of students have got a lot on their plate and I’m not sure what benefit they would get from a nursing student who is on placement trying to get through their own learning. It may be an extra burden to see what a medical student goes through as well and vice versa.” (Mental Health Nurse, Community, interview 10)*

One participant highlighted that she was aware that some students were already experiencing IPE within their academic settings. She expressed that she had concerns over what the added benefit of IPPL would be if students had previously experienced IPE. The following quote from the interview also suggests that there was some doubt related to whether IPPL could be ‘parcelled’ or sold to students, as well as to other staff:

*“All the students when at Uni are very used to doing IPE you know, that’s hard to parcel, that’s nothing new.” (Physiotherapist, acute, interview 16)*

As evidenced by the following quote, one participant expressed doubts related to the value of students shadowing other qualified professions:

*“If I was to take say, a health visitor student out to clinic, I think it would be very, very boring for them because, yes they would see what I do in the clinic, but it’s not something they would be doing themselves.” (Dietician, acute and community, interview 19)*

Although these doubts were in relation to students learning alongside another qualified health care profession, it reinforces a possible issue around devaluing the importance of learning about the roles and responsibilities of other professions.

Both in the interviews and survey free text comments, participants expressed concerns regarding parity of learning levels. Phrases such as “differences in levels of intellect”, “destroying confidence levels” reinforced participants’ perceptions of the potentially negative impact of bringing students at different stages of their training together, as well as from different professions. The following quote highlights one participant’s concerns related to levels of learning and also issues around other profession specific competencies being prioritised over students’ involvement in IPPL:

*“If you have a first year student midwife, yeah that’s fine, you might be able to take medical students in, but if you have a third year student midwife, it’s maybe not really feasible to take medical students in, depending on what the third year student midwife’s needs are.” (Midwife, acute, interview 15)*

### ***Missed opportunities for IPPL***

As discussed in Chapter 4, one of the questions in the online survey was related to participants’ prior experiences of IPE, as an educator or as a learner. This information was collected as a dependent variable of interest in the analysis of factors affecting attitudes to IPW, and IPPL for students. As a follow up to this question, during the semi-structured interviews, one of the guidance topics (Appendix 13) prompted the researcher to ask participants to share their prior experiences of IPE. In 12 of the interviews, participants shared their own prior experiences of IPE, whether as an educator, or as a learner. The types of activities

the described involved learning activities such as students shadowing another profession or a talk given by a professional to a student from a different professional group. Some of these activities suggested that the role of the student in these activities was passive, and the nature of the learning didactic. For example, some participants described sessions where students were “told” about the roles of other professions:

*“They’ll [individual students from different profession] come to clinic or they’ll come to breastfeeding and support group or, they’ll just come in and I’ll tell them what my role is or whatever. So there’s a lot of that goes on, but it’s just you know, ‘come for an hour and I’ll tell you what I do’.” (Dietician, acute and community, interview 19).*

When asked about prior experiences of IPE, one participant spoke of her own experiences as a learner and used her attendances at conferences where other professionals were present, as examples of IPE:

*“I have been to conferences where it’s multidisciplinary ...so you know I have been to quite a few things where it’s not just medical staff.” (Consultant, community, interview 1)*

Similarly, another participant referred to membership of work related project groups involving multiple professionals, and also receiving staff training led by an individual from another profession, as IPE.

Within community and acute settings, participants mentioned that they regularly arranged for students to visit other departments and shadow other professionals. There seemed to be an over reliance on this type of activity and as highlighted in 13 of the interviews with participants within health and social work contexts, opportunities for other types of IPPL, particularly opportunities to bring students together from more than one professional group, were missed. One of the participants, who worked as a district nurse within the community setting, explained that she often took medical and nursing students with her on home visits; that is, individual students shadowed the participant on separate visits. Students being together on a home visit, at the same time, was typically coincidental:

*“I take medical students as well as nursing students albeit, it’s only half a day’s experience...they shadow us usually for half a morning. I’ve never had the two together that I am aware of... There have been times where you have ended up doing a joint visit maybe with the GP and they’ve had a medical student with them and we’ve had a nursing student but not really as a planned intervention.”*  
(District Nurse, community, interview 5)

Even within the context of the interview, many of these participants still did not seem to recognise that opportunities for IPPL were regularly missed:

*“If a psychology student comes to our ward, they just come down for maybe a couple of hours each day. We have had OT students come in for a walk around to meet the patients.”* (Mental Health Nurse, community, interview 11)

*“A couple of years ago we had five back-to-back students...so there must have been an overlapping between an OT student and a nursing student at that time. But we didn’t do anything formally like that.”* (Physiotherapist, acute, interview 16)

### **Organisational culture**

In six of the interviews, there were references made to the existence of traditions and routines related to students learning within the practice placement setting, such as students learning within their own professional “silos”. This was a recurrent theme in interviews with both health care and social work professions, and across both community and acute settings. There seemed to be an awareness of the behaviour of other practice mentors which added to this culture. As highlighted by one participant who was involved in IPPL, this awareness did not always necessarily mean that practice mentors followed this culture:

*“There is a cultural perception that medics have to learn about medicine, nurses have to learn about nursing and the social workers have to learn about social work.”* (GP, community, interview 4)

For another participant, there was awareness of the culture but also a sense of acceptance that students stuck with practice mentors from their own professions:

*“When staff go for their breaks they take the students with them and they tend to sit in their own little group or profession.” (Radiographer, acute and community, interview 20)*

Although the existence of hierarchies as part of organisational culture did not emerge as a key sub-theme, there were some references made to hierarchical attitudes amongst medical professions. One participant documented in the free text comments section of the online survey that part of the organisational culture was due to doctors’ “top dog attitude.” During the interview with the same participant, she stressed that this culture had impacted on her own experiences of facilitating IPPL for qualified health care professionals:

*“Doctors don’t always listen and they like to think they know best, so it can be quite challenging at times”. (Midwife, acute, interview 15).*

## **7.7 Chapter summary**

This chapter has presented the results from the analysis of the qualitative data generated in this study. Using the framework approach, thematic analysis was performed to identify the main overarching themes related to the secondary research questions in this study. These four main themes included: enablers of IPW, barriers to IPW, enablers of IPPL, and barriers to IPPL for students. Secondly, an inductive approach was then taken to identify secondary sub-themes related to the main overarching themes. In exploring these themes and providing examples of quotes from the semi-structured interviews, an insight into the practice mentors experiences has been provided and an understanding of their perspectives of the enablers and barriers to IPW, and IPPL for students. In the next chapter, the results from both the quantitative and qualitative data will be integrated, and explanations will be put forward to interpret these results.

## **Chapter 8. Discussion**

### **8.1 Chapter overview**

The previous two chapters (Chapters 6 and 7) shared the results from the study presented in this thesis. The main purpose of this chapter is to integrate and interpret the results, address the research questions, and discuss the main findings against the backdrop of previous relevant theory and research. The conceptual framework to explain the integration of quantitative and qualitative methods was previously discussed in Chapter 3, Section 3.7. It was identified that an explanatory sequential design, using a core quantitative method with qualitative follow-up contribution (QUANT → qual) was employed in this study. Although the first sections of this chapter focus on the discussion related to quantitative results, the remainder of the chapter will integrate the results from the qualitative data. In this part of the discussion, the insights into practice mentors' perspectives and experiences of IPW and IPPL will be used to provide some explanation of their attitudes to IPW, and IPPL for students.

### **8.2 Summarising the background issues driving the study**

In the introductory chapter of this thesis (Chapter 1), the drivers for IPW and IPPL were discussed. In the past, drivers for IPW within the UK included high profile inquiries highlighting the negative impact of ineffective IPW on the delivery of health and social care (Kennedy, 2001; Laming, 2003, 2009; Francis, 2013). The momentum for IPW has gathered once again with more recent drivers, such as The Health and Social Care Act (2012) and Public Bodies (Joint Working) (Scotland) Act (2014), which stress the importance of improved collaborative working between health and social care services.

In relation to drivers for IPE and specifically IPPL, providing prequalifying students from the health and social care professions with the opportunities to learn with, from and about other professions will prepare them for future collaborative working as qualified professionals (CAIPE, 2002; WHO, 2010; Barr and Low, 2013). Moreover,

with the support of HEIs and health and social care organisations, IPPL will provide a continuum of IPE to practice (IOM, 2015).

In setting the scene for the study presented in this thesis, in Chapter 1, it was highlighted that pre-registration students from programmes of training for the AHPs, nursing, medicine and social work spend part of their training within practice settings. This learning is usually supported by a practice mentor assigned to a student from their respective profession. Their role is to support and guide students' learning help them to achieve expected competencies during their placement. It has previously been discussed in Chapter 1 that practice settings are a prime opportunity for students to gain first-hand experience of IPW, and to observe and be part of the complex interactions that occur between professions (IOM, 2015). As students from different professions often share the same placement location at the same time, it is as a valuable opportunity to learn about the roles and responsibilities of other professions, and to appreciate the value of shared decision making within a relevant context (Morison, Boohan, Jenkins and Moutray, 2003; Morison and Jenkins, 2007; Robson and Kitchen, 2007; O'Carroll, Braid, Jackson and Ker, 2012; O'Carroll, Smith, Collinson, Jackson and Ker, 2013).

It has previously been argued that practice mentors are key to optimising IPPL opportunities, given the role that they play in supporting students during their practice placements (Hammick, 1998; Barr and Low, 2002; Marshall and Gordon, 2005; WHO, 2010). However, the practice setting is felt to be an untapped environment for IPPL (Smith and Karban, 2006; IOM, 2015) and prior studies have reported that students' experiences of IPW and IPPL have been varied or limited (Stew, 2005; Pollard *et al.*, 2012). In considering these issues, this raised the question of how IPW is valued by professions working at the frontline of care delivery, and how IPPL for students is valued by practice mentors.

### **8.3 Returning to the study objectives and addressing the research questions**

A systematic review of the literature to evaluate previous relevant literature related to health and social care professions' attitudes to IPW, and IPPL for students was undertaken. As discussed in Chapter 2, this review highlighted that there is a dearth of evidence related to attitudes to IPW, and IPPL for students. Only one of the 35 studies included in the review was found to investigate the attitudes of IPW, and IPPL

for students from the perspective of health care and social work professions (Baker *et al.*, 2011). This research gap guided the first question in this study related to attitudes of practice mentors to IPW, and IPPL for students.

In the literature review, it was identified that previous research has considered the effect of a number of variables possibly influencing attitudes to IPW and IPE. There was considerable evidence to support that professional background and previous experience of IPE had some effect on attitudes. However, a number of research gaps were also identified. These gaps included limited consideration of other variables such as: the type of prior IPE experience, the context in which professions worked in, and professional experience. To address these research limitations, the second question posed in this study was related to comparing practice mentors' attitudes to IPW, and IPPL for students. Two hypotheses were associated with this research question:

- There are significant differences in the attitudes of practice mentors to IPW
- There are significant differences in the attitudes of practice mentors to IPPL

These hypotheses and research questions will be addressed in the remainder of this section.

**a) *What are the attitudes of practice mentors to IPW, and IPPL for students?***

Using a case study approach, and focussing on one health board and local authority in a region in Scotland, the study set out to address this question by measuring practice mentors' attitudes to IPW, and IPPL for students. The target population included health care and social work professions responsible for mentoring students during their practice placements. To address the first part of this question related to IPW, statistical analysis of the results of the survey responses showed that attitudes to IPW were generally positive. These results are consistent with those of McCray (2003); Reid *et al.* (2006); Baxter and Brumfit (2008); Colyer (2008), and Braithwaite *et al.* (2012; 2013) who also reported positive attitudes to IPW. A possible explanation for these results may be attributed to recent changes to health and social care policy. As discussed in the introductory chapter (Chapter 1), the turn of the century was viewed as a significant turning point for interprofessionalism (Barr, 2000; Barr, Helme and D'Avray (2011). McCray (2003) provided an example of the impact

of this turning point for learning disabilities services. Following the Department of Health's (2001) policy, McCray claimed that there was a noticeable shift from a paternalistic approach to a person-centred approach which resulted in shared decision making inclusive of learning disabilities services. The results from this current study suggest that the negative attitudes, that Kennedy (2001), Laming (2003; 2009) and Francis (2013) stated were part of the damaging culture in health and social care, are perhaps changing as the benefits of effective IPW are being realised.

To address the second part of this first question related to attitudes to IPPL, the results from this study demonstrated that practice mentors' attitudes to IPPL for students were generally positive. These results are supported by Reid *et al.* (2006) and Braithwaite *et al.* (2012; 2013), who also adapted the RIPLS to measure attitudes; the same tool that was adapted for use in this study (Chapter 7). The context of Reid *et al.*'s. (2006) study is of particular interest, as this took place within a community care setting in Scotland, a similar context to the unit of analysis in this particular case study. However, it is important to highlight that the comparisons drawn between the results in relation to attitudes to IPPL with these studies may be somewhat limited. As discussed in the review of the literature in Chapter 2, the few studies that measured attitudes to IPPL, were more focussed on IPPL for qualified professions, as opposed to IPPL for students. This study therefore provided insight in to practice mentors' attitudes to IPPL specifically for students.

#### ***b) Which variables affect practice mentors' attitudes to IPW, and IPPL?***

As discussed in the methods chapter in this thesis (Chapter 4, Section 4.6.2), the demographic details which were collected in the survey enabled the researcher to analyse the effect of multiple variables on attitudes to IPW, and IPPL for students. The variables which were included in the analysis were: professional governing body, gender, area of work, number of years qualified in the profession, previous experience of IPE, and type of IPE experience.

#### ***Hypothesis 1: There are significant differences in the attitudes of practice mentors to IPW.***

One of the main findings from the results of the mixed factorial ANOVA which was used to analyse the effect of multiple variables on attitudes to IPW, was that there was no significant effect of governing body, gender, area of work, number of years

qualified, IPE experience or type of IPE experience. These results differ from previous studies which reported a common effect of professional background (Reid *et al.*, 2006; Chang *et al.*, 2009; Braithwaite *et al.*, 2012; 2013) and prior experience of IPE, on attitudes to IPW (Pollard and Miers, 2008; Pollard *et al.*, 2012). In relation to the effect of governing body, the findings from this study are however consistent with some of the data obtained by Russell *et al.* (2006). In comparing the attitudes of health care professions and social workers from two units in a hospital, their findings demonstrated that there were no significant differences in the survey responses between the professions. However, as the survey used to measure attitudes to IPW in this study differed to the one used by Russell *et al.* (2006), it is difficult to draw comparisons.

Furthermore, the results of the within subjects' tests showed that there were significant differences in attitudes amongst professions, particularly in their responses to items within the sub-scales of communication and isolation. Similarly, Russell *et al.* (2006) noted that there was evidence in their study to suggest that some differences existed amongst nursing staff in relation to their attitudes to collaboration. These results are also in keeping with the ideas put forward by Brown *et al.* (2011) and Powell and Davis (2012), who suggest that instances of ineffective teamwork may not be completely due to interprofessional conflicts, but may be related to intraprofessional conflicts between professions from the same discipline.

As IPE has become imbedded within programmes of training for pre-qualifying students, it is interesting to consider if previous experience of IPE as a facilitator or as a learner affects attitudes to IPPL. The findings from this study showed that prior experience of IPE did not affect professions attitudes to IPW. These results are somewhat surprising, given the drive for IPE in programmes of training for pre-registration students. However, in comparison to previous studies discussed in the literature review (Chapter 2), this current study included participants who reported a variety of different IPE experiences, with the majority of professions reporting that they had prior IPE experience, both as a learner and as a facilitator (Chapter 6). However, as discussed later in this current chapter, the interview data demonstrated that participants' descriptions of their experiences of IPE involved minimal interaction with other professions and were often multiprofessional in nature.

