ATHABASCA UNIVERSITY

REFLECTIVE ENTRIES TO UNDERSTAND LEARNING OF INTERPROFESSIONALISM DURING CLINICAL PRACTICUM: A PHENOMENOLOGICAL STUDY

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RENATE BRADLEY

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Abstract

Interprofessional practice (IPP) in health care has the potential to decrease medical errors and increase the standard of care for all individuals. The World Health Organization (WHO) (1988) published a report calling for reorganization of health care practice, twenty years later, WHO (2010) published a framework for advancing interprofessional education (IPE) for healthcare practice. The report sparked a number of interest and publications on the introduction of an IPE curriculum to health care students. To date, there is a scarcity of evaluative data that connects the IPE to the learning and development of interprofessional practice (IPP) for prelicensure students and as they become graduates. This phenomenological study examined the experiences of interprofessionalism of prelicensure students, during their clinical practicum through their reflection. There were three consenting participants from radiation therapy completing the study, where they were first individually interviewed prior to entry into the clinical practicum, and then near completion. Additionally, the participants submitted weekly reflections during their placement. I utilized an interpretative phenomenological analysis approach for the idiographic analysis, then a broadened analysis across the participants to identify shared themes. The findings aligned with the literature and allowed the participants to share what they learned from interprofessional education, how they learned interprofessional practice, and how reflection contributed to their learning. The findings suggest that for a critical mass of health care professional graduates to develop and realize effective collaborative practice, there should be more attention provided to developing reflective attitudes, the learning environment, and the resulting organizational culture. This was a small exploratory study with limitations, however; there are indications for more research with an increased number of participants across multi professions to enable a firm understanding of the requirements to strengthen the bridge between interprofessional education and practice.

Keywords: Interprofessional education, interprofessional practice, interprofessional collaboration, reflection, reflective practice, learning, patient centred care, prelicensure students, pre-registration, health care students.

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Glossary

Term	Term definition
Interprofessional practice	Occurs when a team of health care professionals with different expertise and skills communicate and share decision making with patients and their families in a coordinated effort to enable satisfactory outcomes (CIHC, http://www.cihc-cpis.com/glossary.html; Curran, 2008).
Epoché	The suspension of conscious judgment of everything in the world.
Frame of reference	A meaning perspective derived from our values, assumptions, and expectations.
Interprofessional	Various disciplines collaborate and communicate with each other, interactively as a team
Multi-professional	Various professionals practicing independently, in parallel with each other (Pecukonis et al., 2008)
Prelicensure	Undergraduate student status prior to graduation and license exam to practice.
Reflection	Deep thought that allows one's mind to pursue the connections between many ideas, including our emotions and feelings, and thus generates new perspectives, creativity, and insights. It favours solitude (Rose, 2013; Hoven, 2020).
Reflective practice	To purposefully and routinely think about the learning, values, and actions that are used to improve professional practice
Reflective thinking	The process whereby the individual stops action and figuratively steps back from the moment in order to make an honest attempt to become aware of the understanding generated from an experience (Schön, 1987)

Reflexivity	Process of continual internal dialogue and critical self-evaluation that brings awareness of and transforms practice (Berger, 2015; Hofer, 2017).
Stereotype	“A standardized mental picture held in common by members of a group and that represents an oversimplified opinion, prejudiced attitude, or uncritical judgment” (Merriam-Webster, n.d., Entry 2, Definition 2)
Transformation	Reconstructing one’s frames of reference by becoming aware of one’s and others’ assumptions (Mezirow, 1997).
Uni-professional	Within one profession or discipline.

Chapter 1

Healthcare is in crisis in most areas of the world; consumer expectations are increasing, access to health care is limited in some countries due to a decrease in human resources, we are experiencing a rise in the incidence of chronic diseases, and health care funding is increasingly limited (Curran, 2008; Pruitt & Epping-Jordan, 2005; World Health Organization [WHO], 2010). In the traditional model of practice, health care professionals delivered their services independently or aligned with others, primarily with a focus on managing the disease where the patient is the recipient of the care (Barr, 2013; Pecukonis et al., 2008). This model of care is being put aside due to increasing inefficiencies, errors, and costs to the health care system, the result of which is that some of those who need care may be falling through the cracks (DeMatteo & Reeves, 2013; WHO, 2010).

The World Health Organization (WHO) initiated the plea for an alternative to the current health care model over 30 years ago, stating that better collaboration between health care practitioners across multi-professions should be recognized as a cornerstone of quality care (WHO, 1988). This alternative practice model is referred to as interprofessional practice (IPP). Moreover, practicing in this way is purported to be successful when health care practitioners and learners have been exposed first to interprofessional education (IPE) (Oandason & Reeves, 2005; Pecukonis et al., 2008; Romanow, 2002). However, one criticism is that the evidence supporting the effectiveness of interprofessional education leading to interprofessional practice is more often anecdotal rather than empirical (Brandt et al., 2014; Thistlethwaite, 2012).

To begin this study, I reviewed the literature and discovered that there was scant research evaluating the students' learning of interprofessionalism and their success at transferring their learned competences to the practice environment. Accordingly, participants in this study reflected on, and discussed their understanding of interprofessional education from their didactic exposure. An important step in the evaluation was to examine the students'

practice environment and the context of their experiences. The participants reflected on their ongoing practicum experiences and submitted these in written format in an electronic journal. The data from the journals and the reflective discussions, enabled a snapshot of the influences on their practice intentions. The study employed a phenomenological approach to investigate the translation of classroom learning to the clinical environment, and the nature of the informal curriculum to which they were exposed, as well as how these experiences may have shaped their learning.

The aim of the investigation was two-fold: firstly, to illuminate the value of interprofessional education as perceived by the participants, and secondly, to understand how the student-participants constructed meaning during their clinical experiences of interprofessional practice. The effectiveness of IPE has been previously measured by the clinical outcomes of collaborative teams, patient satisfaction, and improved quality of care (Reeves et al., 2013; WHO, 2010; Thistlethwaite et al., 2014). Outcomes such as those noted are more clearly applicable to graduate practice as I feel that undergraduates are not yet at the stage to clearly make such an impact. The change towards the new model of practice depends on a critical mass of health care profession students ready to practice in a collaborative way as graduates. In Canada, the location of this study, Commissioner Romanow in 2002, presented a federal report on the future of health care in Canada, in which he stated that “changes in the way health care services are delivered, especially with the growing emphasis on collaborative teams and networks of health providers, means that traditional scopes of practice also need to change” (Romanow, 2002, p. xxvii, para.2). Thus, health care organizations and educational institutions have been attempting to pursue this goal for quite a while. Funding support has been supplied for various initiatives, but the evaluations of the predicted outcomes are slow to appear.

This chapter begins by presenting the context of the research, discussing the espoused relationship between the teaching of interprofessional education and the clinical practice. My rationale for the study, conceptual framework, and the questions that I used to guide the study are also important for the reader to understand why I undertook the study. Therefore, I discuss these along with my epistemological position in this chapter. Finally, some assumptions and delimitations are discussed, and the chapter ends with an overview of the dissertation and the structure of the document.

Context of the Research

Since Commissioner Romanow's report, the IPP model has been greeted as the feasible alternative to the traditional model in Canada and most other parts of the world including Australia, India, and Africa (Ousman et al., 2016; Hegde et al., 2017). IPP involves a team of health care professionals (HCPs) who are highly motivated to collaborate and provide care that considers the entire patient from the perspectives of all the attending health care professionals (Curran, 2007; D'Amour & Oandasan 2005). This premise positions the patient at the centre of practice rather than the health care concern. Interprofessional education as a prelude to interprofessional practice should thus provide occasions for the students to develop the skills, knowledge and behaviours that are expected when working in such a collaborative team. There has been debate regarding the timing of the introduction of interprofessional education to undergraduate students, whether it should be after the student has learned the uni-professional skills, or intertwined with the uni-professional curriculum from entry into the program (Freeth et al., 2005; Oandason & Reeves, 2005; Price et al., 2013).

The University of Toronto (UofT), where this study took place, has provided didactic and clinical opportunities for students to engage in IPE from the first year of study. This curriculum has been in place since 2009 (Nelson et al., 2014). However, it is possible that students do not

reflect on their learning in the clinical practicum in ways that would help them recognize their learning as they transition to their own clinical practice. As a researcher and a facilitator of interprofessional education sessions, I considered the possibility that a reflective approach taken by students might be a valid method to increase their awareness of what they have learned and the relevance to their practice. Reflection and reflective practice require openness, attentiveness, and motivation on the part of the individual in order to self-monitor (Epstein et al., 2008). *Reflectere* is the etymological origin of the word reflection, meaning to bend backwards (Online Etymology Dictionary, https://www.etymonline.com/reflection; Rose, 2013). This explains much about the various descriptions and definitions of reflection, which always include thinking back. Reflection is regarded by Rose (2013) as a contemplative way of thinking that requires time and quiet space in order to synthesize "new ideas, perspectives and possibilities" (Rose, 2013, p. 8). Rose attributes the educational application of reflection to John Dewey's pragmatic philosophical beliefs. Reflection, as used in the educational sense, is practical and analytical with the intention to review and re-evaluate an experience, which can lead to creating new perspectives and ultimately learning (Boud et al., 1985).

Another term often used with inconsistent meanings is reflective practice. Moon views reflective practice as having "the skills and abilities with a focus on the taking of a critical stance" (Moon, 2006, p. 75). Moon further argues that reflective practice is relevant to the context (Moon, 2007). From Schön's perspective, reflective practice allows for the professional's awareness of their knowledge and the growth from their experiences (Schön, 1983). Both reflection and reflective practice appear to be critical processes in learning and metacognition (Boud et al., 1985).

The studies on the different interprofessional interventions and their effectiveness use reflection and self-report methods to evaluate the immediate outcome of the sessions. The post

intervention reflection encourages the student-participants' analysis of their interprofessional experiences and their assumptions in a collaborative context (Saunders et al., 2016). The difficulty in evaluation of interventions may be, as Olson and Bialocerkowski (2014) suggest, that there is "a need to reconceptualise IPE and interprofessional socialization as processes within a system rather than transferrable interventions" (Olson & Bialocerkowski, 2014, p. 242) where they evaluate outcomes. Due to the various socialization processes, there is the likelihood that what works for one profession does not necessarily work for another and may not be applicable to undergraduate students learning in the health care professions. Olson et al. performed a systematic review of studies on interprofessional education with allied health practitioners. They found that most studies were interested in measuring the intervention's feasibility by looking at attitudes and readiness for interprofessional practice. In studies where there were perceptions of power imbalance within the team, the participants were demotivated and reported limited understanding of their own professional role within the team. Additionally, certain professions opting out of participating in interprofessional education was another barrier to the success of interventions. The authors concluded that the reviewed studies ignored the complexity of who learned, how they learned, or why they learned, in other words, the processes of learning (Olson & Bialocerkowski, 2014).

As a methodology, phenomenology has the potential to bring awareness of insights from experience by staying attuned to the participants' perceptions as they reflect. In the current study, the student-participants reflected on their didactic interprofessional experiences, clinical interactions, and their day-to-day concerns in their journals.

The Relationship between interprofessional practice and interprofessional education

Interprofessional practice (IPP) has been used interchangeably with collaborative practice in some of the literature; I use them with a shared meaning. As the team members

perform their role, they learn about and from each other, “IPP integrates the knowledge and expertise of members from different healthcare professions to accomplish common goals” (Bajnok et al., 2012, p. 76). Interprofessional practice, as defined in this body of work, is when multiple health care professionals collaborate and communicate with each other, and the patients and their families, to deliver high quality care (World Health Organization, 2010). As the expected model of practice, team collaboration represents a significant shift from traditional practice. In response to this directional change, North America and the United Kingdom (UK) have been amongst the most prolific sources of research on interprofessional practice. The proponents of this model envision that there is the potential to increase patient safety and access to care, and ultimately lead to improved patient outcomes (Centre for the Advancement of Interprofessional Education [CAIPE], 2002; Canadian Interprofessional Health Collaborative, [CIHC], 2020; Nisbet et al., 2011). Contemporary policy documents identify interprofessional practice as the expectation for health care professionals delivering care in Canada, pursuant to models supported by Health Force Ontario and the Canadian Institute Health Collaborative earlier (CIHC, 2008; Health Force Ontario, 2010). However, it is difficult to quickly turn around a system as large as health care. Advocates for the new model of training where all health care students learn together, believe that this is the means to outfit students with the skills necessary to practice in interprofessional health care environments upon graduation (World Health Organization, 2010).

Historically, health care profession students have been trained with others in the same profession (uni-professionally), in a fashion that is referred to as ‘‘siloed” (DeMatteo & Reeves, 2013; Nisbet et al., 2011). The metaphor of ‘‘silos” refers to the separateness or delineation between each of the health care professions as they learn their specific skills and professional culture. Following the direction of the WHO (2010) report and other studies on the topic, Canadian policymakers have mandated that current students must be prepared for

interprofessional practice environments and should no longer be learning in these silos (Nisbet et al., 2011; Romanow, 2002). The UofT interprofessional education office has developed competencies to apply to students in all of the health profession programs (Figure 1). The current thinking is that, by encouraging health care educational institutions to provide such focused curricula, the students' skills in collaboration and, particularly, communication will be enhanced. A curriculum focused on interprofessional education allows students to learn *with, from and about* two or more professions with an aim to improve collaboration, a skill required for interprofessional practice (CAIPE, 2002; CIPE, 2009; WHO, 2010).

Rationale for the study

In the report released by WHO (2010), it was postulated that ‘‘once students understand how to work collaboratively, they are ready to enter the workplace as members of the collaborative practice team" (p. 10). This is a powerful statement, and together with directives from funders and policy makers, it has been the new catalyst for educational institutions. Most, if not all, Canadian institutions include language about the promotion of practice within a collaborative team context in their vision (e.g.: University of British Columbia, n.d. https://health.ubc.ca/education/resources/interprofessional-education-collaborative-practice-frameworks; Dalhousie, Nova Scotia, n.d. https://www.dal.ca/faculty/interprofessional-education/programs---initiatives/healthprofessionals.html; McGill University, n.d. https://www.mcgill.ca/ipeoffice/). Remodeling of health profession education is built on the premise that understanding each other's roles allows for a respectful and collaborative relationship with team members. The WHO report did issue a caution, however, that these recommendations should consider "…how to contextualize their existing health care system…" (WHO, 2010, p.11). This suggests that it should not be a one-size-fits-all curriculum but customized based on the need and structure of the institution's setting.

Redirecting praxis in such a large-scale fashion requires changes within educational program faculty, the institution, and the health care system itself, none of which is easy or immediate. The reorganization presents a dramatic change because it means that the curriculum is no longer focused on uni-professional practices and competencies. The competencies are the professional requirement to qualify to take their license examination to ultimately practice as a graduate. Thus, there may be the perspective that the students are engaged in activities that may not appear to be relevant to their program of study. As a result, the curriculum is very full as the students must still meet their professional requirements. As for the educational organization and the system, there must be supporting structures for the change in practice. The supports are necessary to maintain motivation for the learners, the staff, and the faculty practitioners, such that practice evolves as envisioned.

Meanwhile on an individual level, the students and the practicing professionals must perceive themselves not simply as their professions but part of a larger team. Their perception of their professional status relative to others will also influence their team participation and behaviour (Olson & Bialocerkowski, 2014). Participation in team discussions is a requirement of interprofessional practice, with the theory that the professional's sense of satisfaction is enhanced by contributing to the patient's care (Barr et al., 2005). Successful outcomes such as collaboration, communication, and attitude shifts are cognitive processes, are intertwined with perceptions, and are not easily measured (Brandt et al., 2014; ten Cate & Chen, 2016; Reeves et al., 2016). Furthermore, in the undergraduate environment, faculty have struggled to find common time within the current curricula of all health care profession students across the institutions to engage in interprofessional education. A very important consideration is that the health care profession graduates are still expected to meet their regulatory professions' competences in order to be eligible to practise. With a crowded curriculum and uni-professional standards to meet, there is currently little research evidence confirming that the students will

take their interprofessional competencies forward and practice collaboratively within the interprofessional team.

Perhaps due to the complexity of the paradigm shift, most published evaluations are at the level of undergraduate student satisfaction with the delivery of discrete curriculum interventions within the classroom or in clinical practice. The student reflects on what they have learned upon completion of the session. Although these evaluative methods do have value, there is a need to understand the clinical factors that influence the ability of prelicensure students to adopt the practice of interprofessionalism as taught in class; factors such as clinical staff attitudes, reflective practice, and the student's perception of the clinical environment, contribute to the meaning of the experience. As difficult as it may be to evaluate whether or not students will continue to practice collaboratively as new graduates, and what affects their motivation to do so, it is a necessary step. Pardue (2015) and Reeves et al. (2016) referred to such factors as presage, process, and product. Presage envelops the context, the teacher's characteristics and learning characteristics of the students, which then interact with the learning and teaching approach (the process) to influence the outcome (the product) (Reeves et al., 2006). My study described here was a short–term research study with prelicensure students and attended to the presage factors of their experiences in the informal learning environment. These factors contributed to meaning making as the students prepared to practice in the graduate environment.

Purpose of the study

Undergraduate health care profession students participate in a clinical practicum prior to graduation as part of their programs. So far, interprofessional practice has not translated to wider organizational changes in spite of the early implementation of interprofessional education (Lapkin et al., 2013). Previous studies have evaluated graduates' practice in discrete clinical

teams (Crawford et al., 2016; Felix et al., 2016; Gillan et al., 2015; Pfaff et al., 2014), or they have evaluated the specialized care received from these teams; for example, in palliative care, aging, or mental health teams. An exploration of the learning and retention of the requisite skills for clinical ijnterprofessional practice and post clinical practicum informs the organization, faculty, and the curriculum design for future. The current study was unique in that it sought to understand the clinical experiences of prelicensure students through their reflections; thus, it was situated at the point of transition from the classroom to clinical practice before graduation. Across the previous didactic curriculum, reflection was used as a practice to bring awareness of students' learning and assessment of interprofessional education interventions. Therefore, utilizing reflection was a good fit for data collection and was informative on how the students made sense of their clinically based learning experiences, and the impact of these experiences on the transformation of their perspectives. The findings should contribute towards a better understanding of the learning process for collaborative care in class and the clinical practicum. It can be used to inform organizations regarding the need to restructure the interprofessional curriculum to better fit the context of practice.

Background

Collaboration within multi-professional teams is always a primary objective of teamwork, especially when it comes to delivering quality care in a safe manner. It has been suggested that students select health care profession programs based on how they perceive the professional group to which they want to belong; in other words, they form stereotypes (Ateah et al., 2011; Hean et al., 2006; Khalili et al., 2013; Price et al., 2013). These stereotypes have been attributed to environmental factors such as movies and other social interactions that occur within the students' world. Some of the stereotypes that have been discovered are that nurses are perceived as good team players and nurturers, while physicians are rated low as team players,

but are seen as having better leadership abilities and being academically stronger (Ateah et al., 2011; El-Awaisi et al., 2020; Price et al., 2013; Wilbur & Kelly, 2015). Ateah et al. (2011) concluded that the interventions employed in their study did impact the participants' perception of other health care professionals in a positive manner, as reported in the post-intervention survey. This result provides support for the notion that offering interprofessional education at entry to the program alters the negative preconceptions held by students. Price et al. (2013) investigated the stimuli for career selection among a population of Canadian nurses. Based on their findings, these authors suggested that the challenges to collaborative behaviour in the current system of health care may be due to the perception of professional inequality and may be difficult to alter.

Socialization is the term used to describe the internalizing of the norms, customs, and values of a group, essentially, their expected roles (Khalili et al., 2013). It is evident that professional socialization does promote stereotyping of other professions, which is widely held as one of the barriers to interprofessional behaviours (Khalili, 2013). Therefore, efforts have been made to integrate interprofessional education into the undergraduate curriculum for all health care professions. The underpinning basis for implementing the interprofessional focus at entry into the program, during the first year, is that it has the potential to alter the stereotypical beliefs internalized by the incoming students. The curriculum includes tasks and activities to replace the stereotypes with understanding of the roles of the collaborating professions and supporting the development of new perceptions. The argument is that these opportunities set the structural expectation that the students will enter the workforce primed with accurate knowledge about each profession, and ready to practice the interprofessional core competencies necessary within the interprofessional care team (Centre for Advancement and Interprofessional Education, 2002).

Western countries are at different places in their journey to implement interprofessional education in their programs but are all trying to achieve the same goal. In the UK, the health profession regulatory body expects that the education programs,“ wherever possible”, will provide their students with occasions in which to ‘‘learn with, from and about relevant professions” (Health and Care Professions Council [HCPC] Standard 4.9, 2017, p. 7). Australian policy makers are still at the stage of working towards consistent implementation of interprofessional education curricula (Thistlethwaite et al., 2019). The American Interprofessional Health Collaborative [AIHC], a community similar to the Centre for Advancement and Interprofessional Education [CAIPE] and the Canadian Interprofessional Health Collaborative [CIHC], have collaborated towards a more unified understanding of interprofessional education. This unified effort defined interprofessional competencies that are achievable at different stages of the learning continuum. As a result, undergraduate health profession educators were able to formulate competencies that were achievable within the undergraduate curriculum. Achievement of these competencies has the potential to scaffold the continued development of interprofessional practice after graduation.

