An examination of interprofessional education within the pre-registration Bachelor of Science Honours Nursing (Children's) programme

A qualitative research study commissioned by Health England North Central and East London Local Education and Training Board [HE NCEL LETB] and undertaken jointly by the University of Hertfordshire and HE NCEL

Research Team:
Dr. Lisa Whiting, Professional Lead, Children's Nursing, University of Hertfordshire
Elizabeth Akers, Darzi Fellow in Nursing Education, Health Education North Central and East London

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Address for correspondence:
Dr. Lisa Whiting,
Professional Lead, Children's Nursing,
University of Hertfordshire,
2F284, Wright Building,
College Lane,
Hatfield,
Hertfordshire,
AL10 9AB

L.Whiting@herts.ac.uk

Disclaimer:
This report presents an independent research study commissioned by Health England North Central and East London Local Education and Training Board [HE NCEL LETB] and undertaken by the University of Hertfordshire. The views and opinions expressed by authors in this publication are those of the authors and do not necessarily reflect those of the NHS or HE NCEL.

Table of Contents

Tables within the Text

Figures within the Text

Appendices

Acknowledgements

The research team gratefully acknowledge the contributions made by the following people, without their participation and involvement, the project would not have been feasible:

Executive Summary

Background

There is now a wealth of literature that has considered interprofessional education [IPE] within the context of a range of health professions (for example: Glen and Reeves, 2004; Cooper et al, 2005; Hoffman and Harnish, 2007; Barr et al, 2014). It has been suggested that the benefits of interprofessional education include the enabling of a collaborative professional approach within practice (Craddock et al, 2006) as well as an enhanced appreciation of the patient's perspective (Blickerm and Priyadharshini, 2007). It is clear that there is now an expectation that health professionals will be able to work interprofessionally (Chan et al, 2013) and, as a result, there has been consideration about how and where interprofessional education should take place – there have been suggestions that it is best located within clinical settings (Gordon et al, 2010) whilst others have advocated combined strategies that also include classroom-based education (Morison et al, 2003).

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Research focus

This report summarises the findings of a qualitative research study, entitled: *An examination of interprofessional education within the pre-registration Bachelor of Science Honours Nursing (Children's) programme*, that was commissioned by Health England North Central and East London Local Education and Training Board [HE NCEL LETB] in March 2015 and undertaken jointly by the University of Hertfordshire and HE NCEL between March 2015 and September 2015.

The overall aim of the study was to gain insight into the:

> *Understanding and perceptions of children's nursing students, lecturers and clinically based children's nurses (who act as mentors) in relation to interprofessional education* [IPE] *and its potential impact on the care delivered to children, young people and families.*

In addition, the research team developed the following objectives in order to refine the focus of the project:

Objectives:

- *To utilise qualitative data collection approaches to enhance insight of IPE and its potential impact on the care delivered to children, young people and families.*

- *To ascertain the views of lecturers and Bachelor of Science* [BSc] *Honours* [Hons] *Nursing (Children's) students from the University of Hertfordshire* (a Higher Education Institution that is contracted to by HE NCEL).

- *To seek the views of clinically-based children's nurses who acted as mentors to BSc Hons Nursing (Children's) students from the University of Hertfordshire, and, who were working within the HE NCEL geographical area.*

Methods

The exploratory nature of this research guided the approaches used with qualitative methods being drawn on to obtain data via:

- Three mini focus groups with a total of seven BSc Hons Nursing (Children's) students from the University of Hertfordshire.

- Semi-structured interviews with eight lecturers from the University of Hertfordshire who were involved in the delivery of IPE across the undergraduate health and social work programmes.

- Semi-structured interviews with three clinically-based children's nurses who acted as mentors to BSc Hons Nursing (Children's) students from the University of Hertfordshire, and, who were working within the HE NCEL geographical area.

Key findings

Summary of the findings from the mini focus groups with the BSc Hons Nursing (Children's) students

- The value of the IPE theoretical modules (offered at academic Levels 4 and 6), and the opportunity for children's nursing students to work with peers who were studying other health and social work programmes, was recognised by all who participated in the mini focus groups. Whilst the modules were not without some logistical challenges, there were very positive comments from the students about how they had gained insight into the roles and responsibilities of a wide range of other professional groups; in addition, the importance of interprofessional communication was highlighted.

- Learning about the work of other professionals had, in all cases, confirmed to the children's nursing students that they had chosen the correct career pathway.

- All students had participated in IPE within a practice setting; however, this was normally under the guise of more generic learning. The experience in clinical environments was perceived to provide insight into "*actual interprofessional working*" [Angie, 2nd year student].

- IPE in practice was actively facilitated by the children's nursing mentors who suggested, and actively arranged, learning opportunities for students; once again, this was part of the overall student learning experience and was not normally identified as 'IPE'.

- The children's nursing students raised some points in relation to the IPE module delivery; suggestions for how this could be enhanced were made and included,

for the academic Level 6 IPE module: A broader range of professional groups, the incorporation of interprofessional simulation and the re-structuring of the one week study 'blocks'.

Summary of the findings from the semi-structured interviews with lecturers

- The participants all had substantive expertise as lecturers and displayed a motivated and committed approach to the delivery of the IPE modules, many commenting on how much they enjoyed being involved.

- Lecturers generally felt that IPE modules should be integrated throughout the undergraduate programmes so that there was a clear 'thread' across the years of study. There were some differences of opinion about whether the academic Level 4 module should be delivered in Semester A (September to January) or Semester B (January to June) of each academic year.

- The key skill that emerged as being of fundamental importance in terms of the IPE modular delivery was that of facilitation.

- IPE was very much valued by the participants and there was an overall view that the School of Health and Social Work was very supportive of the IPE philosophy as well as the module delivery.

- The participants felt that the IPE modules provided a valuable and important opportunity for students to study alongside their peers from other disciplines, particularly as this gave them an enhanced understanding of the different professional roles and responsibilities. There was a consistent view that other students could be involved in the IPE modules with medical students being principally highlighted.

- There was some concern that students did not always fully appreciate the value of the IPE modules whilst they were studying them and that understanding the relevance often occurred later in the students' programmes.

- The content of the IPE modules was perceived to be positive as it provided an opportunity for students to explore common concepts within a safe environment; the involvement of service-users was also applauded. There was some suggestion that the more strategic overview of policy and its application to service provision (included in the academic Level 6 IPE module) could be challenging for students.

- A number of alterations to the IPE modules were already planned to further enhance the student experience (including the integration of students studying the early years programme and changes to the timing of the timetabled sessions), but the lecturers also made suggestions in relation to the future potential development of the IPE modules – these primarily focussed on the more

overt application to practice through, for example, the use of simulation, a student 'buddy' system, and the shadowing of professionals from different disciplines.

- There was a perception that the IPE modules were having a positive influence on patient/client care. Comments were made about the specific application to children and young people, with children's nursing lecturers vocalising that the children's nursing students had an enhanced insight into other professions and were therefore more likely to involve colleagues from other disciplines in a child's care. Lecturers from other professional backgrounds felt that because working with children and young people was addressed in the IPE modules, this meant that all students had an increased awareness of this client group and their needs.

Summary of the findings from the semi-interviews with children's nurses

- The children's nurses had many years of experience of working clinically and had gained a tremendous range of knowledge, skill and expertise in that time. All acted as mentors to BSc Hons Nursing (Children's) students.

- Whilst none of the participants had undertaken any formal IPE modules during their pre-registration nursing programmes, they all demonstrated an insight and understanding of the concept. The benefits of students having IPE within practice were vocalised with these primarily relating to the enhancement of patient care.

- The participants displayed a strong commitment to the facilitation of IPE learning opportunities for students and identified a comprehensive list of activities that they often arranged as part of their mentor role. Despite this, the activities were not 'labelled' as IPE, but were viewed as part of the generic student learning experience. It was felt that students had a similar perception.

- The children's nurses felt that IPE theory was important, but that learning in, and from, clinical practice was imperative. The use of role play and simulation was identified as a means of complementing this.

- Communication was perceived as being a fundamental aspect of IPE.

- A concern relating to IPE was the need to maintain professional boundaries.

Recommendations

- It is recommended that the value and potential use of role play and simulated practice is considered since the study identified that students enjoy and learn well from these educational methods.

- It is suggested that the participation of medical students within IPE that involves BSc Hons Nursing (Children's) students could be beneficial since these two professional groups frequently work closely in clinical practice.

- It is advocated that clinically based children's nurses, who act as mentors, have information about IPE within the pre-registration nursing curriculum including how they can further facilitate this in clinical practice.

The Report

Section1.0: Introduction and background

1.1   Introduction

There is now a wealth of literature that has considered interprofessional education [IPE] within the context of a range of health professions (for example: Glen and Reeves, 2004; Cooper et al, 2005; Hoffman and Harnish, 2007; Barr et al, 2014). It has been suggested that the benefits of interprofessional education include the enabling of a collaborative professional approach within practice (Craddock et al, 2006) as well as an enhanced appreciation of the patient's perspective (Blickerm and Priyadharshini, 2007). It is clear that there is now an expectation that health professionals will be able to work interprofessionally (Chan et al, 2013) and, as a result, there has been consideration about how and where interprofessional education should take place – there have been suggestions that it is best located within clinical settings (Gordon et al, 2010) whilst others have advocated combined strategies that also include classroom-based education (Morison et al, 2003).

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Information in this report is derived from data collected via:

- Three mini focus groups with a total of seven BSc Hons Nursing (Children's) students from the University of Hertfordshire.

- Semi-structured interviews with eight lecturers from the University of Hertfordshire who are involved in the delivery of IPE across the undergraduate health and social work programmes.

- Semi-structured interviews with three clinically-based children's nurses who acted as mentors to BSc Hons Nursing (Children's) students from the University of Hertfordshire, and, who were working within the HE NCEL geographical area.

All aspects of the study, including the writing of this report, were undertaken by the research team: Lisa Whiting (Research Lead) [LW] and Elizabeth Akers [EA].

1.2   Reviewing the literature

This section of the report provides an overview of the key literature relating to interprofessional education; firstly, however, details are provided about the literature searching process that was undertaken.

1.2.1 Literature Search

Literature was retrieved and analysed over a period of six months, enabling the review to progress simultaneously with the undertaking of data collection and analysis.

Using a deliberately all-encompassing set of search criteria, the initial aim was to gain a broad overview of the current literature relating to IPE, its application to pre-registration children's nursing and the potential impact on nursing practice. Literature searching commenced in February 2015 using the PICO approach (population, intervention, control and outcomes) since this is a well-known strategy for developing a research question or aim (Sackett et al, 1997) – please refer to Table 1.1.

- **P:** Pre-registration children's nursing students
- **I:** Interprofessional education, interprofessional learning
- **C:** Not applied to the searching process
- **O:** Clinical care, interprofessional education and learning

Table 1.1: Application of the PICO approach

A number of authors (Fink, 1998; Hek et al, 2000; Playle, 2000) advocate that computerised databases are used to search for literature as this is one of the most efficient methods of retrieving material. As a result, the Cumulative Index to Nursing and Allied Health Literature [CINAHL], PubMed, Cochrane, OpenGrey and Google Scholar were all drawn on. It is also essential to recognise that the indexing of databases is complex and therefore important literature can be missed (Sindhu and Dickson, 1997); to overcome this, and as advocated by Greenhalgh and Peacock (2005), the reference lists of all the literature retrieved were examined for further relevant material. Ideally, literature from all languages should be sought – this maximises retrieval and minimises publication bias (Egger et al, 1997); however, due to time restrictions, only literature written in the English language was considered.

Following the search process, a total of 21 papers were selected for the literature review. Of these, 14 had relevance to children and young people; the other 7 were included due to their broad scope and direct relevance to interprofessional education and nursing. Of the 14 papers relating to children and young people, 12 originated in the United Kingdom [UK] (but none were undertaken in the London area).

After reviewing the papers, the following themes emerged, each of these will be discussed in sections 1.2.2 - 1.2.6:

- Why interprofessional education?
- Collaboration: A central tenant to interprofessional education
- The Higher Education Institution perspective
- Stereotyping, professional identity and professional values
- The impact of IPE

1.2.2 Why interprofessional education?

The literature search identified papers (Taanila et al, 2006; Bennett and Race, 2008; Taylor et al, 2008; Curran et al, 2010; Machin and Jones, 2014) that explicitly considered the question: Why interprofessional education? There was agreement that interprofessional education is viewed as being a flexible, sustainable approach that addresses several needs, these being:

- Changes in policy to facilitate a more collaborative working approach amongst health professionals.

- A tool for teaching patient safety and quality improvement, for example, through simulation.

- A means of equipping professional groups with the skills to teach and understand a more complex aspect of clinical care.

Ultimately, the message emanating from this body of literature was that interprofessional education provides students, from a range of professional groups, with the opportunity to experience collaborative working which replicates, to a certain extent, life as a registered practitioner and embeds it into professional practice.

1.2.3 Collaboration: A central tenant to interprofessional education

Within the literature, collaboration was referred to consistently and was viewed as a central tenant to IPE; this section discusses the key literature in relation to this important concept.

The language relating to 'collaboration' is used in two ways: Collaboration between students (Morison and Stewart, 2005; Taanila et al, 2006; Clarke et al, 2007; Morison and Jenkins, 2007; Bennett and Race, 2008; Pollard, 2008; Curran et al, 2010; Nugus et al, 2010; Lam et al, 2013; Machin and Jones, 2014) and the collaboration between health care professionals and families (Taanila et al, 2006; Curren et al, 2010).

Supporting the case for a collaborative approach is Curren et al (2010: 42), who state that:

> "Interprofessional collaborative approaches are believed to have the potential for improving professional relationships, increasing efficiency and coordination, and ultimately enhancing patient and health outcomes."

Curran et al (2010) examined the perceptions of students and specifically considered the views of nurses who had undertaken IPE (that related to child and neonatal health) with students from medicine, pharmacy and social work. This research is explored in more depth in section 1.2.6 that focuses on impact and sustainability.

Corrigan and Kirk Bishop's (1997) study, from the United States of America [USA], discussed the importance of collaboration, focussing on both collaboration between students and between health professionals and families. They describe this collaboration as '*family-interprofessional*' (page149) and insist that this is no longer an option; rather it is an *"obligation of professional leadership"* (page 149). It could be argued that this paper therefore places children, young people and their families, as well as IPE, at the very centre of curriculum design.

Machin and Jones (2014) described an innovative collaborative approach to IPE, using it as an opportunity to develop interprofessional service improvement. This paper specifically referred to the experience of children's nursing students amongst a group of 150 final year students from a range of professional backgrounds (learning disability nursing, midwifery, mental health nursing, adult nursing, social work, physiotherapy and occupational therapy). This collaboration focussed on patient safety, from the perspective of a patient and led to students developing an understanding of the effectiveness of interprofessional working when reviewing patient needs, as well as an understanding of quality improvement methods. In describing the value of this approach, Machin and Jones (2014: 223) state that:

"Engaging positively in interprofessional service improvement learning as a student is an important rehearsal for life as a qualified practitioner."

In earlier work, but with a similar focus as Machin and Jones (2014), Morison and Stewart (2005) undertook research with junior doctors, medical students and children's nursing students who were learning a clinical skill (that of insulin administration) and communication strategies together. This study examined the growth in awareness of the intricacies of each other's roles in relation to the skill. Interestingly, the focus of the junior doctors was on communication rather than the administration of insulin; Morison and Stewart (2005) described these doctors as being *'convinced'* of the importance that medical and nursing students should learn together as this reflects professional practice in the real world. The authors particularly highlighted that each group of students had shown greater understanding of each other's roles and perspectives, thus enhancing their ability to collaborate. In summary, this paper adds to the body of literature that emphasises the value of collaboration.