***Hypothesis II: There are significant differences in the attitudes of practice mentors to IPPL.***

In the analysis of the effects of governing body, gender, area of work, years of experience and experience of IPE on attitudes to IPPL, the between subjects' tests showed there were no significant effects found. However, the within subjects' tests showed that there were differences in attitudes amongst groups. Furthermore, a significant interaction was found between participants' area of work and attitudes to IPPL. A review of the literature in Chapter 2 highlighted that there was only one other study (Baker *et al.*, 2011) that compared the attitudes of health and social work professions to IPPL for students. Other studies focussed on attitudes to IPPL for qualified professions, or IPL for students within the context of an academic setting. However, some comparisons can be made between their findings and those of this current study. The analysis of the effect of governing body on attitudes to IPPL for students demonstrated that there were no significant differences in attitudes between professions. These results differ to Baker *et al.*, (2011) and Braithwaite *et al.*, (2012; 2013) who reported that doctors were less positive about IPL in comparison to other professions. Similarly, in relation to the effect of previous experience of IPE on attitudes to IPPL, in contrast to previous research discussed in the literature review in Chapter 2 (Anderson *et al.*, 2006; Pollard and Miers, 2008; Anderson *et al.*, 2009; Anderson and Thorpe, 2010; and Egan-Lee *et al.*, 2011), this study demonstrated that prior IPE experience, as an educator or as a learner, did not affect attitudes to IPPL for students.

Previous research has suggested that the lack of evidence to demonstrate the impact of IPE has cast doubt and uncertainty of its value (Zwarenstein *et al.*, 2009; Reeves *et al.*, 2013). This may explain why previous studies found that professions differed in their attitudes to IPE. However, the findings from this study which demonstrated that attitudes were positive suggest that there may be less doubt and uncertainty related to its value, and more trust in the impact that IPPL may have on students' future practice. A more recent review of current literature highlighted that there is growing evidence to support the positive affect of IPE on attitudes to IPE and IPW, and on the delivery of care (Reeves, Fletcher, Barr, Birch, Boet Davies *et al.*, 2016). As evidence has strengthened, so too has the value of IPL in HEIs, and the potential value of IPPL for students during their learning in practice settings. Furthermore, as

previously discussed in relation to the results of attitudes to IPW, recent changes in health and social care policy have increased the need for effective IPW. There seems to be more awareness of the need to prepare students to work collaboratively, and to maintain the continuum of IPE from the academic setting to practice settings (IOM, 2015).

In Chapter 2, Section 2.4, the assessment of the quality of previous studies which were included in the literature review was discussed, and limitations in relation to the research designs of other studies were identified. Some of the studies focused on only measuring attitudes, without gaining insight into professions perspectives of the enablers of and barriers to IPW. In contrast, those studies which employed mixed-methods to generate data, were found to provide a more in-depth insight into attitudes, and understanding of the enablers and barriers to IPW and IPPL. Other research design limitations included limited comparisons of IPW between different health and social care contexts. In addition, representation of different professions within studies was often unclear. However, one of the main findings from reviewing the literature was that only one other study included attitudes to IPW, and IPPL for students. These limitations guided the final two secondary questions posed in this study:

- c) What are the enablers of and barriers to IPW in practice?
- d) What are the enablers of and barriers to IPPL for students?

Whilst the quantitative results in this study, as discussed in Chapter 6, demonstrated that practice mentors' attitudes to IPW, and IPPL for students were generally positive, it was also important to consider other enablers of and barriers to IPW, and IPPL for students within different health and social care contexts. The semi-structured interviews provided the opportunity to explore practice mentors' perspectives of these factors.

### **What are the enablers of and barriers to IPW in practice?**

Interview data was included from participants from the professional backgrounds of pharmacy, social work, and a broad range of health care professions. Participants worked within a variety of care contexts including hospitals, health centres, and local authorities. Within their interviews, they referred to a number of contrasting enablers

and barriers to IPW. Using a framework approach and thematic analysis, the issues which were identified by practice mentors were subdivided into primary, and where relevant, to secondary sub-themes (Chapter 7, Figures 8 to 11). Where effective communication was perceived as an enabler in some contexts, ineffective communication was perceived as a barrier. Similarly, contrasts were made between established versus transient teams, and shared versus differing processes and policies. Sub-themes which emerged as unique to the overarching theme of barriers of IPW included: organisational culture, lack of resources, and lack of understanding of roles and responsibilities. Unique sub-themes related to the enablers of IPW included IPPL for qualified professions.

As discussed in the background to this study (Chapter 1), ineffective communication has been frequently highlighted as one of the main reasons why the safety of service users has been compromised in health and social care (Kennedy, 2001; Laming, 2003, 2009; Leape *et al.*, 2012; Francis, 2013). It is interesting to note that it is rare that attention is brought to positive examples of effective communication. However, in this study, effective and ineffective communication emerged as two of the most prevalent themes, with examples of both noted by participants working in different contexts. As evident by the secondary sub-themes which emerged within this theme of effective communication, one of the main findings was that the mixture of planned and unplanned communication, close proximity to other professions, and electronic communication, were perceived as some of the main enablers of IPW.

Positive examples of planned structured meetings such as regular safety briefings, daily ward rounds and multidisciplinary meetings were provided by a range of professions working within the community and acute care settings, and the local authority. Planned structured meetings which occurred on a regular basis, were perceived to facilitate effective communication and strengthen relationships within a team of mixed professions. There was a sense that these meetings contributed to their identity as a team. Where their absence was noted, participants highlighted that opportunities were missed to keep abreast with changes in service users' care and treatment, to be updated on changes in roles and responsibilities, and generally a missed opportunity to strengthen relationships between professions within the team. These findings are supported by Gibbon *et al.* (2002); Lindblad *et al.* (2006); Russell *et al.* (2006); Suter *et al.* (2009); and Costa *et al.* (2014), who also reported

that planned communication via structured meetings was an enabler of IPW. Moreover, Russell *et al.* (2006) in comparing two units in a hospital which differed in their approach to structured planned meetings, reported that professionals' positive attitudes to IPW may have been influenced by their regular structured team meetings. This current study did not include type of communication as variable for investigation in the quantitative analysis. However, considering Russell *et al.*'s. (2006) findings, the positive experiences of planned structured communication described by interview participants may have influenced the positive attitudes to IPW, discussed in Chapter 6. Type of communication within practice contexts is perhaps another variable that would warrant further investigation.

Unplanned, informal communication was also perceived as an enabler of IPW in this study, although not as a substitute to planned structured meetings. This theme was also linked to the secondary sub-theme of proximity and established teams, as unplanned communication also seemed to be further facilitated where professions were in closer proximity to each other. Close proximity between professions as a positive influence on informal and ad hoc communication has previously been discussed by Reeves and Lewin (2004), Russell *et al.* (2006) and Costa *et al.* (2014). An interesting finding in this current study was that in some instances, close proximity, particularly where different professions worked within an open plan area, was perceived as a barrier to IPW. However, this seemed to be more of an issue for participants who had recently moved into an open plan space, due to organisational restructuring. In the main, participants in this study highlighted that distance between professions, where work bases were spread geographically, were felt to affect opportunities for unplanned ad hoc communication. Issues with one-way communication, and where updates and feedback on service user progress was felt to be unreciprocated, also seemed to be intensified where professions were geographically spread and did not have regular contact with each other.

The pros and cons of electronic communication emerged as secondary sub-themes of effective and ineffective communication. Participants referred to the use of emails and electronic messaging systems which were used to make referrals to other professions, to convey non-urgent messages, or to follow up on face to face or telephone communication. Where professions were geographically spread across different locations, electronic communication was relied on to bridge the gap.

Although electronic communication seemed an effective mechanism to ensure that colleagues remained informed, there were some reminders of the danger of communication failures associated with over reliance on electronic communication (Reeves and Lewin, 2006). As evident from the interview data (Chapter 7), difficulties with electronic communication included the inability to access electronic records, electronic messaging platforms that were inaccessible in some areas of a building, or where these, along with email messages were not used consistently by other members of the team. Lingard *et al.* (2012) highlighted that face to face communication is often a preferred method of communication in health care, particularly when it is anticipated that challenging conversations with other professions may occur. In some of the interviews, participants noted that face to face communication was often used as a strategy over telephone and email communication where it was anticipated that more information may help with the negotiating process. However, as discussed earlier in relation to planned communication and attendance at planned structured meetings, some strategies may further influence barriers to IPW. This was evidenced in the interviews by participants who highlighted that non-attendance at regular multidisciplinary meetings was a coping strategy to help with managing and prioritising their workloads.

Established teams as an enabler of IPW and transient teams as a barrier to IPW also emerged as contrasting themes in the interviews. Continuity in care, perceived approachability, ability to work through disagreements, understanding of roles and responsibilities, and mutual respect of knowledge and expertise were associated with professions who identified that they worked together over a period of time and identified themselves as an established team. In contrast to this, teams with a regular turnover of staff or where professions only joined the team on a temporary basis, were felt to negatively impact on interprofessional relationships, and also negatively impact on the delivery of care to service users. The lack of local knowledge meant that some resources and services were not accessed by new or temporary members of the team for the benefit of service users. Professions moving in and out of established teams felt that relationships between and amongst professions were strained and there seemed too little time to get to know team members, or be part of the established team. These findings corroborate the ideas of Gibbon *et al.* (2002) and Reeves and Lewin (2006). These researchers claim that in areas where teams

are more temporary and transient, such as a busy acute ward in a hospital setting, it is difficult to form established teams. This is thought to be related to the number of professions that pass through one area on a temporary basis, and the limited opportunities there are to build trust amongst team members.

Whilst there was understanding of roles and responsibilities and positive working relationships within the smaller network of one team, outside this team seemed to be where the issues arose. Participants felt that their roles and responsibilities were misunderstood, and often unappreciated, where they were required to move between teams, or collaborate with others out with their own team. This also seemed to be evident where teams were restructured and roles and responsibilities changed. There was evidence of uncertainty with role boundaries between nurses with differing roles, and between nursing and social care professions. The 'Hospital at Home' services, a service implemented as part of the integration of health and social care, was highlighted by participants as one example of where uncertainty around role boundaries existed. These findings are supported by previous studies which have argued that changes in organisational structure can negatively impact on teams and add to confusion around roles and responsibilities (Goldman *et al.*, 2010). Furthermore, changes in physical working environment can negatively affect patterns of interactions between members of a team (Kreindler *et al.*, 2012). Kreindler *et al.* (2012) suggest that interprofessional literature has previously focused on interprofessional silo working at a micro level and highlight that it may be much more complex than tensions between professions and therefore requires exploration of the inter-organisational silos which can exist in an organisation.

As discussed in Chapter 3, Section 3.3, social identity theory has previously been considered as a theoretical framework for IPW. In addition, theories of loss and grief have also previously been discussed in relation to the impact of change in organisations on IPW (Colyer, 2008). The theory of social identity is very relevant to the theme of established teams in the findings of this study. This theory resonates with the study participants' examples of interprofessional and intraprofessional tensions which were, at times, apparent across teams in different care contexts. Participants also explained to the researcher that the restructuring of services within some community settings meant that established teams were disrupted by the relocation of their team to different buildings. Their social identity as previously

established teams were threatened. Even if professions were based in the same building, the different working environment affected their proximity to their team members and seemed to drive distance between their team, physically and emotionally. There was a sense of grieving for their previous shared spaces which had, in the past, provided opportunities for informal communication, and encouraged positive working relationships.

Improving IPW is one of the drivers for health and social care integration, as previously discussed in Chapter 2, Section 2.2.1. The findings of this study suggest that health care and social work professions were going through a period of loss as a result of changes implemented as part of the agenda for the integration of health and social care. It can be considered whether new effective teams will form, and if their social identity as a health and social care teams will be realised and accepted.

This study found that established teams, planned and unplanned communication and close proximity were themes that emerged mainly from interviews with professions working within community settings. These results corroborate with the findings of Reeves and Lewin (2006) who suggest that in a busy acute ward in a hospital setting, it can be more difficult for established teams to form, due to the number of professions that pass through one area. This is not to say that established teams do exist in the acute setting. As reported by Snelgrove and Hughes (2000), Baxter and Brumfit (2008) and Costa *et al.* (2014), regular contact and close proximity of established teams working in specialised areas, influenced professions' perceptions of identity as an interprofessional team. However, Reeves and Lewin's (2006) observations of acute teams is a reminder of how the physical environment and the traditions associated with a specific space, can influence professions interactions and working relationships. Within many care settings, 'the doctors' room' and 'nurses station' regularly define separate working spaces for these professions. In these spaces, communication usually occurs in the form of handovers which are often done unprofessionally, further adding to a sense of siloed working. As noted by Reeves and Lewin (2006), although professions enter these areas, their interactions are often brief, task orientated and business like. This current study found that in contrast, shared spaces for professions to talk informally, such as a coffee room or an open plan office shared by multiple professions were valued by professions. Participants noted that they encouraged social interaction, strengthened relationships within the

team and helped with IPW. The findings from this study therefore builds on prior evidence to suggest that a working environment which encourages close proximity working with other professions, and promotes regular contact between professions, enables IPW. It is acknowledged that most of the evidence suggests that these enablers are associated with small teams within community care contexts or highly specialised areas within the acute setting, where teams are more established. The influence of place and space have previously been considered in relation to IPE (Nordquist, Kitto, Peller, Ygge, and Reeves, 2011; Reeves et al., 2010; Costa *et al.*, 2014). There may be some value for other care contexts to consider the working environment, the use of shared space and the evidence which suggest that these factors can influence IPW and interprofessional relationships.

The pros of shared policies and processes versus the cons of different policies and processes emerged as contrasting themes in the enablers and barriers to IPW. The Getting It Right for Every Child (GIRFEC) national framework for the implementation of the Children and Young People (Scotland) Act (2014) was highlighted as an example of a policy which was familiar to professions working within all three contexts of acute care, community care and local authority. The benefits of shared documentation and one port of call for information, such as team information board were valued. This overlapped with the secondary sub-theme of planned communication, as multi-disciplinary meetings and safety briefings involving more than one profession were viewed as a shared process which enabled IPW.

In relation to the perceived barriers associated with differing processes and policies, participants expressed concerns regarding professional governance and differing policies between health and social care. Policies supporting the administration of medications in the community setting by unregistered health care professions, but not unregistered social care professionals was highlighted as an example. Decision making was sometimes found to be constrained by profession specific models of care or by regulations stipulated by professional regulators. Linked to the issues associated with electronic communication, inability to access some systems impacted on processes for accessing records or for making referrals to other professions. Referral processes were found to be inconsistent between professions with some being accepted face to face and others stipulating written referrals.

These contrasting ideas related to shared policies match the differing arguments and evidence put forward by other researchers. Whilst it has been suggested that “protocolised care” maintains consistency within the team (Costa *et al.*, 2014) and shared policies enable effective IPW by reinforcing shared goals (Lindblad *et al.*, 2006), Larkin and Callaghan (2005) who found that joint operational policies did not influence perceptions of effective IPW. Similarly, Gibbon *et al.* (2002) argued that shared notes and integrated care pathways did not necessarily improve teamwork. A possible explanation for participants highlighting GIRFEC as an example of where shared policies are valued may be related to drivers for effective IPW for child protection. As previously discussed in the background to this thesis (Chapter 1, Section 1.3), the need for improved collaboration between health care and social work, particularly within the context of child protection, was reinforced by the reports of Kennedy (2001) and Laming (2003; 2009). As evidenced by the positive attitudes to IPW found in this study, these findings suggest that professions are driven in their intentions to improve collaboration. Government policies such as the Children and Young People (Scotland) Act (2014) and the Health and Social Care Act (2012) and Public Bodies (Joint Working) (Scotland) Act (2014), seems to have renewed the drive for improving collaboration between professions in health care, social work, and other agencies.