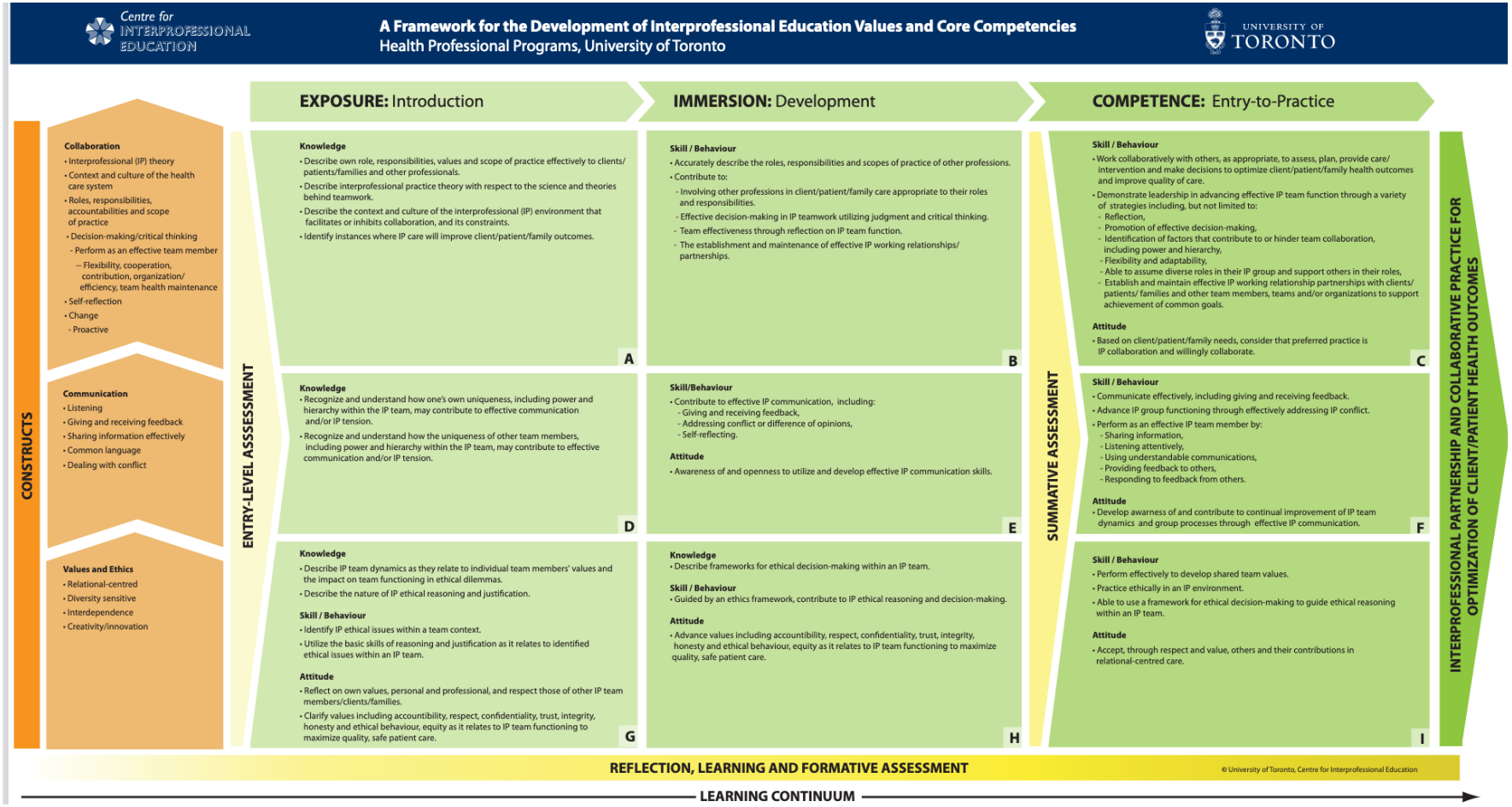
The core competencies of IPE for undergraduates

UofT’s Centre for Interprofessional Education [CIPE] *Framework for the Development of Interprofessional Values and Core Competencies* outlines the key competencies embedded in the constructs of Collaboration, Communication, and Values and Ethics (Figure 1). Within this framework, the competencies are represented in three stages of the student’s progress through the interprofessional curriculum, starting with Exposure (Introduction to the concept of IPE), Immersion (Development of skills, behaviours, and attitudes), and Competence (Demonstration of Entry-to-Practice readiness for IPP) (see Figure 1). The students are provided with a diverse set of activities that include role play, discussion, and debrief, “learning activities are specific to

each learning competency and are based on the level of knowledge students are exposed to during the learning activity" (CIPE, 2016). The underlying philosophy behind this framework is that the meaning and value of interprofessional collaborative care will continue to develop as the students' progress through the three stages (CIPE, 2016). Competence is determined in the final year, during the clinical practicum experience. The milestones are referred to throughout the CIPE document (Figure 1) as core competencies, which are introduced in year one (exposure). The assessment for competence is intended to be completed during the final clinical practicum (competence). Each Program has specified the number of learning activities that each student is expected to attend by graduation

Figure 1

UT Centre for Interprofessional Education [CIPE] Competences



Note. From University if Toronto Framework for the Development of Interprofessional Values and Core Competencies ©2009 University Toronto, Centre for Interprofessional Education. (https://ipe.utoronto.ca/media/31/download)

The Interprofessional Education Collaborative [IPEC], an American collaboration of six national education associations of health professions, identified core competencies relating to values and ethics, roles and responsibilities, communication and teams, and teamwork (IPEC, 2011, p. 16). IPEC further declares that "demonstration and honing these competencies require reflection, flexibility and adaptability to the spectrum of care contexts – from prevention and health maintenance to acute, chronic, long-term and palliative care- and the overall goals of care in specific situations" (Interprofessional Education Collaborative, 2011, p. 33, para. 4).

The core enablers for the transfer of IPE to IPP, whether at Linköping University in Sweden, Universities and Colleges in the U.K., or across North America, are team collaboration, communication, and ethics. The three constructs referred to in this study are consistent with the aforementioned organizations' views and are taken from UofT's interprofessional framework (Centre for Interprofessional Education, n.d.) (see Figure 1):

- Communication
- Collaboration
- Values and Ethics

Brandt et al. (2014) performed a review of the literature that supports interprofessional education leading to successful practice outcomes. They reviewed 496 papers, only a few of which (12.7%) explored the combination of higher education and student practicum sites. The researchers inferred from their review that targeting a change in attitude and practice requires long-term planning and data collection. In addition, the changes in attitude and values are subjective and difficult to measure, hence it would be beneficial to understand the process through students' reflections. Teamwork and leadership skills are difficult for students and practitioners alike to fulfill due to individual personalities, professional power differentials, and the conflicts that will likely occur during team identification of roles and interactions (Henderson

& Alexander, 2011). Competencies such as collaboration and communication may be easier to evaluate as products or outcomes in the clinical setting. Research on the knowledge, skills, and behaviours that are learned in the undergraduate didactic sessions, and how they are applied in the clinical setting during the clinical practicum, contribute to the evidence for IPE to IPP transition.

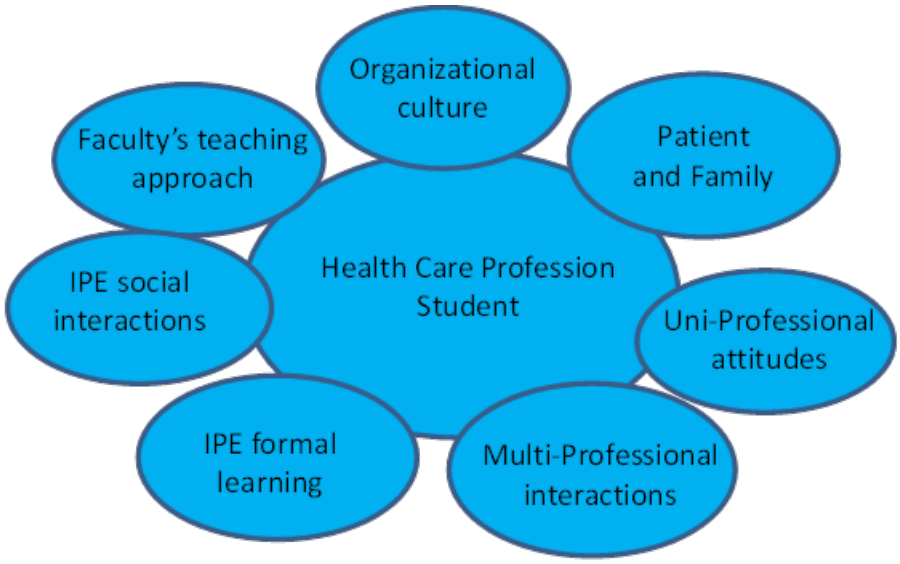
As the imperative to practice in a collaborative team with multi-professionals strengthens, it is critical to understand how and if the desired changes are coming to fruition, and what the intervening variables may be. In the clinical practice setting, it is realistic to expect that there may be resistance from some professionals, and that it would impact the practice of interprofessional attitudes and behaviours of some students. Students are eager to belong to their profession, and the health care professionals are important role models in the practice environment; the hidden or unintended clinical lessons can suggest what is valued to the learner (Bradley & Schofield, 2014). In historical practice, professionals were clear about their role and their scope of practice. In the interprofessional team, the practice shift is such that the professionals within the team have skills that will overlap and are directed at the same goal: quality patient care. In this sense, the challenge for the student and the graduate professional becomes negotiating when and how each member will contribute to the team goal. Additionally, the student will have to learn to maintain their professional confidence as the scopes of practice pertaining to the various professions blur. It is difficult to negotiate scope of practice boundaries when there is insufficient knowledge of their own profession. The expectation of advocates of interprofessional education was that the students would not only increase confidence in their professional role but also further their practice understanding as they participated in the real-world interactions and activities during their clinical practicum.

Epistemology

As discussed previously, this study aimed to understand the lived and unique experiences of the participants as they interacted within their respective clinical practicum. Figure 2 represents the variables that may influence the students' experience and subsequent construction of knowledge. The students in this research study previously participated in interprofessional didactic sessions that included the underpinning theory at the exposure stage during first entry into the program, role play activities introduced at the immersion stage continue to occur throughout the program with additional clinical practice sessions at the competence stage, where possible (see Figure 1). Immersion refers to the active interaction and collaboration of the students within the interprofessional activity. These represent stages of learning and are not meant to occur only at discrete points.

Figure 2

Conceptual map of interacting factors



Note: Factors that may inform the student's construction of knowledge and the internalization of IPP [source original].

Epistemology is the study about the nature of knowledge and learning (Cohen et al., 2011). The theories of learning that informed this study are experiential learning theory, social constructivism, and transformative learning. While these theories aid in my perspective of how people acquire knowledge, they were not meant to frame or limit the data or interpretation of the study. Individuals make sense of their world by interacting with others during formal learning and other day-to-day activities. In this research study, the context was the clinical practicum and the interactions and experiences occurred between multiple health care professionals and students who worked together to provide care for patients and their families. This interaction on its own, however, is theorized as being insufficient to bring about transformation in understanding. Transformational changes involve discussion, reflection, and then action in order to integrate new meaning into a person's previous frame of reference (Mezirow, 1990).

Learning Theories

As stated earlier, there are various theories that have been presented in the literature as underpinning the way in which adults learn. In this section, I will discuss the theories that fit within my epistemological perspective as relevant to learning in the interprofessional environment.

Experiential learning theory (ELT)

When students have opportunities to interact with and observe others, and utilize their skills in authentic environments, they are better able to conceptualize their knowledge and to build new understandings. The learning process during real-life experience involves observation and reflection, is inherently social and self-directed (Kolb, 1984). Experiential learning, according to Kolb's model, is based on the following six foundational pillars (Kolb, 1984; Kolb & Kolb, 2005):

- Learning is a process of development.
- Learners bring their beliefs and ideas to the experience, which are important to the learning process.
- Dilemma or conflict during the experience drives reflection and promotes learning.
- Learning is holistic through the processes of experiencing, reflecting, perceiving, and acting.
- Learning is a result of deliberate interaction within the real-world context of practice, which includes discourse with peers and teachers.
- New knowledge is created and integrated into previous knowledge.

ELT aligns with adult learning assumptions, in that learners have a priori experiences, are ready to learn, and require relevant subject matter to their learning intentions (Knowles, 1988). A noteworthy component of adult learning and experiential learning is reflection (Boud et al., 1985). In educational theory, reflection is postulated as a means to enable learning from real-world experience by allowing the retrospective review, analysis, and re-evaluation of

actions with a view to future practice. According to Kolb (2015), individuals are able to understand the substance of their learning by engaging in reflective monitoring (an inward-looking check on self) of their personal learning process. ELT, when applied to the process of learning the interprofessional curriculum, means that the activities should be relevant to practice, goal-oriented, social, and realistic in order to increase the potential for learning. In this study, the context was the real-life practice environment that was at the end of the undergraduate continuum of learning.

Based on experiential learning theory, the participants observe, reflect, and consider multiple practices and attitudes, from which they develop their own knowledge and future practice. In the clinical environment, advocates of interprofessional education argue that as the health care professionals worked together, they would model best clinical practices, and that the student would be able to integrate the standards of real life interprofessional practice. If the health care professionals' interactions were not as expected, the student should have been able to reflect, consider their underpinning knowledge, and determine how to proceed in accordance with their learned values and understanding of best practice. Educational theories consider reflection as central to learning; therefore, taking time for quiet solitude to reflect regularly has the potential to foster alternate perspectives and direction when one is faced with complex situations (Kolb, 1984; Yegeneh & Kolb, 2009).

One of the reasons that simulation has become a useful teaching approach in various didactic settings, including the health professions, is that it includes time for debriefing and reflection. The students can reflect on their own performance, as well as on the scenario and the outcomes. During simulation, a designed scenario similar to a real case will be executed, with students taking the lead and working through it until the designated end point. This is a safe opportunity for making decisions and mistakes within Schön's swampy reality (Schön,1983), where professional interactions can be messy and unpredictable. There are also other benefits

of simulation such as increased student confidence, improved skills, and according to Zhang et al. (2011), a reduction in patient errors. In the study by Zhang et al., IPE simulated activities occurred in a classroom-like setting that attempted to simulate the practice setting in a non-assessed environment without the real patient. After the interactions, a debrief and discussions were scheduled in an effort to encourage reflective awareness for all students involved in the interaction. As such, simulation may present the students with expectations of ideal practice in the clinical world since all possible variations cannot be simulated. When faced with a reality that is not ideal, one outcome could be that the students construct a different understanding of practice from the experience than the expected. Clinical practicums represent a crucial time in student learning: while attempting to satisfy their uni-professional competencies, learners observe and contemplate the interactions around them in a structured and non-structured learning environment. In the structured curriculum the students are provided with formal supervision, feedback, and direction on their performance. In the non-structured situations or the hidden curriculum, the learning is student-directed, unplanned and tends to make considerable impact on the student (Barr et al., 2005; Freeth et al., 2005). This study took place in the unstructured working environment of clinical practice where the participants created their own understanding from their personal IPP experiences.

Social Constructivism

Social constructivists view experience as invaluable in advancing students' integration of their prior learning. Vygotsky's work as a developmental psychologist expanded the theory of constructivism by proposing that social interactions and language are essential to children's intellectual development (Vygotsky, 1930/2019). He theorized that adults, through interactions and language, model a cognition method to their children. In essence, constructivism posits that when individuals are actively engaged, they can construct new meaning from their personal

experiences. To be successful, they may need the support of those with more expertise to bridge their learning across the Zone of Proximal Development (ZPD). The ZPD is the zone between the space where student can independently perform and the space where they need the guidance and support of more experienced others ((Vygotsky, 1930/2019).

Social constructivism takes learning a step further, stating that, through discourse, the learners co-construct knowledge and confirm meaning (Garrison, 2016); the key is the collaborative aspect as students learn together. "Learning is not purely an individually constructed process and social constructivists view individual learning as being mediated by the environment" (Hean et al., 2009, p. 256). Students also need to reflect on what they are learning and their learning processes. Metacognition, or awareness of one's own thinking, is a key component in collaboratively constructing knowledge (Archibald, 2011; Garrison, 2016). Collaborative constructivism implies the same essential views as social constructivism, holding the belief that collaborative learning emphasizes both the individual and the social group (Hean et al., 2009), and that the environment includes social, linguistic, and cultural values. However, Hean et al. (2009) argue that social constructivism is limited because it situates learning at a micro (individual) level, whereas learning from the collaborative perspective is affected by multiple variables that are more at a meso (group) or macro (organizational) level.

According to Laurillard (2012), current thinking agrees that collaboration between learners as a process of learning is true to the theories of social constructivism and experiential learning. Together, the student group or team is expected to produce a report or presentation, or in this case, patient care outcomes, as evidence of collaboration. The experiential learning aspects are where the process may include conflict resolution, negotiation, and other team criteria. Reflection is a strategy required during collaboration in order to effect a change in perspective.

Interprofessional education relies on the transfer and practice of the learned information to the clinical practice setting. In effect, clinical students who have experienced an event may engage in discussion with others who they trust, such as preceptors or peers. In the process, the collaborative experience may yield a shared understanding and a different meaning than previously held. Social engagement relies on the learners' abilities and self-efficacy as they participate in conversations to acquire new knowledge and is built around discovery within a collaborative environment (Annand, 2011; Garrison et al., 2010). The discovery of a new perspective means adapting one's cognitive map and previously held meaning structures to include the newly constructed meaning (Mezirow, 1997). The premise is that in order to reach a perspective transformation, we use our meaning structures to filter our experiences and develop insight into what else is possible.

Transformative Learning

The goal of IPE is to transform attitudes and facilitate the development of improved skills in collaboration, communication, and teamwork that ultimately result in improved patient outcomes. As human beings, we learn by using our previous frames of reference and experiences, including those that are social, to guide us through encounters in our world (Mezirow, 1997). A frame of reference represents a personal construct of reality, altered based on our subjective experiences, although these may sometimes conflict. When one is reluctant to change one's construct and instead reframes the new information to fit into the old construct, nothing new is learned. Changing an established way of thinking necessitates an attitude of openness and honest attention to the dissonance.

Transformative learning theory suggests that learners become enlightened when they recognize and consider how others' perspectives can influence their assumptions, interpretation of others, and their own experiences (Mezirow, 1997). Transformational change requires

adjustment of those frames of reference; the experience is the initiator of the change. The difficult aspect is that our frames of reference incorporate what Mezirow labels ‘‘habits of mind” and ‘‘points of view”. Habits of mind are automatic ways of thinking that are shaped by the individuals’ assumptions, it is a disposition towards a certain way of thinking. Through these habits as human beings, we filter our experiences, whereas points of view reflect those assumptions in behaviours, attitudes, judgments, and beliefs. Mezirow argues that of the two aspects, a point of view is the most likely to change, but real change occurs by reframing habits of mind as this leads to a perspective transformation (Mezirow, 1997).

In transformative learning, the key processes are the experience, discussion about the experience, and critical reflection. Sargeant (2009) agrees with Mezirow and suggests that the predisposition of the individual towards reflecting should be considered a key process for transformation to occur: ‘‘critical reflection is a cognitive process by which individuals question existing knowledge and importantly, underlying beliefs and assumptions, including those related to power distribution, and strive to make sense of a new experience” (Sargeant, 2009, p.182).

In the interprofessional classroom, the curriculum is taught and evaluated after each activity or course. At the end of the learning event, the measures of changes are students’ self-reports on evaluation forms as the students reflect on their learning. Schön (1983) proposed that in order for transformation to take place, some version of reflection must occur, whether reflection-on or reflection-in action. Reflection-in action is defined as the ability to think about one’s own performance while in the moment, whereas reflection-on action is viewed as taking the time to look back on performance and to critically examine it to understand what was learned and what is left to learn. Schön (1983) suggests that novices most often use reflection-on action as they gain experience and then learn to navigate the messiness of practice.

Rose (2013) agrees that reflection is retrospective but offers another perspective on change and reflection: while there is agreement that reflection is a personal process, Rose identifies the educational concept of reflection as a version of critical thinking. Reflection is not about reacting to and accepting change, but about "looking both forward and back with mindfulness and care" (Rose, 2013, p. 31) and understanding the personal impact of the change. Rose's premise is that reflection-then-action is the most important process in growth and learning from world interactions. The challenge in implementing reflection in education for students and faculty alike, is first reaching a common understanding of reflection, and secondly, the necessity for assessment of the reflective efforts. Schön's definitions are most commonly referred to in educational contexts; however, when students discuss reflection in an earnest wish to improve their learning, they prefer formative assessment (Bradley & Schofield, 2014). Rose's model of reflection-then-action appears to be more closely aligned with the students' preferences for freely engaging in personal reflection without the risk of being judged.

Learning from Reflection and Reflective Practice

Reflective learning refers to the process of learning that is achieved through "creating and clarifying the meaning of experience (present or past) in terms of self" (Boyd & Fales, 1983, p.101). The three theories previously discussed identify that reflection is a critical element in the process of learning, but that reflective practice is also important. Reflective practice is a requirement of the regulatory bodies of most healthcare professions. The Canadian Association of Medical Radiation Technologists (CAMRT), for example, states:

In a dynamic healthcare environment with emerging technologies and changing practice, continuing education is essential to maintain competence. The Medical Radiation Technologist (MRT) engages in reflective practice: identifying gaps in knowledge and skills, formulating a learning plan, and completing activities to match learning needs and goals (Canadian

Association of Medical Radiation Technologists [CAMRT], n.d., Commitment to education and lifelong learning, para. 3).

The College of Nurses of Ontario (CNO) also indicates that reflection on practice is a requirement for nursing professionals in their Quality Assurance program: “As a nursing professional, the public counts on you to demonstrate this commitment [quality patient care] by engaging in daily practice reflection and achieving learning goals…” (College of Nurses of Ontario [CNO], 2022), Quality Assurance guide to Self-Assessment, p. 3-4). Neither organization explicitly defines what they mean by reflective practice, which adds to the confusion, as the term reflective practice has varied definitions (Boud & Walker, 1998; Brookfield, 1995; Schön, 1987). Brookfield (1995) suggests that it is a kind of enlightenment we arrive at when we take the time to step out of ourselves. This enlightenment aids in the understanding of the ideologies that inform what we do and why we do it. Moon (1999) views it as a method of orienting self to problem solving, such that we are always looking to evaluate our own practice.

In this context, I define reflective practice as purposefully and routinely thinking about the learning, values, and actions that inform and will improve practice, if used intentionally. Reflective thinking incorporates reflection and critical analysis; it refers to stopping action and creating time to step back from the moment to honestly evaluate the understanding generated from an experience or event, and how to move forward. I favour the definitions of reflection from Rose (2013) and Hoven (2020) and refer to their work as I define reflection for this study:

> Reflection as deep thought that allows one’s mind to pursue the connections between many ideas including our emotions and feelings and thus generates new perspectives, creativity and insights. It favours solitude.