Lam et al (2013) described similar outcomes in their exploration of the attitudes of nursing and social work students about children with complex needs. Through designing and implementing a tailored set of IPE sessions with a focus on greater collaboration, Lam et al (2013) demonstrated that both groups showed a greater level of understanding of the requirement to identify children's needs, swiftly refer to outside agencies and implement the appropriate health care. This paper provides valuable insight, but transferability to the UK is limited since the study was undertaken in Hong Kong.

In terms of 'collaboration', is important to consider the work of Nugus et al (2010). They describe nurses feeling *'subjugated'* by several professions and cited this as a hindrance to collaborative care. The quotes within this paper suggest that professions, mainly in the acute care environment (less so in a community setting), can fail to understand and respect one another; in particular, a Nurse Manger stated:

"Doctors think they're team players but they want to be the ones who make decisions…Doctors don't respect other professions" (page 901).

If this view were commonly held amongst professionals, the challenges to collaborative working would be considerable and this could, potentially, have a significant and detrimental impact on patient care.

Clarke et al (2007) refer to the UK's policy context when considering the importance of collaboration, describing the approach supported by the Department of Health [DH] (DH, 2000a; DH 2000b) that suggests that health care professionals should be appropriately prepared for better collaboration and team working. This study considered the experiences of several cohorts of students who undertook group tasks as part of their IPE curricula; the students were from a range of professional backgrounds (adult nursing, mental health nursing, children's nursing, midwifery, occupational therapy, physiotherapy, radiotherapy, diagnostic imaging, learning disability nursing and social work). The students failed to form functioning teams and did not show an understanding of collaboration and its links to clinical practice. This paper is therefore useful as it highlights the challenges that can be associated with collaborative working - if it is not well understood, nor its value appreciated, this potentially limits interprofessional education as an effective tool to replicate real life professional practice.

In seeking to develop collaborative skills as a key aspect of interprofessional working, Taanila et al (2006) explored collaboration from a range of professional groups (health [including nursing], social care, the welfare system, education and child care) who were studying a "*family oriented interprofessional programme"*, the education being based on a constructivist approach. Using reflection as a tool to enhance learning, tasks were set in a way to recognise the activity of IPE. In developing the programme, Taanila et al (2008) identified *"collaboration competence"*; a key domain to be achieved related to the participants being able to demonstrate the skills, abilities and aptitudes around collaborative working - it was felt this was a key component for professional life. The programme took an innovative approach that

involved the co-design of aspects of the course with families, thus demonstrating the equal status of families and the valuing of their role in collaborative working with professionals. In evaluating the programme, nurses identified that this aspect had highlighted the importance of a long-lasting, multi-professional, collaborative approach for effective change with families. The paper demonstrated a positive attitude from nurses in relation to collaborative working and highlighted the shift in opinions that occurred from the beginning to end of the educational programme (Figure 1.1):

2000		**2002**
• Expert-oriented operating model • Awareness of client's needs • Awareness of family as a resource • Awareness of prerequisites of interprofessional family orientation	>>>>>>>	• Client-oriented operating model • Notion of co-operation • Notion of family as a resource • Notion of prerequisites of interprofessional family orientation
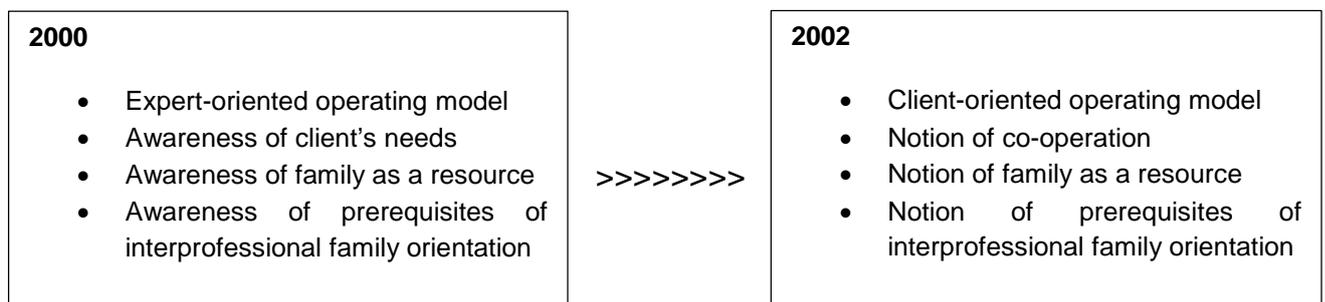
Figure 1.1: **Nurses views of the family-orientated interprofessional collaboration education programme at the beginning of 2000 and at the end of 2002 (Taanila et al, 2006: 213)**

Whilst the research by Taanila et al (2006) is not as recent as some other publications, it offers a valuable contribution as it proposes an interprofessional educational programme that fosters a collaborative approach with families – the importance of which is becoming increasingly well recognised.

Bennett and Race (2008) consider interprofessional education from a children's rights perspective, drawing on policy evidence to support interprofessional education, for example, Every Child Matters (Department for Education and Skills, 2004). Their focus was on sharing information, common responsibilities and the need for interprofessional education to enhance student's understanding of safeguarding children. As well as setting out the policy perspective, this paper explored the challenges students can experience around professional identity and the way this can inhibit collaboration. The module that was developed was undertaken by second

year social work students and qualified school, children's community and health visitor students undertaking supplementary qualifications. The work is of particular interest since the focus is children and young people with a range of professionals learning together to enhance the collaborative care that can be provided for this client group. The authors acknowledge that the development and operationalisation of the module was not without its challenges, but they did not loose sight of their overall aim which was to prepare professionals:

> *"for practice in Integrated Children's Services and who understand the central importance of listening to children and young people and promoting their rights."* (Bennett and Race, 2008: 226)

Pollard (2008) examined collaboration in clinical practice as a theme throughout interprofessional education. The students were from the following professional groups: Children's nursing, adult nursing, diagnostic imaging, learning disability nursing, mental health nursing, midwifery, occupational therapy, physiotherapy, radiotherapy and social work. Practice learning outcomes (Pollard, 2008: 15) were set across the three years of the students' programmes and these were to:

1. Demonstrate an understanding of the role of others by participating in interprofessional working.

2. Initiate interprofessional working practices.

3. Demonstrate knowledge of effective interprofessional working practices that respect and utilise the contributions of members of the health and social care team.

Following semi-structured interviews conducted with 52 students from across the different professional programmes, Pollard (2008) highlighted the mis-match between what is espoused about the importance of collaboration for safe and effective patient care and what students say that they witness in practice. There is an emphasis within this paper on the hierarchical nature of the relationship between nursing and medicine, something that has previously been alluded to (for example, Nugus et al, 2010). This study demonstrates the

'theory-practice' gap between what is taught about effective collaboration and what occurs in practice and provides a useful counter balance to much of the literature.

1.2.4 The Higher Education Institution perspective

The main areas that emerged from the literature, and which are presented in this section, focus on the Higher Education Institution [HEI] policy response to interprofessional education, the barriers to IPE (including curriculum design and challenges around facilitating it) and the relevance of IPE to children and young people (Clarke, 2007; Taylor et al, 2008; De Los Santos et al, 2014; Dolce, 2014).

Taylor et al (2008) specifically examined the HEI response to identified 'gaps' in the children's workforce and IPE. The authors refer to the need for practitioners (in this case, social workers) to be able to move more freely within their qualified area of practice. Reference is made to the Children's Plan (DCSF, 2007) and Building Better Futures: Next Steps for the Children's Workforce (DCSF, 2008), proposing possible changes to the current system to educate future professionals. Taylor et al (2008) also describe the General Medical and Nursing and Midwifery Council's responses to these papers. Despite the volume of high level directives at this time, Taylor et al (2008: 186) suggest that:

> *"In HEIs, not only must we reconceptualize the education of the professionals we teach, but programmes must also take account of other professions' programmes with possible far-reaching implications for interprofessional education."*

To further understand the position on interprofessional education, Taylor et al (2008: 187) undertook a *'knowledge review'*, this involved the following;

1. Identification of HEI approaches to interprofessional education curricula and pedagogy around children's services.

2. Clarification of the discourse relating to children and young people in terms of interprofessional practice and integrated education.

3. Drawing out of key messages from the evidence and considering these in relation to the professionals involved.

4. The mapping of relevant policy initiatives and involvement key stakeholders.

Based on this review, Taylor et al (2008) described HEIs as being *'risk-averse'*, entrenched with traditions and, unlike practice, HEIs were not obliged to conform with recommendations (therefore, these were not always wholly implemented). The emphasis of this review is that this position is not acceptable and the authors make a strong case for developing a workforce conversant in interprofessional language and practice prior to qualification. Within the context of the study presented in this document, Taylor et al (2008) provide an appreciation of some of the barriers that may exist from the perspective of academic staff involved in the delivery of IPE modules.

De Los Santos et al (2014) undertook a review of health education in the USA. Whilst this work is not UK specific, the themes are of interest and provide insight. De Los Santos et al (2014) provided an overview of the Institute of Medicine (2001) report that called on academic institutions to bring health students together to practice collaborative working - patient safety being used as the premise for this recommendation. De Los Santos et al (2014: 374) described how, a decade later, this had not happened and give examples from their own practice as to why this may be the case:

- Pedagogical barriers.
- Logistical challenges.
- Allocation of resources.
- Deep-rooted hierarchical philosophies and culture.
- Resistance to change.
- Compartmentalised training leading to mistrust, misunderstanding and miscommunication.

As a result, De Los Santos et al (2014: 374) suggest that students *"are expected to intuitively work together effectively as professionals upon entry into the workforce."* This mis-match is clearly evident within their paper and is reflective of the barriers described by Taylor et al (2008).

Facilitation of IPE was not as frequently discussed as other areas, but it was felt to be an important aspect to consider. Clarke et al (2007) highlighted the complexity of group work in IPE and described facilitation in terms of managing group dynamics, conflict and ensuring inclusiveness. The study by Clarke et al (2007), that included children's nurses, focussed on the challenges posed by group work; it identified the risk of exacerbating negative professional stereotypes and suggested that expert facilitation was a means to limit this. Following the study, staff development sessions were instigated to develop skills to enhance this aspect of IPE.

On occasions, HEIs have employed specific strategies to facilitate IPE; for example, Dolce (2014) described an interprofessional faculty toolkit that was developed in the USA to help those without expertise in oral health care to teach this aspect of nursing. This approach utilised the principles of interprofessional education (a *"collaborative practice-ready workforce"* [Dolce 2014: 67]) to facilitate the teaching of a specific set of skills. The paper highlights the different perspectives that members of a teaching faculty can offer in relation to a particular aspect of care.

1.2.5 Stereotypes, professional identity and professional values

Within the literature that relates to children and young people, there was little material that focussed on stereotypes, professional identity and professional values, however, there is some mention and this is worthy of consideration (Clarke et al, 2007; Morison and Jenkins, 2007 and Morison and Stewart, 2005).

Clarke et al (2007) discussed stereotypes, professional identity and values in their research that considered the complexities of studying IPE modules amongst 15 groups of students (who were from a wide range of professional backgrounds). This paper provided a limited overview of these challenges, however it offered some useful observations; focus groups, semi-structured interviews and observations were undertaken to provide insight into the

experiences of students in relation to face-to-face groups. Mention was given to prior experience of either interprofessional working, or being older – these students had an enhanced experience of IPE. Clarke et al (2007) suggest that there are a number of factors that can impact on group interactions, these include the degree of participation, cohesion, group roles and an inclination to avoid conflict.

Morison and Jenkins (2007) considered professional identity, boundaries and stereotypes in paediatrics, by exploring the views of 4th year medical students and final year children's nursing students at three key points: Before, immediately after, and one year following the undertaking of IPE sessions (which had occurred in both classroom and clinical environments). The key focus was on the following areas: Attitudes to, and understanding of, roles and responsibilities; learning with other healthcare professionals; teamwork and collaboration. The findings indicated that learning in the classroom and, more usefully to the students, in clinical placements, enhanced understanding of other roles and associated skills. Morison and Jenkins (2007) identified professional identity as being fundamental to the shared learning [IPE] discussion; they described skill acquisition and the attributes of a profession as the:

> *"development of scripts, schemes and maps of experience which form a conceptual framework enabling individuals to interpret new experiences."* (Morison and Jenkins, 2007: 455).

This study used experiential learning to help students make sense of the knowledge they were gaining and contextualising within their own professional identities. It provides an appreciation of the formation of professional identities.

Morison and Stewart (2005), when referring to professional identity and values, suggest that:

> *"Developments in interprofessional education must help to bridge the gap between these traditions, and if carried out effectively should also acknowledge the implicit underlying philosophical differences reflected*

> *in each profession's approach to curriculum design and delivery."*
> (page 193).

Whilst this paper has limited application to children's nursing, it does raise an important point – the authors found that shared learning, at an early stage in their careers, gave junior doctors a greater understanding of the professional assets of nurses and the doctors reported feeling more inclined to seek the help and support of nurses.

1.2.6 The impact of IPE

The literature search revealed limited material that related to the impact of IPE and nursing students, but two key studies emerged (Curran et al, 2010; Machin and Jones, 2014), these are discussed below.

Curran et al (2010) conducted a longitudinal study that examined the effects of IPE specifically in terms of student (nursing, medicine, pharmacy and social work) satisfaction and attitudes towards IPE and teamwork. A time series study design was utilised with students completing attitudinal scales and being able to also make open-ended comments; the findings revealed that 54% of the 502 comments received were in favour of IPE and indicated that it had been a useful experience. The face-to-face IPE interactions were viewed far more positively than the online collaboration which was not felt to be beneficial in gaining an enhanced understanding of other professional groups or aiding collaboration. The study suggested that satisfaction with IPE was linked to professional background, although, interestingly, the authors did not provide further details.

Specifically considering the impact of IPE, Machin and Jones' (2014) innovative approach is particularly useful in making explicit the value of IPE in terms of patient safety. In an effort to link sustainability, quality improvement and IPE, Machin and Jones (2014) undertook research involving students from several health profession backgrounds; the study linked two aspects of education to patient safety – that of IPE and quality improvement; this

approach meant that the application to patient outcomes was clearer to students and this was reflected in their positive feedback.

The literature that has been discussed has provided a very valuable contribution to understanding some of challenges and benefits of IPE; however, research does not appear to have focussed solely on children's nursing, examining the perspectives of students, lecturers and children's nurses who act as mentors; in addition, none appears to have been undertaken specifically within the NCEL geographical area – this study therefore sought to fulfil that need.

1.3   Setting the context: IPE at the University of Hertfordshire

The University of Hertfordshire has a strong commitment to interprofessional education giving undergraduate health and social work students the following learning opportunities:

- A 15 credit academic Level 4 module is offered in the students' first year in either Semester A (September to January) or B (January to June) of each academic year. The BSc Hons Nursing (Children's) students all study the module in Semester A alongside fellow students who are undertaking a range of health and social work programmes, these are: All four fields of nursing; pharmacy; dietetics; diagnostic radiography; radiotherapy; foundation paramedics, paramedic science; physiotherapy and social work.

- A 15 credit academic module is offered at academic levels 5, 6 and 7 and runs in both Semesters A and B of each academic year. The BSc Hons Nursing (Children's) students all undertake the Level 6 version of the module, and, to date, have studied this in Semeter B of the third year of their programme. Once again the students undertake the module with their peers, but the number of professions involved in the semester B version is much smaller with just the four fields of nursing and pharmacy being included. Since this has limited the student learning experience, all nursing students (including those from the children's field) will, from September 2015, study the module in Semester A with peers from: All four fields of nursing, midwifery, paramedic science, physiotherapy, diagnostic radiography, radiotherapy and social work.