Organisational culture emerged as a sub-theme to barriers to IPW, with participants from different care contexts highlighting varied experiences of hierarchies and power differentials. As previously discussed in Chapter 1 of this thesis, hierarchies between professions as well as within professional groups have previously been discussed in the literature, and are believed to be one of the main reasons why care has previously been compromised. In the literature review (Chapter 2) the evidence showed that doctors were perceived as main decision makers in a team (Abramson and Mizrahi, 2003; Reid *et al.*, 2006; Rice *et al.*, 2010; Russell *et al.*, 2006), and power differentials and hierarchies were thought to inhibit doctors from working more interprofessionally (Reeves and Lewin, 2006). In this current study, there were some evidence of traditional hierarchical relationships between professions, particularly within the clinical context of obstetrics. Hierarchical working structures and power differentials between obstetricians and midwives have been previously reported within similar contexts (Gordon 2011; Murray-Davis, Marshall and Gordon, 2011). As evident in

the demographic profiles of the online survey and interview participants (Chapter 6, Table G and Chapter 9, Table K) there were few participants from this care context included in this study. However, the findings from this current showed that barriers to IPW were not confined to perceptions of hierarchies and power differentials between professions. Although power differentials were noted by some participants, these were often attributed to individual personalities, or new members exploring their position in an already established team. There was also evidence of hierarchical tensions arising intraprofessionally, and across different working contexts. These findings are further supported by the work of Brown *et al.* (2011), Lingard *et al.* (2012), and Powell and Davies (2012). As discussed previously in Chapter 7, Section 7.5, there was some evidence of challenging negotiations occurring between doctors working in the acute and community settings.

There are several possible explanations for these findings related to organisational culture. When new members join an established team or a team's structure is disrupted by restructuring in organisations, the dynamics of the team are affected. The stages of team development, as described by Tuckman (1965) can be considered. As health and social care go through a period of transition with the integration of services, there will be a period of 'forming' and 'norming' until teams become established. New members of a 'performing' team take some time before they become established and confident of their roles and relationships within the team (Tuckman, 1965). Social identity theory may once again help to explain the tensions which participants described when collaboration was required between acute and community settings. Intraprofessional hierarchies and power differentials between participants of the same profession seemed to suggest 'inter-group' and 'outer-group' conflict (Tajfel, 1978 and Turner, 1987).

Other instances of interprofessional hierarchies may be explained by remnants of traditional hierarchal relationships, encouraged by perceptions that some professions have less power than others. Subtle behaviours and gestures, can contribute to this hierarchical culture (Gordon, 2012). However, as demonstrated by the findings of this study, and as supported by Abramson and Mizrahi (2003) and Baxter and Brumfit (2008), there is some of movement away from traditional hierarchical relationships, to "transformational perspectives," where shared responsibilities and IPW are valued. Evidenced by the theme of interprofessional practice learning for qualified

professions which emerged as a perceived enabler of IPW in this study, this transition seems to be helped by opportunities for qualified professions to learn together in practice.

Limited resources have been highlighted as a challenge associated with effective team work in health and social care (Chapter 2, Section, 2.3). The findings from this current study similarly found that lack of resources was perceived as a barrier to IPW. Furthermore, as data was generated by professions working in a variety of different health and social care contexts, the results gave some sense of the types of resources, in different working contexts, which were perceived as barriers to IPW. Time as a limiting resource was common within all contexts and it was frequently mentioned that increased workloads continually added to time pressures. An interesting finding was the coping strategies which were employed to manage such pressures. Contradictory to planned structured meetings perceived as an enabler of IPW, maintaining effective communication, and strengthening team identity, there was evidence that these meetings were often sacrificed to enable individuals to manage their time. Participants also described instances of inappropriate and unnecessary referrals, 'a pass the buck' strategy, which was also seen to be used as a way of managing individual workloads. Whilst appreciation of roles, responsibilities and expertise of other professions is part of the ethos of effective IPW, there was sense that this ethos was at times disregarded.

Within the community setting, budgetary constraints were commonly perceived as a barrier to IPW. This seemed to add to intraprofessional tensions across different community contexts as it was highlighted that allocations differed between some areas. As noted in one of the interviews with a health visitor nurse, allocation of money was perceived to be greater in areas of high deprivation. Whilst it was acknowledged that these allocations were in response to service user needs, it was perceived that this also influenced the level of interprofessional interaction with other professions. Where less services were offered or available due to less allocation in a specific areas' budget meant that there was less collaboration with other community services. Some caution would need to be taken in attempting to explain these results as the evidence is taken from one interview, however the influence of levels of deprivation on IPW, may be an interesting variable to consider in future research.

### **What are the enablers of and barriers to IPPL for students?**

In terms of the final question of this study, which looked at enablers and barriers to IPPL for students, the final objective was to explore the perspectives of health care and social work practice mentors. In the analysis of the interview data, it was evident that fewer themes emerged in relation to enablers of IPPL, in comparison to barriers to IPPL, and a number of contrasting sub-themes were found in relation to enablers and barriers. Contrasting sub-themes included: resources versus lack of resources, and motivation versus lack of motivation. Learning perceived as interprofessional and organisational culture were identified as unique sub-themes of barriers to IPPL (Chapter 7, Figure 11).

The differing number of themes in relation to enablers of IPPL, in comparison to barriers, may be explained by the fact that only three of the 22 interview participants were involved in facilitating regular IPPL for students. However, perspectives of actual enablers and barriers as well as the potential enablers and barriers provided some insight and understanding of the issues within a variety of contexts.

In the contrasting sub-themes of motivation versus lack of motivation, there were varied views regarding the practice mentors' willingness and enthusiasm for students learning generally in practice, as well as for IPPL. Further to this, uncertainty of the value of IPPL over other learning opportunities in practice emerged as a secondary sub-theme to lack of motivation. These findings build on the findings of other studies mentioned in Chapter 1, and previous research reviewed in Chapter 2. Anderson *et al.* (2006;2009), Anderson and Thorpe (2010); Egan-Lee *et al.* (2011) found that these uncertainties dissipated once professions had experienced facilitating IPL. The theme of lack of motivation is surprising, given that the mean scores in the quantitative analysis demonstrated generally positive attitudes to IPPL, for students. The contradiction between the results from the survey and interview data suggests that as opposed to doubt in relation to the value of IPPL, practice mentors may have reservations in implementing IPPL, due to the other identified barriers to IPPL. However, these findings must be acknowledged with caution. The four point Likert scale which was used in the survey for this study did not give participants the option to provide a neutral response, an issue further highlighted in some of the free text comments of the survey. Therefore, these results do not provide a clear indication of whether participants were uncertain of their attitudes to IPPL.

In relation to resources versus lack of resources as contrasting sub-themes of enablers and barriers to IPPL, some of the main barriers reported by participants included ensuring an interprofessional mix of students, adequate space for students, time for teaching, access to other professions, and lack of practice mentors. As discussed in the background to this thesis (Chapter 1, Section 1.3.1) and the literature reviewed (Chapter 2) some of the same issues in relation to lack of resources and difficulties with practicalities and logistics have also been associated with IPE in university settings. It has been argued that these resources are not entirely restrictive and are barriers that can be overcome (Anderson *et al.*, 2010). However, in providing insight into the perspectives of practice mentors working in a variety of care settings, this study highlighted that there were barriers unique to the practice setting which may be more challenging to overcome. In particular, participants from specialised areas such as learning disabilities and mental health identified these unique barriers. Practice mentors in these contexts commented that the presence of one student, let alone an interprofessional mix of students, was at times inappropriate in one to one consultations or with service users deemed vulnerable. These findings build on the work of Stew (2005) who in scoping where, when and how IPPL was occurring within one region in the South of England, reported that “IPE is highly contextualised, and develops according to a variety of situational factors.” Furthermore, the findings of this current study provide insight into some of the unique challenges specific to some contexts of care, from the perspective of practice mentors.

The findings from this study highlighted that the majority of IPPL described by participants involved students from only one profession observing another profession, for example, sitting in on a clinic run by another profession or receiving a talk on their role and responsibilities. The activities described suggested that the role of students was as passive learners. Barr and Low (2013, p.19) recommend that IPPL “should be active, interactive, reflective and patient centred”. As previously discussed, there were few instances of interactive IPPL activities with students from two or more professions, with or without service user involvement. Given the number of interview participants who reported that they had had prior experiences of IPE (81.8% of interview participants and 80% of participants who provided free text comments), it was surprising to find that a range of IPPL opportunities were missed. One possible explanation for this is that it may have only been possible for practice

mentors to provide lower levels of IPPL where there were a limited number of students from different professions on placement at the same time. This idea is supported by Pollard (2009) who suggested that different levels of IPPL may exist, depending on different care contexts. However, this does not explain why in other areas, where these resources were available, there seemed to be missed opportunities for a range of levels of IPPL. As discussed in Chapter 1, Section 1.4, previous literature has highlighted that the basic principles of IPE are often misconceived. The findings of this study build on those ideas and suggest that practice mentors' misunderstanding of the concept of IPPL may explain the over reliance on lower levels of IPPL and missed opportunities for IPPL. However, previous literature has focused on academic staff attitudes to IPL. Further research would therefore be required to build on the findings of this current study.

In comparing the data related to the perceptions of the enablers of IPW to the data related to the enablers of IPPL, it was evident that the IPPL activities which occurred regularly, took place where there were a range of professions working in close proximity, where planned and unplanned communication was reported to have occurred and where the teams were perceived to have strong working relationships. While the idea that established teams and regular structured meetings impacted on students' experience of IPW was discussed by Russell *et al.* (2006), it was not the focus of their study. This results of this current study therefore suggest a possible link between IPPL, effective communication, proximity and established teams.

Organisational culture emerged as a sub-theme of barriers to IPPL and as earlier discussed, also emerged as a sub-theme of barriers to IPW. However, in relation to IPPL, some of the issues regarding organisational culture differed. Participants referred to the traditional culture of students learning in professional silos during their placements, and generally only sharing the same space with members of their own professional group. Previous research found that less positive attitudes to IPPL influenced less engagement in IPPL and was also associated with doctors who were reported to have stronger professional identities (Baker *et al.*, 2011). In contrast to these findings, the quantitative results of this current study demonstrated that mean scores were positive within the sub-scale of professional identity, and no significant differences were found between professions' attitudes to IPPL (Chapter 8, Section 8.4,1). Therefore, students learning in professional silos during placements may not

necessarily associated with negative attitudes to IPPL. Colyer (2008) discussed the concept of cultural lag to explain the uncertainty related to IPL that academic tutors had. The findings in this study suggest that there may be evidence of a cultural lag in relation to IPPL with the traditional methods of students learning in silos remaining unchallenged by some practice mentors.

In Chapter 3, Section 3.3.1, the reasoned action model by Fishbein and Ajzen (2010) identified the following three determinants of behaviour: behavioural beliefs, normative beliefs and control beliefs. Once again, this model can be considered and used to explain the findings from this study (Figure 12).

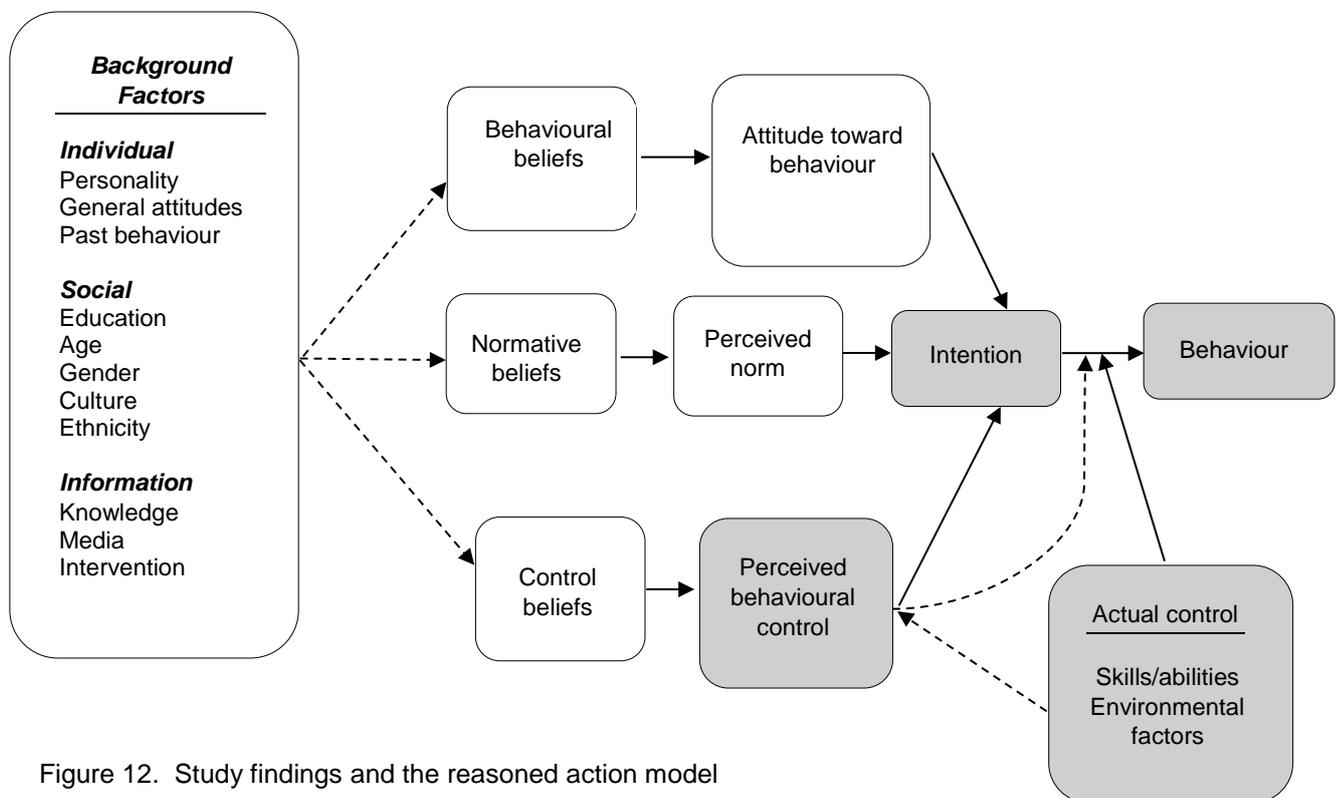


Figure 12. Study findings and the reasoned action model

The results of the quantitative analysis of data showed that practice mentors had positive attitudes to IPW, and IPPL for students. According to the model, the first and second determinants of behaviour; behavioural beliefs and normative beliefs, is of interest in relation to these findings. Practice mentors' positive attitudes suggest that their positive behavioural and normative beliefs determine that they have positive intentions to work interprofessionally and support IPPL for students.

Furthermore, the analysis of the effect of variables on attitudes to IPW and IPPL demonstrated that these variables, as background factors, did not affect their attitudes. However, these are just a selection of some variables which were selected as the focus of this study. The potential effect of other background factors would need to be considered.

The third determinant of control beliefs is of interest in relation to the findings from the interview data. As previously discussed (Chapter 1, Section 1.4), control beliefs refer to behavioural controls such as environmental factors or skills and abilities which may be *actual* or *perceived* enablers and barriers. These are believed to affect behavioural intentions and onward performance of the behaviour. The findings from the results of the interview data suggest that there are a number of actual and perceived enablers and barriers to IPW and IPPL (illustrated by the shaded boxes in Figure 12). Some of these enablers and barriers were related to the working environment and the proximity between professions. These factors were closely linked with effective communication and the identity of a group of professions as an interprofessional team. It was evident that the IPPL activities which occurred regularly in some contexts, took place where there were a range of professions working in close proximity, where planned and unplanned communication was reported to have occurred and where the teams were perceived to have strong interprofessional working relationships. These results suggest that a working environment which encourages interprofessional communication and contributes to an interprofessional team identity may be an enabler to quality IPPL opportunities for students. However, it was also important to note that in some contexts, the care environment and priorities of service users did not lend itself to IPPL. This particular barrier is an example of an actual behavioural control which affected the ability to carry forward the intention of supporting IPPL for students.

#### **8.4 Chapter summary**

This chapter provided a detailed discussion of the findings from this mixed- methods case study and compared these against the backdrop of previous relevant theory and research. The main findings from this study were that practice mentors had positive attitudes to IPW, and IPPL for students, and that there was no significant effect on

attitude of practice mentors' governing body, gender, area of work, years of experience, or prior experience of IPE.