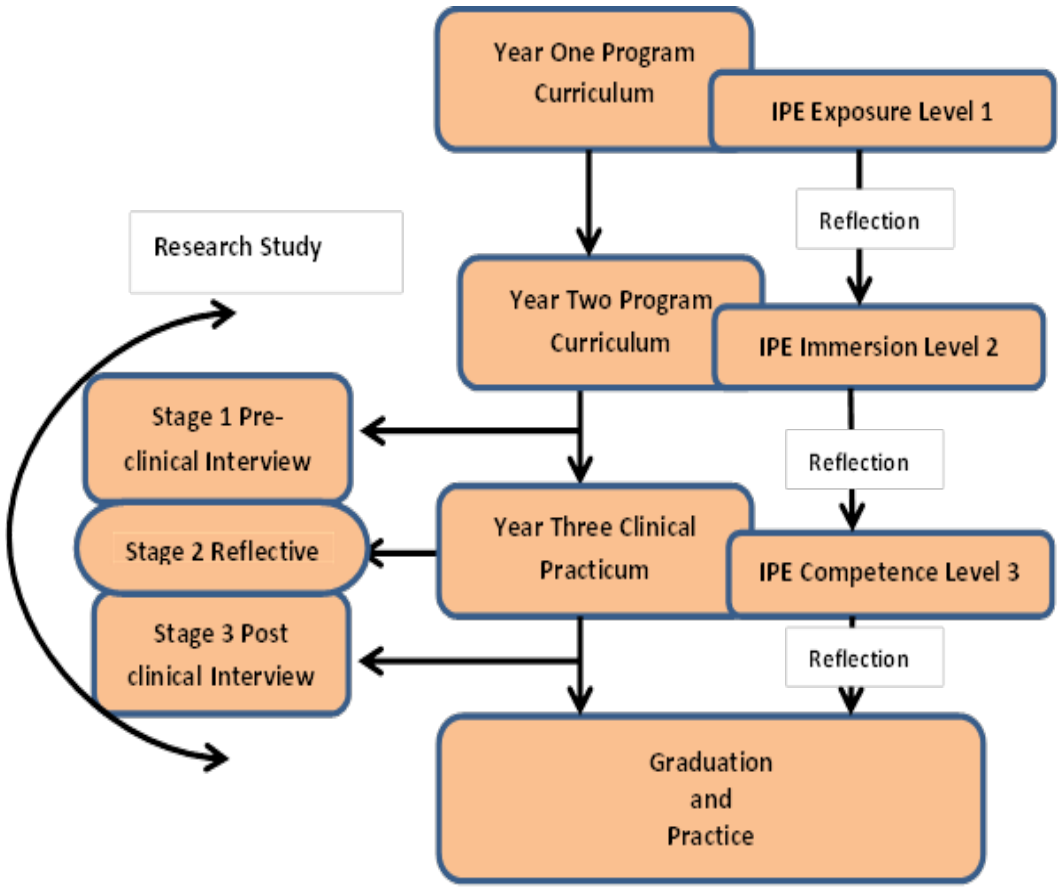
I have previously discussed the importance of reflection to learning; the confusion lies in the how of the connection between the two concepts. Kolb's (1984) learning cycle recognizes the role of reflection in experiential learning, and others suggest it can create the reframing of the experience needed to grasp the meaning and to learn from the moment (Boud & Walker, 1998; Brookfield, 1985; Schön, 1983). Being able step back and view an experience with an honest, critical eye enables awareness of different perspectives, and draws on higher order cognitive skills (Boud & Walker, 1998). Rose labels definitions of reflection such as Schön's, as educationally created, and argues that what is called reflection is actually critical thinking (Rose, 2013). Reflection and critical thinking do differ: Educationalists Schön, Dewey, and Brookfield relate reflection to the critique or analysis of actions and interactions. The goal of reflection from their view is to change oneself or one's future performance. Rose's (2013) definition of reflection is more in agreement with Boud and Walker's perspective: time and aloneness, away from the daily grind, enables the mind to pursue whatever is on one's mind, and results in the synthesis of possibilities and ideas (Boud et al.,1998; Rose, 2013). This may lead to change in one's practice, but the emphasis is on personal growth.

The participants have previously learned and utilized the methods of reflection that have been outlined by Rose as educational, or rather critical thinking. The challenge for this study was in asking the participants to reflect differently, and with that plan in mind, a short workshop was provided for the participants. The primary goal of this phenomenological study was to understand the participants' world as they interacted in the clinical practicum. Secondly, I sought to provide insight into the learning processes and the new meanings of interprofessional practice constructed during students' clinical experience. I interviewed the participants and submitted written reflections during their clinical time. Figure 3 situates the study within the

health profession program, Medical Radiation Sciences (MRS), where reflection is utilized during learning for assessment and during interprofessional event evaluations.

Figure 3

Flow diagram locating the study within the Medical Radiation Sciences Program.



Phenomenological studies ask questions that are interested in capturing insights into the meaningfulness of the participants' day-to-day life and practice (Adams, 2017). The following questions were formulated based on my curiosity regarding the transformation of the undergraduate students into interprofessional practitioners.

Study Questions

1) How do health care profession prelicensure students experience IPP in their various assigned clinical placements?

2) How does reflection impact their learning in the clinical practicum?
    a) What are the features of the experience that promote reflection?
    b) What aspects of their experiences in IPE are taken forward to their clinic practicum?
3) To what extent does reflection help the participants to construct meaning in interprofessional education and practice?
    a) How do the participants make sense of their experiences?
    b) What aspects of reflection seem to have the most impact on their learning?

Significance of the Study

The significance of this study lies in its potential impact on the preparation of students for clinical practice. The results demonstrate a unique perspective of the juncture of interprofessional in-class competencies and practice, including how and what the students learn. In this study, I directed my attention to the transition period of the undergraduate student, understanding their readiness to adapt to interprofessional practice and their perceptions of the effectiveness of their competences. It is important for the interprofessional community to understand how the students' clinical experiences interplay with the didactic sessions to shape their future practice as graduates. Currently, the researchers evaluate curriculum delivery and interventions with discrete teams of clinical health care profession students interacting together. The learners' reactions and their self-reported take-away messages formulate the evaluative data (Anderson et al., 2016; Reeves et al., 2012). While the formal curriculum directs and enables IPE learning, the value and contribution of the informal curriculum within the practical environment should not be dismissed (Doja et al., 2016; Rees et al., 2018). The informal curriculum, sometimes identified as the hidden curriculum, is what students learn outside formal teaching through activities such as socialization and observation. This curriculum can either reinforce the formal curriculum or present alternate values and behaviours (Doja et al., 2016;

Kent et al. 2018; Rees et al., 2018). The intended audience for the findings of this study is health care professionals, educators, administrators, students, and policy makers at the organizational level.

Scope and Delimitations

This study set out to gain insight into the perspectives of undergraduates on the value of collaborative practice. I cannot assert the stereotypes with which the students arrived into the program or whether these stereotypes had changed up to the point of entry into the practicum. Additionally, the results cannot identify the accuracy of the students 'experiences as they have been relayed, since these are subjective accounts. Interpretative phenomenological analysis researchers such as I, strive to interpret the meaning that the participants have given to their experience as apparent from the shared dialogue (Smith et al., 2012). Lastly, some participants' understanding of, and subsequent practice of, reflection did not change after the study's preparatory workshop and was noted in the submitted entries. Assessing the levels of reflection was beyond the scope of this study; reflection was the means utilized to collect the data.

Assumptions

The interprofessional in-class experiences encouraged reflection on the learning. One of the assumptions in this study was that students were guided as to how to reflect during the interprofessional discussions; it was therefore expected that all participants had a basic understanding of reflection. In the CIPE Competences (Figure 1), competent performance is expected in interprofessional environments during the final clinical practicum for all healthcare profession students. A second assumption was that the core competencies were a good fit within the uni-professional practice evaluation of all health care profession students.

Finally, the study participants were at different clinical locations for their practicum, interacting with different professionals. Therefore, it was assumed that they were exposed to different organizational cultures and situations.

Chapter Summary

This chapter presented an overview and background of the study. It included the problem statement, study questions, assumptions, and my theoretical stance. The significance of this study was also outlined in regard to the didactic emphasis on interprofessional education and transformative learning that was anticipated. Transformative changes require the adaptation of new learning, which occurs when adults actively participate in experiential learning that demonstrates the relevance of the topic to them. These experiences involve varying social interactions that allow individuals to discuss situations and view other perspectives through reflection.

In the next chapter, I identify the literature relevant to the theories of learning in the current study. Since learning and professional growth does not occur without some amount of introspection and contemplation (Rose, 2013; van Manen, 2014), a follow up discussion of the literature on reflection is also warranted. It is also relevant to the data collection since journal writing will be used as a collection tool. Chapter 2 will also include the current state of evaluation of interprofessional practice and explore the potential role of transformation.

Dissertation Outline

In Chapter 2, I will explore the gap in the literature that led to this inquiry, and the main theories thought to underpin the learning that connects interprofessional education to interprofessional practice in order to orient the reader. Chapter 3 outlines the methodology used and the reason for this specific approach, including the tools for data collection and analysis. In Chapter 4, I will take the reader through the study processes including timelines, challenges,

and my reflection on the process. In Chapter 5, I document the themes from the idiographic analysis as well as the overall themes and in Chapter 6, I discuss the study questions in relation to the findings and the literature. In Chapter 7, I present my conclusions and implications and future research directions.

Chapter 2 Literature Review

This chapter provides a review of the research relevant to undergraduate interprofessional education in healthcare. My intent in performing a literature review was to cover the background work published on interprofessional practice, and to communicate the importance of studying the students' transition to clinical practice. Bearing in mind that the phenomenological approach examines the participants' experiences as directly as possible, I wanted to keep an open mind throughout the process. Therefore, I did not want to create presumptions but rather to understand the perspectives on the students' adoption of interprofessional practice. The current research in interprofessionalism in health care mainly addresses the practice of the graduate health care professionals, and it is scarce in addressing how prelicensure students learn and use their interprofessional knowledge, skills, and behaviours. This gap is significant as the current health care profession students will become the health practitioners of tomorrow and carry the potential to transform the healthcare system. First, I will address elements of the World Health Organization (WHO) Framework for interprofessional education, and then the theories that inform the IPE curriculum design and evaluations. The theories addressed are socialization and reflection as they signify important aspects of engagement and learning in the interprofessional environment. This research's main goal was to understand, through examining participants' reflections, the learning experiences of health professional students in the clinical practicum.

Interprofessional education is a precursor to interprofessional practice, a necessary learning step to foster changes in attitudes, behaviours, acquisition, and the installation of teamwork skills by the undergraduate healthcare professional (Health Force Ontario, 2009; Herath et al., 2017; IPEC, 2016). The WHO framework report (2010) included these skills as a requirement for delivering holistic care and collaborative practice. The framework document has been viewed as an innovative response to the global health workforce crisis, specifically in the

areas of the world where there are too few health care workers for the growing population (Herath et al., 2017; Kamal-Yanni, 2015). The framework outlined new practice that begins with educating the different healthcare practitioners together such that they can learn about each other and start thinking of working as a team. Secondly, it described a set of actions to frame the process at the practice and systems level, "the goal of the framework is to provide strategies and ideas that will help health policy-makers implement the elements of interprofessional education, and collaborative practice that will be most beneficial in their jurisdiction" (WHO, 2010, p. 9). The inference is that emphasis should be on educators, organizational curriculum, and policies to allow interprofessional education to occur. Globally, this approach's value is the potential gains, the two most lauded being improved patient care and the minimization of medical errors.

This shift in practice would also lead to achieving other goals, namely human resource management of care delivery and more efficient budget control (DeMatteo et al., 2013), as well as increasing access to healthcare (Health Force Ontario, 2010). Meanwhile, educators have intertwined the undergraduate health uni-professional curriculum with an IPE curriculum to anticipate future outcomes. However, outcomes such as enhanced patient care and error reduction can only be evaluated in practice with graduates delivering patient care. There are few longitudinal evaluations of undergraduates supporting the envisioned outcomes such as collaboration, communication, and attitudinal changes in practice. These outcomes result from transformative learning and, as such, may be difficult to evaluate empirically (Mezirow, 1997).

UofT has delivered IPE curricula for their incoming year one students since 2009, using the competencies reflected in the UofT IPE blueprint (Figure 1). The interprofessionalism teaching activities and learning assessments aim to achieve the previously identified outcomes (Reeves et al., 2012; Thistlethwaite et al., 2014). In a review of published interprofessional education studies, Reeves et al. (2012) found that the outcomes measured were not

comparable: some were about the patient while others were about the participants. The reviewers further stated that there were a wide range of interventions studied, including different practice settings. Several studies reported inconclusive results, and a few considered the results neutral. One example of an identified neutral result was an initially reported increase in the calculated quantitative scores after the intervention. In contrast, at a later point in time, the scores showed a decrease to pre-test levels (Bradley et al., 2009). The reviewers concluded that more empirical studies focusing on the long-term outcomes were required to determine IPE's effectiveness in leading to practicing the skills and behaviours (Reeves et al., 2012). Herath et al. (2017) performed a systematic review of 45 studies, in which they summarized the state of global IPE from published evidence. These researchers found that, similar to the conclusion of Reeves et al. (2012), there were inconsistencies in reporting and a lack of adequate presentation of the assessments of the effectiveness of their curricula. Herath et al. (2017) concluded that more studies are necessary to investigate the effectiveness of the various programs in promoting interprofessional practice, particularly in light of the variations in curricula, delivery, and clinical placements across the different institutions.

Brandt et al. (2014) agreed that studies had so far focused on the short-term impact on the learners and suggested that future research should involve validating the long-term outcomes from interprofessional education and practice. In their study, Joseph et al. (2012) evaluated students from medicine, nursing, and pharmacy after they attended educational sessions in the clinical environment. They aimed to "ascertain attitudinal change experienced by the health care students undertaking IPE in the clinical practice" (Joseph et al., 2012, p. 28). The survey measured perceptions of collaboration using the readiness for interprofessional learning scale (RIPLS), which produced positive overall results. The authors concluded that having clinical interprofessional education activities did influence attitudinal change such that graduates can become ready for interprofessional practice. However, the methodology used is

not transparent, and the timing between the event and the tests are not clear enough for the reader to support their conclusion. McNaughton (2018) reviewed 12 self-evaluation studies analyzing the impact of undergraduate IPE on graduate practice, finding that some studies reported no significant change of attitudes to IPE, optimistic attitudes, or overall appreciation of the understanding of learning other's perspectives. The review reported evidence that was at best inconclusive in its support of the transfer of the principles of interprofessional education into practice.

In a long-term study over the students' entire program in the UK, Pollard et al. (2006) surveyed students at program entry, year two, and qualification. Analysis of the quantitative data showed that while the students' perception of interprofessional education improved as they progressed to qualification, their perception of their interprofessional educational experience was more negative. The authors stated that the participants' initial responses demonstrated their idealism and high expectations. Once they learned the expected behaviours and attitudes, they became more critical of the interactions that they witnessed in the clinical setting. This study was a key piece of research, as the multi-professional students were undergraduates, and the study offered a comparison from entry to graduation. The results may have been negative due to measuring the outcomes as products rather than as processes. In the current study, the qualitative approach, with reflection as a collection tool, was intended to provide insight into the processes that contributed to the participants' attitudes, behaviours, and value of interprofessional practice.

Pollard et al. later in 2012, utilizing qualitative methodology, conducted interviews with four professions to find out how interprofessionalism studies as undergraduates impacted their professional perspectives as graduates. The findings suggest that the curriculum supported the participants' ability to work in an interprofessional environment, and that they developed a greater respect for the use of reflection in practice.

While educators are committed to changing education by providing collaborative and thoughtful activities in the didactic setting, the limits are that any changes in the healthcare organizational systems are slow to occur. Furthermore, Hean et al. (2013) argue that the literature has linked interprofessional education to so many theories that there is a lack of a consistent theoretical framework when designing the curriculum. Many studies on interprofessional education do not clearly reference the theory being applied, which may contribute to the difficulty in finding emphatic evaluative support for interprofessional education leading to effective interprofessional practice (Hean et al., 2013; Hean et al., 2018; Reeves et al.,2013).

Theories of IPE

Theories are basic ideas presented to instill awareness of underlying patterns and connections when describing complex phenomena such as social interaction and its role in experiential learning (Hean et al., 2013; Reeves & Hean, 2013). Numerous theories have been associated with the preparation and establishment of collaborative practice by IPE; however, these theories have provided limited direction for educators and curriculum designers. Hean et al. (2009) suggest that some curriculum designers have built constructivist activities such as social learning opportunities, with behaviourist objectives to demonstrate learning interprofessional education. In a later review, Hean et al. (2018) argues that while there were many theories applicable to interprofessional education, it should be made clear whether they are being applied to the design or delivery of the curriculum. A curriculum should be designed with social aspects in mind since as Sargeant (2009) argued social principles, as well as adult ones, impact learning, and that "subjective individual interpretations of the situation may influence behavior" (Sargeant, 2009, p. 179). Olson et al. (2016) also noted the inter-relational aspect of the individual's cognition, social context, and the individuality of the learning

experiences. These researchers are of the view that "there are multiple influences, not just IPE curriculum or professional socialization, on student identities, attitudes and beliefs" (Olson et al., 2016, p. 96).

The clinical practicum represents a crucial time in the students' learning. Knowing what it takes to be a team player in the didactic environment does not automatically translate to confidence in an interprofessional team setting. The students are also busy achieving competences in their chosen profession if they are to qualify. They are observing and conceptualizing the team interactions of the professionals that they hope to become. They must have confidence and openness as they also attempt to achieve competencies along the Iinterprofessional education continuum. This period of their education allows them to transfer and practise their learned skills in the real world of their future practice. It is a period where there is further internalization of their profession's norms, values, and practices (Curran et al., 2010; Miller, 2014; Reeves, 2012).

Socialization

Socialization is the process of identifying with a particular group (in this case, the profession), and it is one of the processes that is identified in the interprofessional curriculum as a barrier (Barr et al., 2005; Khalili et al., 2013; Olson et al., 2016). Social psychologists theorize that individuals strive to belong to a group with whom they either identify or want to identify. According to Tajfel (1974), identifying with a group requires cognitive awareness, a value attributed to group membership, and, to a lesser degree, an affective component. This self-categorization is the predicate of intergroup behaviour and the resulting stereotypes. According to Tajfel and Turner (1979), social identity is about the individual’s perspective of self, relationships, and the sense of belonging or membership to a social group. Brown (2000) agrees that this is the foundation of group favouritism or bias, which involves a process that is

likely similar to the formation of racist behaviours at the extreme end of the continuum. Members of the in-group align their behaviours, mannerisms, and other characteristics with the group to which they aspire; the result is the creation of insider and outsider groups. This process is known as the socialization of the accepted group member (Brown, 2000; Pecukonis, 2014; Tajfel, 1974). Brown (2000) argues that understanding stereotyping and changing the perception of members of the in-group are critical areas of the impact of social identity theory. However, Tajfel (1974) believes that changing firmly held stereotypical views requires developing a different approach, since demonstrating that all group members do not behave according to the stereotype may not necessarily accomplish the task. Social psychologists describe stereotyping as a natural cognitive process that enables us to make sense of the world. The different approach required may be to modify the behaviour by minimizing the intergroup power differential while recognizing the need for the members to find a positive self-image in their social identity (Hogg et Abrams., 1988).

In the clinical world, when a learner's interaction does not go as expected, the learner must reflect and determine their next action, recognizing what they have learned from that juncture. This approach is more difficult in some cases than others, for example, when the learner perceives the other professionals as having more status or power in the interprofessional team. Successful teamwork will mean the resolution of the perception of a power differential, which will begin with the social topics built into the interprofessional curriculum. The facilitators and curriculum designers should include engaging students in discussions regarding stereotypes and using reflection to "unpack" their stereotypical views upon entering the programs (Anderson et al., 2016). Anderson et al. (2016) examined an evaluation framework for interprofessional education interwoven within the curriculum of the undergraduate health care programs at their school. An outcome that they identified as a limitation was the lack of professional identity at the beginning of the program when all the

student groups met. The result of this limitation appeared to have been a prevalence of stereotypes and emotional reactions present in students' evaluations and reflective submissions (Anderson et al., 2016). The researchers realized that they had missed an opportunity by not addressing several key questions, including how learning is advanced after participating in interprofessional education. Additionally, the number of different professions participating, and the size of their sample, were not published.

The clinical environment can be vastly different from expected for students, as their interactions in the interprofessional education sessions take place in a working model that is not yet fully operational in every context of the clinical environment. The collaboration, communication, and respect that the students expect may be far less likely to occur, and the actual experiences are sometimes quite a harsh reality (Ballard, 2016; Rosenfield et al., 2011; Thistlethwaite, 2012).

Price et al. (2013) investigated the reasons for career choice among nurses born after 1980 who were in their first year of nursing, and who came from a range of high school and post-graduate programs. The overarching theme emerging from the narrative interpretive data was "nurses as second best" (Price et al., 2013, p. 511). After the second interview with the twelve participants, the researchers concluded that there were various factors impacting becoming a nurse. Behind the pride in nursing as a profession, there was a tacit understanding of the profession's social positioning relative to medicine. While the authors did not clarify the time frame between entry into the program and the final interview, this does present a significant consideration for interprofessional education. This study's participants were all female, which may have played into a socially held belief that this was a traditional gender role of a woman in the health care field. The researchers recognized this view as one factor contributing to the selection of careers. Understanding the cultural makeup and the scope of male nurse perspectives would have helped a better assessment of these results. The authors concluded

that the participants' life interactions, up to that point, informed their perceptions of the health care professions, including their own career selection. Their socialization towards particular attitudes had already occurred before selecting their program. This was informative work in that it confirmed other studies (Olson et al., 2016) that suggest that undergraduate students start their education with prior stereotypical views of the different professions.

At Sweden's Linköping University, Falk et al. (2013) studied 454 students from four different professions during an interprofessional clinical placement. The study aimed to explore students' experiences of collaboration and learning, and more generally, to understand practice and learning, all through the lens of practice theory. Using a survey to collect quantitative and qualitative data, Falk et al. (2013) concluded that students were challenged because there was a conflict between the expected and unexpected responsibilities that they faced. They suggested that this conflict might have been the result of different understandings of professional roles and the aims of the practice setting. The purpose of the practice setting was to "create a learning environment for students to practice collaboration and thereby develop a greater understanding of their respective professional competences and the interprofessional competencies in the team" (Falk et al., 2013, p. 477). Falk et al. (2013) concluded that their results illustrated a systems-wide need for physical proximity and openness in the team practice environment. They had expected their participants to work collaboratively on an inpatient unit; however, the intervention duration was only two weeks. This was a limited time for the team to develop the forming, storming, norming and performing processes.