The lecturing team for the IPE modules includes academic staff from all the professional groups mentioned above. The number of students undertaking each module is large (for example, 850 students studied the academic Level 4 version in September 2014 to January 2015); this therefore means that the organisation and management of the modules can be challenging. Students are taught within a large lecturer theatre format, but their learning is also facilitated in seminars of approximately 30-40 students (from different professional disciplines); in addition, the students undertake small group work with 7-8 peers from their seminar group.

In addition to the modules, students undertake clinical experiences throughout the three years of their BSc Hons Nursing (Children's) programme and IPE is facilitated within this context.

1.4   Definition of key concepts

For the purposes of the study, the following definitions are offered:

1.4.1   Interprofessional education

The definition offered by CAIPE (2002) has been adopted for the purposes of this project. CAIPE define interprofessional education as occurring:

> *"when two or more professions learn with, from and about each other to improve collaboration and the quality of care"* http://caipe.org.uk/about-us/defining-ipe/

CAIPE continue by stating that they use:

> *"the term "interprofessional education" (IPE) to include all such learning in academic and work based settings before and after qualification, adopting an inclusive view of "professional""* http://caipe.org.uk/about-us/defining-ipe/

1.4.2 Children's nurse

A nurse registered with the Nursing and Midwifery Council [NMC] who works in a clinical environment providing care for patients who are within the 0-18 year old age bracket, and, who acts as a mentor[1] to BSc Hons Nursing (Children's) students.

1.4.3 BSc Hons Nursing (Children's) student

A person who is studying the full-time three year undergraduate, pre-registration BSc Hons Nursing (Children's) programme at the University of Hertfordshire, leading to a BSc Hons qualification and registration, as a children's nurse, with the NMC.

1.4.4 Lecturer

A member of the academic staff, employed by the University of Hertfordshire, who is involved in the educational delivery of one or both of the IPE modules that are offered to undergraduate students who are undertaking a health or social work programme.

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[1] *"An NMC mentor is a registrant who, following successful completion of an NMC approved mentor preparation programme – or comparable preparation that has been accredited by an AEI as meeting the NMC mentor requirements – has achieved the knowledge, skills and competence required to meet the defined outcomes."* NMC (2008: 23)

1.5 Conclusion

This initial section has introduced the aim and focus of the study that was undertaken. This report consists of 3 further sections together with a reference list and a series of appendices.

Section 2.0: Identifies and discusses the research data collection approaches, participant recruitment methods, ethical issues and data analysis procedures.

Section 3.0: Presents the findings that emerged following data collection and analysis.

Section 4.0: This section concludes the report by considering the contribution to knowledge that the study has made, its limitations and suggestions for further work. Finally, closing comments are offered.

Section 2.0: Undertaking the research: Methodological approach and data collection methods

2.1   Introduction

This section will provide an overview of each aspect of the research process that was undertaken within the study. The exploratory nature of this research guided the approaches used with qualitative methods being drawn on to obtain data via:

- Three mini focus groups with a total of seven BSc Hons Nursing (Children's) students from the University of Hertfordshire.

- Semi-structured interviews with eight lecturers from the University of Hertfordshire who are involved in the delivery of IPE across the undergraduate health and social work programmes.

- Semi-structured interviews with three clinically-based children's nurses who acted as mentors to BSc Hons Nursing (Children's) students from the University of Hertfordshire, and, who were working within the HE NCEL geographical area.

Initially, the methodological approach will be discussed; this will be followed by an overview of the data collection tools, recruitment processes, data collection procedures, ethical considerations and analysis.

2.2   Methodological approach: Exploratory research

The research was exploratory in nature meaning that little was known about the topic; the purpose of exploratory work is to gain more insight into the area under consideration. Exploratory work frequently draws on qualitative data collection approaches such as interviews and focus groups (Stebbins, 2001). The exploratory nature of this study guided the data collection methods with qualitative data being obtained via semi-structured face-to-face interviews with clinically-based children's nurses who act as mentors, and, University of Hertfordshire lecturers who are involved in the delivery of at least one IPE undergraduate module; in addition, mini focus groups were conducted with pre-registration BSc Hons Nursing (Children's) students.

2.3 Data collection tools

2.3.1 Mini-focus groups

Focus groups have many of the advantages of individual interviews, such as the ability to explore the participants' experiences; however, they also have the benefit of being economical with time and allowing for the gathering of data from participants who may be reluctant to be interviewed on their own or who feel that they have little to say (Lane et al., 2001).

Mini group discussions were selected as the most appropriate type of focus group since these can enhance interaction and have previously been successfully used in research with young people (for example, Grant and O'Donohoe, 2007; Ormerod and Newton, 2013). The advantages of mini focus groups have been recognised - they can be more readily recruited to, can be more 'comfortable' for the participants, and, in addition, if the researcher is aiming to gain insight into the experiences of participants, a smaller group may yield more in-depth data (Krueger and Casey, 2015) - it was therefore felt that the use of mini focus groups would be an appropriate data collection approach to utilise with the pre-registration BSc Hons Nursing (Children's) students.

Guidelines for the conduction of the mini focus groups were drawn up (Appendix 2.1) together with a set of 'prompt' questions to maintain consistency and maximise data gathering (Appendix 2.2).

2.3.2 Interviews

Individual semi-structured interviews were undertaken with eight lecturers who were involved in the delivery of IPE across a range of undergraduate health and social work programmes at the University of Hertfordshire, as well as three clinically-based children's nurses who worked in the NCEL geographical area and who acted as mentors to University of Hertfordshire BSc Hons Nursing (Children's) students.

Interviews are now one of the most commonly used methods of collecting data (DiCicco-Bloom and Crabtree, 2006) with a number of texts (for example, Fontana and Frey, 2005; Polit and Beck, 2011, Mitchell, 2015) differentiating between their types (structured; semi-structured and unstructured). It was the semi-structured approach that was felt to be most appropriate for this study as it provided the clinically based children's nurses and the lecturers with the opportunity to talk about their experiences, whilst also allowing the use of a set of appropriate 'prompt' questions to optimise the data collection (Appendices 2.3; 2.4), help to ensure that focus was maintained and that key areas of discussion were not omitted (Marshall and Rossman, 2010). Interviews were undertaken face-to-face as it was felt that this would allow the researcher to develop a rapport with the interviewee and that this, in turn, would yield 'richer' data (Fox, 2009).

2.4 Recruiting the participants

In 2008, the NMC decided that all pre-registration nursing programmes would be offered at a minimum of degree level from September 2013 to enable nurses to be able to provide high quality care within a complex and changing healthcare environment. All pre-registration nursing programmes are governed by the NMC Standards for Pre-registration Nursing Education (2010). The NMC has identified the standards for competence that every nursing student must achieve before they are able to become a registrant. The NMC (2010: 5) clearly state that:

> *"The public can be confident that all new nurses will:*
> *Work in partnership with other health and social care professionals and agencies, service users, carers and families ensuring that decisions about care are shared"*

However, the NMC (2010) does not stipulate the quantity or specific nature of the learning that should underpin students' ability to work interprofessionally. It was therefore felt to be crucial to gather further details about the perceptions of three key groups of participants (students, lecturers and clinically based children's nurses) about the IPE experiences that are offered during the BSc Hons Nursing (Children's)

programme in order to explore whether the current educational provision is appropriate to meet the health needs of children, young people and their families.

Burns and Grove (2005) suggest that the term 'sample' refers to the population chosen to participate in a study; as sampling can have a major impact on the findings (Burns and Grove, 2005), it is important to give appropriate consideration to sample selection.

Sample sizes in qualitative work can be difficult to establish in advance, however, smaller numbers of participants are normally involved due to the richness and detail of data that can be obtained (Macnee, 2004); in fact Parahoo (2014) comments that time is better spent undertaking in-depth interviews, rather than being concerned with interviewing large numbers of participants. In addition, the composition and characteristics of the sample population can be more important than the size alone (Macnee, 2004). Qualitative projects frequently utilise a purposive sampling technique to help ensure that participants most suited to the needs of the study are invited to take part (Polit and Beck, 2011) – three key groups of people were recruited for this study, using a purposive sampling approach:

- BSc Hons Nursing (Children's) students from the University of Hertfordshire.

- Lecturers from the University of Hertfordshire who were involved in the delivery of IPE across the undergraduate health and social work programmes.

- Clinically-based children's nurses who acted as mentors to BSc Hons Nursing (Children's) students from the University of Hertfordshire, and, who were working within the HE NCEL geographical area.

The recruitment strategies employed are detailed in the following sections (2.4.1 – 2.4.3).

2.4.1 Recruiting the participants: BSc Hons Nursing (Children's) students

The Dean of School at the University of Hertfordshire was contacted by e-mail to ask if relevant students and staff could be invited to participate in the research study, the appropriate Information Sheets were attached to the e-mail and permission was duly granted.

Krueger and Casey (2015) suggest that one of the most efficient methods of recruiting participants to focus groups is via existing lists of people who fulfil the research criteria – this is the approach that was utilised. Once ethical approval had been granted, full details of the study, including an Information Sheet (Appendix 2.5) were sent with an email to the listed students from each of the three BSc Hons Nursing (Children's) cohorts: 33 students from September 2012, 19 from September 2013 and 19 from September 2014 were contacted. EA corresponded with the students and conducted the subsequent mini focus groups; as she was not known to any of the students it was felt that they would be less likely to feel 'obligated' to participate and that this would provide a more objective approach to the data collection. A total of seven students responded (Table 2.1) and three mini focus groups were subsequently conducted (one for each academic year of the BSc Hons Nursing (Children's) programme).

Student	Gender	Cohort and Academic Year	IPE Module(s) studied to date
Chelsea	Female	September 2014; 1st year	1st Year Level 4
Lauren	Female	September 2014; 1st year	1st Year Level 4
Alison	Female	September 2014; 1st year	1st Year Level 4
Jennifer	Female	September 2013; 2nd year	1st Year Level 4
Angie	Female	September 2013; 2nd year	1st Year Level 4
Marie	Female	September 2012; 3rd year	1st Year Level 4; 3rd year Level 6
Paulette	Female	September 2014; 3rd year	1st Year Level 4; 3rd year Level 6
Total number of participants		**7**	

Table 2.1:   Details of the students

2.4.2 Recruiting the participants: Lecturers

Once ethical approval had been granted, the Lead for Interprofessional Education at the University of Hertfordshire was contacted and this person provided the names of lecturers who were involved in the teaching and delivery of at least one of the two IPE modules that are offered to undergraduate students studying health and social work programmes. 18 lecturers were approached via an email that provided details of the study and which also had an attached Information Sheet (Appendix 2.6); lecturers were invited to take part in a face-to-face semi-structured interview. All correspondence, and the subsequent interviews were undertaken by EA as, once again, she had had no previous contact with these participants. Eight interviews were undertaken with lecturers from a range of professional backgrounds (Table 2.2).

All interviews and mini focus groups were undertaken on the premises of the University of Hertfordshire. To maintain confidentiality, the students and staff were allocated a pseudonym - they will be referred to by this, when appropriate, in the forthcoming sections.

Lecturer	Gender	Professional Background	IPE Module(s) that Lecturer is involved in
Helena	Female	Radiotherapy	Academic Levels 4 and 6
Isobel	Female	Children's Nursing	Academic Levels 4 and 6
Melanie	Female	Children's Nursing	Academic Levels 4 and 6
Louise	Female	Dietetics	Academic Levels 4 and 6
Gemma	Female	Midwifery	Academic Levels 4 and 6
Danny	Male	Radiography	Academic Levels 4 and 6
Beth	Female	Social Work	Academic Level 6
Jaqueline	Female	Midwifery	Academic Levels 4 and 6
Total number of participants		**8**	

Table 2.2:   Details of the lecturers

2.4.3 Recruiting the participants: Clinically based children's nurses

In order to identify clinically based children's nurses who worked in the NCEL geographical area, and who acted as mentors to BSc Hons Nursing (Children's) students who were undertaking their programme of study at the University of Hertfordshire, the Lead for Clinical Governance at an NHS Trust was approached to ask if relevant staff could be invited to participate in the research. Once permission had been granted, a 'good informant' approach was utilised; Morse (1989: 132) highlighted the following qualities of a 'good informant' and these attributes were used to guide the selection of participants for this aspect of the study:

1.   Knowledgeable about the topic: An expert by virtue of involvement in specific life events.

2.   Able to reflect and provide detailed experiential information about the phenomena.

3.   Possess a willingness to talk.

The initial 'good informant' was a ward manager from the same NHS Trust as the Lead for Clinical Governance; the ward manager was able to identify colleagues who met the above criteria and who could be invited to participate in a face-to-face semi-structured interview. Once ethical approval had been granted, full details of the study, including an Information Sheet (Appendix 2.7) were sent with an email (from EA) to the potential participants (EA had had no previous contact with them). Three of the children's nurses (Table 2.3) accepted the invitation; a mutually convenient date and time was then arranged. All interviews were conducted in the employees' place of work.

Children's Nurse	Gender	Post Held	Area of Clinical Practice
Emily	Female	Senior Staff Nurse	Children's ward
Penny	Female	Sister and clinical practice education facilitator	Children's ward
Juliette	Female	Senior Sister	Neonatal Unit

Table 2.3:   Details of the clinically based children's nurses

2.5   Data collection procedures: Mini focus groups and interviews

Three mini focus groups were conducted – EA was present at each one:

- Monday 15th June 2015: Three first year BSc Hons Nursing (Children's) students

- Thursday 28th May 2015: Two second year BSc Hons Nursing (Children's) students

- Friday 24th July 2015: Two third year BSc Hons Nursing (Children's) students

The mini focus groups lasted for 54 minutes 40 seconds; 55 minutes 26 seconds and 58 minutes 4 seconds respectively. Guidelines for the conduction of the mini focus groups were drawn up together with a set of 'prompt' questions to maintain consistency and facilitate data collection (Appendices 2.1; 2.2).

All interviews were conducted between 9th June and 9th July 2015 by the same member of the research team (EA) with each interview lasting for between 27 minutes 15 seconds and 56 minutes 38 seconds. An interview checklist was prepared that identified practical arrangements and areas to be clarified with each participant (Table 2.4). In addition, 'prompt' questions (Appendix 2.4) were used to stimulate discussion and maintain focus.

• Purpose of interview • Clarification of topic under discussion • Format of interview • Approximate length of interview • Assurance of confidentiality • Purpose and use of digital recorder (including consent for its use) • Assurance that the participant can seek clarification of questions • Assurance that the participant can decline to answer a question(s) or terminate the interview • Assurance that the participant can ask questions

Table 2.4:   Checklist of points for explanation prior to interview

Each interview and mini focus group was recorded using a digital-audio recorder. All participants consented to the use of the digital recording. No supplementary written notes or memos were taken during the interview/focus group as it was felt that this could be distracting.

2.6 Ethical Considerations

There are a number of ethical considerations that need to be taken into account with any study if the participants are to receive the protection that they deserve. In particular, protection from harm, maintenance of confidentiality, the gaining of informed consent and the valuing of the participants' contributions to the research are crucial issues; these are addressed in sections 2.6.1 – 2.6.5.

2.6.1 Ethical approval

Ethical approval to conduct all aspects of the study was sought and gained from the University of Hertfordshire Health and Human Sciences ethics committee on 13th April 2015 [protocol number: cHSK/SF/UH/00100].