IPW was perceived to be enabled by shared processes and policies, IPPL for staff, effective communication, established teams, and shared processes and policies. Proximity to other professions and shared spaces encouraged informal communication and positive interprofessional relationships. In interviews, it was highlighted that regular structured IPPL opportunities for students during their placements were limited. Where opportunities did occur, this was linked to areas where practice mentors perceived that there was a strong interprofessional team identity.

In the final section of this chapter, the findings were consolidated and the relationship between attitudes and behaviour was considered once again by referring to Fishbein and Ajzen's (2010) reasoned action model. Although attitudes to IPW, and IPPL were found to be positive in this case study, practice mentors identified a number of *perceived* and *actual* enablers and barriers to IPW, and IPPL for students. As behavioural controls, these determined whether positive intentions to work interprofessionally, and support IPPL for students, was put into practice.

## **Chapter 9. Conclusion**

### **9.1 Chapter overview**

In this concluding chapter, a summary of the main findings from this study will be provided, and the contribution that this study makes to interprofessional research and practice will be discussed. A series of recommendations for future research and practice will be suggested and the limitations of the study will be acknowledged.

### **9.2 Summary of the study findings**

In addressing the primary questions posed in this study related to attitudes to IPW, and IPPL for students, the first main finding was that attitudes to both were generally positive. This demonstrates that IPW, and IPPL for students were valued by practice mentors. The second main finding was that there was no significant effect of governing body, gender, years of experience, area of work, or prior IPE experience on attitudes to IPW, and IPPL for students. Whilst positive attitudes to IPW and IPE have previously been reported in other studies, professional background was reported as a common effect on attitudes. Similarly, previous studies have reported that attitudes to IPL within academic settings or practice settings are affected by professional background and previous experience of IPE.

The secondary questions posed in this study related to the enablers of and barriers to IPW, and IPPL for students. The third main finding was that although these results demonstrated that practice mentors valued IPW, the interview data suggested that there were several enablers and barriers to IPW. Effective IPW was perceived to be enabled by: working in an established team, using a blend of planned and unplanned communication, a blend of electronic and face to face communication, shared processes and policies, and close proximity to other professions. Ineffective IPW was associated with practice settings where these factors were perceived as ineffective or absent. These were similar enablers and barriers to IPW reported in previous studies. Furthermore, in relation to barriers associated with organisational culture, the findings from this study support previous research which has shown that intraprofessional, as well as interprofessional, hierarchies and tensions exist within health and social care organisations.

The fourth main finding of this study builds on previous knowledge related to the enablers and barriers to IPPL. Students' experiences of IPPL, and particularly IPPL involving students from other professional groups, were limited. Practice mentors perceived that IPPL for students was enabled by: shared student placements; an adequate ratio of practice mentors to students, and an IPE champion with links between the HEIs and practice setting. There was evidence of barriers unique to some practice settings. For example, in some practice settings, an interprofessional mix of students was not appropriate. In these instances, the care and safety of service users and the safety of students were priority.

In the review of previous literature, it was found that there have been few studies which have explored the link between the value placed on IPW, and IPPL for students. The fifth main finding of this study was that there were missed opportunities for IPPL. Furthermore, there some evidence to suggest that where regular, structured IPPL did occur; this was linked to areas where practice mentors perceived that there was a strong interprofessional team identity.

This study has shed light on the attitudes of practice mentors to IPW, and IPPL for students, and their perspectives of enablers and barriers to these occurring in practice settings. There have been few previous studies with the same focus on both IPW and IPPL, from the perspectives of health care and social work practice mentors. In addressing this research gap, this study makes an original contribution to interprofessional research and practice. This contribution is discussed in the sections below.

### **9.3 Contribution to interprofessional research**

In Chapter 3, Section 3.4.1, Fishbein and Ajzen's (2010) reasoned action model was discussed. This model proposes that the three predictors of intentions and behaviour are attitudes, normative beliefs, and control beliefs. In considering the determinants of behaviour identified in this model against the overall findings of this study, the following conclusions can be drawn. The findings from this study suggest that that attitudes to IPW and IPPL are favourable, and in the main working interprofessionally and preparing students to learn together to work together is the perceived norm. Whilst positive intentions may be apparent, there are, however, a number of behavioural controls which appear to influence the behaviour of health care and

social work professions in relation to working interprofessionally and supporting IPPL for students.

In relation to IPW, the findings from this study highlight that this culture may be more complex than traditional views of hierarchies, conflict and boundaries between professions, as suggested by previous research. Whilst there is some evidence of hierarchies and deep-rooted conflict amongst professions, time has impacted on attitudes. The future generation of health and social care professions may be exposed to a very different organisational culture, one which is more interprofessionally open. These findings, therefore, support the drive for a continuum of IPE from academic settings to practice settings, to instil and maintain this positive culture.

#### **9.4 Contribution to interprofessional practice**

The findings from this study have significant implications for other health boards and local authorities. The study provides some understanding of the factors which are perceived to enable effective IPW in practice, and effective IPPL opportunities for students learning in practice settings. Gibbon *et al.* (2002) and Gordon (2012) stated that change is dependent on time, a positive attitude and support from staff working in organisations of care. This study has shown that time has been valuable in changing attitudes to IPW, and IPPL for students. Previously, professional background has been argued as being one main influence on attitudes. This study has demonstrated that professions within health and social care have positive intentions to work interprofessionally and support students to prepare for future collaborative working.

#### **9.5 Limitations of the study**

The generalisability of the findings from this study is subject to a number of limitations. For instance, there were limitations related to the use of the two pre-validated tools which were used to measure attitudes to IPW and IPPL. Firstly, although these survey tools were used in other similar studies, previous studies did not focus on practice mentors' attitudes to IPPL. In discussing and interpreting the survey results, it was, therefore, difficult to draw comparisons against the findings of other studies.

Secondly, the multi group measurement tool which was used to measure attitudes to IPW was valued for the 'round robin' design and ability for multiple professions to rate other professions. However, with the large number of different professions involved in this study, it was not possible to ensure that the wording of each item relevant to all professions involved in this study. As a result, some professions were unable to rate other professions that they may normally have worked regularly with. Figure 5 in Chapter 4 illustrates this point by showing that doctors and nurses were not given the opportunity to rate pharmacists in the online survey. Thirdly, the 4-point Likert scale did not provide participants with the option to provide a neutral response to the survey items, an issue which was raised by some participants the free text comments areas of the online survey. Therefore, these results do not provide a clear indication of those participants who were uncertain if they agreed or disagreed with some of the items in the online survey.

Although the combination of quantitative and qualitative methods enabled attitudes to be measured and perspectives to be explored, both methods required participants to self-report their attitudes and perspectives. With self-reporting methods, there is a risk of social desirability bias (Cohen *et al.*, 2011) and the possibility that participants provided responses based on their perceptions of the norm in relation to IPW and IPPL. Further research would need to include observations of groups of professions to verify if what was reported, matched with what was observed.

Due to the smaller numbers of social workers and pharmacists in this study's sample, and the smaller number of participants working across both community and acute care settings, it was not possible to include their data during the statistical analysis. Although these professions reported generally positive attitudes to IPW, and IPPL for students, it was not possible to determine whether their attitudes significantly differed from other professions.

Prior experience of IPE as an educator or as a learner was a variable of interest in the statistical analysis of quantitative data. As discussed in Chapter 6, the results of the analysis showed that prior experience did not affect attitudes. However, these findings may be limited. In analysing the demographic data generated in the online survey, it was evident that the majority of survey participants reported that they had prior experience of IPE. However, on interviewing participants, it was evident that

some of the experiences that participants described were more multiprofessional, rather than interprofessional. Further inquiry into the nature of participants prior IPE experience may have therefore have enabled a more reliable analysis of the effect of this variable on attitudes to IPW, and IPPL for students.

It was evident that there was limited representation of some professions and contexts of care in this study, a research gap that was highlighted in the review of previous literature. Midwifery as a professional group governed by the NMC was under-represented, as were some professional groups within the AHPs, such as podiatrists, paramedics and orthotists. In relation to underrepresentation of care contexts, this study did not include practice mentors working within the care home and residential care setting. Care homes and residential care settings are important contexts to consider, particularly in relation to the impact of enablers and barriers of IPW between health and social care professions working within these settings. Although professions from these settings were targeted in the recruitment phase of the study, future studies would possibly need to consider other recruitment strategies and appropriate methods of data generation, to encourage participation from these professions.

The mean scores from the survey that was used to measure practice mentors' attitudes to IPW, and IPPL for students and demonstrated that attitudes were generally positive for both. Unlike other studies, professional background and previous IPE experience were not found to significantly affect attitudes to IPW or IPPL. These differences in findings may be due to the differing countries and their cultures, and the differing organisational structures in which the studies took place. Therefore, there may be other variables that have not been accounted for in this current study.

As a single case study, these limitations may add to the scepticism around case studies and concerns regarding the generalisability of its findings (Yin, 2014). However, in relation to IPW, these findings contribute to existing knowledge and offer new evidence during a time in health and social care where major changes require professions within these services to change the way that they work together. In relation to IPPL, given that there are few other studies that have investigated practice mentors' attitudes to IPPL for students, these findings contribute to the understanding

of how IPPL is valued. This knowledge can help with identifying strategies for improving the continuum of IPE from academic settings to practice settings.

## **9.6 Recommendations for research**

As discussed in the first chapter, and carried through the remainder of the thesis, the context of this study was key. As a case study, it focussed on one health board within Scotland and associated local authority, as a single unit of analysis. This unit comprised of a health board made up of hospital and community care settings, and a local authority which provided social care services. This study site provided access to a range of professions working within a variety of care contexts. It is important to bear in mind that as a case study, some of the findings may not be generalisable to other settings. A multiple case study design may, therefore, have enabled the generation of additional data and provided the researcher with the opportunity to compare and contrast findings within other similar cases. Furthermore, observational methods may have enabled the observation of actual behaviour in teams, to verify the data self-reporting generated from self-reporting methods and to identify the tangible markers of effective and ineffective interprofessional teams.

In the quantitative results from this study, it was evident that the variables within the groups of professional background or area of work did not significantly affect attitudes to IPW, but significant differences were found amongst groups particularly within the survey's sub-scales of communication and isolation (Chapter 8, Section 8.3.3). This data, along with the themes identified in the semi-structured interviews suggest that attitudes could be influenced by the range of communication experiences within the team which either strengthen the social identity of the team or contribute to the isolated silo way of working. The findings suggested that proximity to other professions and shared spaces had some influence on interprofessional communication. Further research is required to explore interprofessional communication, and the influence of the working environment on IPW and IPPL.

## **9.7 Recommendations for practice**

Based on the main findings of this study, there are a number of recommendations related to IPW in practice, and IPPL. Recommendations specific to IPW include:

- Managers in health and social care organisations need to consider the support required for teams during organisational change, particularly in light of the integration of health and social care. Change can be unsettling for established teams, and consideration should be given in terms of the time needed to re-establish interprofessional teams
- Managers need to address the issues of inaccessibility of electronic communication. In an era where the use of electronic records is increasing, it is vital that systems of electronic communication are reliable, used consistently, and accessible across different working contexts
- Differences in policies and procedures encourages siloed working. Interprofessional teams should be guided by shared policies and processes
- IPPL for health and social care professions needs to be encouraged to help maintain understanding of ever-changing roles and responsibilities
- Managers need to consider the impact of the working environment and how this contributes to the social identity of teams. Spaces which encourage both planned and unplanned communication and social interaction are important enablers of IPW

Recommendations specific to IPPL for students include:

- Practice mentors need to consider the influence of their own interprofessional and intraprofessional practice on students learning within practice. If attitudes to IPW are positive, this needs to be articulated in the actions and behaviours of professions, to encourage positive role modelling
- Careful risk assessment, and review of the appropriateness of IPPL in some care contexts needs to continue so that the needs of service users take priority
- The ratio of practice mentors to students is a resource that needs to be considered for students learning generally in practice. However, for IPPL, practice mentors from different professions need to consider ways in which IPPL facilitation can be shared. Using the basic principles of IPE to guide learning activities, many IPPL activities can be student-led and therefore may require minimal resources

- IPE champions in higher education and the practice setting need to support mentors with the practicalities and logistics of IPPL, and with raising awareness of the principles of IPPL. If there is no true understanding of IPPL, opportunities will continually to be missed by practice mentors
- Multi-professional activities are important and need to continue, but not as a substitute for IPPL. Whilst it is recognised that a single model of IPPL may not be applicable in all contexts, practice mentors need to be able to work with what is available and achievable in their own contexts. Where higher levels of IPPL opportunities are available, these need to be utilised

### **9.8 Concluding remarks**

This thesis has presented a case study which investigated practice mentors' attitudes to IPW, and IPPL for students. It also explored their perspectives of the enablers and barriers to IPW, and IPPL for students occurring within practice. Context and perspective were key to the scope of this study. Whereas previous studies have focused mainly on the attitudes of academic staff or attitudes to IPE within the academic setting, this study investigated the attitudes and perspectives of health and social care professions with a specific remit in mentoring or supervising students during their practice placements. The study provided insight into the challenges which exist at the frontline of health and social care within one health board and associated local authority. The findings from this case study may be transferable to other health and social care organisations. Further research is, however, needed to identify systems for improving IPW, to strengthen health and social care teams' identities as interprofessional teams, and to increase IPPL opportunities for students.

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outcomes (Review). The Cochrane Library. Issue 3. John Wiley & Sons, Ltd, West Sussex, UK.

## **Appendix 1 Glossary of Terms**

Interprofessional education (IPE): 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 2002).

Interprofessional learning (IPL): Interprofessional learning occurs between students or members of two or more professions to enhance knowledge and competence during interprofessional education, or, informally in educational or practice settings (Barr and Low, 2013).

Interprofessional practice learning (IPPL): Interprofessional practice learning complements interprofessional learning within the classroom, and takes place during students' placements (Barr and Low, 2013).

Interprofessional working (IPW): The process whereby members of different professions and/or agencies work with each other and with patients/service users, to provide integrated health and/or social care (Thomas, Pollard and Sellman, 2014)

Multiprofessional education (MPE): Multiprofessional education occurs when students from two or more professions learn side by side (Barr and Low, 2013)

Practice setting: A workplace setting where pre-registration health care and social work students undertake part of their learning as a practice placement or clinical attachment.

Practice mentor: Professions within the practice setting who are responsible for mentoring or supervising students learning.

Service user: An individual who is or has been in receipt of a service from a health or social care organisation.