Forming represents the coming together of the individual members; storming is the stage where conflict and competition are the most significant challenges; at the norming staging, the group begins to identify as one team; finally, at the performing stage they complete the assigned tasks (Tuckman & Jensen, 1977). Thus, it would take some time before they could be an effective team and could fully practice the interprofessional competencies. Falk et al. (2013)

suggested that an identified team structure, similar to having boundary zones and non-neutral learning places, might be supportive of these teams. The findings are not unique, and they do not mean that the team could not learn and move forward if they were able to access appropriate resources.

While theorists and researchers have recognized the impact of the social group, and the individual desire to belong on behaviour, there are still limits in the understanding of how much emphasis is on the social, individual, and other intervening factors (Olson et al., 2016). The guiding principle of interprofessional practice is the practice transformation of potential health care professionals. Providing opportunities for observation, collaboration, and learning about other professionals' roles is one step; time to reflect may be the critical aspect that enables a different perspective.

Reflection

There are multiple definitions of reflection, and many related terms are used interchangeably (e.g., reflective practice, reflective learning, self-reflection, critical reflection), which has led to some confusion in the literature. The perspective shared by learning theorists is that learning relies on reflection and that the reflector must have time set aside specifically to ruminate and allow that learning to occur. This process is considered critical to an individual's sense-making or learning (Boud & Walker, 1998; Moon, 2007; Rose, 2013; Schön, 1983).

Curriculum designers and facilitators have acknowledged that thoughtful feedback after specific interventions is informative, whether the goal is to shed light on the participants ' understanding and perception of the experience, or to obtain an evaluation of the event (Barr et al., 2005). Preparing to reflect requires an active, honest consideration of one's frames of reference or one's beliefs, assumptions, and values. In unexpected practice situations, reflection is a useful tool to plan how to move forward and to maximize learning (Schön, 1983). Mezirow

(1997), Boud & Walker, (1998), and Moon (2006) express agreement that one must recognize the emotional elements of the reflective process. There is also some suggestion that it is not necessarily true that everyone can reflect or understand how to learn from reflection, and that learners may need guidance. Moon's (2006) definition of reflection appears to align with the reflective styles used in the educational environment. Whichever definition of reflection one adopts, it appears to involve thinking about one's own thinking in some fashion. The take-away point is that engaging in the process transports the learner to a level of awareness. They examine their assumptions, points of view, and, subsequently, their ways of working (Boud et al.,1998) to increase their self-awareness in practice or learning. Examining one's thinking is metacognition.

Clear communication is the basis for efficient interprofessional teamwork that includes the patients and their families. Using professional expertise and past experiences to consider other points of view (particularly the patients') and to think critically are the steps necessary to arrive at a solution to team problems. According to Mezirow (1997), changing one's way of thinking and beliefs is transformational, a change in the individual's frame of reference. Interprofessional setting is a dynamic environment where there are no protocols to guide the learner through unpredictable situations. Reflecting on their-previous knowledge and self awareness in such circumstances (Haque et al., 2017; Kitto et al., 2010) can support the health care professionals' overview of the various factors that may inform their performance, problem-solving, and conflict resolution in the clinical team environment. The researcher and the participants in this study were in a position to experience some level of transformation, due to the use of a reflective lens to understand the process of the participants' learning and the influences on their attitudes, beliefs, and commitment to practice collaboratively.

Direct experiences are personal and the most subjective, and these are the most concrete experiences that a learner will have (Kolb, 1984). Reflective thinking helps the health profession students build their professional skills and understand the importance of learning. The participants in this study were in the clinical environment where they faced many of the socialization factors previously discussed. The impact on learning for the individual participants was dependent on their learning processes and their perception of interprofessional practice when they entered the clinical environment. Reflection as a data collection source was useful in focusing the participants on the experience and the benefits to their professional growth; therefore, it may have stimulated some transformative changes.

Evaluation of interprofessional practice (IPP)

There are many evaluative studies on students' satisfaction after specific IPP experiences where the researchers were interested in the session content and delivery. Some also compared students' self-reports on behaviours, skills, or attitudes before and after the sessions (Archibald et al., 2014; Makino et al., 2013; Rosenfield et al., 2011). However, more studies targeting the impact of undergraduate interprofessional learning of practice skills such as collaboration, communication, and attitude at the end of the clinical practicum are necessary, as these are the outcomes that result from transformational learning (Mezirow, 1997). The learner's intent and ability to translate the learning into practice as a graduate is affected by how learning occurs, by their own critical thinking ability, and by reflection on their day-to-day interactions with other professionals. Additionally, their ability to apply their knowledge and skills within an authentic environment (practice) affects the likelihood of a positive effect (Kitto et al., 2011). The purpose of this study was to understand the experiences of prelicensure graduates during their final clinical practicum and how these experiences influenced their learning of IPP.

The study utilized journal entries and interviews to elicit in-depth reflections on each participant's unique understanding, interactions, and internalized value of interprofessionalism.

Practice readiness means preparedness to interact within patient care teams in order to safely deliver optimum care through communication and collaboration with patients and their families (Barr et al., 2005). This study occurred at two Ontario learning institutions that introduced interprofessional education to the healthcare profession students from the first semester of their program. Numerous interprofessional education offerings provided occasions for all registered health care profession students to participate prior to entry to their clinical practicum. In addition, the curriculum included interprofessional education activities scheduled within select clinical placement sites. During didactic sessions, multiple post-session formative assessments were completed after each activity to inform the curriculum, these included surveys, self-reports, and reflections. As a result, the students had multiple opportunities to practice and prepare for the clinical interaction.

Cohen et al. (2011) state that each realizes their own reality; it is a representation of our "individual cognition" (p. 7). Through one's social interactions, knowledge is acquired, changed, and incorporated to broaden existing perspectives. The methodological approach used in this study was a qualitative one: phenomenology. A qualitative interpretive analysis approach was appropriate, as the goal of this study was to understand the meaning of the participants' experiences. According to Giorgi (1997), phenomenology refers to consciousness as a phenomenon: "it means the presence of any given precisely as it is given or experienced" (p. 235). In qualitative interpretive research, the "researcher's interpretation cannot be separated from their own background, history, context and prior understandings" (Creswell, 2007, p. 39). To that end, I reflected to bring about a consciousness of my thoughts and opinions, and thus differentiate them from the participants' perspectives in order to keep the interpretation as experience close.

Chapter Summary

Governments and institutions worldwide have mandated that the training curriculum for all health professionals should include interprofessional education in an effort to guarantee a more effective workforce with which to provide health care, as per the WHO (2010) framework. While many institutions have initiated this curriculum, the theoretical underpinning of the learning required in this practice model needs to be understood to best drive the learning and achieve the deliverables of practice. The relevant theories view reflection as a component of learning; however, the different terminology used may make consistent application difficult. Finally, a missing piece of the curriculum is the evaluation of practice-ready professions after their experiential learning period and before graduation. The current study used a phenomenological approach, which aimed to understand undergraduate students' lived experiences during their clinical placement. The next chapter will discuss qualitative methodology in broad terms, and phenomenology in specific. The study process included a small pilot study, participants, data analysis and ethical considerations.

Chapter 3 Methodology

As expressed in previous chapters, the overall purpose of this qualitative study was to understand the experiences of interprofessional practice for the participants during their clinical placement. Lived experiences are generally defined as the situations one lives through in the day-to-day. Therefore, in order to examine these experiences through a constructivist lens, we must uncover the process of constructing meaning from students' lived experiences of interprofessional practice and subsequently, how these experiences have impacted the students' practice. In order to best understand the *essence* of the experience, I used a phenomenological investigative approach.

In this chapter, I discuss qualitative methodology and the common approaches used under that umbrella. I also provide an overview of phenomenology, its relationship to interpretative phenomenological analysis (IPA), and the reason I selected IPA as the most appropriate approach for the context of this study. A pilot study aided in the review of the development of relevant data collection tools, and this strategy will be explained further. Finally, this chapter concludes by discussing my initial plan for recruitment, data collection and analysis, ethical considerations, and limitations. In the next chapter, I will present the deviations from the study plan.

Qualitative Research

A qualitative research design represents a worldview and may use theoretical frameworks and assumptions as part of the strategy to inquire about social or individual problems in a natural setting. The goal is to understand the meaning attributed to the problems investigated (Creswell, 2007, 2013). According to Creswell, a qualitative approach considers the collaboration between the researcher and the participants in order to understand and interpret the data. The data collection tools used are typically observations, interviews focusing on the

participants' perceptions, interactions, experiences, audio, emails, and field notes that include written reflections (Creswell, 2007). These techniques offer the means to capture, describe, organize, and consequently report on the information gathered from within a specific context (Cohen et al., 2011; Ganeston, 2006). Unlike quantitative approaches, qualitative research does not use statistical analysis or numerical data. Qualitative analysis is inductive in that themes and categories are derived from the data collected. However, it is also deductive in that the researcher checks back to ensure that the data support the selected themes (Creswell, 2013). Context influences the interpretive data therefore the qualitative researcher attends to the contexts in which the participant had their experience.

Methodologies within a qualitative design include ethnography, narrative stories, grounded theory, and phenomenology. These approaches are frequently used in education and the social sciences because they generate rich data from participants, which allow others to understand the researched issues as they usually occur, without manipulation (Al-Busaidi, 2008). This chapter will present the differences and similarities among these methodologies in more detail in order to illustrate the selection of phenomenology as the most appropriate for this study.

Ethnography

The ethnographic researcher wants to study specific patterns of socio-cultural behaviours or language within the participants' natural environment. The research requires long-term engagement with the researcher as the research instrument, and in the role of a participant within the study (Walsh, 2012). Originally, ethnography was developed for anthropological studies of remote cultures or communities (Walsh, 2012). Anthropologists argued that the researcher could better understand the cultural practices and meanings from immersion into the culture, which is referred to as the emic perspective (Hoare et al., 2013; Hoey, 2014). Emic is an

anthropological reference to examining the studied population from within their own socio-cultural system, referred to as a closed system (Hoare et al., 2013; Hoey, 2014), where the researcher becomes an insider and can see through their eyes. An ethnographic approach within qualitative research aims to accurately describe the "lives and experiences" of the individuals within the context of the studied community (Beneito-Montagut, 2011, p.718). Data are collected through open-ended interviews and field notes, primarily resulting in an ethnographic report written in a narrative form (Cohen et al., 2011). For ethnographers, recognition of patterns is an integral part of their final report.

Narratives

Griffin and May (2012) describe a narrative as "an account of a non-random sequence of events that conveys some kind of action and movement through time" (Griffin & May 2012, p. 443). Narrative inquiry is grounded in the humanities and the experiences are part of a continuum, each resulting from a previous one and leading into a future experience (Clandinin & Connelly, 2000). The narrative researcher collects their data using conversations, documents, pictures, and observations of the participants to construct the participant's story. The stories, as expressed by the participants may have a beginning, middle, and end from which they have ascribed meaning to their life events (Cohen et al., 2011). Using a narrative framework for a research study requires researchers to respond reflexively and be connected to the examined culture and to their personal experiences within the temporal continuum (Clandinin & Connelly, 2000). The inquiry begins by listening to the experiences expressed in the stories; during analysis the researcher frames the written narrative interpretation (Clandinin & Connelly, 2000). As the researcher analyses these subjective experiences, they expect to develop an understanding of what they represent to the individual sharing the stories (Cohen et al., 2011). In is critical in this methodology that the researchers and participants develop a trusting

relationship in order for participants to share and discuss their life stories. In freely sharing their information the researcher can understand the events and behaviours as they unfold (Creswell, 2007). The aim of narrative inquiry is to discover a new sense of meaning and significance pertaining to the research topic, rather than a set of claims that might incrementally add to knowledge in the field (Clandinin & Connelly, 2000).

The analysis of the narrative data can be used to access *how* the event was experienced but not the real what of the experience (Griffin & May, 2012). In other words, since stories provide meaning to people's lives, the narrative researcher aims to help the readers understand that meaning.

Grounded Theory

Grounded theory has roots in social and psychological inquiry, and uses a systematic, inductive approach with a focus on generating theory (Charmaz & Henwood, 2017). The grounded theory researcher performs comparative data analysis at increasingly more abstract level to discover patterns (Charmaz & Henwood, 2017). Grounded theory is similar to other qualitative methods in that it seeks to understand a phenomenon. The process involves recognized steps of iterative analysis where the researcher is constantly comparing their ideas with their data while their end goal is to develop a theory (Charmaz & Henwood, 2017; Cresswell, 2013). The back and forth checking ends when there are no new emergent categories from the data, a point referred to as *saturation*. One of the criteria for developing grounded theory is that it should be generalizable to multiple situations, not a specific one. To achieve a holistically applicable theory, the research must collect facts and information from a diverse set of situations (Glaser & Strauss, 1999). Commonly used tools are interviewing, observation, memo writing, and surveys, which is consistent with other qualitative research methodologies.

Narrative, ethnographic, and grounded theoretical orientations have similarities to phenomenology as they seek to understand the participants' experiences. These methods start to diverge at the analysis stage in how they pursue the data that responds to the research questions. Ethnography looks for patterns in cultural behaviours, while narrative stories use linguistics and contexts to formulate the meaning of the participants' experiences (Clandinin & Connelly, 2000). Grounded theorists examine concepts across different contexts and develop a general theory to explain the results. I will now discuss phenomenology, and specifically IPA, and why it was the approach selected for this inquiry into the phenomenon of prelicensure students' experiences of interprofessional practice in the clinical environment.

Phenomenology as a Research Methodology

Overview and variations. Phenomenology has links to philosophy and psychology and sets out to understand human beings' lived experiences around a phenomenon through reflective inquiry (van Manen, 2014). Lived experience, or the lifeworld, refers to human existence now, prior to reflection on it (van Manen, 2014). The focus is on the experience itself, separated from explanations or prior knowledge. In the phenomenological approach, the researcher is called upon to bracket or set aside any preconceptions before analysis, including any existing theories explaining the phenomenon experienced. The epoché and the reduction are key terms applied in phenomenology to refer to these concepts. Phenomenology considers all experiences worthy of exploration; therefore, the reduction is the term applied to the method of removing preconceptions in order to ascertain "direct and primal contact with the world as we experience it" (Adams & van Manen, 2008, p. 618). The epoché is the suspension of a conscious judgment of everything in the world by the researcher as they work with the participants' accounts (Cohen et al., 2011; van Manen, 1997). Phenomenology employs methods to systematically access the essence of the phenomenon; for example, the experience

of anger, pain, or fear (Adams & van Manen, 2008). The data collection methods used are similar to other qualitative methods previously discussed: surveys, observation, diaries, and journals. While grounded theory, as one example, investigates the why of the phenomenon, phenomenology is concerned with the whatness. Husserl was a philosopher noted as the founder of phenomenology as a research method in the 20th century (Giorgi, 2006). Although the fundamental idea of phenomenology remains the same now, there have been a few variations based on the path to analysis and the scientific mindedness of the researcher (Giorgi, 2006). Four common versions are transcendental phenomenology, hermeneutic, critical phenomenology, and interpretative phenomenological analysis.

Transcendental Phenomenology. According to Giorgi, a follower of Husserl's transcendental phenomenology, the word phenomenon means "the presence of any given precisely as it is given or experienced" (Giorgi, 1997, para. 6). The phenomenological researcher only and precisely describes the phenomenon, and within the description lies the meanings (Giorgi, 1997). Transcendental phenomenology is rooted in the phenomenology of consciousness (Griffin and May, 2012; van Manen, 1997). However, the lens of the researcher must remain on the naturalness or essence of the phenomenon. If one is to understand the meaning derived from an individual's experienced phenomenon, one must see reality from their view by suspending judgment (Griffin and May, 2012); essentially, researchers attempt to see the participants' world as the participants reveal it to them. All experiences should have value, which is an integral part of a human being's consciousness. Proponents of transcendental phenomenology are essentially Husserl purists in that they view the descriptive account of the phenomenon as aligned with the scientific approach (Lopez & Willis, 2004).

Hermeneutic Phenomenology. Hermeneutic phenomenology provides rich data about an individual's life experience. It goes beyond the description of the essence of the experience and tries to find the meaning taken from the experience. The researcher must be comfortable

being flexible, as unfolding questions and alternate ways of thinking about the examined phenomenon may appear over time (van Manen, 2014). This method of inquiry is attributed to Heidegger, a 20th-century philosopher and student of Husserl, who was intrigued by the meaning of being (Giorgi, 1997). However, Gadamer, a philosopher in the late 1900s, was one of the first to represent this method as an interpretation of texts' explication. Hermeneutic phenomenology aims to make apparent what is typically hidden. Where this approach differs from transcendental phenomenology is in the use of interpretation: using language as the tool to aid reflection and to describe human lived experiences. According to van Manen (1997), this method is descriptive of the things themselves, as our consciousness perceives them. Van Manen suggests that researchers using this perspective are interested in "the reflected presence, the now mediated by the text of the story" (van Manen, 2014, p. 33). The participant's reflection can be interpreted, although the immediacy of the experience may be more difficult since, even with direct description, the experience has already been interpreted (van Manen, 2016).

As human beings, we can never capture the current now of being in the world because the moment we try, we are in a state of reflecting, and the essence of the now has escaped us. Van Manen (1997) further asserts that lived experience is somewhat transparent and accessible through artistic language styles. This assertion infers that everything that one does is interpreted activity; the debate among the early hermeneutic philosophers was whether meaning was direct or inferred by interpretation (Adams & van Manen, 2008).

Critical Phenomenology. The complexity in transcendental phenomenology is in arriving at the process allowing the uncritical understanding of the individual’s experience, where the world and consciousness are separate entities. From Guenther’s (2021) perspective, the individual does not experience the world one dimensionally -there is a conscious meeting with an object in the world. When an individual is in the world, they are moulded by their

experiences and social structures, which in turn define their relation to the world (Salamon, 2018). This implies that a more holistic look at the experiences is needed. Laferte-Coutu (2021) suggests that Guenther refers to an “hybrid phenomenological practice” (Laferte-Coutu, 2021, p. 90) when writing of the social structures that inhabit critical phenomenology, since the practice includes structures of consciousness. Reflection reveals our frames of reference and when we recognize them and put them aside, we get to see the real world. The phenomenological researcher seeks to understand the meaning given to experiences, the added critique of critical phenomenologist serves to bring awareness of the limitations and hidden powers that shape those experiences (Salamon, 2018). Additionally, there is a commitment to address these structures such that positive change results (Guenther, 2021). A criticism of critical phenomenology is that the day-to-day lived experience may become secondary to the “political struggles” that are questioned (Salamon, 2018).

Interpretative Phenomenology Analysis (IPA). This method is "committed to examining how people make sense of their major life experiences" (Smith et al., 2012, p. 1). IPA seeks to collect a direct description of the participant's experience, whereas hermeneutics’ application recognizes that the researcher cannot get directly at the experience but can only interpret it. According to Smith et al. (2012), double hermeneutics is the analysis adopted in the approach where the researcher is making sense of the participant making sense of their experience. Human behaviour may indicate how humans construct meaning from their experiences (Cohen et al., 2011; Giorgi, 1997). IPA is based on interpretivism and recognizes that the meaning of experiences depends on the participants' social, cultural, and emotional situation, and strives for in-depth accounts of their experiences (Eatough & Smith, 2011).

The third feature of IPA is that it is idiographic. The study is about the participants’ unique perspectives of the experience, and their sense-making process, as it will be different for each individual. The researchers complete the analysis of each case before moving on to the

next, enabling detailed and rich analysis of each participant's data. As a result, there is an increased understanding of the phenomenon from illuminating multiple perspectives (Smith et al., 2012). The focus of the research is not on the generalization of the themes among the participants. The researchers' role is to use their experience and sensitivity as they collect and analyze the participants' accounts. While IPA specialists do not advocate the epoché and reduction techniques used in the transcendental approach, researchers maintain awareness of their presuppositions and other forms of bias by keeping a reflexive diary.

I have discussed the methods commonly used in qualitative research and stated the similarities and differences. IPA interprets the reflections of individuals living through a phenomenon and, at the same time, attempts to find the meaning assigned to it by the individuals (Smith et al., 2012). Eatough and Smith (2011) contend that "IPA explicitly attends to the hermeneutics of factical life through a method, which asserts that events and objects, which we are directed towards, are to be understood by investigating how they are experienced and given meaning by the individual" (p. 181).

The selection of IPA for this study developed from the interpretivist, constructivist perspective. This method was appropriate to address the primary study goal, which was to understand the whatness of the participants' experiences of interprofessionalism in the clinical environment and how these experiences impacted their value of interprofessional practice going forward. Transformational changes occur in response to many different environmental cues, and participants respond to different cues as they view situations from their individual perspectives. Secondly, IPA allows the researcher to highlight the experiences and the meaning, using the participant's own voice. For the problem central to this study, focusing on the *what* and how of the experience of the phenomenon was useful in understanding the significance (van Manen, 2012).

Pilot Study

After research ethics approval (April-May 2019) was granted, I planned to conduct a small pilot to generate feedback on the effectiveness and clarity of the interview questions, and the practicality of the study tools. I sought feedback on the electronic journal application (app), Penzu Pro; specifically, on its accessibility and utility for the reflective journal entries. With that in mind, I accepted the collaboration of two Medical Radiation Sciences (MRS) students at the end of their program, who volunteered to be a part of my study and provide feedback on both the interviews and the electronic journal app. Penzu is a publicly available, free app for use on the web and mobile devices across platforms, meaning that it can be utilized on smartphones or desktop computers. There are opportunities within the app to upgrade to Penzu Pro with a different security and customization level, appropriate for this study. In the second component of the pilot plan, two faculty members reviewed the interview protocol, the interviews and the respondents' data, then provided feedback. After I reviewed the feedback, I performed an analysis on the responses to better align the protocol with the study aims. I will present the details in the next chapter.

Study Outline

Participants

Recruitment was aimed at health care profession students across the university campus. The intention was to perform convenience and snowball sampling to reach the pool of potential participants. Convenience sampling is a non-probability method based on the accessibility of potential participants. In contrast, in snowball sampling, also a non-probability sampling method, the researcher identifies the first few participants, who then refer others who meet the inclusion criteria. This process repeats until the required number of participants is acquired (Cohen et al., 2011). Recruitment was geared to self-selection rather than random sampling, as generalization was not the aim of the IPA approach. To initiate the recruitment process, I contacted health

professional programs at the university to explain the proposed research and obtain their permission to approach their students entering their final clinical practicum.