2.6.2 Protecting the participants from harm

Whilst it was not anticipated that the research would cause undue distress, it was acknowledged that this can always be a possibility. Richards and Schwartz (2002) identified four areas of possible risk for participants in qualitative research: Distress and anxiety; exploitation; misrepresentation and identification of the participant in publications. Care has been taken (and will be continue to be taken) to avoid all of these potential dangers. Streubert Speziale and Carpenter (2006) advocate that time is made available at the end of each interview or focus group in case any advice is required – this suggestion was adhered to and, in addition, a Support Service Information Sheet (Appendix 2.8) was developed and made available to participants at the conclusion of their interview or mini focus group.

2.6.3 Confidentiality

Parahoo (2014: 405) suggests that confidentiality is the:

> *"assurance given by researchers that data collected from participants will not be revealed to others who are not connected with the study."*

To assist in the protection of confidentiality, the following actions were taken:

- Participants who were involved in either interviews or mini focus groups were allocated a pseudonym that was used when reporting findings.

- Any personal data was kept as a hard copy as well as on an encrypted USB memory stick and stored in a locked cabinet. This material will be destroyed on completion of the project.

- All information relating to data collection (the interview/mini focus group transcripts) was kept in a locked filing cabinet. Data will be kept for a minimum of seven years following the conclusion of the study.

- Care has been taken when reporting the findings and when describing participants as this could lead to recognition.

2.6.4 Consent

Gaining the informed consent of participants is, of course, essential (Royal College of Nursing, 2011); all of the participants were provided with relevant Information Sheets; the guidelines presented by Burns and Grove (2005) were used for the formulation of these (Appendices 2.5; 2.6; 2.7). All of the participants in this study completed a consent form that (Appendix 2.9) that was signed by both the interviewee and researcher (EA) as recommended by Mitchell (2015).

2.6.5 Valuing the participants contribution to the research

The undertaking of studies frequently prompts researchers to consider whether small gifts should be given to participants as a token of respect and thanks. Whilst gift giving can be ethically contentious (Fargas-Malet et al, 2010), respecting and valuing the participants' contribution and time was important. As the BSc Hons Nursing (Children's) students needed to make a separate trip to the University in order to participate in their mini focus group (as the cohorts were either on annual leave, independent study time or undertaking clinical practice), it was felt important that their time was valued,

especially as they were not in salaried employment; as a result, following the mini focus group, each student was given a £20.00 Amazon voucher and a 'thank you' letter (Appendix 2.10). Each lecturer and clinically based children's nurse received a 'thank you' letter (Appendix 2.10) at the conclusion of their interview. These actions had all been ethically approved.

2.7   Data analysis

Qualitative data analysis focussed on each of the data sets generated from:

- Three mini focus groups conducted with BSc Hons Nursing (Children's) students from the University of Hertfordshire.

- Eight individual semi-structured face-to-face interviews with lecturers, from the University of Hertfordshire, who were involved in the delivery of at least one IPE module across the undergraduate health social work programmes.

- Three individual semi-structured face-to-face interviews with clinically-based children's nurses who acted as mentors to BSc Hons Nursing (Children's) students from the University of Hertfordshire, and, who were working within the HE NCEL geographical area.

It has been suggested that the analysis of qualitative data is:

> *"a complex, iterative process that entails working inferentially and systematically with the data to produce a final written account" (Froggatt, 2001: 433)*

The method of data analysis that is utilised is dependent on how the data has been generated but Cohen et al (2007: 461) comment that *"there is no single or correct way to analyse and present qualitative data"*. Smith and Firth (2011) identify three different approaches to qualitative data analysis:

- Socioloinguistic (which explores language and includes methods such as conversational analysis).
- Methods that focus on the development of theory (for example, grounded theory).
- Methods that interpret and provide an overview of the participants' perceptions (this includes thematic analysis).

A thematic analysis approach was chosen to facilitate data analysis in this study since it provides a structured interpretive approach that allows the development of themes (Alhojailan, 2012); this, in turn, facilitates valuable insight into the phenomena under study (Braun and Clarke, 2006).

Each of the qualitative data sets was analysed using Braun and Clarke's (2006) well recognised six stage approach:

1. Familiarising yourself with the data
2. Generating initial codes
3. Searching for themes
4. Reviewing themes
5. Defining and naming themes
6. Producing the report

Each interview/mini focus group was transcribed into a table within Microsoft Word® and then checked for accuracy of transcription against the recordings. The use of the column/row format of the table facilitated the subsequent process of extracting data from the transcript and also allowed the quotes to be linked back to the original script. Transcription was completed within 14 days of each interview/focus group being conducted.

Initial coding was undertaken by first listening to each interview/mini focus group recording, this was followed by the reading of each transcript several times. This process was carried out in the chronological order that the interviews/focus groups had been conducted. Once this had been accomplished for each transcript, the documents were further examined - this facilitated the identification of themes that could then be reviewed and 'named'. The transcripts from the mini focus groups/interviews with the students, lecturers and children's nurses were analysed as three separate data sets.

Chiovitti and Piran (2003) advocate that the participants' actual words are used when reporting the findings; it was felt that this strategy would value the participants' contributions and facilitate the portrayal of their views – this approach is evident in section 3.0 that follows.

2.8 'Trustworthiness'

There has been considerable discussion within the literature about the trustworthiness and rigour of qualitative research (for example, Sandelowski, 1993; Rolfe, 2006; Porter, 2007). Morse and Field (1996) are amongst a number of authors who have commented that research in the qualitative paradigm has attracted particular criticism in terms of the reliability and validity of studies (see also, Sandelowski, 1993; Denzin and Lincoln, 2005). Despite this, there have been suggestions that the establishment of firm criteria for assessing the trustworthiness of qualitative research is unlikely to be achieved (Sandelowski and Barroso, 2002) due to the broad range of methods and approaches that are drawn on (Rolfe, 2006). A variety of decision-making processes were based upon the enhancement of trustworthiness, these are identified below:

- *Data collection:*
  All data collection and correspondence with participants was undertaken by one member of the research team (EA) in order to enhance consistency. As EA had had no previous contact with the participants, this also facilitated an objective approach.

- *Data analysis:*
  All data analysis was undertaken by another member of the research team (LW) to maintain objectivity.

- *Auditability:*
  Sandelowski (1986: 34) commented that auditability is achieved when: *"Another researcher can follow the progression of events in the study and understand their logic."* To facilitate this, all aspects of the study have been clearly documented.

2.9   Conclusion

This section has provided an overview of the data collection approaches, recruitment methods, ethical considerations and data analysis procedures. The findings are presented in section 3.0.

Section 3.0: Findings

3.1   Introduction

This section presents the findings that emerged from the analysis of the mini focus groups and semi-structured face-to-face interviews. Where appropriate, discussions are supported by a range of quotations taken from the participants' transcripts. Pseudonyms are used throughout to maintain the participants' confidentiality.

3.2   Findings from the mini focus groups with BSc Hons Nursing (Children's) students

A total of 7 students participated in the mini focus groups with representation from across the three years of the BSc Hons Nursing (Children's) programme (Table 2.1); sections 3.2.1 - 3.2.3 present the three themes that emerged.

3.2.1 Theme: The inclusion of IPE in into the BSc Hons Nursing (Children's) programme

The students all affirmed that IPE was incorporated into their BSc Hons Nursing (Children's) programme, both via the academic modules that they undertook and via their clinical practice experiences. All of the students had undertaken the academic Level 4 IPE module (the two third year students had also undertaken the IPE academic Level 6 module); they all recognised that they were learning to work interprofessionally via the modules, but they also commented on the relevance of IPE to their practice environments:

> *"I think it's incorporated a lot when we're on placement"* [Alison, 1st year student]

The students were able to give examples of how they had seen professionals working together whilst in practice:

> *"Yeah, the parents were there* [at a multi-disciplinary team meeting]*, there was loads of different professionals, it was interesting because*

you knew a bit about each of them, how they all had a separate role in this child's life and how they were all trying to make it good for the parents and helping the child." [Lauren, 1st year student]

"Well I've had the same sort of experience as Lauren, went to a multi-disciplinary meeting when I was with the Health Visitors and IPE sort of helped me to realise how they got their opinion of the child, because they're all sort of looking at the child from different points of view." [Alison, 1st year student]

"So it was seeing the team actually work really well together, the nurse actually saying, 'Well, no, I can't feel a pulse', phoning the surgeon straightaway and saying 'Look we need to get this child to theatre' and then coming down within the hour and not prolonging it. So actually it did work really well." [Paulette, 3rd year student]

The students realised the relevance of IPE modules to their programme, but admitted that, in some cases, this had not initially been clear:

"I didn't really understand why we sort of had to do it in the beginning, but after we'd done a couple of seminars and especially after I'd been out on placement I realised why they made us do it." [Alison, 1st year student]

"Because having done it, although I don't feel like I enjoyed it thoroughly at the time.…I look back and think that's actually very important and I am glad I'm going to do it in year three and that we've tried it here to give us like a baseline of what it is….you should start….spending time with other professions from the start." [Chelsea, 1st year student]

"it was kind of like why am I doing this? I've come to university to do children's nursing and I'm doing this at the moment and this doesn't really make much sense, it's quite, it was quite a frustrating module at the time." [Angie, 2nd year student]

3.2.2 Theme: The delivery of the IPE modules in the BSc Hons Nursing (Children's) programme

The students made a number of comments about the delivery of the IPE modules, the majority of their points being very positive, one of the most

frequently raised aspects, was the opportunity to meet, and work with (via group presentations) students from other professions; this enabled the students to gain further insight into roles and responsibilities:

> *"you go into nursing and you're like 'Oh, I don't really know what a dietician does or social worker' like you've just concentrated on nursing so it's interesting to hear their perspectives of things when you're all doing something together….it was interesting to listen to the social worker in our group….I would say that pharmacy students I had no idea what they did really."* [Chelsea, 1st year student]

> *"For me I thought it was good to meet other professionals and learn about where they fit within the healthcare system and how when we will be in the healthcare system ourselves how we will be integrated with them and how important it is to make, you know, the patient's journey like a smooth, successful journey from start to finish."* [Angie, 2nd year student]

> *"You learn about other people's professions, so like a pharmacist I didn't realise they could diagnose like minor illnesses and it's little things like that that you don't realise and then you can take it back into practice and say, 'Well, actually instead of attending A&E you can go to a pharmacy.…'"* [Paulette, 3rd year student]

> *"in practice it's helpful because you can, like, you know other people's limitations and expertise, so you can go to them and say, 'Oh I know you guys know about this could you just give me a hand?' So you work better. You do actually work better with them from learning about them."* [Marie, 3rd year student]

The students were also able to imbue other professions with information about children's nursing:

> *"I think a lot of people are quite confused about the different kind of nursing you can do and like how you can differentiate between learning disability and mental health, adult and children….we could all express exactly what our job role is and obviously as children's nurses we can care for people up to 18…"* [Jennifer, 2nd year student]

Learning about other professional roles and responsibilities also prompted the students to consider whether they had chosen the right career for themselves – all of the students concurred that this was the case, for example:

"I've been interested in what they say but it has also enforced that I'm doing what I want to do." [Chelsea, 1st year student]

"'I'm definitely doing the right thing.'" [Lauren, 1st year student]

"It's definitely reassured me that I picked the right course. It is interesting to hear about what they're doing and it's nice to know, but it's sort of confirmed that I went down the right path." [Alison, 1st year student]

"it definitely confirmed I still wanted to be a children's nurse" [Angie, 2nd year student]

The mini focus groups identified the diverse range of students who were studying the IPE academic Level 4 module, these included: Social work, pharmacy, radiography, dietetics, all fields of nursing, paramedic science, physiotherapy. However, some students did mention that, as children's nursing students, they would have liked the opportunity to study alongside midwifery students:

"at the moment I want to go into neonatal care so it would be interesting to talk to them." [Chelsea, 1st year student]

"I speak to student midwives quite a lot…yeah, I think I'd enjoy them being in our modules." [Alison, 1st year student]

"I think maybe midwives should have been involved" [Jennifer, 2nd year student]

It was also suggested that students and staff from other professional groups, such as health visiting, medicine (medical students as well as doctors), play therapy, police, psychology, teaching as well as child and adolescent mental health services could potentially be integrated into the module as these had direct relevance to children's nursing – some of the students did acknowledge that the University of Hertfordshire did not currently offer programmes of study for all of these professional groups, but none of the students made the distinction that some of the people who they referred to would either be in full-

time employment or studying courses at a post-graduate level and that they could potentially have different learning needs. Whilst the professional groups identified could have potential relevance to all students undertaking the IPE modules, the children's nursing students focussed on their needs.

Another positive attribute of the IPE modules was the fact that interprofessional communication had been highlighted; students spoke about how they had examined case studies and considered these from differing professional perspectives – the value of communication (both verbal and non-verbal) and preventing its breakdown was very clearly recognised.

> *"it's made me really think about my notes, the referrals, the important information, like when you're communicating on a phone."* [Angie, 2nd year student]

The students did, however, comment that they found it difficult to learn and interact in the large lecture theatre sessions; they were far more positive about the smaller seminar sessions (of approximately 35 students) and the opportunities to work in smaller groups of approximately 7 students:

> *"you don't really learn much when there's like 300 of you in a big room."* [Chelsea, 1st year student]

> *"Because you got to work like in your small group and you just were able to discuss the work rather than being in rows and not being able to talk to the people around you."* [Alison, 1st year student]

> *"I definitely learn better in a smaller environment than in the big lecture."* [Lauren, 1st year student]

> *"we do it all in one big hall and that's quite hard because people walk in late and then you get frustrated and it's too many people to try and teach at once, so it's good they break you off after and you have, like, little groups and then you get to know people from the other professions and get talking to them see how different their course is to ours."* [Paulette, 3rd year student]

However, there were also suggestions from some students that the academic Level 4 IPE module could be revised, there were comments, for example, relating to the time available for independent study and the fact that, sometimes, peers may not fully engage with their small group work and that this could be frustrating. There were differences of opinion between the students about when the academic Level 4 IPE module should be delivered, the first year and third year students all felt that it was good to engage with other professional groups from the very beginning of the BSc Hons Nursing (Children's) programme; however, the second year students (Angie and Jennifer) felt that:

> *"the IPE module in first year should be later on in the year. Because it's one of the first modules we do and obviously when you're just starting on the course you really don't actually have any, much of a clue about what you're doing until you've been out on practice a couple of times at least."* [Jennifer, 2nd year student]

> *"I think I would have benefited more if I'd done it later on. I think I would have had much more understanding about how to reflect and be able to apply it."* [Angie, 2nd year student]

The Level 6 IPE module was offered in two one week 'blocks' of theory, the students who were aware of this commented on this form of delivery:

> *"And I think maybe it should be something that's taught throughout the year, third year, like even if it's an extended module over the two semesters with one session a week or something like that, I think that would be really beneficial because we're just about to, you know, go qualify as professionals….even sharing our fears with other professionals would be good….Have lots of sessions on it, because it is very important."* [Jennifer, 2nd year student]

> *"it was over two weeks, so we had one week in February and then one week in April and it was at a time when we had our dissertation, we had three other essays, we had an exam coming up….IPE was just there all of a sudden."* [Paulette, 3rd year student]

> *"Yes, and doing it thoroughly, so instead of doing one week in February and then one week in April do it together so that we have that continuity throughout and then obviously having a variety of professions."* [Marie, 3rd year student]

Whilst the students made the above suggestions about the delivery of the module, the third years who had undertaken it commented on the *"really good"* [Paulette] organisation and the *"really helpful, really good"* [Marie] module leader.