## Appendix 2

## Research Appraisal Tool (Hawker *et al.*, 2002)

Paper components	Description of quality	Score	Comments
Abstract and title	Clear and concise. (4) Some detail provided. (3) Inadequate detail. (2) No abstract. (1)		
Introduction and aims	Clear and concise background aims and objectives. Up to date literature review. (4) Some background and literature review. Research question outlined. (3) Unclear or inadequate background, literature review, aims and objectives. (2) No background, aims or objectives or literature review (1)		
Method and data	Method appropriate and data collection clearly described. (4) Some description, omitted details. (3) Inadequate description. (2) No details provided. (1)		
Sampling	Clear description of sample. (4) Some description, omitted details. (3) Inadequate description. (2) No details provided. (1)		
Data Analysis	Clear description. (4) Some description, omitted details. (3) Inadequate description. (2) No details provided. (1)		
Ethics and bias	Clearly addressed and discussed. (4) Acknowledged but not in detail. (3) Details unclear. (2) No details provided. (1)		
Findings/results	Clear description. Findings relate to aims of study. (4) Some description, omitted details (3) Inadequate description. (2) No details provided. (1)		
Transferability/ generalisability	Clear description of context and setting to enable comparisons and replication. (4) Some description, omitted details. (3) Inadequate description. (2) No details provided. (1)		
Implications and usefulness	Contributes new insight and perspective Implications for policy, practice and future research discussed (4) Some discussion of 2 of above (3) Only 1 of above discussed (2) None of the above discussed (1)		
Total Score			
General comments			

### Appendix 3 Summary of the Assessment of Included Studies

Author/ Year	Aim (s)	Location & sample details	Study design	Main Findings	Limitations
<b>Abramson &amp; Mizrahi 2003</b>	To present a typology of collaborators and compare collaborative behaviours between professions.	<b>USA</b> Doctors and social work professions.	Analysis of qualitative data collected from a prior study	Typology of traditional, transitional and transformational collaboration. Collaboration between doctors was found to be mainly transitional.	Focus only on IPW.
<b>Anderson <i>et al.</i> 2006</b>	Evaluation of a model of IPE in practice setting.	<b>UK</b> Health care students and tutors based in practice setting.	Pre and post questionnaire. Informal feedback from tutors.	Staff were concerned with what students would be able to transfer into practice. Positive opportunity to involve service users in IPE. Practice setting seen as valuable for IPE.	Small sample of staff. Feedback from staff informal. Staff attitudes not the main focus. Focus only on IPE
<b>Anderson <i>et al.</i> 2009</b>	Evaluation of IPE facilitators course	<b>UK</b> Academic and health care professions in practice setting.	Mixed-methods Quantitative – pre course questionnaire Qualitative - interviews	Teaching interprofessional mix of student groups found to be challenging. Educators require support and training to teach interprofessionally	Sample details and professional groups represented are unclear. Focus only on IPE.
<b>Anderson &amp; Thorpe 2010</b>	Educators experience of IPE	<b>UK</b> IPE facilitators in academic and placement setting.	Grounded theory. Focus groups, one to one interviews, and questionnaires.	Staff saw personal gain from facilitating IPE. Motivated by drive to improve service user care. Enhanced staff own practice IPE motivates staff to champion IPE.	No distinction made between academic and practice placement staff. Staff already ambassadors of IPE. Focus only on IPE.
<b>Anderson <i>et al.</i> 2011</b>	Staff attitudes to IPE pre and post facilitation	<b>UK</b> Academic and health care professions with no prior experience of IPE. Mixed professions.	Qualitative. Pre-IPE facilitation and post IPE facilitation interviews.	Staff identified requirement for more support in facilitating IPE. Staff saw professional gain.  Staff attitudes improved following experience in facilitating IPE.	Sample reduced in post-test. Imbalance in professions represented. Focus only on IPE.

Author/ Year	Aim (s)	Location & sample details	Study design	Main Findings	Limitations
<b>Bailey <i>et al.</i> 2006</b>	Family and nurse practitioners experience of working collaboratively	<b>Canada</b> Primary care practices. Family practitioners and nursing practitioners	Narrative analysis of pre and post intervention interviews.	Lack of understanding or roles and responsibilities. Intentions to work collaboratively not followed through. More research required to explore impact of educational interventions for staff. More research required to explore collaboration between professions.	Imbalance in professions represented. Small sample size. Focus only on IPW.
<b>Baker <i>et al.</i> 2006</b>	Investigation of professions perceptions of power relations between professions. Also explored perceptions of IPE.	<b>Canada</b> Health and social care professions.	Analysis of qualitative data collected from a prior evaluation of IPE.	Doctors perceived themselves as leaders within a team. Some evidence of hierarchies evident through perceptions shared. Differences between professions and their motivation for IPE.	Representation of professions from an academic and a health care setting was unclear.
<b>Baxter &amp; Brumfit 2008</b>	Effect of professional background on IPW. Health care professions perceptions of team work.	<b>UK</b> Health care professions	Multiple case study analysis – individual semi-structured interviews and field observations.	Significant elements of professional groupings in IP practice are: professional knowledge and skills, role and identity and power and status. Context and models of health care important to consider. Location and service user groups may contribute to professional differences.	Location – stroke unit only Sample details of medical professions and AHPs unclear. Focus only on IPW.
<b>Braithwaite <i>et al.</i> 2012</b>	Investigated staff attitudes to IPW following education intervention	<b>Australia</b> Health care professions and admin staff	Longitudinal study. Questionnaire and formative feedback following IPE intervention.	No significant change in attitudes to IPW following intervention. Significant increase in perception of doctors' role as central. Doctors least positive about IPW. Priorities, time and working environment identified as barriers to IPW.	Staff turnover affected the consistency of the sample over 3 yrs. Imbalanced representation of professions within groups No detailed analysis of differences between professions. Although formative feedback collected, this was not reported in detail.

<b>Author/ Year</b>	<b>Aim (s)</b>	<b>Location &amp; sample details</b>	<b>Study design</b>	<b>Main Findings</b>	<b>Limitations</b>
<b>Braithwaite <i>et al.</i> 2013</b>	Investigated attitudes to and impact of IPE intervention on IPW and attitudes to the value of IPW.	<b>Australia</b> Medicine, nursing, AHPs and administration.	Quantitative - questionnaire Used RIPLS	Significant differences in attitudes between professions. AHPs reported to have more positive attitudes to IPW. Doctors perceived as central members of the team. AHPs found to have more favourable attitudes to IPE.	Authors reported high number of neutral responses in questionnaire. Responses may therefore not be a true reflection of attitudes.
<b>Chang <i>et al.</i> 2009</b>	Perceptions of teamwork, collaboration and job satisfaction.	<b>Republic of China</b> Health care professions	Survey over 4 hospital sites.	Doctors had most job satisfaction. Nurses scored higher for perceived collaborative relationships but lower score for perceived teamwork. Possible link between perceived positive collaboration and increases job satisfaction.	Survey only- no follow up interviews with staff. Focus only on IPW.
<b>Colyer 2008</b>	Analysis and evaluation of staff engagement in IPE	<b>UK</b> Professions from academic and practice setting.	Qualitative – questionnaire.	Professions had positive attitudes to IPE but also some uncertainty. Bereavement and loss for traditional methods of uniprofessional teaching.	Small sample size. Poor response rate from identified sample. Focus only on IPE.
<b>Costa <i>et al.</i> 2014</b>	Investigation of attitudes to IPW.	<b>USA</b> Health care professions in intensive care units across seven hospitals	Qualitatives- open ended, semi-structured interviews.	Shared systems, protocols and structured communication enabled IPW. Accessibility of professions helped with collaboration	Focus only on IPW. Context of study with professions known to work closely together because of specialised area.
<b>Egan-Lee <i>et al.</i> 2011</b>	Investigation of attitudes to IPE from perspective of professions new to IPE facilitation.	<b>USA</b> Health and social care professions.	Multiple case study. Qualitative, semi-structured interviews.	Facilitators had some misconceptions of IPE and missed key moments during facilitation to reinforce key principles. Confidence in facilitating IPE improved.	Focus only on IPE.

Author/ Year	Aim (s)	Location & sample details	Study design	Main Findings	Limitations
<b>Gibbon <i>et al.</i> 2002</b>	To determine if staff attitudes to teamwork improves following team – coordinated approach	<b>UK</b> Health and social care professions within four stroke units.	Quasi experimental (before and after intervention). Team Climate Inventory questionnaire used pre and post	Least established units were less positive in their responses. Interventions made no difference and there was a lack of support for the interventions Time required for teams to be effective. New teams motivated initially with good intentions. More important to have management support and improve external factors.	Did not compare responses between professions Sample information not specific. Focus only on IPW.
<b>Herbert <i>et al.</i> 2007</b>	To determine factors which influence collaborative practice	<b>Canada</b> Health care professions	Semi-structured interviews conducted in pairs	Family history, school experiences and social interactions, previous training can influence performance in teams. Life experience can influence professional choices.	Participants were researchers themselves. No statement of reflexivity. All participants were female. Focus only on IPW.
<b>Hughes and McCann 2003</b>	To explore barriers to IPW between GPs and Pharmacists	<b>UK</b> GPs, community pharmacists from three localities	Uniprofessional focus groups	Theme of pharmacy as “shopkeeper” hierarchy and physical access as interprofessional barriers. Awareness of barriers may help to understand how teams work within primary care.	Focus only on IPW.
<b>Jové <i>et al.</i> 2014</b>	To investigate GP and community pharmacists’ perceptions of IPW.	<b>Spain</b> GPs and community pharmacists from two different regions in Spain.	Qualitative – semi-structured interviews	Some differences across regions noted in relation to the perceived value of collaboration, possibly related to region specific policies.	Focus only on IPW
<b>Kvarnström 2008</b>	To identify challenges to interprofessional working as and implications for IPL	<b>Sweden</b> Health care professions	Interviews using critical incident technique	Lack of understanding and respect for roles and responsibilities. IPL was variable depending on how incidents were discussed. Managers should support teams by assessing conditions in the workplace and to encourage learning.	Main focus on IPW. Focus of IPE was more related to staff learning from critical incidents as opposed to opportunities for students.
<b>Larkin &amp; Callaghan 2005</b>	To investigate perceptions of IPW in community mental health teams.	<b>UK</b> Health and social care professions in community mental health teams.	Questionnaire generating qualitative and quantitative data.	Joint policies and joint documentation policies found to influence positive perceptions of IPW.	Focus only on IPW. Authors identified limitation that study did not explore impact of issues highlighted by participants on IPW.

Author/ Year	Aim (s)	Location & sample details	Study design	Main Findings	Limitations
<b>Lindblad <i>et al.</i> 2006</b>	To identify barriers and opportunities for IPW in dermatological setting.	<b>Sweden</b> Health care professions	Focus groups with staff and service users	Pharmacists viewed Dr and nurse collaboration to be more effective than their collaboration with these groups Poor IPW impacted on communication with service users. Conflicting info given to service users.	Imbalance in age and gender in sample. Focus only on IPW.
<b>Lingard <i>et al.</i> 2012</b>	To investigate how a team improvises faced with every day collaborative challenges	<b>Canada</b> Health and social care professions.	Ethnographic. Observations and interviews.	Boundaries crossed between doctor and nurse. Intraprofessional challenges apparent. IPW is fluid and can differ within and between groups.	Focused on a group of staff known to work very closely together. Small sample. Focus only on IPW.
<b>Matziou <i>et al.</i> 2014</b>	To investigate attitudes to IPW and factors influencing IPW.	<b>Greece</b> Health care professions from two Greek hospitals.	Quantitative-questionnaire.	Prior education amongst nurses found to influence attitudes to IPW. Nurses with higher level of education found to be more positive about collaborations.	Focus only on IPW. Authors identified limitation in sample. Sample included participants from just two hospitals.
<b>McCray 2003</b>	Staff attitudes to interprofessional practice	<b>UK</b> Learning disability practitioners Nurses and social workers	Semi-structured questionnaire and interviews	Practitioners intend to practice interprofessionally but some barriers in the way. Learning Disabilities Nurses are aware of changing context of practice. Implications for future as they may be change agents.	Small sample – only nursing and social work. Focused only within a Learning Disabilities team. Focus only on IPW.
<b>Piquette <i>et al.</i> 2009</b>	To investigate perceptions of IPW and the nature of interprofessional interactions.	<b>Canada</b> Health care professions in intensive care units.	Qualitative- semi-structured interviews	Shared goals evident and better IPW in acute medical 'pre-crisis'. Interactions were often more hierarchical in 'crisis' phase.	Focus only on IPW. Authors identified that sample were from the same hospital, a limitation for generalisability.
<b>Pollard and Miers 2008</b>	Attitudes to IPW after 9-12months in practice.	<b>UK</b> Health and social care professions. Some with prior experience of IPE.	Longitudinal study. Bespoke questionnaire	Prior IPE- more positive about interprofessional relationships. No IPE - More critical about IPE after qualifying. Some influence of educational background and age on attitudes. Case for IPE in pre-qualifying curriculum essential for effective IPW in view of strengthened and sustained attitudes to IPW.	No medical representation. Focus only on IPW.

Author/ Year	Aim (s)	Location & sample details	Study design	Main Findings	Limitations
<b>Pollard <i>et al.</i> 2012</b>	Professionals views of pre-qualifying prep for IP working in practice and also attitudes to IPE.	<b>UK</b> Purposive quota sample. Health and social care professions.	Qualitative: interviews.	Some participants noted value of IPL realised more as a practitioner than a student. Impact of role modelling highlighted. Participants who had experience of IPE had more self-awareness of their own positioning in teams compared to others. They also felt more prepared for IPW.	Small sample Excluded medical staff. Did not explore impact of postgrad IPL experiences.
<b>Reeves and Lewin 2004</b>	To explore collaborative working by observation and to explore participants' views of collaboration	<b>UK</b> Health and social care professions	Individual and group interviews and participant observation.	Collaboration unstructured, short and opportunistic. Task orientated interactions compared to nurse and AHP interactions which were more social. Nursing and AHP's are more interprofessional in the way they work	Only looked at medical directorate. Missed interaction between staff out with nurses' station area. Limited to dorm layout of wards. Sample details unclear. Focus only on IPW.
<b>Reid <i>et al.</i> 2006</b>	Validating RIPLS in postgraduate context	<b>UK</b> Primary care staff. GPs, nurses, pharmacy, and AHPs	Quantitative Adapted RIPLS	Medics have stronger sense of professional identity RIPLS is valid tool for measuring postgraduate attitudes to IPE	Staff had previous experience of IPE. Only included staff in primary care. Focus only on IPE.
<b>Robben <i>et al.</i> 2012</b>	Staff attitudes to teamwork before and after a course	<b>Netherlands</b> Primary care based, GPs, nurses, social workers and AHPs	Mixed-methods. Before and after study followed by semi-structured interviews. Very interesting use of verified scales.	Small but significant difference in attitudes to other professions following course but no improvement in attitudes to working in teams. IPE has potential for improving IP attitudes, collaboration skills and collaboration behaviour.	No control group. Effect sizes small. Focus only on IPW.

<b>Author/ Year</b>	<b>Aim (s)</b>	<b>Location &amp; sample details</b>	<b>Study design</b>	<b>Main Findings</b>	<b>Limitations</b>
<b>Russell <i>et al.</i> 2006</b>	Staff and students' attitudes to IPW	<b>Canada</b> Health and social care professions, and students.	Quantitative- 2 surveys Qualitative- semi-structured interviews.	Differences between units in relation to attitudes to IPW. Doctors perceived as primary decision makers. Nurses favoured more collaborative approach. Professional background affects attitudes to IPW.	Study site of 2 units in one hospital. Fewer staff in surgical unit compared to medical unit which had more positive attitudes. Attitudes only to IPW.
<b>Snelgrove and Hughes 2000</b>	Staff perspective of IPW between doctors and nurses	<b>UK</b> Health care professions	Semi-structured telephone interviews	Some changes with traditional views of nurses and doctors' role but changes are slow. Roles perceived as blurred depending on the size of the team and type of speciality. Roles clearly defined by caring and curing although some boundary blurring occurring. Specialised locations – nurses taking on some technical medical tasks.	Only perspective of nurses and doctors. Small sample. Focus only on IPW.
<b>Suter <i>et al.</i> 2009</b>	To explore staff perceptions of competencies for collaborative practice.	<b>Canada</b> Health care professions and admin staff	Individual and group semi-structured interviews.	Understanding roles and appreciation of other roles, lack of communication perceived to effect collaboration. Competencies for collaboration need to be clearer to help in the education of health care students. Communication and role understanding main competencies which educators should focus on.	Small representation from medics and males in sample. Attitudes to IPW and IPL not the main focus, although identifies the barriers to effective IPW. Focus only on IPW.
<b>Wittenberg-Lyles <i>et al.</i> 2010</b>	Staff perceptions of collaboration and observation of collaborative practices	<b>USA</b> Nurses, social workers, Chaplains medical directors, family caregivers	Observation of team meetings and questionnaire (Modified Index of Interdisciplinary Collaboration)	Nurses observed to be most collaborative in meetings compared to other professions. Discrepancies between perceived collaboration and actual collaboration evident through observations. More research needed to look at caregivers' involvement in collaboration. Education in teams required to promote collaboration	Based on one team of staff in one hospice setting. Poor representation of professions- no medical professional. No full return on questionnaires. Focus only on IPW.