The aim was to recruit 12-15 participants, as attrition was expected during the study. The target programs included physician's assistant, radiological technology, nuclear medicine, radiation therapy, speech language pathology, and pharmacy. These programs were targeted primarily because their clinical practicum dates matched well with the research timelines and secondly, I felt that these programs are less often heard in research. Qualitative methodologies like phenomenology acquire a large amount of data, and a small number of participants is therefore appropriate (Cohen et al., 2011; Smith et al., 2012). I employed the following inclusion criteria for participants:

Healthcare profession student

Participating in a final clinical practicum of a minimum of 20 weeks in length

Participated in interprofessional education events

I excluded students who transferred from another university after year one, as they would not necessarily have had the same type of experiences as the other participants.

Procedures of the Study

Planned information session. Utilizing the feedback gathered from the pilot study, I revised the reflective guide and interview protocol prior to initiating the study procedures. The first activity was to present the study details. In the event that there were more than fifteen students interested in volunteering in the study, the plan was to present the details of the study to the entire group at a general information session and allow self-selection to occur. The hope was to include students from MRS, and at least two other professions. At the end of the information session, I prepared a written flyer (Appendix A) for all attendees along with an

information and consent form (Appendix B) to be signed by those students who were interested in participating.

Workshop session. At the start of the one-hour session (July 2019), I intended to collect the signed consent forms and to encourage anyone to forward the names of any others interested in volunteering. The workshop did occur, although in a slightly differently delivery format than I had envisioned. The workshop began with an explanation of the reflective activity required in the study and I provided the guide (Appendix C) to each participant as a reminder of what I was asking them to submit for their reflective entry. Secondly, we discussed self-reflection, with an example of a critical reflection versus a purely descriptive one. Practicing reflection and using the electronic journal were critical steps to manage as the study participants were asked to reflect on experiences once a week and submit them to the researcher using Penzu Pro until the end of their clinical placement. Although the app is identified as the collection tool for their entries, I explained that I would accept non-digital entries. Following the download of the app, the participants practiced using the standards features, to ensure the efficient and hassle-free use of the electronic journal. At completion I reimbursed each applicant the cost (US$20.00) of the download of the Penzu Pro app to their phone.

Pre and Post clinical interview protocols. Aiming to access first-hand accounts of their experiences from the participants, I employed virtual semi-structured interviews for prior to and post practicum. I scheduled the preclinical individual interview with each participant, on an online meeting application, Skype for Business$_{TM}$, the signed consent included the audio-recording. A semi-structured protocol facilitated the conversation by keeping me on track; moreover, it allowed the flexibility to ask prompt questions to clarify the participants' accounts (Byrne, 2012; Cohen et al., 2011; Cresswell, 2007). I derived the questions based on the study goals: interprofessional practice experiences, how the participants learned interprofessionalism, and how it would impact their practice. The preclinical interview protocol (Appendix D) consisted

of section one, with four demographic questions, at and section two with five questions. The interviews were scheduled for a maximum time limit of one hour, following the guideline by Smith et al. (2012) suggesting that a protocol with six to ten questions may require approximately forty-five to ninety minutes to complete.

The plan was to schedule the postclinical interview (Appendix E) closer to the end of the practicum for the same time duration since the questions were similar to section two of the preclinical protocol.

Reflection entries. Once the participants were at their clinical placement site, I asked them to submit one reflection at the end of every week for approximately 20 weeks. The participants decided the word length of each entry since being open and relaxed was conducive to reflecting. Allowing the mind to ponder appeared contradictory to setting such parameters. I recognized that some participants would require more rambling as they arrived at a comfortable place of awareness, and alternatively others may require guidance from the questions. At the workshop, we discussed possible limitations in the depth of the reflective expression when the writing is less than approximately 500 words. I expected to receive 20 reflections from each participant over the study period.

Planned Data Collection

I assigned a computer-generated ID code to each participant after receiving their consent form; this code was attached to their personal information for confidentiality and anonymity. Only the researcher had access to the participants' confidential information. Hard copies were stored in a locked drawer and digital files were stored on a password protected USB disk.

Aside from the demographic questions on the first interview, I planned to use open questions to guide the conversations of both interviews. The interview is a crucial tool in

phenomenology to gather rich data in the participants' own words as they describe and explain their observations and qualify their stories (Cohen et al., 2011). The expected drawback was the accumulation of a large amount of data: twenty reflective entries and two interviews from each participant, some of which I initially assumed may be irrelevant as the conversations would likely veer away from the focus. This assumption did not prove to be true as I was interested in the entire conversation with all participants. As the interviewer, I planned to promote reflection by allowing for pauses, and using prompts to enquire or to ask for elaboration on responses. It was important to be aware of my non-verbal behaviour, and it was my objective to not contribute my views to the conversation and to refrain from signalling evaluative judgment of the participants' responses (Cohen et al., 2011).

The first interview was to determine the impact of learning on the interprofessional education taught attitudes, skills, and behaviours during their reflection on the sessions. While the collected information attended to the experiences and observations, they would be able to share their accounts as they revisited the events. Through the Interviews and reflective entries, the study addressed the following questions:

Question 1. How do health care professional prelicensure students experience IPP in their various assigned clinical placements?

How do the participants make sense of their experiences?

What aspects of reflection seem to have the most impact on their learning?

Question 2. How does reflection impact their learning in the clinical practicum?

What are the features of the experience that promote reflection?

What aspects of their experiences in IPE are taken forward to their clinic practicum?

Question 3. To what extent does reflection help the participants to construct meaning in interprofessional education and practice?

Timelines

The timeline for completion of the data collection was initially anticipated to be March 2019. The study began after approval from the Research Ethics Boards (REB) of Athabasca (University No: 23001; March 2018), (Appendix F), the University of Toronto (# 8772; April 2018), (Appendix G) and The Michener Institute of Education at UHN (# TM2018-002; February 2019), (Appendix H). The pilot study (April 2019) began with an interview and ended two weeks later. Table 1 identified the anticipated schedule as I began the study. I revised the schedule after receiving approval from the Research Ethics Boards, to project the completion of my data analysis in August 2020 (see Table 2). Due to the advent of the pandemic and other personal interruptions, I subsequently had to make another revision to illustrate the actual activities undertaken.

Table 1

Anticipated Timeline to Data Analysis

Activity	Approximate timelines
Ethics approval (anticipated)	March- April 2018
Pilot study completion	April-May 2018
Accrual of participants	May 2018
Reflection Workshop	May 2018
Preclinical interviews	June - July 2018[a]
Postclinical interviews	March 2019
Data collection	Ending March 2019
Data analysis	Ending July 2019

Note. [a]Some programs start the clinical practicum at a later date

Table 2

Revised Timelines

Activity	Approximate timelines
Ethics approval final	February 2019
Pilot study	April-May 2019
Recruitment	February - May 2019
Reflection workshop	May 2019
Preclinical interviews	July 2019
Postclinical interviews	February - March 2020
Data collection	Sept 2019 - April 2020
Data analysis	August 2020

Data Analysis

The first step after the interviews was transcribing the interviews verbatim and reaching out to the participants to allow them to reflect on their comments, suggest changes, and confirm the transcript as sent. IPA data is unlike that of typical qualitative studies in that the reflection of the participants was to reveal how they make sense of their experience of the phenomenon in question (Smith et al., 2012). The participants' verbal descriptions from their interviews and reflections, along with my notes, are part of the analysis, which gets to the heart of the meaning attributed to these accounts. Examining the experiences by looking at the contributions from different perspectives, is the process of phenomenological analysis of concrete experiential accounts (van Manen, 2014). According to Smith et al. (2012), the researcher attempts to determine how the participant made sense of their experience using an analytic and reflective engagement with the texts. Analysis in the present study started in the opening of the interview

by noting non-verbal cues (such as pauses, laughter, or confusion) during the interviews and making notes of my impressions after the interviews.

Once the interviews were confirmed by the participants, I reviewed each, being conscious of the words and tone as I listened to them twice. Line by line analysis drew me to read the transcription several times to attend to the words and patterns, then back to the whole document and the meaning therein for each participant in order to get oriented to their stories. The flexibility inherent in IPA means that this can be done as often as is needed for clarity of the texts. This is a demanding part of the analysis, but it allowed me to critically examine the content and glean the appearance of emergent themes and thematic relationships (Smith et al., 2012). The same back and forth iterative process was performed for the weekly reflective entries, including a cross check of any categories that stood on their own as a theme. Once this was completed for every participant, I proceeded to compare and relate the findings across all participants (Pietkiewicz & Smith, 2014; Smith et al., 2009). Throughout the process, the intent was to question my interpretations while being mindful of my bias and perceptions, due to the importance of maintaining authenticity to each participant's meaning (Smith et al., 2012). Interpreted findings were supported with extracted quotes from the data, and I identified the literature that supports the identified themes.

Validity

Validity in IPA is concerned with sensitivity to the participant and context at the interview. The interview required an informal conversational tone between the participant and the interviewer, as well as trust. In each purposeful interview, I invited the participant to take the lead, then listened and prompted expansion when needed. At times, and with some participants, I needed to speak more to generate discussion or keep the conversation flowing.

Trust and confidence in the results are critical to all research, but it is generally easier to establish in quantitative data than in qualitative research studies. The evaluation of rigour must be ongoing by necessity in qualitative research and phenomenology (Morse et al., 2002). Rigour relates to the thoroughness of the study and the decisions made along the way, including the interview's quality and the representativeness of the information. From the point of designing the interview protocol, I strived for accuracy and truthfulness of the accounts; this was demonstrated by piloting the questions and sending the transcripts to the participants to review. One participant returned the interview with an edit to her thoughts as transcribed. Receiving feedback from faculty familiar with the program and the clinical environment, as well as from students at the point of graduation, supported the face validity of the study. Lincoln et al. (2011) suggest fairness and authenticity as significant criteria to support the validity of the findings. Fairness ensures that "all stakeholders' views, perspectives, values, claims, concerns and voices should be apparent in the text" (Lincoln et al., 2011, p. 122). Considering this assertion, the truth value of the present study is also reinforced by using the quotes to support the presented interpretations.

Credibility. IPA recognizes that there is no one truth that reveals itself (Lincoln et al., 2011; Thomas & Magilvy, 2011); however, the results must be credible in terms of rigour. In this study, I forwarded the transcribed interviews to the participants for member checking. Secondly, I enlisted a faculty member experienced in qualitative research to review the overall categories. The findings include participants' quotes to corroborate the presented information, and I also give reflexive accounts of the activities that I undertook. Smith et al. (2012) believe that “good IPA studies tell the reader something important about the particular individual participants as well as something important about the themes they share" (p. 181). Credibility also revolves around resonance of the themes, which is the degree to which readers will recognize the information presented. The study’s themes are important and in general agreement with

literature regarding the limitations and challenges for undergraduate health care professionals in learning to practice interprofessionally.

Transferability. In phenomenology, specifically IPA, there is perhaps cautious applicability. The idiographic nature of analysis means that clear descriptions of the details of the context and the process throughout the presentation of the research is necessary, hence the use of the reflexive journal notes. The transcribed text of the findings should provide a "dense description of the populations" (Thomas & Magilvy, 2011, p. 153) and enable the reader to recognize aspects of value in the presentation.

Dependability and Confirmability. The researcher's journal follows the reasoning for the data collection and the process of interpretation, such that an audit trail or chain of evidence for the data collection and analysis is transparent. In acting in this manner, other researchers interested in the topic could replicate the study, to some extent. The relationship that the researcher shares with the participants is another part of the context which will impact the findings. Confirmability is establishing the connection of the finding to the actual data collected (Stenfors et al, 2020). In this study, the findings will be presented using quotes to illustrate the connection.

Ethical Considerations

Principle of Anonymity and Confidentiality. As the researcher in this study, I am aware of the participants' identification and data, and I did not make this information available to anyone. I assigned computer-generated identification numbers to the participants so that in any publications or viewing of the data there will be no association with the real identities. To protect confidentiality, I kept all study information in a secured electronic file in a password-protected computer and an encrypted USB; hard copies of any study information were in a locked cabinet only accessible to me. Once the transcript was confirmed by the participants, the recording was

deleted. The consent form included permissions for using verbatim material in any resulting publications. Interview transcriptions, journal entries, and other data will be kept for 10 years from the end date of data collection before being destroyed.

Principle of Justice. The participants received a reimbursement sum of $20.00 (US) for purchasing the account (for one year) for the Penzu Pro electronic journal application used in the study. There was also a token amount ($25.00 gift certificate) available to each participant (including the participant who did not complete the study) at the end of the data collection period. This token was a thank you and an acknowledgement of respect and appreciation for their dedication, time, and effort.

Principle of Maleficence and Beneficence. No harm came to any of the participants participating in this research. It was possible that writing about a challenging experience may have caused undue psychological stress; in the event that this occurred, information was included in the consent form noting counselling availability at the university counselling office for MRS students. The ethical rules are clear in reporting; however, I was not privy to any information regarding unethical actions during the interviews or in the journal entries. The participants were advised of the researcher's responsibility, advised to follow professional confidentiality during their reflections, and told to use pseudonyms for the names of others involved in any events described.

Principle of Autonomy. No participants actively enquired regarding withdrawing from the study. All participants were informed that, should they wish to do so, they could contact me without any disadvantage or penalty whatsoever. This was included on the information sheet that they received along with the contact information. For practical purposes around the loss of data after analysis, the withdrawal period ended at four weeks after the final interview.

Limitations and Delimitations

Participant volunteers self-selected, and it was therefore presumed that they had some interest in the topic. However, it may be that the voices of others who did not volunteer would have spoken differently. Secondly, reflection was a valuable tool to use due to familiarity with the concept; however, analysis of the depth of reflection was beyond the scope of this study. Weekly reflections were submitted online, and I recognized that this was a commitment additional to participants' clinical expectations that took time each week to complete. Thus, the participants' commitment to complete the study is perhaps a reflection of their interest in the topic.

As interpretative phenomenological analysis has an idiographic focus, a small number of participants is generally acceptable. However, the small number of participants in the current study may be a limitation, if readers consider the application of the findings to other educational institutions other than the one where the study took place. The results of phenomenological studies are detailed and rich in understanding personal experiences; therefore, these findings are instructive in highlighting how the select participants learned about interprofessional education, and what they valued in their clinical experiences of IPP. Other institutions may benefit from the data by examining the contextual similarity to their institution.

It is a consideration that generally there may be a political filter in that the policies and the direction within an organization may be at odds with the findings (Williamson & Prosser, 2002). Recommended changes may not align with organization policies that influence the dynamic of the working relationships between the various professionals. However, these findings are in the voices of essential stakeholders: namely, the students and future health care professionals, who have allowed us to glimpse their learning and experiences in their practice.

I am conscious of the possibility of my bias intruding into the study. In a phenomenological study, this is an inherent limitation. As I am a radiation therapist, there were many instances of shared understanding between the participants and I; therefore, I made

efforts to be reflexive. To reduce the bias that I brought into the study, I needed to be aware of my presuppositions and assumptions (Giorgi, 1997; Smith et al., 2012; van Manen, 2014). Being reflexive during analysis allowed me to revisit the discussions and ensure the participants voices were heard. Throughout the research, I have attempted to maintain my awareness of my personal beliefs and assumptions. This research design required collaboration between the participants and the researcher and, therefore, a trusting relationship that safeguarded the authenticity of the findings.

Finally, the clinical placement locations are anonymized in the presented data, as this information is not presented as a review of treatment sites or organizations, but to present a learning opportunity about the future of health care practice.

Chapter Summary

In this chapter, I discussed the qualitative approaches for this inquiry and explained the selection of the interpretive phenomenological analysis as appropriate from among the variations. The majority of the chapter focused on the detailed research plan, including the pilot study and the analysis of the material collected from the interviews and the weekly reflective entries. I discussed the parameters of assessing the rigour of this work, along with the ethical considerations and the limitations. This study aimed to examine the phenomenon of interprofessional practice through the participants' experiences in the clinical environment. That being the case, the timelines for the completion of the data analysis are provided as initial estimates.

In the next chapter, I present my perspective on the study process and timelines, as they were dynamic due to some challenges. The chapter expands on the study procedures and the researcher activities as I worked to rescue the study. I include the revised and updated actual timelines, the impact of the COVID-19 pandemic and some reflexive notes.

Chapter 4 Study Processes, Challenges, and Activities

The last chapter described the methodology and the methods that were planned for this study. The current chapter presents the study processes and activities as they were employed, the context in which the study was performed, and the strategies that I used to respond to circumstances that posed risks to the rigour of the study. Additionally, I describe the impact of the COVID-19 pandemic on the study. The greatest challenge was recruitment of student health care professionals to participate. Throughout Chapter 4, I also present my reflections on these activities to the reader, from the pilot feedback through to conducting the interviews. Following this, Chapter 5 will discuss the findings from the study.

Study Processes and Researcher Activities

I undertook this study out of curiosity about students' ability to transfer their knowledge, behaviours, and values about interprofessionalism to practice. I wanted to understand how the healthcare practice environment supported the development of interprofessionalism competence and the learning for graduate application of this practice. At the time of development of this research idea, I believed in and supported the value of collaborative practice in health care, and I still do today. In the year prior to defining a focus for my study, I had reasons to seek care from healthcare professionals from both the patient and family perspective. The defining moment for me was the realization that nothing seemed to have changed since the widespread adoption of interprofessionalism as a practice goal for healthcare professions; I saw no evidence from the patient perspective that interprofessional practice was being embedded in professional practice. I then explored the idea that interprofessional education and practice may be based on hegemonic assumptions. Hegemony, as defined by Brookfield (2010), is the idea of believing something to be in your best interest when it is in reality supportive of the individuals managing the system. We, as health care professionals and

patients, find the idea of collaborative and patient-focused care idyllic, and there is high anticipation of the identified outcomes such as improved patient care and error minimization. However, the true winner may be the organizations, which may be seeing benefits such as interchangeable staff at a lower tier than the ones in charge, as well as lower costs, to name a few. These were my assumptions and presumptions going into the study, however, in focusing on understanding how the students learn and themselves adopt interprofessional practice, I shelved these biases. I consciously shifted to my initial interest in carrying out this study and my commitment to the participants' truths. I was not aiming to problem solve or to correct behaviours but rather to orient myself to the participants' narratives and to use my vantage point as a health care practitioner, to aid in interpreting, as closely as I could, the meaning absorbed from those experiences.

Role modelling is an accepted way to facilitate learning and could be a critical step to allowing the health care profession students to develop as collaborative professionals. There is research supporting the notion that students exposed to interprofessional education, learn to practice more inclusively with other professionals; the inference is that they are then ready to practice IPP (Andrew & Taylor, 2012; WHO, 2010). I have found no conclusive published evidence supporting the belief that undergraduate students who have previously learned in an interprofessional environment, commit to practicing the skills, values, and attitudes of interprofessional collaborative practice in their future practice as graduates. Reflection on the theory underpinning interprofessional practice, the interactions during practice, and the practitioner that students aspire to be, may be the strategy that requires more attention.

The Environment of the Radiation Therapy Student Participants in the Study

As the participants of the study were all from radiation therapy, I will briefly describe the role of a radiation therapist and the context in which they practice.

The radiation therapy professional. The Canadian radiation therapy professional (radiation therapist) works at cancer centres that offer radiation therapy treatments to cancer patients. The radiation therapist uses "focused beams of radiation to destroy tumours while minimizing harm to healthy tissues" (Canadian Association of Medical Radiation Technologists (CAMRT), n.d.). The therapist has many roles, including designing the treatment plan to deliver the prescribed dose, administering the planned dose using megavoltage radiation that targets the specific anatomy of the patient, and providing treatment education and supportive care to the patient throughout a course of treatment. To provide care in practice, radiation therapists work in uni-professional teams, perform their different roles within the department (typically on a rotational basis), and interact with multiprofessionals based on the patient's needs.

The clinical practicum environment. In a clinical environment, each set of professionals traditionally works from their own department, which may determine the procedures that they follow. In cancer centres, radiation therapy students are supervised by graduate radiation therapy professionals whilst being guided and taught the practice of the profession. Daily interactions are typically with patients, physicists, radiation oncologists, dieticians, and psycho-social and nursing professionals. The students participate in all interactions with their supervising staff. The clinical practicum was important to the present study, as it imposed the structure to the study procedures. Since the practicum was scheduled to start in August for orientation activities, and from September onwards to May to complete the program requirements for graduation, this necessarily dictated the start and end timelines for the study.