The third year students mentioned that there were students from different professional groups in the academic Levels 4 and 6 IPE modules, whilst this was viewed as being challenging, it was acknowledged that the matter was being addressed:

> *"Third year I'd say it's worse than first year because in first year there were lots of different professions. Whereas in third year there was only three different professions….I think they're changing it for next year."* [Paulette, 3rd year student]

The third year students, who had undertaken the academic Level 6 IPE module commented that they would have liked the scenario approach to have been incorporated again (in line with the academic Level 4 module), with perhaps some simulated practice being included as they felt that this could facilitate a deeper understanding of the practicalities of interprofessional working.

3.2.3 Theme: IPE in clinical practice

Having studied an IPE module, and gained insight into other professional roles, gave the students confidence when they were in practice:

> *"If you know what their job role is and what they do then you know who to ask."* [Lauren, 1st year student]

> *"things like the pharmacists I'm more likely to ask them a question if I've got a doubt now…. I think of the whole team"* [Marie, 3rd year student]

There was a feeling from students that when they were in practice they were able *"to see actual interprofessional working happening"* [Angie, 2nd year

student] and that *"seeing it in practice makes it more real rather than sitting and talking about it"* [Marie, 3rd year student]. Marie provided an example of a resuscitation situation in which she felt that interprofessional working had been excellent with all members of the team being responsive to each other's suggestions and striving together to achieve the best possible outcome for the child. However, examples of learning about interprofessional working were more normally gained by spending time observing and shadowing other professionals (examples included doctors, physiotherapists, dieticians, speech and language therapists). Whilst some of these experiences were self-initiated by the student, having a good mentor could be *"so beneficial"* [Marie, 3rd year student]:

> *"my mentor said 'Oh, do you want to spend a day with this person' or they've been talking about a profession and I sort of say 'Oh, would I be able to spend some time with them?' it's just sort of pushed me to not completely focus on the children's nursing side, because, just expand my knowledge of all the different professions."* [Alison, 1st year student]

> *"my mentor has encouraged me to spend some time with paramedics… So last week I went to transfer a baby to a bigger hospital, so I spent some time with the paramedics and they explained what they do and how sometimes they do have to err on the side of caution because they don't necessarily know so much about children."* [Jennifer, 2nd year student]

> *"my mentor's been great at putting me out there and, yeah, just the amount of different meetings I've sat in."* [Angie, 2nd year student]

> *"I recently done the PILS* [paediatric life support] *course, so my mentor was like 'I'll e-mail round and I'll sort it out for you.'"* [Paulette, 3rd year student]

However, these experiences were not always viewed as IPE, but rather as the facilitation of their general learning:

> *"I think more so just gaining more knowledge for yourself."* [Chelsea, 1st year student]

Another valuable aspect of IPE within clinical practice was seeing the patient's perspective:

> *"I spent a day in a walk-in centre and I got to follow one specific patient around so they came in and I was in with admin and I saw how they put him onto the system. And then I went with him into see the triage nurse and then through to get an x-ray and then through to the doctor, so it was like I saw everything, I just followed this one patient around. I think that was very interesting to see because I know sort of when I've been waiting in rooms like that I don't know why it takes so long, but actually being there, seeing how each professional works with each other helps to understand the timing of it all and how they all communicate with each other."* [Alison, 1st year student nurse]

There was a realisation that, by professionals working together, the whole family could benefit:

> *"I think it makes you think of like the family as a whole rather than just the patient."* [Chelsea, 1st year student]

> *"Well the mother was, she was struggling at first but now she's happier with how the timetabling in school is working, she's getting care hours as well so she's able to spend time with her other child as well as this one. So it seemed like the mother felt happier with how things were going, and then hopefully in the next* [multi-professional] *meeting there are a few things they need to sort out and then hopefully make it easier on their family life."* [Lauren, 1st year student]

> *"I think it's just important to look after the family as well as the children."* [Jennifer, 2nd year student]

Whilst the majority of discussions about interprofessional working within clinical practice were very positive, there were occasions when students described a small number of negative experiences, these focussed on situations when procedures (such as an intravenous cannulation) had not gone smoothly; these situations had made an impact on the students' learning and prompted reflection on how the scenarios could be avoided in the future.

3.2.4 Summary of the findings from the mini focus groups with the BSc Hons Nursing (Children's) students

o The value of the IPE theoretical modules (offered at academic Levels 4 and 6), and the opportunity for children's nursing students to work with peers who were studying other health and social work programmes, was recognised by all who participated in the mini focus groups. Whilst the modules were not without some logistical challenges, there were very positive comments from the students about how they had gained insight into the roles and responsibilities of a wide range of other professional groups; in addition, the importance of interprofessional communication was highlighted.

o Learning about the work of other professionals had, in all cases, confirmed to the children's nursing students that they had chosen the correct career pathway.

o All students had participated in IPE within a practice setting; however, this was normally under the guise of more generic learning. The experience in clinical environments was perceived to provide insight into "*actual interprofessional working*" [Angie, 2nd year student].

o IPE in practice was actively facilitated by the children's nursing mentors who suggested, and actively arranged, learning opportunities for students; once again, this was part of the overall student learning experience and was not normally identified as 'IPE'.

o The children's nursing students raised some points in relation to the IPE module delivery; suggestions for how this could be enhanced were made and included, for the academic Level 6 IPE module: A broader range of professional groups, the incorporation of interprofessional simulation and the re-structuring of the one week study 'blocks'.

3.3 Findings from the interviews with lecturers

Sections 3.3.1 – 3.3.4 present the four themes that emerged from the semi-structured face-to-face interviews that were conducted with eight lecturers, from the University of Hertfordshire, who had had involvement in the delivery of at least one IPE module across the undergraduate health and social work programmes. Participants' words are accompanied by a phrase that indicates the focus of each theme. Table 2.2 provides further details about the participants, illustrating the diversity of their backgrounds.

3.3.1 Background and expertise of the lecturers

The lecturers had a wide range of professional backgrounds and expertise; all had substantive experience of working within Higher Education, some in more than one University. All had been involved in the delivery of one or more IPE modules for a minimum of two years with most participants having had involvement for four years or more.

Whilst one lecturer mentioned that she had *"had an hour's session about facilitating"* [Louise, dietetics lecturer], there was no formal or specific preparation for lecturers involved in the teaching of IPE modules, but this was not perceived to be a problem since there was agreement that there was a *"lot of support"* [Gemma, midwifery lecturer] and information relating to the IPE modules readily available from the module leader as well as the IPE team of lecturers. Some lecturers had had preparation for their IPE lecturing role via other previous experience, for example:

> *"It's not a great challenge for me to facilitate because my MSc is in interprofessional health and welfare studies."* [Isobel, children's nursing lecturer]

> *"I've done a lot of management studies on teamwork and leadership."* [Danny, radiography lecturer]

> *"I'm pretty experienced and I've worked with all of the disciplines, certainly all of the disciplines that are involved in these programmes."* [Melanie, children's nursing lecturer]

Interestingly, rather than feeling a need for preparation relating to IPE, there was general agreement amongst the lecturers that facilitation skills were one of the most important attributes since the lecturers did not know the students (in the same way as they did on profession specific modules) and this meant that skills were required to ensure that a rapport was built with the students, that individuals had equal opportunities to express their views and that group work was appropriately facilitated. As a result, comments were made about the need to have more experienced lecturers on the module team:

> *"I think that it should be quite senior, quite strong people....Good teachers….And people that are committed and enjoying it. Because there's a lot of facilitation around that and we're working together as an interprofessional group as well and I think that might not be the best module for someone who is very new to the University, or junior….you need quite a lot of confidence and skills I think really….I think I would be very daunted if I had to do that as a very new member of staff."* [Gemma, midwifery lecturer]

All of the lecturers interviewed had had substantive previous lecturing experience.

3.3.2 Theme: The IPE modules – content and delivery

The lecturers thought that the School of Health and Social Work[2] was committed to the ethos of IPE (*"I think they take it very, very seriously"* [Beth, social work lecturer]), although a small number of lecturers suggested that some colleagues within the wider School did not always view it positively; all participants felt that IPE was a valuable component of the undergraduate programmes and that *"most of the students work really well together"* [Danny, radiography lecturer]. The lecturing staff spoke positively about the IPE modules with several commenting on the fact that they were *"organised really well"* [Jacqueline, midwifery lecturer] and that they enjoyed being involved; there was evidence of a committed and motivated approach from the participants. They also concurred with some of the points raised by the student participants; for example, it was generally agreed that the students benefitted from studying with peers from other professional groups as they could otherwise have *"misconceptions about what others do*" [Beth, social work lecturer]:

> *"I think they understand more fully radiographers' roles and the physiotherapy role and so on, and having worked with their contemporaries in the group work, then I think they're much more willing to say, "May I stay with you while you're doing chest physio on this child?" Or, "When you were doing the assessment, why did you say that about their clinical situation?" in a way which they wouldn't have*

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[2] Both IPE modules are 'housed' in the School of Health and Social Work, but the dietetics and pharmacy programmes are run by the School of Life and Medical Sciences.

done had those initial barriers not been broken down very early in the three year programme." [Isobel, children's nursing lecturer]

"I think my midwifery students do have an understanding of how, say, children's nursing or social work will kind of interact with their role and they do say that actually, they said 'Oh we didn't realise.... I think some of my students don't kind of realise that children's nursing is different from adult nursing. You know, I mean, I think they feel it's just nursing.'" [Gemma, midwifery lecturer]

There was a consistent opinion from lecturers that it would be beneficial to involve medical students in the IPE modules (this reiterated the findings from the mini focus groups):

"I think....I'd have some medics around, because I think it's a weakness in our interprofessional education, an understandable weakness, but a weakness for all that, that there are no medical students or doctors involved and I had been used to that in the past." [Isobel, children's nursing lecturer]

"I wish there was a way that we could bring some student doctors here. I think that would really add, and the students actually say that as well. Because we have GPs and doctors talking to the students, bringing the medical viewpoint, it would be great to have some medical students that could add to that." [Gemma, midwifery lecturer]

"It would be interesting to have a medical student, very interesting.... Occasionally in group work they've [students] *said, 'It would be useful if we had a medical student.'"* [Melanie, children's nursing lecturer]

Lecturers also echoed some of the other views of the student participants by identifying professional groups, such as speech and language and occupational therapists, teachers and police, who could potentially be involved in the IPE modules. The lecturers vocalised the *"professional pride"* [Helena, radiotherapy lecturer] that was exhibited by the different groups of students and highlighted that this could, at times, lead to challenging classroom discussions that needed to be addressed. There was, however, agreement, that no-one profession dominated over another, this was more concerned with individual personalities.

The lecturers all mentioned the educational content of the IPE modules and there were differences identified between the academic Level 4 and 6 modules. The overall comments were positive with the majority of lecturing staff mentioning the benefits of embedding IPE into the undergraduate programmes from an early stage – this had the advantage of providing opportunities for students to explore key concepts (such as communication and confidentiality) as well as professional issues within a safe environment, reoccurring examples related to safeguarding.

In terms of the academic Level 6 module, there was a common agreement that the students enjoyed hearing about the service-user's perspective and that this involvement could potentially be developed:

> *"I think it's very powerful to get service users in to speak directly to the students."* [Gemma, midwifery lecturer]

> *"it would be interesting, I think, to try and involve them* [service-users] *in some of the group work".* [Louise, dietetics lecturer]

It was agreed that the conference style approach that was incorporated into the academic Level 6 module was a strength, but there was some concern from a small number of lecturers that the relevance of some of the more policy related elements were not always fully appreciated by the students:

> *"A lot of the interprofessional education is looking at the bigger picture of working within the NHS. Again, some of that I think they engage with and work very well with. I think other elements of it are maybe at a level that they're not ready for, so some of the things about commissioning, they're probably not at a level where they can maybe engage fully with that because it's not what they think their role is going to be at that stage. They want to be the hands on healthcare professional, not thinking about the bigger picture. But again, feedback has been mainly that that's an enjoyable experience."* [Louise, dietetics lecturer]

Some of the weaknesses of the IPE modules that were expressed by the lecturers related to the students' appreciation of the modules and also the classroom delivery (it's *"a logistical nightmare to manage"* [Helena, radiotherapy lecturer]). In relation to the first point, lecturers were not always

sure that the students fully valued the purpose of the IPE modules and it was felt that it could be perceived as: *"Just another thing"* [Isobel, children's nursing lecturer] especially for third year students who had a range of other assignments to complete; in addition, Isobel and colleagues commented that:

> *"I don't think sometimes they're mature enough and well enough grounded in what will be their profession to be able to take on board the nuances from another profession easily. Some of them can, but not all of them."* [Isobel, children's nursing lecturer]

> *"at that stage they don't really know enough about their own profession and about working in healthcare to maybe get the full benefit from having that* [IPE module] *experience."* [Louise, dietetics lecturer]

> *"I don't think enough emphasis can be put on IPE, but I also think that you don't appreciate it until you're qualified. I think it's really difficult to get the students to understand the importance of it, and the importance of what they're learning. That's why things are slightly different in third year, because they've had much more clinical placement."* [Helena, radiotherapy lecturer]

There was agreement with Isobel in that lecturers felt that students did not know what they had gained from IPE until a later stage in their programme:

> *"when I see students later…. they will say….'Now I realise what I've learnt on the interprofessional module, I didn't realise at the time.'"* [Jacqueline, midwifery lecturer]

> *"They've said, 'Because I've done the module, I remembered working in group work and so I knew I could suggest that this professional was approached and maybe they could deal with it.'"* [Melanie, children's nursing lecturer]

The environment in which IPE was delivered was raised with the lecturers; there was a general opinion that the conference style accommodation, when used for the whole group of students, was of a high quality and 'fit for purpose'; however, the lecturers agreed that tiered lecture theatres, sometimes used for the smaller seminar sessions (of approximately 35 students) were not so conducive as they did not lend themselves to student

focussed group work – there was a need for 'flat' classrooms and appropriate tables. Concerns were raised about the University timetabling system, the rooms allocated and the time of day given for IPE (for the academic Level 6 module this had sometimes been until 20.00 hours).

Whilst a range of students concurrently studied the IPE modules, as cohort sizes varied across professional groups, there was not equal balance within the smaller seminar groups and this could mean that out of approximately 35 students, just one was from, for example, dietetics with the majority of students being from the larger programmes (such as nursing). This difference could mean that a particular professional group could 'dominate' the class discussion – good lecturer facilitation, as well as the students' ability to interact appropriately with others was therefore very important.

3.3.3 Theme: Applying the IPE modules to practice

There was agreement amongst the participants that the *"ultimate aim of IPE is to provide quality care"* [Danny, radiography lecturer]. Whilst the lecturers were not able to provide specific examples of how the IPE modules had impacted on patient care, there was agreement that there should be clear links with practice and that the role of the mentor (or education lead for some professions) was of fundamental importance. Gemma [midwifery lecturer] explained that:

> *"we actually ask the students to complete a placement evaluation after each placement and in that we say 'Were you given opportunities by your mentor to do some interprofessional working?' and very rarely is the yes box ticked….Then we'll say 'And what examples do you have of learning opportunities that you undertook?' 'My mentor encouraged me to see what the doctor was doing,' or 'My mentor arranged for me to go to another department to see what was going on there,'"*

The above quote echoes the findings from the mini focus groups with students that revealed that mentors were facilitating interprofessional working opportunities, but that these were not specifically viewed as IPE.