## Appendix 4 Copy of Ethics Approval Letter



University of St Andrews

University Teaching and Research Ethics Committee

3 May 2013

Ethics Reference No: Please quote this ref on all correspondence	PS9824
Project Title:	An investigation of the attitudes of health care and social work staff to interprofessional working and interprofessional education for students' learning within the practice placement setting
Researcher's Name:	Veronica O'Carroll
Supervisor:	Dr Martin Campbell

Thank you for submitting your application which was considered at the Psychology & Neuroscience School Ethics Committee meeting on the 24<sup>th</sup> April 2013. The following documents were reviewed:

1.	Ethical Application Form	01/05/2013
2.	Advertisement	24/04/2013
3.	Participant Information Sheet	01/05/2013
4.	Consent Form	24/04/2013
5.	Debriefing Form	24/04/2013
6.	External Permissions	24/04/2013
7.	Questionnaire	24/04/2013
8.	Interview Topics	24/04/2013

The University Teaching and Research Ethics Committee (UTREC) approves this study from an ethical point of view. Please note that where approval is given by a School Ethics Committee that committee is part of UTREC and is delegated to act for UTREC.

Approval is given for three years. Projects which have not commenced within two years of original approval must be re-submitted to your School Ethics Committee.

You must inform your School Ethics Committee when the research has been completed. If you are unable to complete your research within the three year validation period, you will be required to write to your School Ethics Committee and to UTREC (where approval was given by UTREC) to request an extension or you will need to reapply.

Any serious adverse events or significant changes which occur in connection with this study, and/or which may alter its ethical consideration, must be reported immediately to the School Ethics Committee and an Ethical Amendment Form submitted where appropriate.

Approval is given on the understanding that the 'Guidelines for Ethical Research Practice' ([http://www.standrews.ac.uk/media/UTRECguidelines%20Feb%20\(\)8.pdf](http://www.standrews.ac.uk/media/UTRECguidelines%20Feb%20()8.pdf)) are adhered to.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'Mr M. Campbell', is written below the text 'Yours sincerely'.

Convenor of the School Ethics Committee

ccs      Mr M. Campbell (Supervisor)  
            School Ethics Committee

## Appendix 5 PhD Timeline

YEAR 1 November 2012 – August 2013										
Task	Nov	Dec	Jan	Feb	March	April	May	June	July	Aug
Literature review										
Redraft PhD proposal										
Ethical approval										
Identify and test online survey										
Test/retest survey reliability										
Write up literature review										
Begin recruiting participants										
Attend MSc quant and qual lectures			PS5005 & SS5103			PS5005 & SS5103	PS5005 & SS5103			

YEAR 2 September 2013 – August 2014												
Task	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug
Write up literature review												
Recruit participants												
Test/retest survey reliability												
Collect quant data												
Refine interview topic guide												
Collect interview data												
Qual data analysis												
Psycholloquia & work in progress talks (WIP)		WIP					Psycholl					
Submit lit review for publication												
Attend lectures for SS5104	SS5104	SS5104	SS5104	SS5104								
School poster presentation												
Submit 1st year report												

YEAR 3 September 2014 – August 2015												
Task	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug
Attend lectures for SS5003												
Update lit review												
Recruit participants												
Collect questionnaire data												
Transfer data to SPSS												
Collect interview data												
Transcribe interview data												
Qual data analysis												
Quant data analysis												
Write up												
Dissemination and publications									Lit review			

YEAR 4 September 2015 – Nov 2016															
Task	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov
Transcribe interview data															
Qual data analysis															
Quant data analysis															
Write up (submit Nov 2016)															
Dissemination and publications			CAIPE												

## **Study Participants Required Interprofessional Working and Learning Research Study**

- **Are you a health care professional or social worker working within Fife (registered with the GMC, HCPC, NMC or SSSC)?**
- **Do you mentor students on placement/attachment within the workplace?**

**If you have answered yes to both of these questions, you may be suitable to participate in a study.**

This study aims to investigate:

- What health care and social work staff think about working collaboratively?
- What health care and social work staff think about students from different professions learning collaboratively within the placement setting.

Participation will involve completion of an online survey and an optional interview.

If you are interest in taking part and would like to find out some more information, please contact:

*Veronica O' Carroll*  
*PhD Research Student*  
*School of Psychology and Neuroscience,*  
*University of St Andrews, St Andrews, Fife KY16 9JP*  
*Email [vo1@st-andrews.ac.uk](mailto:vo1@st-andrews.ac.uk)*  
*Telephone +44 (0)1382 385074*

## Appendix 7 Copy of Ethics Approval for Amendments



University of St Andrews  
*from first to foremost*

600 YEARS  
1413 – 2013

<b>Project Title</b>	An investigation of the attitudes of healthcare and social work staff to interprofessional working and interprofessional education for students' learning within the practice placement setting
<b>Researcher's Name</b>	Veronica O'Carroll
<b>Supervisor</b>	Dr Martin Campbell
<b>Department/Unit</b>	School of Psychology & Neuroscience
<b>Ethical Approval Code</b> (Approval allocated to Original Application)	PS9824
<b>Original Application Approval Date</b>	01 May 2013
<b>Amendment Application Approval</b>	01 October 2014

### Ethical Amendment Approval

Thank you for submitting your amendment application which was considered by the Psychology & Neuroscience School Ethics Committee on the 1<sup>st</sup> October 2014. The following documents were reviewed:

1. Ethical Amendment Application Form 01/10/2014
2. Advertisement 01/10/2014

The University Teaching and Research Ethics Committee (UTREC) approves this study from an ethical point of view. Please note that where approval is given by a School Ethics Committee that committee is part of UTREC and is delegated to act for UTREC.

Approval is given for three years from the original application only. Ethical Amendments do not extend this period but give permission to an amendment to the original approval research proposal only. If you are unable to complete your research within the original 3 three year validation period, you will be required to write to your School Ethics Committee and to UTREC (where approval was given by UTREC) to request an extension or you will need to re-apply. You must inform your School Ethics Committee when the research has been completed.

Any serious adverse events or significant change which occurs in connection with this study and/or which may alter its ethical consideration, must be reported immediately to the School Ethics Committee, and an Ethical Amendment Form submitted where appropriate.

Approval is given on the understanding that the 'Guidelines for Ethical Research Practice' (<http://www.st-andrews.ac.uk/media/UTRECguidelines%20Feb%2008.pdf>) are adhered to.

Yours sincerely

Convenor of the School Ethics Committee

Ccs School Ethics Committee  
Dr M Campbell (Supervisor)

---

School of Psychology & Neuroscience, St Mary's Quad, South Street, St Andrews, Fife KY16 9JP  
Email: [psyethics@st-andrews.ac.uk](mailto:psyethics@st-andrews.ac.uk) Tel: 01334 462071

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## Appendix 8 Survey Used to Measure Attitudes to IPW, and IPPL for Students

### Attitudes to Interprofessional Working and Learning

This survey is divided into 3 sections:

Section 1 asks some demographic questions about you (9 questions)

Section 2 asks some questions related to working with other professionals (26 questions)

Section 3 asks some questions related to interprofessional learning for students within the practice placement setting (15 questions)

By completing and returning this online survey, you will be giving consent for your data to be used in this research.

#### Demographic Details

These questions will allow us to analyse the results by different demographic characteristics of respondents. Please tick in the box to indicate your response.

##### 1. What is your profession?

- Allied Health Professional (please specify which profession in the text box below)
- Doctor
- Midwife
- Nurse
- Social Worker
- Dual qualification (please specify)
- Other (*please specify*):

**2. Which professional governing body are you registered with?**  
(select all that apply)

- General Medical Council (GMC)
- Health and Care Professions Council (HCPC)
- Nursing and Midwifery Council (NMC)
- Scottish Social Services Council (SSSC)

**3. Please select the area that you work in**

- Primary care
- Secondary care
- Both primary and secondary care
- Fife Council
- Other (*please specify*):

**4. Please state which speciality or department you work in.**

**5. Please indicate how frequently you work with the following professional groups.**

	Frequency				
	Daily	At least once/week	At least once/month	Rarely	Never
<b>a.</b> Allied Health Professions (AHP's)	<input type="radio"/>				
<b>b.</b> Doctors	<input type="radio"/>				
<b>c.</b> Midwives	<input type="radio"/>				
<b>d.</b> Nurses	<input type="radio"/>				
<b>e.</b> Social Workers	<input type="radio"/>				

**6. Do you mentor or supervise students within the practice placement setting?**

- Yes
- No

**7. Gender**

- Male
- Female

**8. How long have you been qualified for?**

- Less than 1 year
- 1-5 years
- 6-10 years
- 11-15 years
- 16-20 years

- 21-25 years
- More than 25 years

**9. Do you have any previous experience of interprofessional learning?**

Interprofessional education is defined as:  
*"when two or more health and social work professions engage in interactive learning activities with a view to improving collaboration and delivery of care".*

- Yes
- No
- I'm not sure

If yes, please indicate if this experience was as a learner or as an educator.

- Learner
- Educator
- Both

## Interprofessional Working

Section 2 will ask you some questions related to working with other professionals.

**Within the context of this study, interprofessional working is defined as:**

**"when health and social work professionals share team identity and work closely together in an integrated and interdependent manner to improve collaboration and the delivery of care".**

Please evaluate work relationships between professionals in the department where you work now.

Read the statements below. Select one response that best describes your opinion about the statement.

**10. Nurses/midwives have a good understanding with doctors about our respective responsibilities.**

- Strongly Disagree
- Disagree
- Agree
- Strongly Agree

**11. Doctors are usually willing to take into account the convenience of nurses/midwives when planning their work.**

Strongly Disagree  Disagree  Agree  Strongly Agree

**12. I feel that patient treatment and care are not adequately discussed between nurses/midwives and doctors.**

Strongly Disagree  Disagree  Agree  Strongly Agree

**13. Nurses/midwives and doctors share similar ideas about how to treat patients.**

Strongly Disagree  Disagree  Agree  Strongly Agree

**14. Doctors are willing to discuss nursing/midwifery issues**

Strongly Disagree  Disagree  Agree  Strongly Agree

**15. Doctors cooperate with the way we organise nursing/midwifery care.**

Strongly Disagree  Disagree  Agree  Strongly Agree

**16. Doctors would be willing to cooperate with new nursing/midwifery practices.**

Strongly Disagree  Disagree  Agree  Strongly Agree

**17. Doctors do not usually ask for nurses/midwives' opinions.**

Strongly Disagree  Disagree  Agree  Strongly Agree

**18. Doctors anticipate when nurses/midwives will need their help.**

Strongly Disagree  Disagree  Agree  Strongly Agree

**19. Important information is always passed on between nurses/midwives and doctors.**

Strongly Disagree  Disagree  Agree  Strongly Agree

**20. Disagreements with doctors often remain unresolved.**

Strongly Disagree  Disagree  Agree  Strongly Agree

**21. Doctors think their work is more important than the work of nurses/midwives**

Strongly Disagree  Disagree  Agree  Strongly Agree

**22. Doctors would not be willing to discuss their new practices with nurses/midwives**

Strongly Disagree  Disagree  Agree  Strongly Agree

**23. Nurses/midwives have a good understanding with AHP's/social workers about our respective responsibilities.**

Strongly Disagree  Disagree  Agree  Strongly Agree

**24. AHP's and social workers are usually willing to take into account the convenience of nurses/midwives when planning their work.**

Strongly Disagree  Disagree  Agree  Strongly Agree

**25. I feel that patient treatment and care are not adequately discussed between nurses/midwives and AHP's/ social workers.**

Strongly Disagree  Disagree  Agree  Strongly Agree

**26. Nurses/midwives and AHP's/social workers share similar ideas about how to treat patients.**

Strongly Disagree  Disagree  Agree  Strongly Agree

**27. AHP's/social workers are willing to discuss nursing/midwifery issues.**

Strongly Disagree  Disagree  Agree  Strongly Agree

**28. AHP's/social workers cooperate with the way we organise nursing/midwifery care.**

Strongly Disagree  Disagree  Agree  Strongly Agree

**29. AHP/social workers would be willing to cooperate with new nursing/midwifery practices.**

Strongly Disagree  Disagree  Agree  Strongly Agree

**30. AHP's/ social workers do not usually ask for nurses/midwives' opinions.**

Strongly Disagree  Disagree  Agree  Strongly Agree

**31. AHP's/social workers anticipate when nurses/midwives will need their help.**

Strongly Disagree  Disagree  Agree  Strongly Agree

**32. Important information is always passed on between nurses/midwives and AHP's/social workers.**

Strongly Disagree  Disagree  Agree  Strongly Agree

**33. Disagreements with AHP's/social workers often remain unresolved.**

Strongly Disagree  Disagree  Agree  Strongly Agree

**34. AHP's/social workers think their work is more important than the work of nurses/midwives.**

Strongly Disagree  Disagree  Agree  Strongly Agree

**35. AHP's/social workers would not be willing to discuss their new practices with nurses/midwives.**

Strongly Disagree  Disagree  Agree  Strongly Agree

## Interprofessional Learning

Section 3 will ask you some questions related to interprofessional education for students within the practice placement setting.

**Within the context of this study, interprofessional learning is defined as: "when students from two or more health and social work professions engage in interactive learning activities with a view to improving collaboration and delivery of care".**

**36. Interprofessional learning will help students think positively about other health care and social work professionals.**

Strongly Disagree  Disagree  Agree  Strongly Agree

**37. Clinical problem-solving can only be learned effectively when students are taught within their individual department/school.**

Strongly Disagree  Disagree  Agree  Strongly Agree

**38. Interprofessional learning before qualification will help health care and social work students to become better team-workers.**

Strongly Disagree  Disagree  Agree  Strongly Agree

**39. Patients would ultimately benefit if health care and social work students worked together to solve patient problems.**

Strongly Disagree  Disagree  Agree  Strongly Agree

**40. Students in my professional group would benefit from working on small group projects with other health care and social work students.**

Strongly Disagree  Disagree  Agree  Strongly Agree

**41. Communication skills should be learned with integrated classes of health care and social work students.**

Strongly Disagree  Disagree  Agree  Strongly Agree

**42. Interprofessional learning will help to clarify the nature of patient problems for students.**

Strongly Disagree  Disagree  Agree  Strongly Agree

**43. It is not necessary for undergraduate health care and social work students to learn together.**

Strongly Disagree  Disagree  Agree  Strongly Agree

**44. Learning with students from other health and social work professions helps undergraduates to become more effective members of a health care team.**

Strongly Disagree  Disagree  Agree  Strongly Agree

**45. Interprofessional learning among health care and social work students will increase their ability to understand clinical problems.**

Strongly Disagree  Disagree  Agree  Strongly Agree

**46. Interprofessional learning will help students to understand their own professional limitations.**

Strongly Disagree  Disagree  Agree  Strongly Agree

**47. For small-group learning to work, students need to trust and respect each other.**

Strongly Disagree  Disagree  Agree  Strongly Agree

**48. Interprofessional learning among health care and social work students will help them to communicate better with patients and other professionals.**

Strongly Disagree  Disagree  Agree  Strongly Agree

**49. Team-working skills are essential for all health care and social work students to learn.**

Strongly Disagree  Disagree  Agree  Strongly Agree

**50. Learning between health care and social work students before qualification would improve working relationships after qualification.**

Strongly Disagree  Disagree  Agree  Strongly Agree

**51.** Please provide any other information which you feel may be relevant to this survey.

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**52. Would you be willing to take part in a follow up interview to discuss some of your responses?**

The interview will take no longer than 30 minutes and can be carried out within your workplace or can be carried out within the University of St Andrews. You will be reimbursed for any travel expenses.

Yes  No

If you are willing to take part in an interview, please provide your contact details in the space below.

Name

Email

Contact telephone number (including extension)

A large, empty rectangular text input field with a thin black border. On the right side, there is a vertical scroll bar with a small rectangular slider and arrowheads at the top and bottom. The field is currently empty and ready for text input.