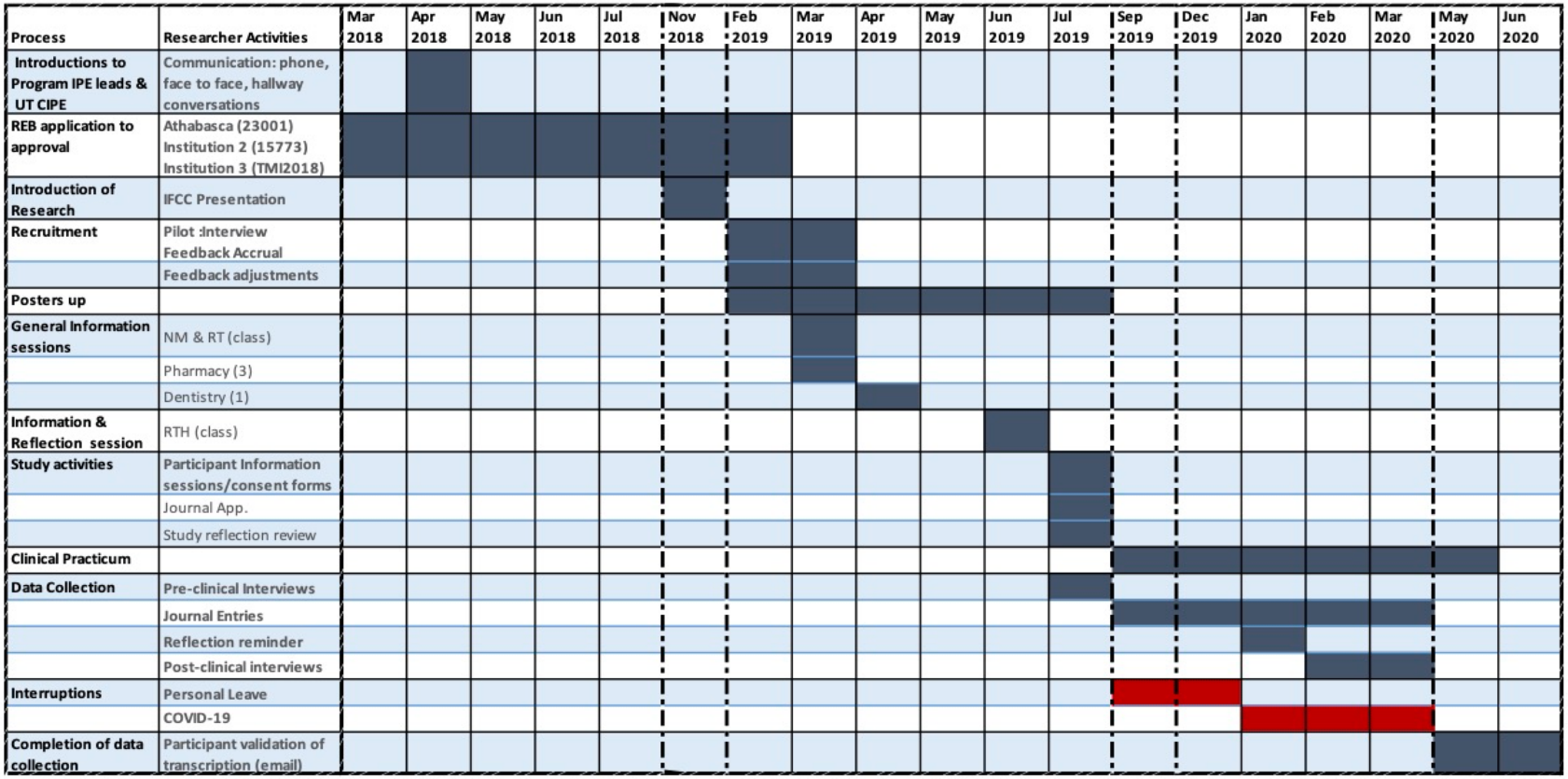
Process Timelines

The study activities were guided by the timeline Table 3. This is the final adjustment made to the timeline from the planned original in Table 1, Chapter 3. Tracking time related to

study processes is an activity that aids in achieving deliverable results regardless of the size of the project. While there are always factors out of the researcher's control, there must be flexibility to adapt and get back on track with study goals. Peer feedback, input from collaborators, and delays in recruitment and research ethics approval are some examples of processes that are typically beyond the researcher's control. All researchers accept that they may encounter these challenges and respond as they occur during the study procedures.

Table 3

Readjusted Timeline of Study Activities



Process	Researcher Activities	Mar 2018	Apr 2018	May 2018	Jun 2018	Jul 2018	Nov 2018	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Sep 2019	Dec 2019	Jan 2020	Feb 2020	Mar 2020	May 2020	Jun 2020
Introductions to Program IPE leads & UT CIPE	Communication: phone, face to face, hallway conversations																			
REB application to approval	Athabasca (23001) Institution 2 (15773) Institution 3 (TMI2018)																			
Introduction of Research	IFCC Presentation																			
Recruitment	Pilot :Interview Feedback Accrual																			
	Feedback adjustments																			
Posters up																				
General Information sessions	NM & RT (class)																			
	Pharmacy (3)																			
	Dentistry (1)																			
Information & Reflection session	RTH (class)																			
Study activities	Participant Information sessions/consent forms																			
	Journal App.																			
	Study reflection review																			
Clinical Practicum																				
Data Collection	Pre-clinical Interviews																			
	Journal Entries																			
	Reflection reminder																			
	Post-clinical interviews																			
Interruptions	Personal Leave																			
	COVID-19																			
Completion of data collection	Participant validation of transcription (email)																			

Note. UT=University of Toronto; IFCC=Interfaculty Clinical Committee; NM=Nuclear Medicine; RT=Radiological Technology; RTH=Radiation Therapy; CIPE=Centre for Interprofessional Education.

Research Ethics Applications

After candidacy acceptance, I applied for research ethics approval from the educational organization at which I was studying in March 2018. The pool from which I was recruiting included students registered in a program administered by two institutions. Upon receiving the first approval I then applied to the institutions at which the intended pool of candidates was registered. Any adjustments to an application required an update to all ethics boards, which necessitated that the applications be submitted one at a time and that waiting time be allotted for approval or revisions before the final application was submitted. The clinical practicums were scheduled to begin between July and September 2018, and complete REB approval from all three institutions was only received in February 2019. I acknowledged to myself in August 2018 that I would miss my intended cohort.

My initial response to this set back was disappointment tinged with some anxiety. Long discussions with my supervisor led me down from the ledge and left me determined to persevere and to talk about my research proposal to the next cohort whenever there was an opportunity. The approval timeframe was one year. I therefore applied for an REB extension from each of the REBs and turned my attention to refining the details of the intended pilot.

The Pilot

I intended to ask for two student volunteers to participate in my pilot. I considered asking two students from the cohort of the study; however, I was concerned about reducing the number of interested study participants. During an informal discussion with some graduates and students from previous cohorts who were asking about my progress, one student who was near the end of the clinical practicum and another who had already graduated were still interested in participating (January 2019). I realized that would be a solution to my concerns, and once I received final REB approval, I contacted the volunteers and led a discussion about the pilot and

my requirements. The other component of the pilot plan was to recruit two faculty members to review both the interview protocol and the transcribed interview, and to provide feedback. I undertook a pilot study to assess the clarity of the interview questions and effectiveness of the data collection tools for the study; it was not intended to assess the analysis method. The National Institute of Health Research (NIHR) glossary defines a pilot study as follows:

> Pilot studies are a smaller version of the main study used to test whether the components of the main study can all work together. It is focused on the processes of the main study, for example to ensure that recruitment, randomization, treatment, and follow-up assessments all run smoothly. (https: //www.nihr.ac.uk/about-us/glossary.htm).

Pilot feedback. Both faculty and students agreed that the proposed interview questions were clear and that they elicited the responses applicable to the aim of the study. The scheduled time of the interview was sufficient, and the faculty felt that 45 minutes would be adequate since both pilot interviews were completed in under an hour. The students commented on the use of acronyms (IPP and IPE) in the interview protocol and suggested that it would have been clearer if the words were written out completely. All agreed that the journal app would be appropriate for the activity; one of the students gave the following feedback:

> “First impressions are that while it is intuitive and easy to use, sending journal entries back and forth seems to be a pain and would be easier on other site [sic]. However, the site is kept private unless you send the link so there's that benefit.”

My reflection on the pilot. I found that conducting an interview for the purpose of collecting impressions and interpretations was challenging. It was easy for the interviewees to

go off track after responding and growing comfortable in the environment. However, in a moment of clarity it occurred to me that if this is how they interpreted the interaction, it is not off track, and that I should be flexible enough to follow it through. Compared to the ease of the interviewees, I felt anxious in my position as the interviewer due to my awareness of the dos and don'ts from the literature. The idea that I could attend to all of these different things while conducting an interview seemed ludicrous to me during my reflection after the event. To me, the key areas were to be able to engage in a comfortable conversation with the participants and make them feel at ease, to remain flexible enough to follow the conversation where it took me, and to attend to their stories and not make any assumptions based on my point of view. According to Smith et al. (2012), the interviewer should allow the participant to lead the conversation; while interviewers may prompt for clarification, they should not take control. I decided that following these actions would help me to relax and achieve a glimpse of what the participants were experiencing.

I made the recommended revisions to the Interview Protocol (Appendix D) by removing the acronyms IPE and IPP and replacing them with the full words: interprofessional education and interprofessional practice. I added prompts under the questions to remind myself of certain things in both the preclinical and the postclinical interview, such as:

- What were you thinking just then?
- How do you think he should have reacted?
- So when you say you did nothing, what exactly did you do?

The pilot was successful in achieving what I intended. Additionally, I became more aware of the complexity of the interview process. I practiced making notes in the second pilot interview, in which I was much less anxious.

Stakeholder Involvement

When I note the stakeholders within this study, I refer to the University Centre for Interprofessional Education (CIPE) office, the various program clinical leads, and the participants. A stakeholder is defined as ‘‘one who is involved in or affected by a course of action” (Merriam-Webster, n.d., Definition 3). In 2018, while waiting for REB approval, I contacted the CIPE office to obtain a copy of the various placement schedules and the contact information for the interprofessional education lead faculty. I initiated contact by email and telephone to the leads of the programs that had practicum entry schedules that were reasonably well aligned with my study plan. I intended to alert them about my study and to get their input on how best to reach their students. This approach was unproductive, and two responses in particular highlighted the challenge that I faced. First, there was a sense of reluctance as one program lead considered the students were already over-extended (S. Kanofsky, personal communication, week of April 9th, 2018) and secondly, it was felt that the students had already been asked to be research participants by other sources (S. Wagner, personal communication, week of April 27, 2018). I decided that it might be more productive to concentrate on self-identification or snowball sampling. I then received a response from the MRS Program leadership and received permission to access the Medical Radiation Sciences (MRS) students.

Recruitment of Study Participants

As an outcome of my speaking to faculty contacts, the CIPE generously invited me to present my study proposal to the Health Care Professions' IPE Interfaculty Curriculum Committee (IFCC), at one of their scheduled meetings (November 2018). As I had received REB approval from the university, I accepted the invitation. I was not actively recruiting students until I had received all approvals; accordingly, the presentation was to promote my proposed study. Once I received complete REB approval, I provided the committee member with a written summary of the presentation, a poster to share with their students, and my contact information.

I continued to follow my planned recruitment strategy by placing the study posters at the Gerstein Library and on the student boards at each of the three home floors of the Medical Radiation Sciences disciplines, as planned. These were the places that I had identified in my ethics application for placing my invitation posters. I recognized too late that it was a drawback, since there were several libraries that would have been appropriate for my target sample. I had been overconfident in my ability to access and distribute the information. My intention was to use convenience sampling, mixed with snowball sampling procedures and the recruitment poster, to accrue 12-15 participants. After my initial appeal to the program leads, I came to the realization that I would likely not be able to accrue the anticipated number of participants, but I was hopeful. This was a large university and a vast area to cover to connect with students, and another limitation was that the various students did not have any knowledge of me; I appreciate that it would be difficult to approach or trust someone that they did not know.

I was intent on reducing any further delays, hence the short time frame (March to July) to initiate the preclinical study activities. As I reflected on the aim of the study, and engaged in discussions with my supervisor, we discussed that although I wouldn't have the number of participants that I had planned, I would still be able to gather some meaningful data. In IPA, a small sample size is preferable, the focus is on the richness of the data in each case and the subjective experiences, the idiographic focus. The advantage of recruiting a larger sample would be more diverse interpretations.

For me, this phase of the study was demotivating and frustrating. In spite of understanding that I could continue, I saw my diminished accrual as failure, and I struggled to remain positive about the successful completion and to continue to be flexible enough to provide information about the study whenever anyone expressed interest.

Information session. The anticipated plan was to present the study's details to all students interested in participating in a general information session, then allow self-selection to

occur. However, the potential participants only trickled in such that I decided to present the same information on four different occasions: first to the nuclear medicine and radiological technology disciplines, later to radiation therapy, then to three students from pharmacy, and finally a one on one to a dentistry student. In these sessions, as planned, I provided each student with a written information sheet and consent form (see Appendix B). Unfortunately, after considering the participant activities, the pharmacy and dentistry students expressed their apprehension about volunteering as they were unsure of their ability to commit time to completing the journal entries. There was no interest expressed from radiological technology or nuclear medicine. However, by the end of April, there were four radiation therapy students that identified their interest in participating. The next step was the reflection discussion, which was scheduled with the entire radiation therapy class (June 2019) as an introduction to clinical reflection in the clinical practicum. A later meeting with the consenting participants was held to discuss the study reflective activities, use of the journal app, and to collect the signed consent forms (Appendix B) from the four students consenting to participate.

Reflective workshop session. Once the participants submitted the signed consent forms, they participated in a one-hour session (July 2019) as planned. Each participant received a written reflective guide (Appendix D), which provided sample questions that could be used to initiate their reflection. Although the participants were introduced to various models during their didactic studies, my intent throughout was to support the development of a comfortable reflective process for each of the individuals. I did not propose a specific model or set of questions for them to follow, recognizing that for some students, formats and models may be too limiting or may seem repetitive (Bradley & Schofield, 2014). During the workshop, we discussed features of a better reflection, one that was produced from a free flowing of their thoughts. Additionally, the discussion provided direction as to how the questions in the reflective guide could be facilitative as a scaffold to critical engagement with their experiences. The next

step in the session was to download the app and practice the features that they would use for the study.

Data Collection

In contemplating the practicum environment and the best methods for data collection in IPA, one of the least intrusive and valuable sources of information I could think of was the interview. I will now discuss the activities undertaken as they occurred, starting with the semi-structured interview revisiting the classroom interprofessionalism, which occurred before the participants were due to start the clinical practicum, and the repeat interview, postclinical. Electronic journal entries over a six-month period of the practicum were an additional data source.

The Interviews

While the clinical practicum assignments were situated across Ontario, Skype for Business$_{TM,}$ an online app, allowed the participants' virtual presence for the interaction. Although the face-to-face interview is considered by some authors to be the gold standard (Adam-Hutcheson & Longhurst, 2017; Oates, 2015), the online synchronous approach taken for this study provided flexibility in scheduling and environment. Another advantage of using a voice over internet protocol (VoIP) in my circumstances, was the ability to continue with the postclinical phase of interviews, in spite of the restrictions imposed by the pandemic. I note this because I felt that it was an important aspect that I did not have to consider changing interview formats during that stressful time. In interpretative phenomenological analysis, as interviewers and interviewees are interacting, the interviewees disassemble their experience as they explain what the experience was, and the interviewers then try to reassemble it to get close to what was experienced. I wanted to build a collaborative relationship with the interviewees; being present is an important step in establishing rapport and viewing the participants' non-verbal cues to aid

in data analysis. This was my purpose for these interviews: to generate a smooth and insightful session for both the participant and I in a virtual space.

The participants' reflections on their experiences with interprofessional education during classroom time at the university (preclinical interview) provided a view into their expectations and beliefs about interprofessional practice when they entered clinic. Comparing this preclinical information to their observations and beliefs formed during the post clinical interview served two purposes: the comparison shed light on the students' connection of theory with practice, and it contributed towards the credibility of the data. Thus, the interview questions informed the study by ‘‘coming sideways" instead of directly (Smith et al., 2012, p. 58), meaning that in the interviews we delve into related topics which lead to getting answers to our research question.

Preclinical Interview. I began the very first interview by reminding the participant of the reason for the interview, confirming consent for the session's audio-recording, and referring her to the list of questions that I had provided beforehand. We started with some general chatter to set up a comfortable platform for sharing her story with me. Following this, I moved on to ask the demographic questions, then to section two, the study questions. I advised the participant that I would be writing brief notes about the interview but assured her that she had my attention; after establishing rapport, I felt honesty was important. My planned approach was to make notes of non-verbal behaviours and other notable points. I closed off the interview and went on to check the recording, only to realize that my audio-recorder had failed to record. Amidst the panic, I feared that this would disqualify the participant's data; if that were true, I would then have only three participants left. After the issues with my study timeline and recruitment, this would be my third disruption, and I questioned my ability to overcome this. I had obsessively written notes during this interview, including interesting quotes, and I decided to write out my notes as a transcript while it was still clearly in my memory. I transcribed my shorthand notes

carefully to ensure that I could recapture the conversation accurately. At the conclusion of the interview, we had discussed member checking as the next step.

Member checking is an activity done to validate the trustworthiness of the results. For me, this meant providing the participants with a copy of the interview transcription for verification of the account (Creswell, 2013). This first participant verified that the account was an accurate representation of what she had discussed with me, and therefore her interview was acceptable data. During the other three interviews, I felt much calmer and developed a routine that included checking the functioning of the recorder. Accordingly, the process went as planned and all participants validated the transcripts.

Post clinical interview and COVID-19 pandemic. I was already familiar with the clinical schedule for radiation therapy, as I was the Clinical Liaison Officer (CLO) between the educational institution and the clinical placement sites for the program. I present this information to the reader as I reflexively recognized it as part of the assumptions and insider knowledge that could aid or hinder my interpretation of the data (Greene, 2013). I shared the values and some of the experiences of the participants, I required their honesty and that they take on the role that they were building this study with me rather than imposing a power differential. Eidetic reduction is to explore the basic makeup of the phenomenon, using one's subjective perceptions, developed from past experiences (Smith et al., 2012). The method according to Husserlian philosophy brings the researcher closer to the lived experience of the phenomenon in question. I felt that sharing some of their experiences in radiation therapy would give me some insight into their narratives.

At the time of entry into the clinical practicum from August 2019 until January 2020, I was on a work leave and an acting CLO was in place, therefore I was at arm's length from the participants' program studies. Knowing the program's demands, I negotiated the least intrusive schedule possible for the second interview to avoid competing for the participants' time during

completion of their graduation requirements. During the second term, the demands on their time combined with the realization that they have only a few months left to graduate usually causes a great deal of stress in the students. The interviews were scheduled to begin in the final week of February 2020.

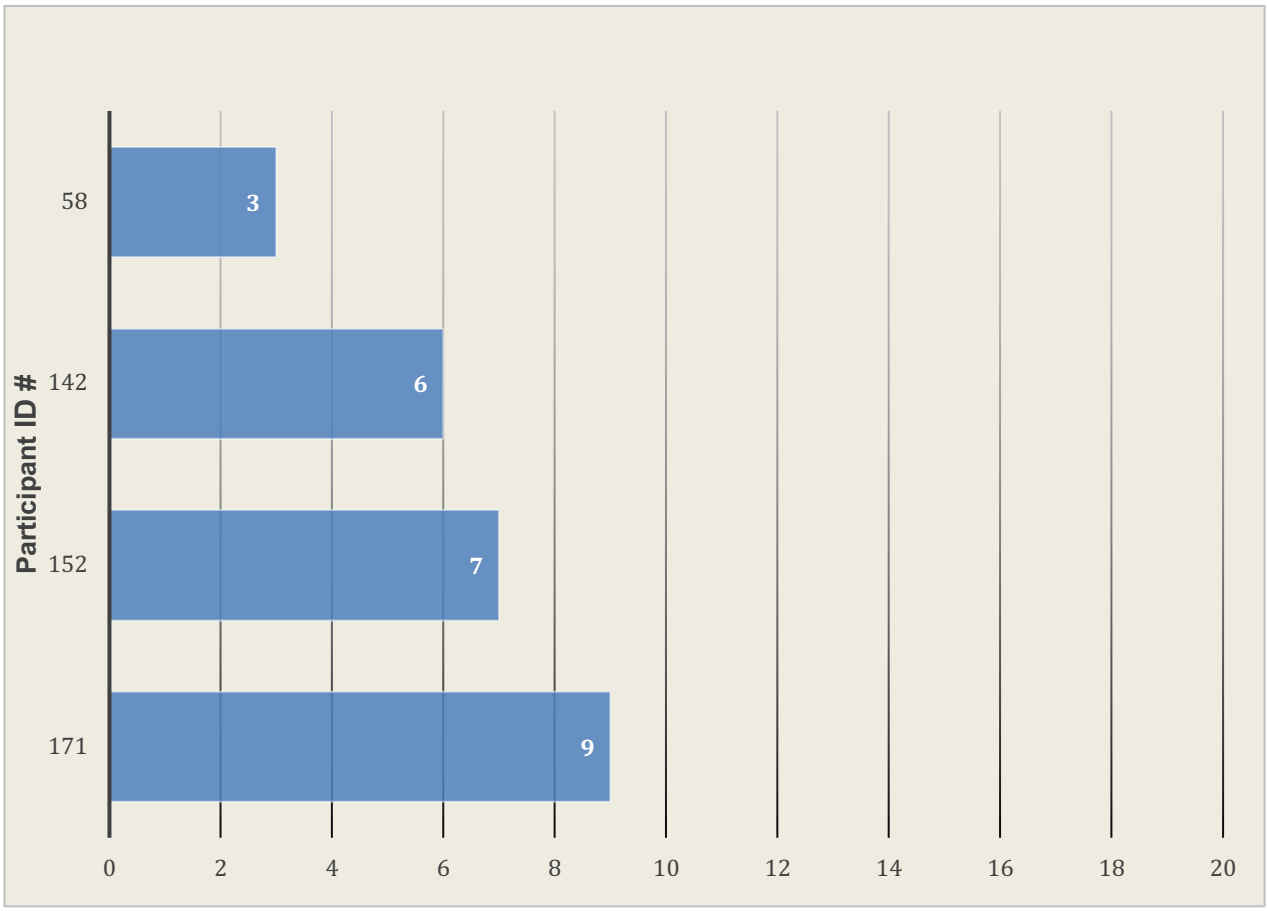
As of January 27th, 2020, the warnings stemming from the onset of the COVID-19 pandemic required new planning for how the clinical practicum would be completed. This was a hectic time for all involved: program administration requested updates on the students and the sites, the students required reassurance on the next steps for their program, and the clinical sites required direction to support the students. The Ministry of Health eventually mandated the removal of students from the clinical placement sites. This turn of events had implications for completing my data collection, specifically the post clinical interviews, scheduled originally for the final week of February 2020. The students were stressed, and priorities were placed on graduation, their licensing examination, and establishing their living situations. It was clear that the study would take a back seat. Mindful of this, I sent out my availability to the participants and asked them to communicate a date that would work for them. The second set of interviews used the same questions as section two of the preclinical sessions and were audio-recorded as planned. The final interview was conducted at the end of March 2020, which meant that I could then continue with my data analysis.

Journal entries. This was perhaps the least consistent participant activity of the study, as reflected from the number of entries noted in Figure 4. I anticipated approximately 20 submissions from each participant over the 20 weeks of the clinical practicum, as we had discussed completing one entry per week. After the second week of the practicum, there was a continual decline in the submissions. Participant ID#58 was non-responsive after the third week of the practicum and submitted three reflection entries (see Figure 4), which presented as yet another challenge in the data collection for me. I had underestimated the toll that the clinical

requirements would take on the participants when I planned this data collection approach; however, I had already received ethics approval and any changes would mean re-application to the ethics boards. After several discussions with my supervisor, I informed the participants that I was asking them to write one entry for the month of November (end of term) as a blog of their interactions, and a final journal entry would be due in January (Appendix I). All participants except one replied and complied, and ID#58 did not respond any further going forward. The final number of journal entries submitted by each participant was remarkably less than twenty.