There was general agreement that mentors needed to be appropriately prepared so that they could facilitate IPE in clinical practice:

"if they've been trained, prepared as a collaborative work agent then they will be able to impart that." [Danny, radiography lecturer]

"they could have been mentors for years and some may not have had any IPE training." [Beth, social work lecturer]

Overall, the participants felt that IPE was positively influencing student practice and that this had the potential to impact on the care of all client/patient groups including children and young people; Melanie and Isobel, both children's nursing lecturers, commented that they felt that the students were more likely to approach other professionals, such as physiotherapists or dieticians to be involved in a child's care and that this could only enhance the overall service provision. Interestingly, lecturers from other professional backgrounds referred to the fact that working with children and families was addressed within the IPE modules since children are a client group that most disciplines are likely to come into contact with; this meant that all students were developing their insight - once again, it was felt that this had the potential to improve the care for children, young people and their families:

"We discuss children with illnesses and sickness and the impact of how we treat them on their families, on how to communicate with children…..it will certainly get all of our students to think about how they interact with children and the importance of engaging with the child and not just the adult….Yes, that's all discussed within the IPE, so I think that, yes, they should come away with a different perspective hopefully on caring for children." [Helena, radiotherapy lecturer]

"but also on the social work side, how to support families when there is an illness….when a child is ill." [Beth, social work lecturer]

3.3.4 Theme: Thinking about the way forward

It was clear from the interviews that a number of changes to the IPE delivery were already being made for the forthcoming academic year in order to enhance the student experience; for example, students from the early years

educational programme were to join in September 2015 – Isobel [children's nursing lecturer] felt that this would be particularly advantageous for the BSc Hons Nursing (Children's) students; in addition, all of the nursing students would be undertaking the academic Level 6 IPE module in Semester A (September to January), rather than Semester B (January to June) as this would provide them with the opportunity to study with peers from a greater range of professions. It had also been decided that the academic Level 6 IPE module would now no longer be held in the evening.

The lecturers all had suggestions about how IPE could be developed and there was a very strong focus on the further potential application to practice. For example, Isobel had visited Sweden and had gained another insight into IPE - third year students, from a range of programmes, had been mentored in clinical practice by staff from their own profession as well as other disciplines. Gemma described a 'buddy' scheme that she had seen piloted – whilst in practice, students had a 'buddy' who was studying a different profession. Melanie highlighted the potential for students to 'shadow' someone from another profession whilst in practice (Louise [dietetics lecturer] had had some experience of this, but it was not within the context of the IPE modules):

> *"I think it would be wonderful if individuals could shadow another professional in an actual workplace just to see the reality of what they do. It's all very well sitting in a group and hearing what a social worker does, but then it's still in the imagination….So perhaps a placement that involved shadowing of some sort….I always think a practical situation is much more powerful learning."* [Melanie, children's nursing lecturer]

Jacqueline and Danny, in line with ideas offered from the student participants, felt that simulated scenarios could be beneficial:

> *"Simulation, so that they're actually getting the practise in a safe environment….it would be very time-consuming….but I think that they* [the students] *would probably gain more from it than listening to a lecture and then having to wait till they go into practice, it would be a safer environment for them to gain real experience."* [Jacqueline, midwifery lecturer]

"If we could have, I mean I know we have the simulation room. If they could work in there, have a case history and they could work around that more as an example of what they would do in the clinical setting. Rather than the theoretical perspective we give them. I think that would be more beneficial." [Danny, radiography lecturer]

Lecturers generally agreed that the first IPE module should be in year one of the undergraduate programmes, but there were some differences of opinion in terms of whether Semester A or B was more appropriate since the former gave a good initial introduction but the latter meant that most students had developed a greater understanding of their own designated profession so that they could contribute more fully to discussions. A number of lecturers also suggested that IPE should be a strand throughout the undergraduate programmes, for example:

"I'd like to see a thread throughout the whole curriculum, so in the first year and then leading onto something in the second year and it leading onto something in the third year." [Gemma, midwifery lecturer]

3.3.5 Summary of the findings from the interviews with lecturers

o The participants all had substantive expertise as lecturers and displayed a motivated and committed approach to the delivery of the IPE modules, many commenting on how much they enjoyed being involved.

o Lecturers generally felt that IPE modules should be integrated throughout the undergraduate programmes so that there was a clear 'thread' across the years of study. There were some differences of opinion about whether the academic Level 4 module should be delivered in Semester A (September to January) or Semester B (January to June) of each academic year.

o The key skill that emerged as being of fundamental importance in terms of the IPE modular delivery was that of facilitation.

o IPE was very much valued by the participants and there was an overall view that the School of Health and Social Work was very supportive of the IPE philosophy as well as the module delivery.

o The participants felt that the IPE modules provided a valuable and important opportunity for students to study alongside their peers from other disciplines, particularly as this gave them an enhanced understanding of the different professional roles and responsibilities. There was a consistent

view that other students could be involved in the IPE modules with medical students being principally highlighted.

o   There was some concern that students did not always fully appreciate the value of the IPE modules whilst they were studying them and that understanding the relevance often occurred later in the students' programmes.

o   The content of the IPE modules was perceived to be positive as it provided an opportunity for students to explore common concepts within a safe environment; the involvement of service-users was also applauded. There was some suggestion that the more strategic overview of policy and its application to service provision (included in the academic Level 6 IPE module) could be challenging for students.

o   A number of alterations to the IPE modules were already planned to further enhance the student experience (including the integration of students studying the early years programme and changes to the timing of the timetabled sessions), but the lecturers also made suggestions in relation to the future potential development of the IPE modules – these primarily focussed on the more overt application to practice through, for example, the use of simulation, a student 'buddy' system, and the shadowing of professionals from different disciplines.

o   There was a perception that the IPE modules were having a positive influence on patient/client care. Comments were made about the specific application to children and young people, with children's nursing lecturers vocalising that the children's nursing students had an enhanced insight into other professions and were therefore more likely to involve colleagues from other disciplines in a child's care. Lecturers from other professional backgrounds felt that because working with children and young people was addressed in the IPE modules, this meant that all students had an increased awareness of this client group and their needs.

3.4   Findings from the interviews with clinically based children's nurses

A total of 3 children's nurses (Table 2.3) participated in the face-to-face semi structured interviews; sections 3.4.1 – 3.4.2 present the two themes that emerged.

3.4.1   Background and expertise of the children's nurses

The three nurses had a breadth of clinical experience, having been registered with the NMC as children's nurses for many years. All of the participants

spoke of their previous experience and of their current responsibilities, an overview is provided in Table 3.1.

Name	Background information
Emily	Emily undertook her nursing programme abroad and then studied her children's nursing qualification in the UK. Emily had worked in a range of NHS Trusts and within a variety of children's nursing specialities.
Juliette	Juliette came to the United Kingdom in the late 1980s having undertaken her nursing programme abroad. She had undertaken further academic studies and had gained a degree qualification. Juliette's expertise was in the field of neonatal nursing.
Penny	Penny had been a children's nursing ward sister for 35 years, but had, in May 2014, assumed new additional responsibilities that included being a clinical practice education facilitator on the children's ward. Penny had initially undertaken a general nursing programme, before studying midwifery and children's nursing.

Table 3.1:   The children's nurses' professional background and experience

During their own nursing programmes, none of the participants had undertaken specific IPE modules, however, they all felt that they had learnt interprofessionally, for example:

> *"we had doctors who gave us lectures and, yes, we had like social workers who came in and, you know, talked….all members of the multi-disciplinary teams….When I was actually doing the training and being taught about them it didn't, sort of, click then, but when you qualify and you go on the ward and you know that this child needs a social worker or a health visitor or a speech therapist or something then it all ties in."* [Penny, sister and education facilitator]

Interestingly, the children's nurses concurred with the views of the lecturers that they only appreciated the value of learning interprofessionally once they had qualified, for example:

> *"I felt probably that a lot of those things weren't actually necessary at the time….that's while I was actually doing it, but when I got into a job and was working as a staff nurse on the ward then I realised the importance of having the other people, yes."* [Penny, sister and education facilitator]

There was general agreement that personal experiences had positively influenced the IPE opportunities that the participants now provided for students.

3.4.2   Facilitating IPE in clinical practice

The participants all had a good understanding of IPE and what it meant (*"it's learning from each other"* [Emily, senior staff nurse]) with Juliette [senior sister] also highlighting that qualified practitioners could learn from students as well as vice versa:

> *"it's about how we can learn from one another….We teach them* [the students] *the clinical bit, they share with us the knowledge that they have acquired and we try to work in as harmonious environment as we can."* [Juliette, senior sister]

The value of learning about the roles of other professionals was emphasised with the children's nurses explaining that patients benefitted from a collaborative approach. As a result, the participants, who all acted as mentors to BSc Hons Nursing (Children's) students, felt that the facilitation of student learning implicitly meant the inclusion of IPE opportunities.

Whilst it was appreciated that the IPE modules were beneficial, there was an agreement that learning in, and from, practice was crucial and that it was a means to apply theory to practice:

> *"Personally I would much rather they learn it practically. I suppose it's the way I was trained and I find that's how I learn and I do find that a lot of people when they're learning things theoretically they can do good essays and everything, but they can't actually apply it….I think the theory is useful, but I think it should be alongside practical things."* [Penny, sister and education facilitator]

> *"it is good to help the students to bridge the theory and practice gap, that's where we come in."* [Juliette, senior sister]

The role of the mentor in terms of facilitating student learning was clearly recognised and all the participants identified a comprehensive range of IPE activities that they organised for students – these included: Attendance at multi-professional meetings, joining a ward round, arranging for a student to follow a child through their health care journey, visits to different departments (such as the operating theatre or clinic), spending time with another

professional (such as a physiotherapist, doctor, occupational therapist or dietician) to learn about their role, and, training days:

> *"Apart from everything else, every three months I arrange a training day on the ward. I invite other people, interprofessional people to come in and talk or teach. The next one is due on the 29th June and I will be having one of the diabetic nurse specialists coming in and she will be talking about diabetes. The dietician will be coming in and….one of the consultants will be discussing DKA* [Diabetic Ketoacidosis].*"* [Penny, sister and education facilitator]

> *"It could be attending free seminar sessions that are happening in the environment, or it could be using a case study and reflecting back to a patient that they're looking after. There are learning opportunities everywhere."* [Juliette, senior sister]

All of the participants mentioned the importance of learning about the roles and responsibilities of doctors *("It's very important because we work together hand in hand"* [Juliette, senior sister]), thus re-iterating the findings from both the mini focus groups with students and interviews with lecturers. There was, however, agreement that meeting other members of the multi-professional team and learning from them was also very valuable:

> *"when they've had these sessions a lot of them seem more interested and want to learn or they even ask if they can, say, look after a mental health patient or look after a diabetic patient….so they can put what they learnt in these sessions into practice…. and they actually know the people and….like, the dietician….and if the student is looking after the patient she will probably call the student to let the student tell her what's happened to the patient and explain exactly what's happening."* [Penny, sister and education facilitator]

> *"we've got a psycho-social meeting once a week and that's particularly in relation to young people and currently we've had a lot of cancer patients, so I think with the students going to the multi-disciplinary meetings that they probably do get a wider view of what's going on and understanding of what gets discussed in those meetings and why we follow a certain pathway."* [Emily, senior staff nurse]

> *"one student who went to theatre actually came back and she was reeling off what they'd done in theatre, it was an appendectomy and she was quite in awe of seeing it and understanding and looking at the biology of it, looking at the way the surgeon carried out his job and then*

she was able to tie it in then with the postop care." [Emily, senior staff nurse]

There were opportunities for students to express their learning needs and the mentors tried to meet these – Penny [sister and education facilitator] gave an example of students requesting more information about asthma, so a talk and an oronasopharyngeal suctioning demonstration had been organised; this also provided an opportunity for the students to practise on a child-sized manikin. The concept of simulation and role play was highlighted as being important as it enhanced application to practice; for example, Penny [sister and education facilitator] explained how she and colleagues had simulated a cardiac arrest situation and felt that this had been a very beneficial student learning experience – the positive use of simulation concurs with the findings from the interviews with lecturers and mini focus groups with students.

Whilst a range of IPE opportunities were available for BSc Hons Nursing (Children's) students during their clinical experiences, this was not 'labelled', by the participants, as such – *"it's just training sessions."* [Penny, sister and education facilitator]; *"it's part of the whole neonatal experience"* [Juliette, senior sister]; *"I'd call it education….I would just say it's learning skills and it's broadening your horizons"* [Emily, senior staff nurse]. This not only echoes the findings from the mini focus groups with the students, but the participants all also affirmed that they did not always feel that the students perceived the activities as IPE.

One of the key areas that was raised in relation to IPE was the importance of communication (*"we can get situations resolved by simple communication."* [Juliette, senior sister]); all the participants were able to give clear examples from practice about when communication had worked well and when it had 'broken-down' – this was felt to be a very valuable learning opportunity for students. Aligned with this was the need for students to appreciate that *"they're part of a team"* [Emily, senior staff nurse] liaising with other professionals for the benefit of the child and family.

Overall, the participants spoke very positively about the facilitation of IPE within clinical practice; however, one concern that was expressed related to professional boundaries – Emily [senior staff nurse] explained that different professionals had different roles and responsibilities and that *"there's a professional line….you can't step over"* – this was primarily related to health and safety but was also about maintaining boundaries. Juliette [senior sister] explained that she would happily arrange for a children's nursing student to meet another professional, but felt that it was not appropriate for her to discuss someone else's role with a student as that was not her area of *"expertise".*

3.4.3 Summary of the findings from the interviews with clinically based children's nurses

o   The children's nurses had many years of experience of working clinically and had gained a tremendous range of knowledge, skill and expertise in that time. All acted as mentors to BSc Hons Nursing (Children's) students.

o   Whilst none of the participants had undertaken any formal IPE modules during their pre-registration nursing programmes, they all demonstrated an insight and understanding of the concept. The benefits of students having IPE within practice were vocalised with these primarily relating to the enhancement of patient care.

o   The participants displayed a strong commitment to the facilitation of IPE learning opportunities for students and identified a comprehensive list of activities that they often arranged as part of their mentor role. Despite this, the activities were not 'labelled' as IPE, but were viewed as part of the generic student learning experience. It was felt that students had a similar perception.

o   The children's nurses felt that IPE theory was important, but that learning in, and from, clinical practice was imperative. The use of role play and simulation was identified as a means of complementing this.

o   Communication was perceived as being a fundamental aspect of IPE.

o   A concern relating to IPE was the need to maintain professional boundaries.

3.5   Conclusion

Section 3.0 has provided an account of the findings that emerged from three mini focus groups with BSc Hons Nursing (Children's) students, eight semi-structured interviews with lecturers who were involved in IPE delivery at the University of Hertfordshire and three semi-structured interviews with clinically based children's nurses. Section 4.0 concludes the report by summarising the findings, making recommendations for practice and further study, as well as recognising some of the limitations of the study.

Section 4.0: Conclusions

4.1   Introduction

Through the use of qualitative data collection approaches, this exploratory research study sought to provide insight and understanding of the perceptions of BSc Hons Nursing (Children's) students, lecturers and clinically based children's nurses in relation to IPE and its potential impact on the care delivered to children, young people and families.

This concluding section summarises the main findings of the study and provides recommendations for the future development of the provision of IPE for undergraduate BSc Hons Nursing (Children's) students. This is followed by a consideration of the plans for dissemination, an acknowledgement of the limitations of the research and suggestions for future work.

4.2   A summary of the main findings

4.2.1 Summary of the findings from the mini focus groups with BSc Hons Nursing (Children's) students

o The value of the IPE theoretical modules (offered at academic Levels 4 and 6), and the opportunity for children's nursing students to work with peers who were studying other health and social work programmes, was recognised by all who participated in the mini focus groups. Whilst the modules were not without some logistical challenges, there were very positive comments from the students about how they had gained insight into the roles and responsibilities of a wide range of other professional groups; in addition, the importance of interprofessional communication was highlighted.

o Learning about the work of other professionals had, in all cases, confirmed to the children's nursing students that they had chosen the correct career pathway.

o All students had participated in IPE within a practice setting; however, this was normally under the guise of more generic learning. The experience in clinical environments was perceived to provide insight into "*actual interprofessional working"* [Angie, 2nd year student].

o IPE in practice was actively facilitated by the children's nursing mentors who suggested, and actively arranged, learning opportunities for students; once again, this was part of the overall student learning experience and was not normally identified as 'IPE'.

o The children's nursing students raised some points in relation to the IPE module delivery; suggestions for how this could be enhanced were made and included, for the academic Level 6 IPE module: A broader range of professional groups, the incorporation of interprofessional simulation and the re-structuring of the one week study 'blocks'.