## Appendix 9 Survey Participant Information Sheet

### Project Title

**An investigation into the attitudes of health care and social work staff to interprofessional working and interprofessional education for students' learning within the practice placement setting.**

### What is the study about?

We invite you to participate in a research project which aims to investigate health care and social work professionals' attitudes to interprofessional working and also to interprofessional education for students' learning within the practice placement setting.

Within the context of this study, interprofessional education is defined as:

**When students from two or more health and/or social care professions engage in interactive learning activities with a view to improving collaboration and delivery of care.**

Interprofessional working is defined as:

**When health and social work professionals share team identity and work closely together in an integrated and interdependent manner to improve collaboration and the delivery of care.**

This study is being conducted as part of my PhD Thesis in the School of Psychology and Neuroscience, University of St Andrews.

### Do I have to take part?

This information sheet has been written to help you decide if you would like to take part. It is up to you and you alone whether or not to take part. If you do decide to take part you will be free to withdraw at any time without providing a reason.

### What would I be required to do?

You will be asked to complete a survey which contains approximately 50 questions in total that we anticipate will take 20 minutes to complete. One part of the survey will collect information about your attitudes to interprofessional working using a measurement scale for interprofessional collaboration. The other part of the survey will evaluate your attitudes to interprofessional education for students learning within the practice placement setting (using an adapted version of the Readiness for Interprofessional Learning Scale – RIPLS). Following the survey, you will have the option to take part in an interview. Further information will be provided to individuals who agree take part in the interview.

### **Will my participation be anonymous and confidential?**

All data gathered during this research will be anonymised. It will not be possible to identify you from the information that you provide in the survey and you will not be identified in any published data.

### **Storage and destruction of data collected**

The data we collect will only be accessible to the researcher, the research supervisor and authorities who may need to monitor the research. All data gathered during this research will be anonymised and securely stored and in a designated location for the storage of research data at the University of St Andrews. All data will be destroyed after a period of 3 years.

### **What will happen to the results of the research study?**

The results will be finalised by 2016 and written up as part of my PhD Thesis

### **Are there any potential risks to taking part?**

There are no potential risks to taking part. However, if you feel that you have been adversely affected by any of the questions or the interview during this study, then there are additional sources of support that you can contact. These are provided at the end of this form and also in the debriefing form.

### **Questions**

You will have the opportunity to ask any questions in relation to this project before taking part.

Should you have any further questions, please contact the researcher or the research supervisor. Their contact details are provided below.

### **Consent and approval**

By completing and returning the online survey, you will be giving consent for your data to be used in this research.

This research proposal has been scrutinised and been granted Ethical Approval through the University ethical approval process and has been registered with NHS Fife Research and Development.

### **What should I do if I have concerns about this study?**

A full outline of the procedures governed by the University Teaching and Research Ethical Committee is available at <http://www.st-andrews.ac.uk/utrec/Guidelines/complaints/>

## **Contact Details**

Researcher: Veronica O'Carroll  
Contact Details: vo1@st-andrews.ac.uk  
Tel: +44 (0)1382 385074

Supervisor: Dr Martin Campbell  
Contact Details: mc1@st-andrews.ac.uk  
Tel: +44 (0)1334 462084

## **Sources of Support**

(Name of Health Board) Human Resources Department (website for  
Human Resources Department)  
Occupational Health and Safety Advisory Service (OHSAS) [www.ohsas.org](http://www.ohsas.org)

## Appendix 10 Interview Participant Information Sheet



### Project Title

**An investigation into the attitudes of health care and social work staff to interprofessional working and interprofessional education for students' learning within the practice placement setting.**

### What is the study about?

You are invited to participate in a research project which aims to investigate health care and social work professionals' attitudes to interprofessional working and also to interprofessional education for students' learning within the practice placement setting.

Within the context of this study, interprofessional education is defined as:

**When students from two or more health and/or social care professions engage in interactive learning activities with a view to improving collaboration and delivery of care.**

Interprofessional working is defined as:

**When health and social work professionals share team identity and work closely together in an integrated and interdependent manner to improve collaboration and the delivery of care.**

This study is being conducted as part of my PhD Thesis in the School of Psychology and Neuroscience, University of St Andrews.

### Do I have to take part?

This information sheet has been written to help you decide if you would like to take part. It is up to you and you alone whether or not to take part. If you do decide to take part you will be free to withdraw at any time without providing a reason.

### What would I be required to do?

You will be asked to take part in an interview with the researcher to further explore some of the questions from the recent survey which you completed as part of this study. The interview will take no longer than 30 minutes and can be carried out within your workplace or can be carried out within the University of St Andrews. The researcher will arrange a suitable time and location with you for the interview to be carried out. With your consent, this interview will be audio recorded and notes will be taken by the researcher.

### **Will my participation be anonymous and confidential?**

All data gathered during this research will be anonymised. It will not be possible to identify you from the information that you provide in the interview and you will not be identified in any published data.

### **Storage and destruction of data collected**

The data collected will only be accessible to the researcher, the research supervisor and authorities who may need to monitor the research. All data gathered during this research will be anonymised and securely stored and in a designated location for the storage of research data at the University of St Andrews. All data will be destroyed after a period of 3 years.

### **What will happen to the results of the research study?**

The results will be finalised by 2016 and written up as part of my PhD Thesis

### **Are there any potential risks to taking part?**

There are no potential risks to taking part. However, if you feel that you have been adversely affected by any of the questions or the interview during this study, then there are additional sources of support that you can contact. These are provided at the end of this form and also in the debriefing form.

### **Questions**

You will have the opportunity to ask any questions in relation to this project before taking part.

Should you have any further questions, please contact the researcher or the research supervisor. Their contact details are provided below.

### **Consent and approval**

This research proposal has been scrutinised and been granted Ethical Approval through the University ethical approval process and has been registered with the appropriate Research and Development departments for the health board and local authority.

If you agree to participate in the interview, you will be asked to complete a consent form prior to the interview taking place.

## **What should I do if I have concerns about this study?**

A full outline of the procedures governed by the University Teaching and Research Ethical Committee is available at <http://www.st-andrews.ac.uk/utrec/Guidelines/complaints/>

## **Contact Details**

Researcher: Veronica O'Carroll  
Contact Details: vo1@st-andrews.ac.uk  
Tel: +44 (0)1382 385074

Supervisor: Dr Martin Campbell  
Contact Details: mc1@st-andrews.ac.uk  
Tel: +44 (0)1334 462084

## **Sources of Support**

(Name of Health Board) Human Resources Department (website address for Human Resources)  
Occupational Health and Safety Advisory Service (OHSAS) [www.ohsas.org](http://www.ohsas.org)

## Appendix 11 Interview Consent Form

### Project Title

*An investigation in to the attitudes of health care and social work staff to interprofessional working and interprofessional education for students' learning within the practice placement setting.*

#### Researcher Name

Veronica O'Carroll  
vo1@st-andrews.ac.uk  
Tel: +44 (0)1382 385074

#### Supervisors Names

Dr Martin Campbell  
mc1@st-andrews.ac.uk  
Tel: +44 (0)1334 462084

The University of St Andrews attaches high priority to the ethical conduct of research. We therefore ask you to consider the following points before signing this form. Your signature confirms that you agree to participate in the study. Signing this form does not commit you to anything you do not wish to do and you are free to withdraw from the study at any stage.

The data gathered during this research will be securely stored in a designated location for the storage of research data at the University of St Andrews. All of the data will be treated as confidential and anonymised when reported. The researcher, research supervisor and authorities, who may need to monitor the research, will be the only individuals who will have access to this data. All data will be destroyed after a period of 3 years.

**Please read each statement below and write your initials in the boxes provided to indicate that you are in agreement.**

I have read and understood the information sheet.	
I have had an opportunity to ask questions about my participation.	
I understand that I am under no obligation to take part in this study	
I understand that I have the right to withdraw from this study at any stage without giving any reason	
I consent to the audio recording of the interview which will take place with the researcher	
I understand that it will not be possible to identify me from the information that I provide in the interview or from any quotes that are used as part of the writing up of the study.	
I agree to participate in this study	

Please initial

#### To be completed by person giving consent researcher

Name \_\_\_\_\_

Date \_\_\_\_\_

Signature

#### To be completed by the participant

Name \_\_\_\_\_

Date \_\_\_\_\_

Signature

## Appendix 12 Interview Transcription Guidance

### Guidelines for Transcribing Interviews

Thank you for agreeing to assist with the interview transcriptions. This study is being conducted as part of my PhD thesis in the School of Psychology and Neuroscience in the University of St Andrews. The study aims to investigate health care and social work professionals' attitudes to interprofessional working and also to interprofessional education for students' learning within the practice placement setting. Ethical approval has been granted by St Andrews University Teaching and Research Ethics Committee (UTREC) and the study is registered with NHS Fife Research and Development Department. As part of the data collection, participants have been asked to take part in a face to face interview with the researcher. Due to the sensitive nature of this data, you are required to sign a confidentiality agreement to confirm that you will adhere to the principles of anonymity and confidentiality.

The following provides guidance for the format required in transcribing the interviews. Please also refer to the example transcription provided.

- Arial 12 font.
- Justified alignment of text.
- 1.5-line spacing (Double space between speakers).
- Include the participant number at the top left hand side of page.
- Include the page numbers bottom right of page (in footer).
- Speakers indicated by the word "Researcher" (in bold): followed by transcription of researcher's words.
- Participant (in bold): followed by transcription of participant's words
- Punctuation as per normal written prose.
- Verbatim but without conversational fillers such as 'errs' and 'ums'. It is not necessary to include words such as 'yeah', mmm spoken by the researcher to encourage the participant if it does not add anything to what is being said.
- Grammar as spoken (please do not correct).

- Use pseudonyms to anonymise personal identifying information.
- Highlight anything which is not understood or inaudible so that the researcher can clarify.
- Include any unfinished sentences, pauses or phrases that trail off with the use of ellipses (e.g. It was just like, you know.....)
- Include any comments on tone or mood in brackets (e.g. muffled laugh or sounds angry, sighs).
- Note any external sounds in brackets, (e.g. a knock on the door or another person entering the room).
- Use uppercase for any apparent acronyms used (e.g. NHS).
- Use quotation marks where it is clear that participant is expressing speech (e.g. **Participant:** We were sitting there and she said “I don’t know about you but I feel the same way” and I just looked at her).
- Include any discussion that continues after it appears that the interview has finished.

Please email the completed transcription to myself, Veronica O’ Carroll [vo1@st-andrews.ac.uk](mailto:vo1@st-andrews.ac.uk). On receipt of this, I will contact you to confirm that you can delete and destroy the interview in all forms (word and sound file).

Please do not hesitate to contact me if you have any questions or if any of the guidelines require clarification

### **Researcher**

Veronica O’Carroll    [vo1@st-andrews.ac.uk](mailto:vo1@st-andrews.ac.uk)

School of Psychology and Neuroscience, University of St Andrews

Tel: +44 (0)1382 385074

### **Supervisor**

Dr Martin Campbell    [mc1@st-andrews.ac.uk](mailto:mc1@st-andrews.ac.uk)

School of Psychology and Neuroscience, University of St Andrews

Tel: +44 (0)1334 462084

## Example Transcription

**Researcher:** So your role in social work with students. Do you have students come out with you to the workplace?

**Participant:** Yeah. We have not had a student in a long time because we have not had a practice teacher. I am undergoing my training just now actually and it's about a year just to do that so that we can train the students up. We will be getting a student in January, (laughs) our team are so thrilled but the students that have been in other agencies have come because there is a prerequisite that they do a piece of child care type thing or an assessment for a child or an assessment on a parent so often students will link in with the team.

**Researcher:** And this is social work students?

**Participant:** Yeah, ah ha, social work students and they would link in with the team but wouldn't necessarily be on placement in the team per se. They might be in adults or they might be in criminal justice or they might be.... They could be in different bits but they have to in order to pass have to have done a piece or work so that's when you will find that they will link in with us but that's only because we have not had a practice teacher to be a placement to have the student there for 6 months or 3 months whatever but that's what I am doing, just now, my training on that.

**Researcher:** And are you aware of any students, say for instance if you are working with health visitors or GPs are you ever aware that there are students with them at the same time as maybe you have a student.

**Participant:** Yeah, sometimes we had a review recently for a young girl who is open to me and the Dr .... up at CAMHS.

## **Appendix 13 Interview Topic Guide**

### **Script for interviewer**

Thank you for agreeing to take part in this interview.

The purpose of this interview is to discuss your thoughts on interprofessional working and on interprofessional education for students within the practice placement location. To reiterate the information that you have received about the study prior to giving consent, I would like to remind you that the interview will be audio recorded and notes will be taken throughout. Your participation in this study will be kept confidential and all information that you provide will not contain any identifying information to link you this study. It is anticipated that this interview will last no longer than 30 minutes.

Before we begin, do you have any questions?

Do you consent for this interview to proceed?

Do you consent for this interview to be audio recorded?

### **Opening question**

You completed an online survey related to your thoughts on IPW, and IPPL for students. As a reminder of what these terms mean, IPW is related to different professions working collaboratively together in practice. IPPL is related to students from different professions learning together in practice.

Can you tell me a little bit about where your work at the moment and which professions you usually work with on a regular basis?

(If had previous experience of IPE) Can you provide some more information about these experiences as either a facilitator or as a learner yourself?

### **Guide topics as discussion unfolds**

Factors enabling interprofessional working in the practice setting

Factors preventing interprofessional working in the practice setting

Opportunities in the practice placement location for students to be involved in IPPL

Factors enabling IPPL in the practice placement location

Factors preventing IPPL in the practice placement location

Previous experience of IPE

## Appendix 14 Debriefing Information Sheet



### Project Title

*An investigation in to the attitudes of health care and social work staff to interprofessional working and interprofessional education for students' learning within the practice placement setting.*

#### Researcher's Name

Veronica O'Carroll

#### Supervisor's Name

Dr Martin Campbell

### Nature of Project

This postgraduate research project was conducted to investigate health care and social work professionals' attitudes to interprofessional working and also to interprofessional education for students learning within the practice placement setting. The health care setting provides a valuable opportunity for students to engage in shared learning within students from other professions and to observe health care teams working effectively together. However, some studies have highlighted that students' experiences within this setting can be varied, with little value placed on shared learning opportunities and a lack of positive role modelling in relation to collaborative working. Whilst some research has explored the attitudes of academic staff to interprofessional education and interprofessional working, there is limited research related to the attitudes of staff working within the health care environment. This study aimed to investigate whether there are differences in the way that health and social care professions value interprofessional working and learning and if so, whether there are certain variables which are correlated to either positive or negative attitudes to interprofessional working and learning.

### Storage of Data

As outlined in the Participant Information Sheet your data will now be retained for a period of 3 years before being destroyed. Your data will remain accessible to only the researchers and supervisors.

### What should I do if I have concerns about this study?

A full outline of the procedures governed by the University Teaching and Research Ethical Committee are outline on their website <http://www.st-andrews.ac.uk/utrec/Guidelines/complaints/>

## **Contact Details**

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## **Sources of Support**

NHS Fife Human Resources Department [www.nhsfife.org](http://www.nhsfife.org)  
Occupational Health and Safety Advisory Service (OHSAS) [www.ohsas.org](http://www.ohsas.org)

## **Appendix 15 Excerpt from a Research Diary: Personal Reflections on the Rationale for the Study**

The rationale for this thesis arose partly from my personal experiences of IPW in practice as a student nurse, a qualified nurse, and as a coordinator of IPPL whilst working within a university setting. As a student nurse, I recall observing a dietician during her assessment of a service user's nutritional intake, and observing an occupational therapist assessing a service user's home prior to their discharge from hospital. My knowledge of the roles and responsibilities of other professions occurred, as described by Stew (2005), through a passive process of osmosis. This provided little preparation for working with a range of different professions as a newly qualified nurse. On reflection, it took at least five years of working as a qualified nurse in different contexts, before I became confident of the roles and responsibilities of my colleagues from other professions with whom I worked, or indeed before I understood how health care teams worked. These experiences stimulated my interest in IPE as a way of preparing students from different health professions to work together in their future careers, by learning interactively together. Furthermore, my experiences as a qualified nurse and practice mentor raised my awareness of opportunities for IPPL and the value of learning within a relevant context.