Figure 4

Number of submitted Journal entries by participants



Approach to data analysis

Each time there was a detour in the study plan, my primary consideration was the threat to the rigour or quality of the data. In In interpretative phenomenological analysis (IPA), attention to the features of rigour occurs from the planning of the project through to analysis of the collected data. Since rigour as a measure belongs to a positivist paradigm, there has been debate in the literature as to how it is best represented in qualitative designs (Lincoln & Guba,

2007; Murphy & Yielder, 2010; Yardley, 2000). A positivist paradigm follows an objective and scientific approach that looks for the reality that exists, such as causal relationships and measures of outcomes (Cohen et al., 2011). Smith et al. (2012) have suggested that IPA assessment for rigour cannot be prescriptive, and it should be flexible enough to be applicable regardless of the theoretical orientation utilized. These authors advocate for the criteria proposed by Yardley (2000), which include transparency and coherence. To that end, I now present the steps undertaken during data analysis.

I transcribed each interview after the session. I then selected one interview at a time and read the transcription in its entirety without any attempt of analysis at first. I wanted to get into the student's perspective and note any persistent thoughts that occurred. The next step in the analysis was to read the transcript again and pull out the phrases and words that appeared to hold some significance for the participant. While at times it appeared that the conversation may have veered off-topic, I later saw that these seemingly unrelated points contributed to the participants' overall reflection on their experiences. For example, when I asked participant ID#171 about her expectation of her practice, her thoughts appeared to be more focused on uni-professional training. As the analysis continued, I saw that what she was saying related to different perspectives and the culture of the clinical environment that she would meet as a new graduate.

The phrases and words then determined categories for each participant, which I grouped into subthemes for each case at a time. Lastly, I compared categories across all participants, as suggested by Smith et al. (2012) to form themes.

All the participants were females within the age range of 25 to 35 years old (Table 4) assigned to clinical practicum sites located in Ontario. I included the fourth participant's demographic data to highlight the group's homogeneity. As discussed earlier, although the

fourth participant did not officially withdraw, she did not respond to the post clinical interview request, making her data incomplete.

Table 4

Study Participants Demographics

Participant	Age range	Self-identified	Clinical Site
ID#171	26-35	Female	A
ID#152	26-35	Female	B
ID#142	21-25	Female	A
ID#58	21-25	Female	D

Note. Data includes participant who was not included in the study analysis, in order to illustrate the homogeneity of the participants.

Chapter Summary

This chapter presented the challenges to the research that I experienced, and the actions that I undertook to maintain the ethics, credibility, and truthfulness of this study. I also included a reflexive account on the various data collection methods. Chapter 5 will present the collaborative findings, which are the result of my interpretations as the researcher and the participants' interpretations of their experiences. The participants' own words will be used to substantiate the findings, as the goal of this study is to hear their voices and understand their experiences of learning interprofessional practice.

Chapter 5 Findings

I will begin this chapter by sharing my thoughts as I continued on this research journey in order to inform the reader on my task processes, insights, and expectations. As the idiographic perspective is central to interpretative phenomenological analysis (IPA), I will discuss these findings as they illuminate the perspective of the participants, from the point of view of the researcher, as revealed by their "in-depth accounts of their experiences" (Wagstaff et al., 2014, p. 2). Further, following the IPA process, the convergent themes found across participants (overall) will be identified and presented at the end of the chapter. A pictorial chart depicting the relationship between the overall themes, emergent themes, quotes, and the key literature is presented in Figure 5.

Reflective activity whether journaling or in group discussion, has been identified as an important addition to the data for qualitative research, and is requisite in a hermeneutical phenomenological method since it is a practice that allows one to engage with one's experience in a different way than performing the tasks. I requested that my participants reflect in their journal as part of my study, yet as the researcher I found it surprisingly difficult to begin my own reflexive account, which follows.

My Reflexive Journey

My initial thought about the reflective diary was that it was simple enough to do, but I was perplexed as to when, what, and how to begin the process. I do not intend to give the reader an incorrect impression: I had given considerable thought to the plans and decisions that I had been making to move the study forward. I simply did not write out the small details initially; instead, I would write a sentence here and there keeping track of the dates and activities. One of the entries I wrote was after having been in the emergency department with my mother. She had been seen by the doctor, who had been very thorough in his assessment and sent her for

imaging tests, and she was told to go to the waiting room. I overheard the conversations of other waiting room occupants, and after my hour-long observations of the various professions milling about the nursing station, it occurred to me that nothing had changed from the patient perspective from my recollection of earlier years. Since I was waiting, I seized the opportunity to reflect on the concepts and competences that were stressed in interprofessional education as the essence of interprofessional collaboration. I preferentially thought about the patient role and communication. To declare my bias, I had already decided on my topic at this point because I had an inkling that the teachings may have been dropped at the exit door of the university classroom due to the various pressures on students in their clinical practicum. I fully support the principles behind interprofessional collaboration; what I was curious about was how it was adopted or if it indeed was adopted at all in the last twenty years. As a practitioner, words and ideas are easy to run with; however, for a giant shift in health care practice, a monumental effort is required by every practitioner, which begins first by remembering that the patient is the reason they are in practice. What I wanted to understand through the student lens was how they learned interprofessional education at the university, and how (and if) they negotiated their way to interprofessional practice as they worked towards graduation. As a radiation therapist, I was familiar with the reality of the clinical environment and the various factors that would pull at the students. I felt that what they chose to adopt into their practice would depend on the strength of their belief in interprofessional practice as a worthwhile objective.

Following these thoughts, I began to work on my conceptual framework going back and forth to my epistemological beliefs and what I was interested in knowing, to aid in formulating the questions to ask in the study. I found that the learning theories overlapped and the theories on which interprofessional curriculum was grounded were not always clear to me, thus I spent some time in deciding which theories made sense from my perspective. My methodology was an equally indecisive period. Initially, I was thinking of using mixed methods because of my

familiarity with that methodology, but I did not consider the measuring tools adequate. I then graduated to thinking about purely qualitative measures, of which phenomenology was one. I considered grounded theory, hermeneutics, and IPA, and my selection was based on my understanding that IPA aligned with my interest in the individuals themselves rather than the ability to generalize the results or develop theory. I felt that learning depended on the individual's cognitive processes, past experiences, and other subjective factors. I ventured further into understanding the IPA methodology, and while I felt it was a good fit, I self-assessed my ability to be mindful of all the associated nuances such that I could focus on hearing each participant. The methodology guided me towards to the data collection sources and the consideration of the process for recruitment as outlined in Chapter 4.

My first situation where things were not going as planned was when I missed out on the recruitment of the earlier cohort of studies as described in Chapter 4. At that point I lost my motivation and I turned to my journal to clarify my jumbled thoughts. Each subsequent challenge required a step back and reconsideration of the methodology, ethics, and rigour that I wanted to achieve. My leading thought in all of these situations was contemplating how it impacted the research. For example, I realized after I started that the students had no knowledge of me, and I recognized that it would take time to get to know the various programs at such a large campus. I had been involved in facilitating some of the interprofessional education sessions at the university for the previous few cohorts. However, following this set back it felt like starting anew in terms of developing familiarity with the current cohort, or at the very least face recognition. Familiarity is important to recruitment as there is a certain level of trust required between the researcher and the volunteers willing to participate. I found it believable that there are numerous reasons associated with the success of recruitment and retention of participants (Cyr et al., 2013; Patel et al., 2003). I felt strongly that I had failed to develop the kind of recognition that provided trust with the students, that would promote their willingness to participate.

I realized that I had made assumptions about the level of support that I would receive. I also realized that the program clinical leads would want to protect their students from being overwhelmed. My supervisor and I discussed accepting all students who expressed interest in the study as I was nearing the end of my recruitment phase. I started organizing the other activities of the study as time was of the essence. My work-related obligations were inhibiting in many different ways, but most often reduced the amount of time I had to work on my study. After hours sessions were difficult to organize, and my teaching schedule was tight, which meant that the coordination of my free time with that of the interested students required a great deal of timetable shifting and sorting. I therefore decided to deliver the information sessions multiple times, making sure to keep the message consistent. After reflecting on these sessions, one of the things I would change in a do-over would be to lead with the benefits of participating in research, in this case emphasizing being part of possible curricular refinement and learning research skills.

The scheduled time period of the interviews arrived. After preparing for success, my remaining insecurity was around my performance as the interviewer. I had read up on interviewing appropriately for qualitative research and for IPA purposes (Biggerstaff et al., 2008; Pietkiewicz et al., 2012). This area is perhaps where I was most concerned with exerting influence on the research. As a radiation therapy professional, I understood the context of practice, although many years had passed since my active practice, and I expected that nothing critical had changed. Although I believed that collaborative practice between professionals would be positive for the patients, I could not visualize what it would look like in reality. This was something that was niggling at me that I hadn't yet truly acknowledged. I examined this point of view and recognized that it had developed due to my past experiences as a female, non-white professional working in a patriarchal and hierarchical environment. Until the last 20 years in Canada, radiation therapists were predominantly females, which I felt were considered at a

lower status than the others involved in the cancer patient's care. The radiation oncologists and physicist were predominantly white males and seemingly held more power in determining the structure, the policies, and procedures of work.

During the interviews, when a participant related a story from a patient presentation that faced an experience similar to one that I could recall, I was reminded of my experience so clearly that I could see the faces in my mind. I felt that this meant that I had to reconsider my analysis carefully to ensure I was reporting on the participants' experiences and not mine. At all times I was cognizant of forward feeding, and a time or two noticed on the transcript that I had been unwittingly drawn into the dialogue. The interesting thing about interviews in IPA, as with all qualitative research, is that bias can never be totally dismissed (Smith et al., 2012). Throughout the process of interpreting the interview transcripts and journals, I was reading between the lines to present the participants' clinical experiences through their lenses. Thus, the challenge was not necessarily forgetting the shared knowledge I possessed of the radiation therapist's practice but being cognizant of it. I have come to realize that having an understanding of the participants' world can also aid in interpreting the data, while practicing mindfulness. I have navigated my life expecting equal treatment to any other person, but this was not always my experience, and I took the view that it may have been for many reasons including my sex, race, and nature. When I did hear participants' stories that could have been examples of hierarchy, I would ask myself if it was the participant's actual experience or my interpretation. In effect, I was conscious of the possibility of bias merging into my data from my dialogue during the interview or my experiences of practice. I accepted that I could not interpret the data without relying on my past experience, the key was as Smith et al. stated "…keeping the balance between closeness and separateness" (Smith et al., 2012, p.181). From time to time, I checked in with myself on how comfortable I felt taking the responsibility of declaring the participants' views.

I had decided initially to use NVivo software to organize the themes and categories, but it felt more natural for me to reread and reconsider the subthemes and categories as I hand coded. I realize that, having three participants, it was an easier decision to make but as I conclude this study, I recognize the learning that I have accomplished. I have had to make some strategic responses along the way to pivot the study and continue to completion. As Boud et al. (1985) inferred, as a researcher I have engaged with and learned from my experience in this study and appreciate that I have gained a better understanding of the basis of my view of the world. For example, I find that even in informal conversations, I will bring arguments from different perspectives to have a more enlightened discussion and to promote learning something new. I hope that this is equally true of the participants as they reflect on their experiences in clinical practice. They will be the professionals of the future and this study gave them an opportunity to reflect on the various factors that can influence learning and their intentions for their practice. The interviews and the journal reflections contributed to the understanding of the clinical lifeworld of these three participants. In the next section, I will present the idiographic interpretations of each participant, noting the areas that appear of particular concern to them. In determining the plausibility of the findings presented, the reader should bear in mind that the interview protocol is used in IPA as a guide for examining the phenomenon in question, and that the participant narrating their story is in control of what is revealed in the dialogue (Smith et al., 2012). I have shown the research questions mapped to the interview protocol that was used to keep me, as the researcher on track in Table 5.

Table 5

Research questions mapped to the data collection sources

Research Questions (RQ)	Source of Data
How do health care profession pre- licensure students experience IPP intheir various assigned clinical placements?	Interview #1: questions # 5, 6, 7, Interview #2: questions #1, 2, 3. Journal entries
How does reflection impact their learning in the clinical practicum?	Interview #1: questions #8, 9 Interview #2: questions #3, 4
a) What are the features of the experience that promote reflection?	Interview #2: questions # 3, 4, Journal entries
b) What aspects of their experiences in IPE are taken forward to their clinic practicum?	Interview #1: questions #8, 9, Journal entries
To what extent does reflection help the participants to construct meaning in interprofessional education and practice	Interview #1: questions #7, 9 Interview #2: question #3, 5. Journal entries
a) How do the participants make sense of their experiences?	Interview #1: questions #7 Interview #2: question #3,Journal entries
b) What aspects of reflection seem to have the most impact on their learning?	Interview #1: question #9 Interview #2: questions #5. Journal entries

Note. Interview #1 refers to the preclinical interview and Interview #2 refers to the post clinical interview.

Idiographic Findings

Since all participants identified as female, I will be using the terms *she* and *her* to refer to them throughout this dissertation. It is worth noting that, for the students, the majority of the interprofessional practice experiences in the clinical practicum were observation, and when interprofessional team interactions did occur they were working alongside graduate radiation therapists. All candidates were relaxed and appeared comfortable during the interviews, which was a by-product of being able to choose the time and their own environment as the location (Deakin et al., 2014; Mirick et al., 2019). Being able to choose their own time and location was an advantage to me as it supported their being able to take the time to respond to the questions honestly. Secondly, it aided a more collaborative interview, rather than having the natural power differential dynamic between a researcher and the researched (Cresswell, 2013). As a negative, there was the potential that there may be inherent distractions such as, noise or interruptions. I reminded all participants of the audio recording of the session and confirmed their consent before we began. The preclinical interview (interview #1) was different than the post interview (interview #2) in that interprofessionalism (IP) was discussed in interview #2 as related to clinical practice, whereas in interview #1, IP was discussed as related to the didactic sessions at the university.

The idiographic themes will now be discussed; these are summarized in Figure 5.

Figure 5

Wheel of themes

Note. Superordinate themes are on the innermost circle; subthemes on next outer ring; quotes on the third ring; themes from the literature on the outermost ring. The idiographic themes from the participants' interviews and journals have quotes to support them.

Participant ID #152 Themes

Theme: Clear and respectful communication. This was a concern in both interviews and journal entries. When asked to reflect on her journey through the program, this participant spoke with eagerness and was excited by how much she felt she learned in the interprofessional education sessions at the university. It was interesting to note that the activities she most reflected on during the preclinical interview were those concerning the patient's point of view. These were sessions where individuals who had been patients presented their perspective of their care to the students. This participant's understanding of how interprofessional education and, subsequently, practice could translate into patient satisfaction and team effectiveness, developed from what she interpreted as disrespect for the patient. Her perspective was an idealized vision, as she had previously only been in the clinical environment for eight weeks as orientation during her first year. My impression was that she was sorting through her experiences to isolate the practical abilities she required to shape her praxis as a health care professional:

> In the past when I was in clinic, I remember the therapist waiting for an hour for the doctor to come down and the patient was on the [treatment] bed, waiting on the bed the entire time. So that's important, the communication with respect and that each person knows their job and has a role to play in treating the patient. (Interview #1)

Listening to patients discuss how they were impacted by the care they had received connected the participant with her feelings during her own experience as a patient. She learned that patient care did not necessarily have simplistic solutions, and that it was sometimes uncertain and required different expertise. In a team, having a good relationship with one's peers means sharing knowledge and respecting each member's expertise. By the final

interview, ID#152 felt quite strongly about the role of language in enhancing team collaboration, and resolved to practice in such a way as to achieve her ideals of good interprofessional practice:

> I just know that communication is the ultimate…clear, clear communication is the ultimate key. I have seen a lot [of] communication broke (sic) down and cause problems with uhm caring for some patients. So uhm one thing I know I will focus on is, [to] make sure or ensure is that I communicate very well with other people involved and also respect each person's role (interview #2).

The participant felt that communication was important to the team professionals as well as the patient. Although it was not the only skill required to successfully collaborate, one of the demonstrated effects on the patient outcome when communication was deficient was a lack of empathy:

> A patient having to wait for hours in a waiting room and it just makes the patient unhappy. They are already not feeling well, and just... like it has a lot of impact on the patient themselves, they are not…uhm… experiencing that optimal patient care, the patient care that they should get at a cancer centre (interview #2).

Her concerns were consistent throughout her interviews, and her journal entries corroborated these interpretations of her experiences and highlighted others. Her concerns illustrated what she interpreted as a tiered working relationship, with the physician having the highest status and each other health care profession as subordinate. She experienced situations where the team of radiation therapists were expected to follow the written directives

as provided with no other communication required. As a result, the lack of communication signaled disrespect towards the team and the patient from this participant's perspective:

> …One question that puzzled the therapists including myself was how come this patient qualified and was planned for the use of an ABC device. Did she pass the ABC assessment? Or was it a case where the RO [radiation oncologists] insisted on breath hold although this patient was having a hard time being compliant. Where inter-professional collaboration/ communication would come into play would be the consideration of the ABC teaching, CT- simulation staff and prescribing RO to take into consideration the possible problems the patient's set-up would have during daily treatment (Journal).

The above quote reflected the siloed practice of each of the different professionals. ID#152 had learned in interprofessional education that communicating to share knowledge with each other supported the team relationship to the point where they could trust each other and achieve their shared goal. The shared expertise strengthened the efficiency of care and kept the patient central. In the quote below, the participant references the collaboration that could not occur without the co-ordination process, which involves communication:

> During my rotation on a CNS treatment unit I was given the opportunity to witness the inter-professional collaboration involved in treating emergency palliative patients. From the patient having to be CT simulated and treatment planned to the porter having to be booked to bring the patient to the treatment unit or for the ambulance transportation and also for the being present during treatment. (Journal)

Communicating within the interprofessional team is expected as a basis of collaboration. The participant felt that she had learned how to work collaboratively from comparing her observations of successful and unsuccessful team outcomes during her final practicum. She held onto her view of the important role of communication as she prepared to begin her own journey as a health care practitioner.

Theme: Looking through the patient's lens. We discussed the nature of the participant's clinical interactions compared to her preclinical expectations of interprofessional practice. Although she had initially felt there was perhaps too much to take in, her excitement at the end point of her practicum appeared palpable. She had been able to observe numerous positive experiences that inspired her to reflect. As she narrated an exemplar of a positive experience that reinforced her learning and the value of collaborative practice, she became aware of the patient perspective and the loss of dignity for the patient that resulted:

> It involved a patient who had to get bolus on the neck, it was a very odd setup and I just remembered the room being filled with a lot of planners, a lot of radiation therapists and also, the RO as well. It was just like as a student all I could do was just observe. I [sic] was just so amazing having so many people in there like talking um [laughs] over the patient. I can feel the patient might have felt overwhelmed [pause] by a lot of people talking [uneasy laugh] over them, like they felt [pause] don't know [laughs & trails off]. [Interviewer: No, go with that, what, how did you think the patient felt?] I guess felt like a […laughs] specimen under a microscope [laughs] but some patients have said that they are used to that, they're used to..so yeah
>
> (interview #2).

After observing what she felt was a good example of interprofessional practice, she felt that she had learned a great deal from the experts throughout her experience and understood that the outcome in the quote above, for the patient in this case introduced some complexity. While many professionals collaborating is a necessity, the patient should always be seen in the delivery of care:

> I know I am using an observer as a student a lot, just that in a difficult situation I tend to step back, observe and let the experts deal with the issue. But I am very determined to put those things [communication and collaboration] into practice because I have seen the way that anything.. something very simple can cause them to breakdown, and the effect like the impact they could have on patients. I already feel [participant emphasis] for the patient, I already feel [participant emphasis] for them and I wouldn't want to put them in a situation where they have to deal with this additional unnecessary complication (interview #2).

As I read the journal entries, I felt encouraged by the concern for the patient's care, since during education is the time that students should look beyond the interactions and consider the holistic care model. This participant felt transformed by her observations and interactions:

> As a student rotating to different units and different areas in the radiation therapy department, we get to see the 'big picture' and so many more things begin to make sense. (Journal).

In her mind, the patients and their points of view and contributions to their own care decisions should remain central to the practice of all health care professionals. In principle, the interprofessional team works towards one shared goal by developing a supportive relationship

amongst team members, learning from one another, and consulting each other to achieve that shared goal, patient care.

Theme: Teamwork and ability to access others' expertise. The interprofessional education curriculum introduced the students to the core competencies throughout the didactic section, as discussed in Chapter 1. Once immersed in the messy practical setting, the experiences, and the practical methods of utilizing these competences may be more difficult for a student to negotiate. The radiation therapy students were closely supervised until they were able to demonstrate competence in their profession; this circumstance afforded little opportunity, unless structured, to interact with other staff or student professionals. Learning how they fit into the interprofessional team, and where the professional boundaries lay was wrapped up in understanding what each other profession did:

> Yes by knowing who does what and if something doesn't go right for the patient for example, patient is not setting up properly, oh I know to contact the planner, they deal with this aspects, the patient is feeling nauseous, I know contact the nursing clinic, or the RO for something like… appreciating and learning the different roles of the different professions helps you to know who to contact for their expertise like when you are in a situation (interview #2).

The participant's confidence had increased by the final interview, and she had grown professionally. She perceived her clinical placement as a community of learning, where the team respectfully communicated, shared knowledge, and supported the patient. She achieved her confidence from her experience of team relationships and the sharing of information that supported the professional she intended to become:

> … the doctor was there; the anesthesiologist was there um. The supervisor for the radiation therapists was there, radiation therapists were there, it's just like this whole orchestra of different professionals just in the room and it just seemed like a whole lot of people, and it was pretty amazing to see one person needs so many people for their optimal care, it was pretty amazing to watch, I was in awe, yeah….yes, hopefully when I become a therapist I can't wait to participate (interview #2).