4.2.2 Summary of the findings from the interviews with lecturers

o The participants all had substantive expertise as lecturers and displayed a motivated and committed approach to the delivery of the IPE modules, many commenting on how much they enjoyed being involved.

o Lecturers generally felt that IPE modules should be integrated throughout the undergraduate programmes so that there was a clear 'thread' across the years of study. There were some differences of opinion about whether the academic Level 4 module should be delivered in Semester A (September to January) or Semester B (January to June) of each academic year.

o The key skill that emerged as being of fundamental importance in terms of the IPE modular delivery was that of facilitation.

o IPE was very much valued by the participants and there was an overall view that the School of Health and Social Work was very supportive of the IPE philosophy as well as the module delivery.

o The participants felt that the IPE modules provided a valuable and important opportunity for students to study alongside their peers from other disciplines, particularly as this gave them an enhanced understanding of the different professional roles and responsibilities. There was a consistent view that other students could be involved in the IPE modules with medical students being principally highlighted.

o There was some concern that students did not always fully appreciate the value of the IPE modules whilst they were studying them and that understanding the relevance often occurred later in the students' programmes.

o The content of the IPE modules was perceived to be positive as it provided an opportunity for students to explore common concepts within a safe environment; the involvement of service-users was also applauded. There was some suggestion that the more strategic overview of policy and its

application to service provision (included in the academic Level 6 IPE module) could be challenging for students.

o A number of alterations to the IPE modules were already planned to further enhance the student experience (including the integration of students studying the early years programme and changes to the timing of the timetabled sessions), but the lecturers also made suggestions in relation to the future potential development of the IPE modules – these primarily focussed on the more overt application to practice through, for example, the use of simulation, a student 'buddy' system, and the shadowing of professionals from different disciplines.

o There was a perception that the IPE modules were having a positive influence on patient/client care. Comments were made about the specific application to children and young people, with children's nursing lecturers vocalising that the children's nursing students had an enhanced insight into other professions and were therefore more likely to involve colleagues from other disciplines in a child's care. Lecturers from other professional backgrounds felt that because working with children and young people was addressed in the IPE modules, this meant that all students had an increased awareness of this client group and their needs.

4.2.3 Summary of the findings from the interviews with clinically based children's nurses

o The children's nurses had many years of experience of working clinically and had gained a tremendous range of knowledge, skill and expertise in that time. All acted as mentors to BSc Hons Nursing (Children's) students.

o Whilst none of the participants had undertaken any formal IPE modules during their pre-registration nursing programmes, they all demonstrated an insight and understanding of the concept. The benefits of students having IPE within practice were vocalised with these primarily relating to the enhancement of patient care.

o The participants displayed a strong commitment to the facilitation of IPE learning opportunities for students and identified a comprehensive list of activities that they often arranged as part of their mentor role. Despite this, the activities were not 'labelled' as IPE, but were viewed as part of the generic student learning experience. It was felt that students had a similar perception.

o The children's nurses felt that IPE theory was important, but that learning in, and from, clinical practice was imperative. The use of role play and simulation was identified as a means of complementing this.

o Communication was perceived as being a fundamental aspect of IPE.

o A concern relating to IPE was the need to maintain professional boundaries.

4.3 Recommendations

The findings from this exploratory research study have raised areas that may be worthy of further consideration in terms of the future development of IPE; the following recommendations are offered:

- It is recommended that the value and potential use of role play and simulated practice is considered since the study identified that students enjoy and learn well from these educational methods.

- It is suggested that the participation of medical students within IPE that involves BSc Hons Nursing (Children's) students could be beneficial since these two professional groups frequently work closely in clinical practice.

- It is advocated that clinically based children's nurses, who act as mentors, have information about IPE within the pre-registration nursing curriculum including how they can further facilitate this in clinical practice.

4.4 Dissemination of the findings

Dissemination of results is a key aspect of any project (Locke et al, 2000). Firstly, and perhaps most importantly, it is advisable to report the findings to participants (Macnee, 2004; Nieswiadomy, 2002); all those who were involved were provided with an Information Sheet (Appendices 2.5; 2.6; 2.7) in which it was stated that a copy of the report would be available to them, should they wish to receive one; if participants have requested a copy, this will be sent following submission of the final document to HE NCEL.

This research has been commissioned and funded by HE NCEL, therefore, discussions will take place to identify suitable and joint methods of dissemination to the wider professional population – it is anticipated that this will be via conference presentations and journal publication.

4.5 Limitations of the study

Having considered the findings from this study, it is important to also acknowledge some of the limitations:

- Students, from each of the three years of the BSc Hons Nursing (Children's) programme were invited to participate in the study. Those who responded and took part in the mini focus groups may have done so because they had a specific interest in IPE; it is also acknowledged that the sample size was small and that the findings from the mini focus groups may have not been fully representative of all of the BSc Hons Nursing (Children's) students.

- Interviews with lecturers and clinically based children's nurses took place, but it is recognised that the sample size was limited.

4.6 Suggestions for future work

As a consequence of the study, other areas that would merit further investigation have emerged:

- It would be timely to further examine the benefits (and challenges) that IPE presents. Consultation with BSc Hons Nursing (Children's) students, HEI lecturers and clinically based children's nurses, from across a wider geographical area, would be advantageous since this research only involved a small number of participants. A larger study would provide further insight, helping to explore whether some of the findings reported in this work are replicated; it would also potentially enhance transferability.

- Work to further explore the IPE that BSc Hons Nursing (Children's) students undertake within clinical practice would be advantageous, especially as it appears that there are a number of educational activities taking place, but that these are frequently not recognised as IPE.

- It would be beneficial to consider the support and information that mentors require in order to further facilitate IPE, within a clinical setting, for BSc Hons Nursing (Children's) students.

- Research is warranted to investigate, in more depth, the impact of IPE and how this influences the day to day clinical practice of BSc Hons Nursing (Children's) students.

4.7   Conclusion

This research has confirmed that BSc Hons Nursing (Children's) students, lecturing staff and children's nurses all value IPE. This type of learning gives individuals an understanding of the complexity of health systems and facilitates the sentiment of *'putting the child first'* (Caldwell and Swanwick, 2014: 3). The World Health Organisation (2010: 13) describes interprofessional education as *"essential to the development of a "collaborative practice-ready" health workforce, one in which staff work together to provide comprehensive services in a wide range of health-care settings."* It could be argued that it is therefore essential that lecturers and practitioners work together to achieve this goal.

Despite the advantages of IPE, it is not without its challenges, especially in terms of its delivery. Whilst all pre-registration children's nursing students are required to study at a minimum of degree level, nursing remains primarily a practice-based profession – it is therefore crucial that the links with classroom taught IPE are made to clinical practice. One of the key points that emerged from this study was the potential to draw more extensively on role play and simulated practice in order to facilitate learning; whilst this approach can be very labour intensive and time consuming, Davies (2015) reminds us that active learning of this nature can mean that as much as 90% of information is retained. IPE has the potential to have a significant and positive impact on patient care, the investment of time and resources could, therefore, be very worthwhile – let us not shy away from the demands of ensuring that our future children's nurses are appropriately prepared for practice.

It is hoped that the findings from this study have provided data that has the potential to inform the future planning of IPE so that health service provision for children and young people can continue to be enhanced.

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Appendix 2.1

Conduct sheet: Mini focus group facilitators

- Do check that you have everything you will need before meeting the students, including:

    1. Interview guide
    2. Digital recorder
    3. Spare batteries
    4. Contact details for follow-up support, if required
    5. Sticky labels for name badges

- Make sure that you have a quiet, private room, with no interruptions.

- Do check beforehand that the digital recorder is working (also check after a few minutes of the interview)

- Regularly check that the digital recorder is still working

- Ask the students to introduce themselves by first name only, and to try and remember to introduce each contribution with their first name (it makes it much easier to identify them when transcribing the recording)

- Make sure that you get their consent again before beginning

- Read carefully through the first part of the interview schedule to make sure that the focus group members understand what is going to happen and consent to everything.

- Go over the ground rules:

    1. Confidentiality
    2. Each participant has as valid a point as the next one
    3. Each participant has an equal right to express themselves
    4. No disagreements/arguments to be taken outside of the group
    5. All are equal within the group.

- Stress confidentiality, and that nothing that is said inside the group is taken outside of it - apart from the digital recording.

Role of the facilitator during the discussion

- Begin with the opening question to get the students talking and feeling comfortable

- Allow plenty of time for discussion around key questions

- The focus group facilitator should keep a low profile as possible once the discussion has begun

- The facilitator should have a low level of involvement when allowing participants to explore ideas and concepts

- However, there should be a high level of involvement when comparing new participants with findings from previous groups (the idea is not to go over old ground but to explore new ideas and concepts)

- Be prepared to bring the group back to the topic if they have strayed too far - more important in a group than in one-to-one interviews

- Encourage reluctant participants

- Be aware of possible role differentials and how this could affect the group dynamics.

- Act as a:
    1. Facilitator
    2. Controller
    3. Listener

- Possible problems to be aware of:

    1. Participants have different ideas about the purpose of the group
    2. Silence
    3. Participant/s who will not join in
    4. Everyone talking at once - control the group so that only one person at a time talks
    5. Running out of time - not getting round to all key questions because of too much discussion (often of irrelevant points)

- Finish by summarising, switch off the digital recorder, and then de-brief.

- Thank everybody for coming and for his or her contributions.

Appendix 2.2

Mini focus group prompt questions:
Schedule for BSc Hons Nursing (Children's) students

- Introductions, including:
    - Purpose of the focus group
    - Clarification of topic under discussion
    - Format of the focus group
    - Approximate length of the focus group
    - Assurance of confidentiality
    - Purpose and use of digital recorder (including consent for its use)
    - Assurance that the participants can seek clarification of questions
    - Assurance that the participants can decline to answer a question(s)
    - Assurance that the participants can ask questions

Please also refer to 'conduct sheet: Mini focus group facilitators' for further information

Facilitator to define interprofessional education using Centre for the Advancement of Interprofessional Education [CAIPE] (2002) definition: *"Interprofessional education occurs when two or more professions learn with, from and about each other to improve collaboration and the quality of care."*

- When did you start your children's nursing programme? When are you due to complete it?

- Could you tell me what interprofessional education is incorporated into your programme?

- What are your thoughts about the interprofessional education module(s) that you have studied? What are the strengths and weaknesses?

- Thinking specifically about the timing of the interprofessional education module(s) throughout your course, do you think that this is appropriate? Please explain your answers.

- Which other student groups take part in the interprofessional education module(s) with you?
    - How does this work?
    - Do you think it is appropriate? Why?
    - Do you have any suggestions that could enhance the interprofessional education modular delivery?

- Thinking specifically about the other professional groups taking part in the interprofessional education module(s):
    - Have you learnt about their professional roles? If so, in what way? Has anything about their roles surprised you? Are the roles as you expected? Please explain your answers.
    - Have you worked with these professional groups in practice (either students or qualified staff)? How did that feel? Please explain your answers.
    - Are there any professional groups of students that you would like to learn with that you currently don't? Please explain your answers.
    - Has/have the interprofessional education module(s) tempted you to change career to another profession? Please explain your answers.
    - Do you feel that the professional groups now have an understanding of children's nursing? Please explain your answers.

- Do the interprofessional education module(s) in their current format meet your needs as far as learning from and developing an understanding of other professional groups? Please explain your answer.

- Thinking specifically about your practice, have the interprofessional education module(s) impacted on your clinical experience? Please explain your answer.

- Do you have any examples of interprofessional education outside of the university?
    - What were they?
    - Who initiated these experiences?
    - What did you learn from them?

- What role have your mentors played in relation to the provision of interprofessional education within a practice setting?

- Thinking specifically about children, young people and their families:
    - Do you have a better understanding of how other professions work with children, young people and their families?
    - Has the interprofessional education module(s) impacted the way you care for children, young people and their families?
    - Have you made any decisions based on anything you have learnt though the interprofessional education module(s)?

- If you could design an interprofessional education module anywhere with anyone, what would it look like? Please explain your answer.

- Do you have anything else you would like to add?

Thank you

Appendix 2.3

Interview prompt questions: Schedule for lecturers

- Introductions, including:
  - o Purpose of interview
  - o Clarification of topic under discussion
  - o Format of interview
  - o Approximate length of interview
  - o Assurance of confidentiality
  - o Purpose and use of digital recorder (including consent for its use)
  - o Assurance that the participant can seek clarification of questions
  - o Assurance that the participant can decline to answer a question(s) or terminate the interview
  - o Assurance that the participant can ask questions

Interviewer to define interprofessional education using Centre for the Advancement of Interprofessional Education [CAIPE] (2002) definition: *"Interprofessional education occurs when two or more professions learn with, from and about each other to improve collaboration and the quality of care."*

- What is your current role/job title?

- How long have you been employed in your current post? What are your key responsibilities?

- What do you think the School's view of interprofessional education is? Please explain your answer.

- What involvement do you have with the interprofessional education module(s)? How long have you been doing this?

- Thinking specifically about the timing of the interprofessional education module(s) throughout the undergraduate programmes, do you think that this is appropriate? Please explain your answers.

- What are your thoughts about the interprofessional education module(s) that you have been involved in? What are their strengths and weaknesses?

- Have you had any specific training/preparation, or attended any courses on facilitating interprofessional education? Please explain your answer.

- Is facilitating interprofessional education challenging for you? Please explain your answer.

- Do you feel that what students gain from the interprofessional education modules 'matches' the work involved in preparation, facilitation and coordination? Please explain your answer.
- In terms of the location of the interprofessional education modules, is the current venue/environment suitable? Please explain your answer.

- Do you see good collaboration from all professional groups of students when they are engaged in interprofessional education activities? Is there a dominant group/voice? Please explain your answer.

- Can you think of environments that might enhance professional thinking and behaving in terms of interprofessional education? Please explain your answer.

- Thinking specifically about professional identity:
  - Do you see boundaries or tensions arise between the student groups? Please explain your answer.
  - Do some professional groups of students work more readily together? Please explain your answer.
  - Are there professional groups of students who are less harmonious? Please explain your answer.
  - Are there professional groups of students who you feel would add to the experience who are not currently involved? Please explain your answer.

- Thinking specifically about clinical practice, how do you think the interprofessional education modules impact on pre-registration children's nursing clinical experience? Please explain your answer.

- Do you have any examples of interprofessional education that have occurred outside of the university?
  - What were they?
  - Who initiated these experiences?
  - What do you think students learnt from them?

- What role do you think children's nursing mentors play in relation to the provision of interprofessional education within a practice setting?

- Thinking specifically about children, young people and their families:
  - Do you think that pre-registration children's nursing students, as a result of their interprofessional education module(s), have a better understanding of how other professions work with children, young people and their families?
  - Do you think that the interprofessional education modules influence the way pre-registration children's nursing students care for children, young people and their families? Please explain your answer.
  - Have pre-registration children's nursing students provided you with any examples of how the interprofessional education modules have influenced their decision-making?

- If you could design an interprofessional education module:
  - What would it look like? Please explain your answer.
  - Which professional groups would be involved? Please explain your answer.
  - When would it occur?