In my role as an IPPL coordinator, the learning opportunities organised with students in practice settings very much relied on the support of practice mentors, and students undertaking placements. During the activities, students often made comparisons with their previous experiences of IPE. Previous studies have reported that students' experiences of IPPL are positive (Morison and Jenkins, 2007; Robson and Kitchen, 2007) and that IPPL is sometimes more favourable to IPE experiences within the academic setting (Morison, Boohan, Jenkins and Moutray, 2003). As highlighted by the following quote from a medical student, regardless of where IPE occurs, it is important to be mindful of the relevance of IPPL activities for the students involved, the skills of the facilitator, and how students are made to feel during the process of IPE. This can impact on students' learning, and possibly their attitudes to IPE to IPW:

*“Educators can sometimes make a big deal of bringing students together from different professions. The facilitator says, ‘These are the nursing student’s or these are the physio students and you must be nice to them,’ as if implying that we don’t get on. I don’t think we will have any issues working together in the future, as sessions like these encourage us to get to know each other better.” (Medical Student)*

Whilst coordinating these opportunities, it was evident that positive or negative attitudes, as well as practical issues often affected their success. Some practice mentors expressed concerns regarding the need for students to achieve other competencies during their placement. IPPL was at times not deemed as a priority over other learning opportunities. Due to staff shortages in some areas, practice mentors were often reluctant to release students from departments as their help was required with the workload. In some experiences, the practicalities and logistics of setting up IPPL meant that it was difficult to provide this opportunity. For example, there were some placement areas where it was not possible to host a placement for more than one student at a time, due to the size of the team or number of practice mentors.

The logistical difficulties of coordinating student timetables from different programmes of training, uncertainty of the value of IPE, and negative attitudes of staff have been identified as other reasons why support for IPE within the academic setting falters (Freeth, Hammick, Reeves, Koppel, and Barr, 2005; Curran, Sharpe and Forristall, 2007; Rees and Johnson, 2007). However, these are challenges that have been identified within the academic setting. Whilst these personal reflections have provided some anecdotal evidence of the barriers to IPPL, there is a possibility that practice mentors may have similar ambivalent attitudes to IPPL and perhaps similar attitudes to IPW.

Between 2009 and 2011, a programme of interprofessional clinical skills education within the practice setting was run within the health board. These interprofessional activities were designed to provide flexible, accessible and relevant opportunities of engaging students in interactive activities which complement their prior experiences of IPL. The aim of the programme was to make more efficient use of clinical placements by developing opportunities for

interprofessional clinical skills education within the workplace-based clinical attachments.

Evaluation of this pilot provided the opportunity to evaluate these learning opportunities and gain the student's experience of IPPL (O'Carroll, Braid, Ker, and Jackson, 2012). For the coordinator, this experience provided insight into a variety of different challenges related to planning IPPL. The varying systems and processes that HEIs use for managing their practice placement locations for students. For some HEI's, placement locations varied on a year to year basis, the number of students allocated to placement locations varied from month to month, and there were differences in how long advance the placement location or HEI would know when and where their students' placement were.

A sign up system provided one way of overcoming this particular challenge of not being able to predict in advance when and where an adequate interprofessional mix of students were located in practice. This system encouraged students to volunteer to participate in the IPPL activities, and encouraged practice mentors and HEIs to endorse the sessions. The coordinator faced the challenge of managing situations where some students who had signed up for the session did not attend and also students attended without having signed up in advance. This posed a challenge in ensuring an adequate interprofessional mix of students. On following up a number of students who did not participate in the activities, they identified that their focus this was on assessment and final exams. For the coordinator, this highlighted some important issues to consider in future planning of a programme, the programmes timing with other activities for all students. It also highlighted an important consideration of endorsing IPPL through assessment.

## Appendix 16 Excerpt from the Thematic Analysis of the Interview Data

Participant Identifier	Organisational Culture	Lack of Motivation	Learning Perceived as Interprofessional	Missed opportunities for IPPL	Practicalities and coordination	Lack of resources	Uncertainty of value
Interview 6 GP Community	A cultural perception that medics have to learn about medicine, nurses have to learn about nursing and the social workers have to learn about social work.	There isn't a concerted effort to bring them together somehow.	I could see that a GP with a medical student if they heard about a social work case might say "oh that's really interesting, go and spend a day with a social worker but	Often there will be a nursing student or a social work student and a medical student but they kind of all come and all go off to do their own separate thing.	People are on different timetables, people in the same place at the same time.	Different shift times. Everyone involved in trying to plan it.	
Interview 16 Midwife Acute	Doctors don't always listen and they like to think they know best.	Motivation from students. Sometimes they do it, sometimes they don't bother.  We will never have the midwifery sister saying, 'Let's have everyone in here'.	I sit on group formed setting a direction, working group, so there's been exposure there.	We don't usually have student midwives going on the ward round. They're only involved, if the obstetrician goes into the delivery room doesn't happen and I wish it would but it doesn't.	If you have a first year student midwife, yeah that's fine, you might be able to take medical students in, but if you have a third year student midwife, it's maybe not really feasible to take medical students in.	We don't have huge, you know, lots of teaching space in here  Staff are just so busy. They don't have time to meet their own learning needs.	The midwives don't see that as important.

## Appendix 17: Skewness and Kurtosis Values, and Associated z-scores for Attitudes to IPW

Table I. Governing body and the distribution of data for IPW

	<b>Sub-scale</b>	<b>Skewness</b>	<b>SE</b> Skewness	<b>Z</b> Skewness	<b>Kurtosis</b>	<b>SE</b> Kurtosis	<b>Z</b> Kurtosis
GMC	Communication	-1.008	.491	-2.05	3.098	.953	3.25
	Accommodation	-2.344	.491	-4.77	8.740	.953	9.17
	Isolation	-.582	.491	-1.18	1.193	.953	1.25
HCPC	Communication	-.556	.501	-1.11	-.433	.972	-.44
	Accommodation	-.065	.501	-.13	-.032	.972	-.33
	Isolation	-.382	.501	-.76	-.632	.972	-.65
NMC	Communication	.207	.398	.52	-.566	.778	-.73
	Accommodation	-.306	.398	-.77	.924	.778	1.19
	Isolation	-1.164	.398	-2.92	1.865	.778	2.40

Table II. Gender and the distribution of data for IPW

	<b>Sub-scale</b>	<b>Skewness</b>	<b>SE</b> Skewness	<b>Z</b> Skewness	<b>Kurtosis</b>	<b>SE</b> Kurtosis	<b>Z</b> Kurtosis
Male	Communication	-.799	.472	-1.69	3.746	.918	4.08
	Accommodation	-1.503	.472	-3.18	3.955	.918	4.31
	Isolation	-.557	.472	-1.18	1.21	.918	1.32
Female	Communication	-.147	.325	-0.45	-.563	.639	-0.88
	Accommodation	-.288	.325	-0.89	1.061	.639	1.66
	Isolation	-.426	.325	-1.31	.305	.639	0.48

Table III. Area of work and the distribution of data for IPW

	<b>Sub-scale</b>	<b>Skewness</b>	<b>SE</b> Skewness	<b>Z</b> Skewness	<b>Kurtosis</b>	<b>SE</b> Kurtosis	<b>Z</b> Kurtosis
Community	Communication	-1.104	.361	-3.06	3.662	.709	5.16
	Accommodation	-1.350	.361	-3.74	3.953	.709	5.57
	Isolation	-1.444	.361	-4.00	2.810	.709	3.96
Acute	Communication	.217	.448	.60	-.235	.827	-.28
	Accommodation	-.131	.448	-.29	.665	.827	0.80
	Isolation	.054	.448	.12	.567	.872	.65

Table IV. Number of years qualified and the distribution of data for IPW

	<b>Sub-scale</b>	<b>Skewness</b>	<b>SE</b> Skewness	<b>Z</b> Skewness	<b>Kurtosis</b>	<b>SE</b> Kurtosis	<b>Z</b> Kurtosis
1-10 years	Communication	-.549	.616	-.89	-.604	1.191	.51
	Accommodation	-1.378	.616	-2.24	1.085	1.191	.91
	Isolation	-1.289	.616	-2.09	.606	1.191	.51
11-15 years	Communication	1.028	.536	1.92	1.295	1.038	1.25
	Accommodation	-.364	.536	-.68	-.156	1.038	-.15
	Isolation	.674	.536	1.26	2.068	1.038	1.99
16-20 years	Communication	.30	.687	.44	-1.024	1.334	-.77
	Accommodation	-2.212	.687	-3.22	5.769	1.334	4.32
	Isolation	-1.241	.687	-1.81	.946	1.334	.71
21-25 years	Communication	-.652	.661	-.99	.308	1.279	.24
	Accommodation	-1.682	.661	-2.54	5.051	1.279	3.95
	Isolation	-.144	.661	-.22	.661	1.279	.52
More than 25 years	Communication	.101	.456	.22	-.286	.887	-.32
	Accommodation	.030	.456	.06	1.469	.887	1.66
	Isolation	-.325	.456	-.71	-.353	.887	-.40

Table V. Prior experience of IPE and distribution of data for IPW

	<b>Sub-scale</b>	<b>Skewness</b>	<b>SE</b> Skewness	<b>Z</b> Skewness	<b>Kurtosis</b>	<b>SE</b> Kurtosis	<b>Z</b> Kurtosis
Prior IPE experience	Communication	-.557	.306	-1.82	1.746	.604	2.89
	Accommodation	-1.267	.306	-4.14	5.041	.604	8.35
	Isolation	-.392	.306	-1.28	1.051	.604	1.74.
No prior IPE experience	Communication	-.409	.597	-.68	.507	1.154	.44
	Accommodation	-.679	.597	-1.14	1.114	1.154	.96
	Isolation	-1.466	.597	-2.45	3.526	1.154	3.05

Table IV. Type of IPE experience and distribution of data for IPW

	<b>Sub-scale</b>	<b>Skewness</b>	<b>SE</b> Skewness	<b>Z</b> Skewness	<b>Kurtosis</b>	<b>SE</b> Kurtosis	<b>Z</b> Kurtosis
IPE as a learner	Communication	-.739	.564	-1.31	-.457	1.091	-0.42
	Accommodation	.200	.564	.35	-1.548	1.091	-1.42
	Isolation	-.494	.564	-.87	-.724	1.091	-.66
IPE as an educator	Communication	-1.163	.637	-1.82	3.172	1.232	2.57
	Accommodation	-1.821	.637	-2.85	5.362	1.232	4.35
	Isolation	-1.398	.637	-2.19	2.46	1.232	2.00
IPE as a learner and educator	Communication	.131	.409	.32	-.326	.798	-.41
	Accommodation	-.584	.409	-1.32	1.051	.798	1.32
	Isolation	-.47	.409	-.36	1.222	.798	1.53
Neither experience as a learner or	Communication	-.409	.597	-.68	-.057	1.154	-.05
	Accommodation	-.679	.597	-1.14	-1.114	1.154	-.96
	Isolation	-1.466	.597	-2.45	3.526	1.154	3.055

## Appendix 18 Skewness and Kurtosis Values, and Associated z-scores for Attitudes to IPPL for Students

Table I. Governing body and the distribution of data for IPPL

	<b>Sub-scale</b>	<b>Skewness</b>	<b>SE Skewness</b>	<b>Z Skewness</b>	<b>Kurtosis</b>	<b>SE Kurtosis</b>	<b>Z Kurtosis</b>
GMC	Teamwork and collaboration	-.151	.491	-.307	-.047	.953	-.0493
	Professional identity	.508	.491	1.035	-.140	.953	-.147
HCPC	Teamwork and collaboration	-1.300	-.501	-1.801	2.740	.972	2.819
	Professional identity	-.426	-.501	-.927	-.060	.972	-.062
NMC	Teamwork and collaboration	.476	.398	.950	-.864	.778	-1.110
	Professional identity	.384	.398	.965	-.027	.778	.035

Table II. Gender and the distribution of data for IPPL

	<b>Sub-scale</b>	<b>Skewness</b>	<b>SE Skewness</b>	<b>Z Skewness</b>	<b>Kurtosis</b>	<b>SE Kurtosis</b>	<b>Z Kurtosis</b>
Male	Teamwork and collaboration	-.024	.472	-.051	-.889	.918	-.968
	Professional identity	.234	.472	.496	-.646	.918	-.704
Female	Teamwork and collaboration	-.799	.325	-2.458	2.399	.639	3.754
	Professional identity	-.008	.325	-.024	.093	.639	.145

Table III. Area of work and the distribution of data for IPPL

	<b>Sub-scale</b>	<b>Skewness</b>	<b>SE</b> Skewness	<b>Z</b> Skewness	<b>Kurtosis</b>	<b>SE</b> Kurtosis	<b>Z Kurtosis</b>
Community	Teamwork and collaboration	-.693	.361	-1.920	2.754	.709	3.884
	Professional identity	.132	.361	.209	.747	.709	1.053
Acute	Teamwork and collaboration	-.479	.448	-1.07	-.355	.872	-.407
	Professional identity	-.077	.448	-0.172	-.785	.872	-.932

Table IV. Number of years qualified and the distribution of data for IPPL

	<b>Sub-scale</b>	<b>Skewness</b>	<b>SE</b> Skewness	<b>Z</b> Skewness	<b>Kurtosis</b>	<b>SE</b> Kurtosis	<b>Z Kurtosis</b>
1-10 years	Teamwork and collaboration	.525	.616	.852	-.879	1.191	-.738
	Professional Identity	-.012	.616	-.019	-.180	1.191	-.151
11-15 years	Teamwork and collaboration	-.484	.536	-.903	-1.089	1.038	-1.049
	Professional Identity	-.108	.536	-.201	-1.762	1.038	-1.697
16-20 years	Teamwork and collaboration	-1.334	.687	-1.942	2.844	1.334	2.132
	Professional Identity	-.424	.687	-.617	1.791	1.334	1.342
21-25 years	Teamwork and collaboration	.130	.661	.197	-.391	1.279	-.306
	Professional Identity	.123	.661	.186	.657	1.279	.514
More than 25 years	Teamwork and collaboration	-.098	.456	-.215	.621	.887	.700
	Professional Identity	.069	.456	.151	.120	.887	.135

Table V. Prior experience of IPE and distribution of data for IPPL

	Sub-scale	Skewness	SE	Z	Kurtosis	SE	Z Kurtosis
			Skewness	Skewness		Kurtosis	
Previous experience of IPE	Teamwork and collaboration	.028	.306	.0915	-.518	.604	-.858
	Professional Identity	.310	.306	1.013	-.493	.604	-.816
No Previous experience of IPE	Teamwork and collaboration	-1.050	.597	-1.759	2.634	1.154	2.282
	Professional Identity	-.348	.597	.583	1.173	1.154	1.016

Table VI. Type of IPE experience and distribution of data for IPPL

	Sub-scale	Skewness	SE	Z	Kurtosis	SE	Z Kurtosis
			Skewness	Skewness		Kurtosis	
Learner	Teamwork and collaboration	.984	.564	1.745	-.551	1.091	-.505
	Professional Identity	1.450	.564	2.571	1.099	1.091	1.007
Educator	Teamwork and collaboration	.125	.637	.196	-.194	1.232	-.157
	Professional Identity	.750	.637	1.177	-.085	1.232	-0.069
Both	Teamwork and collaboration	-.129	.409	-.315	-.829	.798	-1.039
	Professional Identity	-.122	.409	-.298	-.577	.798	-.723
Neither	Teamwork and collaboration	-1.050	.597	-1.759	2.634	1.154	2.282
	Professional Identity	-.348	.597	-.583	1.173	1.154	1.016