- Do you have anything else you would like to add?

Thank you

Appendix 2.4

Interview prompt questions: Schedule for clinically based children's nurses who act as mentors for pre-registration BSc Hons Nursing (Children's) students

- Introductions, including:
  - Purpose of interview
  - Clarification of topic under discussion
  - Format of interview
  - Approximate length of interview
  - Assurance of confidentiality
  - Purpose and use of digital recorder (including consent for its use)
  - Assurance that the participant can seek clarification of questions
  - Assurance that the participant can decline to answer a question(s) or terminate the interview
  - Assurance that the participant can ask questions

Interviewer to define interprofessional education using Centre for the Advancement of Interprofessional Education [CAIPE] (2002) definition: *"Interprofessional education occurs when two or more professions learn with, from and about each other to improve collaboration and the quality of care."*

- What is your current role/job title?

- What type of pre-registration programme did you undertake? How long ago was this?

- How long have you been employed in your current post? What are your key responsibilities?

- Before today, had you heard of interprofessional education?

- Thinking specifically about your own pre-registration children's nursing programme:
  - Was interprofessional education incorporated into it? How was this done? What were your views about it?
  - When you qualified, did you feel that you had a good understanding of the roles of other professional groups? Please explain your answer.
  - When you qualified, did you feel that you had a good understanding of what other professional groups might need from you and what they could do for you in terms of managing your patients? Please explain your answer.
  - When you qualified, were there any specific professional groups that you would have liked a better understanding of in terms of enhancing care for children, young people and their families? Please explain your answer.

- o Have your own experiences influenced the interprofessional education opportunities that you facilitate for pre-registration children's nursing students?

- Has your knowledge of interprofessional working been enhanced since you qualified? If so, what has facilitated this?

- Do you have any thoughts about why interprofessional education may be incorporated into the current undergraduate curriculum? Please explain your answer.

- What do you think are the strengths and weaknesses of interprofessional education? Please explain your answer.

- Thinking specifically about your role as a mentor to pre-registration children's nursing students:
  - o Do you facilitate interprofessional education within practice? Please explain your answer.
  - o Can you provide any examples of how you facilitate interprofessional education?
  - o Do you 'label' these activities as interprofessional education?
  - o Do you think that students would realise that some of these activities are examples of interprofessional education?
  - o Do these activities influence student thinking and behaviour? Please explain your answer.

- Thinking specifically about children, young people and their families:
  - o Do you think that pre-registration children's nursing students, as a result of their interprofessional education, have a better understanding of how other professions work with children, young people and their families?
  - o Do you think that interprofessional education influences the way pre-registration children's nursing students care for children, young people and their families? Please explain your answer.
  - o Have pre-registration children's nursing students provided you with any examples of how interprofessional education has influenced their decision-making?

  - If you could design an interprofessional education event:
    - o What would it look like? Please explain your answer.
    - o Which professional groups would be involved? Please explain your answer.
    - o When would it occur?

- Do you have anything else you would like to add?

Thank you

Appendix 2.5

Information Sheet: BSc Hons Nursing (Children's) students

An examination of interprofessional education within the pre-registration BSc Hons Nursing (Children's) programme

RESEARCH TEAM: Dr. Lisa Whiting, University of Hertfordshire; Elizabeth Akers, Darzi Fellow, HE NCEL

Thank you for taking the time to read this information sheet. Our names are Lisa Whiting and Elizabeth Akers. We are both registered children's nurses; Lisa is employed as a Principal Lecturer in Children's Nursing at the University of Hertfordshire and Elizabeth is a Darzi Fellow in Nurse Education, employed by Health Education North Central and East London [HE NCEL]. The information contained in this information sheet relates to a research study that the University is undertaking on behalf of HE NCEL Local Education and Training Board [HE NCEL LETB]. HE NCEL has responsibility for ensuring that high quality education and training is provided to all health professionals including the next generation of nurses, doctors and dentists across the area that they cover. We would very much value your knowledge and expertise in terms of informing the study.

What is the purpose of the project?
The purpose of the research is to examine interprofessional education within the pre-registration BSc Hons Nursing programme (Children's) at the University of Hertfordshire. More specifically the study aims to consider the:

> *Understanding and perceptions of children's nursing students, lecturers and clinically based children's nurses in relation to interprofessional education and its potential impact on the care delivered to children, young people and families.*

Why have you been invited to take part?
You have been invited to take part in this study as you are a pre-registration children's nursing student and we would very much like to hear your views and opinions. The Dean of School is aware of this research and has given permission for you to be approached.

Do I have to take part?
No, you don't – it is entirely up to you.

What is involved?
We would like to invite you to be involved in a focus group of between 4-10 children's nursing students to ascertain your views about your experiences of interprofessional education at the University of Hertfordshire. We will conduct the focus group at the University at a time that is convenient to you; it is anticipated that this will take approximately 40-50 minutes.

What will happen with the information?
The focus group recordings and transcripts will only be accessible to the research team and will be kept securely in accordance with the Data Protection Act. At the end of the project, the recordings will be destroyed and the transcripts will not identify you as pseudonyms will be used. The transcripts will be analysed and data from them will be used in the final report that is written for HE NCEL LETB; part of this may be presented at conferences or published in professional journals. You may have a copy of the final report; you will also be given a gift voucher and a formal thank you letter.

What are the possible benefits of taking part?
It is anticipated that the study will provide further insight into interprofessional education and its potential impact on the care provided to children, young people and their families.

What re the possible disadvantages of taking part?
There are no foreseeable risks to taking part, but if you should find any aspect of the focus group uncomfortable, you can choose to not answer the question. If you feel that you need to access additional support services, please contact a member of the research team (details below).

Who is organising and funding the research?
The research is being led by Lisa Whiting; it is funded by HE NCEL LETB and ethical approval has been received from the University of Hertfordshire Ethics Committee (cHSK/SF/UH/00100).

If you would like to find out more about this study before agreeing to be involved, you can contact one of the team members detailed below.

Research Team:
Lisa Whiting (Research Lead); 01707 285291; L.Whiting@herts.ac.uk
Elizabeth Akers; Elizabeth.akers@ncel.hee.nhs.uk

We would like to take this opportunity to thank you for taking the time to read this information sheet.

Appendix 2.6

Information Sheet: Lecturers

An examination of interprofessional education within the pre-registration BSc Hons Nursing (Children's) programme

RESEARCH TEAM: Dr. Lisa Whiting, University of Hertfordshire; Elizabeth Akers, Darzi Fellow, HE NCEL

Thank you for taking the time to read this information sheet. Our names are Lisa Whiting and Elizabeth Akers. We are both registered children's nurses; Lisa is employed as a Principal Lecturer in Children's Nursing at the University of Hertfordshire and Elizabeth is a Darzi Fellow in Nurse Education, employed by Health Education North Central and East London [HE NCEL]. The information contained in this information sheet relates to a research study that the University is undertaking on behalf of HE NCEL Local Education and Training Board [HE NCEL LETB]. HE NCEL has responsibility for ensuring that high quality education and training is provided to all health professionals including the next generation of nurses, doctors and dentists across the area that they cover. We would very much value your knowledge and expertise in terms of informing the study.

What is the purpose of the research?

The purpose of the research is to examine interprofessional education within the pre-registration BSc Hons Nursing programme (Children's) at the University of Hertfordshire. More specifically the study aims to consider the:

Understanding and perceptions of children's nursing students, lecturers and clinically based children's nurses in relation to interprofessional education and its potential impact on the care delivered to children, young people and families.

Why have you been invited to take part?

For one aspect of the study, the University is seeking to consult with academic staff who are part the lecturing team for one or more of the interprofessional education modules that are offered to pre-registration children's nursing students. We would very much value your contribution. The Dean of School is aware of this research and has given permission for academic staff to be approached.

Do I have to take part?
No, you don't – it is entirely up to you.

What is involved?
We would like to conduct a face-to-face interview with you at the University to ascertain your views about the interprofessional education that you are involved in at the University of Hertfordshire. It is anticipated that the interview will take approximately 40-50 minutes of your time.

What will happen with the information?
The interview recordings and transcripts will only be accessible to the research team and will be kept securely in accordance with the Data Protection Act. At the end of the study, the recordings will be destroyed and the transcripts will not identify you as pseudonyms will be used. The transcripts will be analysed and data from them will be used in the final report that is written for HE NCEL LETB; part of this may be presented at conferences or published in professional journals. You may have a copy of the final report if you like.

What are the possible benefits of taking part?
It is anticipated that the study will provide further insight into interprofessional education and its potential impact on the care provided to children, young people and their families.

What re the possible disadvantages of taking part?
There are no foreseeable risks to taking part, but if you find any aspect of the interview uncomfortable, you can choose to leave the question or terminate the whole interview. If you feel that you need to access additional support services, please contact a member of the research team (details below).

Who is organising and funding the project?
The study is being led by Lisa Whiting; it is funded by HE NCEL LETB and ethical approval has been received from the University of Hertfordshire Ethics Committee (cHSK/SF/UH/00100).

If you would like to find out more about this research before agreeing to be involved, you can contact one of the team members detailed below.

Research Team:
Lisa Whiting (Research Lead); 01707 285291; L.Whiting@herts.ac.uk
Elizabeth Akers; Elizabeth.akers@ncel.hee.nhs.uk

We would like to take this opportunity to thank you for taking the time to read this information sheet.

Appendix 2.7

Information Sheet: Clinically based children's nurses

An examination of interprofessional education within the pre-registration BSc Hons Nursing (Children's) programme

RESEARCH TEAM: Dr. Lisa Whiting, University of Hertfordshire; Elizabeth Akers, Darzi Fellow, HE NCEL

Thank you for taking the time to read this information sheet. Our names are Lisa Whiting and Elizabeth Akers. We are both registered children's nurses; Lisa is employed as a Principal Lecturer in Children's Nursing at the University of Hertfordshire and Elizabeth is a Darzi Fellow in Nurse Education, employed by Health Education North Central and East London [HE NCEL]. The information contained in this information sheet relates to a research study that the University is undertaking on behalf of HE NCEL Local Education and Training Board [HE NCEL LETB]. HE NCEL has responsibility for ensuring that high quality education and training is provided to all health professionals including the next generation of nurses, doctors and dentists across the area that they cover. We would very much value your knowledge and expertise in terms of informing the study.

What is the purpose of the research?
The purpose of the research is to examine interprofessional education within the pre-registration BSc Hons Nursing programme (Children's) at the University of Hertfordshire. More specifically the study aims to consider the:

> *Understanding and perceptions of children's nursing students, lecturers and clinically based children's nurses in relation to interprofessional education and its potential impact on the care delivered to children, young people and families.*

Why have you been invited to take part?
You have been invited to take part in this research as you are a nurse who is working in clinical practice and who has a mentorship role for pre-registration children's nursing students - we would very much like to hear your views and opinions. Both Shila Mumin, Lead for Clinical Governance, and your manager have been informed about the study and are happy for you to be approached.

Do I have to take part?

No, you don't – it is entirely up to you.

What is involved?

We would like to conduct a face-to-face interview with you at your place of work to ascertain your views about interprofessional education; in particular, we would like to hear about the interprofessional education opportunities that you facilitate for children's nursing students as part of your mentor role. It is anticipated that the interview will take approximately 40-50 minutes of your time.

What will happen with the information?

The interview recordings and transcripts will only be accessible to the research team and will be kept securely in accordance with the Data Protection Act. At the end of the study, the recordings will be destroyed and the transcripts will not identify you as pseudonyms will be used. The transcripts will be analysed and data from them will be used in the final report that is written for HE NCEL LETB; part of this may be presented at conferences or published in professional journals. You may have a copy of the final report if you like.

What re the possible disadvantages of taking part?

There are no foreseeable risks to taking part, but if you find any aspect of the interview uncomfortable, you can choose to leave the question or terminate the whole interview. If you feel that you need to access additional support services, please contact a member of the research team (details below).

Who is organising and funding the project?

The study is being led by Lisa Whiting; it is funded by HE NCEL LETB and ethical approval has been received from the University of Hertfordshire Ethics Committee (cHSK/SF/UH/00100).

If you would like to find out more about this research before agreeing to be involved, you can contact one of the team members detailed below.

Research Team:
Lisa Whiting (Research Lead); 01707 285291; L.Whiting@herts.ac.uk
Elizabeth Akers; Elizabeth.akers@ncel.hee.nhs.uk

We would like to take this opportunity to thank you for taking the time to read this information sheet.

Appendix 2.8

Support Services Information Sheet

An examination of interprofessional education within the pre-registration BSc Hons Nursing (Children's) programme

RESEARCH TEAM: Dr. Lisa Whiting, University of Hertfordshire; Elizabeth Akers, Darzi Fellow, HE NCEL

University of Hertfordshire ethics committee protocol number: cHSK/SF/UH/00100

Thank you so much for taking part in this research study – we appreciate how busy you are and are very grateful for the time that you have given.

If you should have any further queries, or feel that you would like some support or advice following your involvement, please contact one of the following:

Research Team:
Lisa Whiting (Research Lead); 01707 285291; L.Whiting@herts.ac.uk
Elizabeth Akers; Elizabeth.akers@ncel.hee.nhs.uk

SupportLine Telephone Helpline:
Telephone: 01708 765200
Email: info@supportline.org.uk
Address: SupportLine PO Box 2860, Romford, Essex RM7 1JA
This service provides confidential emotional support across the age spectrum; if required, the organisation will also refer people to other helplines, counsellors and support groups throughout the UK.

Get Connected:
Telephone: 0808 808 4994
Email: www.getconnected.org.uk
Get Connected will connect a young person to any UK helpline.

Thank you again for your support with this initiative.

Appendix 2.9

Consent Form

An examination of interprofessional education within the pre-registration BSc Hons Nursing (Children's) programme

RESEARCH TEAM: Dr. Lisa Whiting, University of Hertfordshire; Elizabeth Akers, Darzi Fellow, HE NCEL

University of Hertfordshire ethics committee protocol number: cHSK/SF/UH/00100

	Please initial (Participant)
1. I have read and understood the Information Sheet for the above research. I have had any questions about the research answered to my satisfaction.	
2. I agree to take part in the research and understand that I can decide to leave it at any time without giving a reason.	

Details of person participating in the research:

Name (please print): …………………..

Please indicate your designation with a tick [√]

[ ]   Pre-registration children's nursing student
[ ]   University academic
[ ]   Mentor working in clinical practice, please specify role title:

………………………………………………………….…………………………………………

Signature: ………………………………………….....   **Date:** ……………………

Name of person taking consent:

Name: ....   **Date:** ……………………

Signature: ………………………………………………………

Copy for participant and copy for research file

Appendix 2.10

Thank you letter

[Recipient's address and date to be inserted]

Dear …….

Re: An examination of interprofessional education within the pre-registration BSc Hons Nursing (Children's) programme (University of Hertfordshire ethics committee protocol number: cHSK/SF/UH/00100)

Thank you so much for participating in the above research that was funded by Health Education North Central and East London Local Education and Training Board [HE NCEL LETB]. HE NCEL LETB has responsibility for ensuring that high quality education and training is provided to all health professionals including the next generation of doctors, dentists and nurses across the area that they cover.

The information that you have provided will inform the final research report and will help HE NCEL LETB to develop an understanding of interprofessional education and its impact on children, young people and their families. We anticipate that the final report will be completed by the beginning of October 2015, if you would like a copy of this, please e-mail me with details of where you would like it sent to. Thank you.

We know you are very busy and very much appreciate the time that you gave to participating in this study. Thank you.

Kind Regards,

Dr. Lisa Whiting and Elizabeth Akers
Research Team