Each patient is recognized as a unique individual requiring different attention from different professionals at different times during radiation therapy care. ID#152 reflected on this integration of expertise for each patient served by the team and noted the number of people on the team on several occasions. She acknowledged herself as a student at this point:

> As a student, seeing how this patient's case played out from the start to finish, has helped me to see the 'bigger picture' in a patient's treatment and that each healthcare professional involved in the patient's circle of care plays an important part. For future image matching I perform for patients as a student, I will pay more attention to the details in these images to ensure that the entire target is being covered, and anytime I am unsure about anything or if something looks odd about the images to bring it to the attention of first the radiation therapist and then the other professionals involved in the patient's circle of care (Journal)

It appeared that ID#152 did not want to dwell on the few experiences that exposed non-collaborative practices; however, she did briefly reflect on some of those observations in her journal entries. These non-collaborative behaviours and attitudes were incongruent with her expectations of practice:

> For this patient, as a student I felt the need to raise a concern to start the process of inter-professional collaboration to ensure this patient's well-being. This is important for all patients, because had the patient's problem been serious or even life threatening over the weekend, it would have been something that could have been communicated with the RO. It also takes establishing good rapport with patients to earn their trust and compliance with treatment. (Journal).

Sometimes the participant's concerns were related to organizational processes (meso level): for example, due to the physical location of the professions' departments; at other times, it was ineffective communication that conveyed a lack of respect (micro level). The participant came to appreciate that situations were often complex and with no easy resolution for the practitioner or patient, as observed in one case of a delayed emergency treatment situation:

> As it was nearing the patient's appointment time someone had to go and update the patient because as anyone can imagine, it is frustrating to be waiting for so long for treatment knowing that it is an emergency. The patient finally received treatment a few hours later when an approved plan was sent to the treatment unit.…I also did not realize the many steps involved in having a treatment plan approved before being sent down to the treatment unit. One thing, however, that frustrated the therapists initially was that there was no communication with them as to what was going on as in whether the patient would have still been treated that day or even the decision to transfer them to a different unit to accommodate the delay (Journal).

The participant adapted her views on how interprofessionalism could be practiced when she realized that practice did not always manifest as taught in class. Teamwork could not exist without respect and communication amongst the team, and there were times when, though the communication was not explicit as they collaborated, the end goal was successful. This most often occurred when teams were comfortable working together, understood each other's roles, and had previously had case discussions. The clinical practicum was a vehicle to apply the interprofessional education theory to actual practice; although ID#152 had limited opportunities to participate in interprofessional collaboration, there was critical learning that occurred from observations. She felt that she had transformed her thinking during her clinical practicum:

> I would say that I am not the same person that went into clinic in May. Yes, so just having more exposure to different situations, like I would say that I got to see a lot more interprofessional collaboration and I came to appreciate it more. I would say especially in my time in CT Simulation, that rotation where I myself had to play an active role in communicating with the doctor, communicating with the nurse, like having to *immerse* myself into that situation. So, I got to appreciate it even more, so I am a totally different person from the time I started clinic [laughs] (interview #2).

Theme: Learning from mistakes. This participant believed that reflection at the end of her day helped her to take stock of what transpired. The benefit was magnified when the experience engaged her on an emotional level or resulted in a negative outcome. Her journal entries included phrases such as: "I have come to appreciate..., looking back…, I could see the importance of different health care practitioners coming together to find a solution". These phrases pointed to a level of reflective awareness that allowed her to achieve growth in her practice, through connecting what was observed to the outcome and the theoretical concepts:

> From this experience I got to see how important it is to take responsibility for one's action and being honest with the patient at the same time. Assurance would be given to the patient by the RO who would have collaborated with other healthcare professionals involved in the patient's circle of care to examine the effects of this error (Journal).

When asked what role she felt reflection had in her learning during her clinical experience, she replied that she felt it helped her to put together the different components of Interprofessional practice and to value her role and skills as part of the team:

> …reflecting also helps me to see how communication plays a huge role in different professions working together. So, it kind of ingrained in me, oh we do need all the other professions, all the different professions, they are just as important as ours and we do need that cooperation, that collaboration to ensure the patient receives optimal care (interview #2).

During the clinical practicum, being able to think back on her day allowed her to release any emotional associations she had built up. When she had a sense that something was not resolved, it was a signal to her that she needed to use that opportunity to think about what she observed and check in with herself:

> …if I find that a patient could have gotten better care, it kind of like drives me to think and reflect what could have been improved in that process that I just witnessed, yeah [...pause] and just curiosity as well [Interviewer: Curiosity about something that you saw?] Yeah, what if that happens if I'm a therapist, what if that happens. if I am alone, what would I have done? Like without being the person observing what If I was one of the persons

> playing an active role, I would think oh how would I have handled that differently? (interview #2)

This participant learned in the clinic by observing role models. Whatever the outcome, she would put herself in the role and reflect on how she would handle the same situation. She also utilized reflection to think back on her actions and their impact. Together with feedback or other discussion, it all helped with her ongoing self-development:

> If I was a model student and did everything right all the time, I swear I wouldn't learn anything. [laughs] When you do mess up you do get feedback and you do learn oh this is why this does not work so like there is a deeper learning to it, so I learn when things don't go right (interview #2).

She spoke with excitement on completing the program and was looked forward to the professional that she wanted to become. She intended her future clinical practice to incorporate the successful practices that had impressed her during her clinical experiences.

Participant ID#171 Themes

Theme: Understanding fit of own role within the team. In interview #1, ID#171 wondered how the theory that she learned in class could translate into a seamless praxis with multiple professionals in the natural clinical environment. She was looking forward to observing interprofessional practice as she entered her clinical practicum. She appeared to use active cognitive processing during the observed events, but her full understanding appeared to require realistic simulation:

> Um, so for me it's kind of the seeing is believing, so you don't really understand how other professions work and how their workflow integrates with yours until you really just see it for yourself. Um, so, to be able to see it

> and then also get them to tell you their experience and you share yours. I think it just really helps things, uh, flow smoother because it helps understand it better (interview #1).

The interprofessionalism didactic sessions had enlightened her in many ways; they were an introduction to the essential understanding of what is required for collaboration in healthcare. These sessions precipitated a transformation where she became aware of the interconnectedness of healthcare professions through their scopes of practice:

> Um, I thought it was really interesting that every different profession has a lot of things that we have in common, that we really understand. [Interviewer: Mmhm.]. But then there's also a lot of different viewpoints or things that, you know, you've never considered because it doesn't really come up in your field. (interview #1).

As part of the simulation of interprofessional practice, there were several role-playing sessions among the health care profession students incorporated within the curriculum. While ID#171 found them useful in general, the limitation for her was the reality of the students' knowledge of their profession:

> ...you get to hear from the students, but students don't fully know yet because they haven't been in the workforce. [Interviewer: Yeah.] We're all just like, this is what I know so far (interview #1).

One of her journal entries supported her need to examine and reflect on a specific event to make sense of it, and reaffirmed her learning preference:

> It makes me think that having inter-professional programs where you really get to see in person what another role is like (i.e. visiting a department in

> person, versus merely talking in groups at a different location) are perhaps more impactful (Journal).

ID#171 identified a positive interaction by the respect she saw afforded to each profession, the communication amongst the team regarding the patient case, and the ability to organize and structure the flow of the clinic. She was very attentive to the team collaboration in her clinical experience:

> And it was really neat to see how they have a patient come in. Um, they'll have some sort of skin lesion somewhere, and they'll be able to talk to, at the same time, a radiation therapy specialist, um, a surgeon specialist, um, or, um, basically have all of their options right there communicated to them by the professionals in those fields, um, so they can really decide, "Okay, if it's near my hairline, I want to go with this treatment option because it might, you know, preserve the aesthetic of my hairline", um, and you can make that decision right then and there with the professionals there to get your, basically your best result, and then literally having either treatment just down the hall (interview #1).

She appreciated that different professionals view practice through different lenses but that the commonality was the shared interest in the patients' well-being. She attended many sessions prior to her practicum, and I was curious as to what lessons she kept in mind in her practicum. She felt that the nuances that made holistic practice and patient advocacy work involved each member supporting the care team and negotiating overlapping boundaries.

> I think the one [take away from university] that really sticks with me actually uhm was the idea that because this is your job description doesn't mean

> you shouldn't have your eyes open for other things, an example they gave was that you know you were just told to do a CT scan of this patient's, say liver, then they're having a lot of trouble breathing you have that option to say you know I'm gonna expand the scan borders a little bit. Or like you did a scan and you're like that doesn't look right to kind of just keep your eyes open and not just go, you know, this is my job I'm gonna do it this way (interview #2).

Although the participant initially had difficulty imagining the interplay of the professionals in clinic, in the end she did develop a better understanding of the team by working through the ideal relationships between the various professional perspectives and the shared goal.

Theme: The non-traditional caregiver as part of the interprofessional practice team. The experiences that resonated with ID#171 were the ones that fit with her perspective of efficiency and would benefit the patient's care. I believe that her personal appreciation of the details discussed in the quotation below initiated her motivation to critically reflect on the experience with the shared goal in mind. She was able to develop an out of the box perspective on the membership of the care team:

> --um, and I thought that it was just really interesting to see a hospital embrace the nature that they have available to them. Um, and I thought it was really neat that, you know, the gardeners had so much knowledge about all of the plants that they were putting in. Um, and then patients were able to have pretty much any level of, um, garden that they want (interview #1).

Another such non-traditional caregiver role was attributed to the volunteers at the cancer centre. The participant's respect for their role was due to the impact they had on the patients' states of mind, reducing confusion, and enhancing care outcomes:

> Um, they're often, like, really great for helping guide patients around [Mmhm] ...the hospital, um, explaining how to take the satisfaction surveys, the ESAS surveys, things like that. Um, so, I think it's, I don't know. Sometimes people forget about the volunteers, but they do quite a lot for the hospital, so... (interview #1).

In terms of scope of practice overlap, while attributing a caring role to the volunteer and the gardener, this participant in her role as a radiation therapist, found it easier to find the connectedness with some traditional health care professionals than with others before entering the clinical practicum:

> Like, I'm thinking specifically, like, uh, speech language pathology, they have a lot in common with radiation therapy because they'll have overlaps with our head and neck patients, so there's, like, a lot of commonalities there where we really understand each other. Um, but then things like physiotherapy would be important for some radiation, uh, patients, but you don't really see the overlap as much, it's not as obvious (interview #1).

The interprofessional team as she understood it was dynamic, and membership was based on the expertise required to meet the patient outcome.

Theme: All team members are valued (power balance). It is a principle of interprofessional education that all members contribute to the team discussion and goal

decision. When discussing the team leadership role prior to the practicum, ID#171 considered all the team members as a possible team leader, including a patient representative:

> Um, I think the leader should get feedback from all of the members about what would be most important to them, or what would be most beneficial and having their workflow go smoothly, so… input for everybody, uh, and then really trying to find the best match for everybody possible, um, with what's available as hospital resources (interview #1).

I followed up with the participant at the post-interview to understand any change in perspective on the team leader role that resulted from the practicum experience:

> I would almost say that I would want them to be something like a nurse. Like I feel like they would need to have a lot of background knowledge maybe not specifically from nursing [pause] but either internal training or through the hospital, you know, like this is the systems, these are red flags, these are why these are red flags. Some kind of health aide care, health aide or maybe even social work just some sort of health background that could help them help to pick up on those cues (interview #2).

While her hope was that all members were valued as they had learned in interprofessional education theory, in practice she hadn't quite experienced the team meeting as taught. She was privy to the rotational unit's *huddle*. The huddle was a regular uni-professional meeting from which concerns could be taken up the management chain. As this participant perceived it, it was more of a potential way to solve process problems, and about reporting rather than discussion and goal setting in its true sense:

> I feel like… because I know we have like the quick I can't remember exactly what they call them but the quick 10 minute meetings where one representative from each unit goes and they have a quick chat with the managers, like you know this is how things are going, these are our problems and I feel like that could potentially be an avenue, like if it gets brought up there and then maybe the managers bring that to the department level… (interview #2).

In discussing the avenues to support the interprofessional team, the participant felt that the options she observed were ineffective as they effected little change in the behaviours of the offenders or did not lessen the frustration of the other professionals on the team. When asked to reflect on some good experiences of interprofessional practice, she chose a uni-professional team activity. The advantage of including radiation therapy in the interprofessionalism discussion is that they have experience working as teams in the clinical environment. In ID#171's perception, the underpinning skills that she noted for successful outcomes are common to any teamwork situation:

> It just made me really happy to see somebody doing like a textbook perfect kind of interaction. They weren't this is your problem, fix it, they had suggestions that they already thought of and they came in with an understanding of like I know that these might not be possible because I don't have a full picture of what you guys are doing down here let's work together on a solution so I feel like that upfront honesty and understanding that I might not get everything I want out of this [laughs] I think that was really nice to see you and then I think the other team members from Sim

> really responded to that kind of open you know lets work on this together (interview #2).

Theme: Upfront communication with team regarding expectations. For ID#171 This participant valued face to face interaction as her primary communication tool and she felt that it allowed a more meaningful connection than a note or an email.

> Um, so, just asking, um. And then, kind of realizing that you're both treating the same patients, um, and it makes it a little bit smoother for the patient if you give as much information as you can to whoever you're transferring them to (interview #1).

In a learning community such as the interprofessional practice team, in which they learn about and support each other, professional communication would help to mitigate the affective component of the job when it arose. She felt that sharing mood and stress within the team would help to keep the focus on the patient outcome while supporting one another:

> Um, to be able to clearly communicate, um, events as well as emotions that go along with them. So, like, if there's a part of your career or your workflow that's really very stressful or very, like, time dependent that you can express that to people, um... So, usually language becomes part of it. Um, I know a lot of departments have different, like, terms or nicknames for things. So, to understand that, um, people might not understand what you're saying if you use too much jargon, so, being able to explain that clearly (interview #1).

To provide some background, the radiation therapists' role is in completing specific treatment processes, including patient care, which required discussions with and approvals from

other professions within the oncology team. These activities, when delayed or incomplete, led to disruptions and downtime for the treatment team and the patient. In trying to deduce the cause of the team's frustration that she observed, the participant reflected on the inconsistent and unhelpful behaviours exhibited by some professionals. That these realizations were not a one-time experience led to the following reflection:

> Uhm …I feel like a lot of times [pause] with the whole hierarchy thing a lot of therapists can get very frustrated with uhm… say that the radiation oncologist, they didn't answer emails, they didn't answer questions, they didn't answer phone calls, we have a patient like sitting here that needs an answer now and like they get a little bit frustrated but they [radiation therapists] don't really have an outlet for that… to express that to the radiation oncologist (interview #2).

This participant adapted to the clinical environment fairly easily and understood that written documentation was the common mode of communication with team members at her placement site. From her observations, the participant believed that each interaction and outcome was directed by those with the most power, but that the consequences fell on those of lower status. She reflected on the impact of trust within the care team in her journal:

> I have observed that some oncologists are more trusted than others, by the radiation therapy teams. If oncologists are trusted, they usually have everything documented correctly, but if there is an occasion where something doesn't seem right, the therapists can contact them with faith that the issue will be resolved in a timely manner (Journal).

Following on the same topic as the previous reflection, when professionals each carried out patient care in their own departmental settings, traditional practice continued and care becomes complicated as interprofessional practice expectations are not met:

> If anyone along the way doesn't meet these expectations, then the patient is the one who loses out or may have to wait longer because they weren't given instructions beforehand. Making the responsibilities of each team clear is an important part of interdisciplinary care (Journal).

Individuals bring their perspective to their professional role and each profession views the patient through their own lens, hence the value of sharing expectations with the team and acknowledging the differences. ID#171 felt that that the individual's expectations and assumptions could impact the integrity of the team's work:

> Um, so I do expect to be working with a lot of different people within my profession, and everybody does things a little bit differently, and had slightly different training if they maybe, you know, came from the States or something to Canada. So, just acknowledging that you're gonna be working with a lot of people who are different even within your own profession.

Theme: Perspectives differ and influence behaviour. To reflect satisfactorily, ID#171 preferred to arrive at a plan for moving forward as it gave her direction after reflection:

> I do think partially again knowing that I wanted to reflection helped me focus it a bit more. I think otherwise if I wasn't actively doing reflection, it's usually more that the feeling of a situation, it's kind of like that yes, energy in the air. Where you're like OK this is you know going really great

> everybody's really enthusiastic about this or it could be like a lot of tension, and I think those cue you into paying attention … (interview #2).

She preferred discussing her reflection with others, as discussing other perspectives allowed her to transform her thinking and achieve deeper learning. Because reflection was required for this study, she found herself being present in the various activities:

> I think a little bit in the sense that, if I know at the end of the week I want to think back, during the week I'll find myself kind of paying more attention. Like if something gives that little trigger, oh this could be something that might be worth reflecting on later. Then you kind [of] start to really pay attention to that. And then even if you don't have a chance [to] think on it then you've kind of like flagged it as you know something I want to think back on (interview #2).

Theme: The centrality of the patient's needs. According to the participant, there were situations where the professions were not able to provide the care the patient expected due to the patient's own perceptions:

> I feel like... sometimes they feel like, I guess if we're really busy they don't wanna bother us. They will only mention it to radiation oncologist but then again, the same thing, the radiation oncologist can be very busy so they don't wanna mention it to them either, so I think they really pick up on if they're being rushed through (interview #2).

Patient referral for consultation means the patient must be transferred to where the expertise resides and is common practice. Sometimes with referrals, there was no communication directed back to the other members of the care team, communication was in

one direction. With collaborative practice, the expectation was that there would be less referrals and more centralized and coordinated consultations.

> I think if they had like a point person to go to for their care, that could then... (pause). Oh I don't really want to say refer them to the right person, it's kind of just referring, referring, referring again but to have somebody who can really go and have access to that information (interview #2).

ID#171's concerns about her future practice stemmed from how she would integrate into the interprofessional team, and so her attention was focused on observing the actions of the professionals as they worked together. Some observations fit into her held belief of interprofessional practice, but there were others that disappointed her. Prior to her clinical practicum, she felt that she would be practicing with other professionals that were typically part of the care team:

> Um, I think it depends on the context, um, like, the ones that we see every day, like nursing, I think I would really like to make a concerted effort to really work well with the nursing staff because they're, it's just really very intertwined, um, and also the, the simulation staff on the other floor, um, because that's, it's, like, really very integrated. I think it's a little bit more difficult with some of the other professions that they might be seeing, or some of the other services that they might be seeing, just because it's a little bit, like, more disconnected (interview #1).

Overall, her practicum experiences appeared to have influenced her commitment to interprofessional practice as a graduate, where her concern appeared to be more about the organizational culture at her future employment site:

> …like I feel like it depends on the,…I was trained at [Site] I might go to another hospital as a new grad and then find that it's a different culture there and maybe it's a culture that does that all the time or maybe it's a culture that's never really tried that before, it could really depend on who you're working with (interview #2).

Participant ID#142 Themes

Theme: Letting the patient be heard. This participant was very involved in the numerous didactic interprofessional sessions at the university and drew on these to formulate her expectations as a clinical student. She wanted to get a good grounding on the meaning of interprofessional practice:

> And my first impression of it was, uh... that... Uh, it seemed initially just like a massive group project with different professions. And... Um. [unintelligible] collectively, we all have the same goal to achieve, which in healthcare often is uh, treatment outcome or caring of the patient. And then, uh... One more thing that stood out to me was that, um... Uh... Interprofessional education has also taught me that patients are also a large part of our team. And, um... And within this team they're also seen as equals. And, um... And together as a team, we make that... We make informed decisions with them (interview #1).

This definition appeared to have set the tone for her practice, as always considering the patient perspective became her commitment. There were also some sessions that resonated with her due to her personal experiences, culture, and training as an health care professional:

> Uh… So, in, in one of the activities, um, we, there was a patient coming in who was sharing her story about, uh, her, basically her journey through diagnosis and treatment. And really what stood out to me about her story was she, uh, told us her background, and she happened to be a nurse, uh, working, who was working in, uh, Toronto before she got, uh, cancer. And, but when she did, uhm, even she was having a hard time navigating the system, and she as a patient also thought, um, felt like she was bounced around a lot in the diagnostic process (interview #1).

This patient was a health care professional revisiting her own experiences in the health care system. The participant related this story in such depth, I could feel her connection to the narrative. It influenced her practice intention so that she would not *be the kind* of professional who overlooked the patient. After reconsidering the story and reflecting on who she wanted to become, ID#142 resolved to add empathy and listening to her toolkit for her final clinical practicum. Reflecting on what she learned of the clinical environment in year one and putting it together with her leadership experiences, this participant settled on her aims for her practicum:

> Yeah, the first thing that I see myself practicing, uhm, in clinic is … Um [pause] getting the patient involved [pause] in… In interdisciplinary team. Uh, and the way I would do that is to, uh, try and, try to be in good communication with the patient and, um, [unintelligible], kind of like what I mentioned before, uhm, asking… asking them about their goals and what their priorities are for achieving those goals, uh, during treatment (interview #1).

At the preclinical time, I sensed that there might not have been a full understanding that the core competencies for effective interprofessional practice were idealistic, to present a

starting point for students to develop their own ideas and strategies to support their practice. In the classroom with other students learning about practice, actions and reactions tend to be straightforward, whereas in the clinical setting there are multiple factors at play. Once in the clinical practicum, her journal entries highlighted her disappointment in the realities of practice and what she could reasonably achieve:

> When an interprofessional team is to collaborate, I expected everyone on the team to have a common goal and that each member of the team is empowered to represent their own profession. However, I saw that the extent of interprofessional collaboration was simply referrals or verbal handoffs being made (Journal).

The consequences or benefits to the patient appeared to be at the forefront of the participant's mind as she analyzed different experiences. The gaps discovered in practicing collaboratively were often due to the structures of the organization or system, such as the location of the offices or working spaces of the team members contributed to the difficulty in connecting. Even in these unexpected situations, I felt the participant was exploring the link between her expectations and reality and learning to adapt her preclinical goals:

> …one of the patients we treated was experiencing pain and a burning sensation while urinating. As a result, the therapists referred the patient to the pager nurse's office. Once the patient was changed, a therapist and I walked him down to the nurse's office and let the nurse [know] that the patient was here to see her. This was the most common type of interprofessional interaction I saw on the unit. Sometimes, verbal handoffs weren't made because time didn't allow it and during those times, I felt like

> we could be entering the vicious cycle of bouncing the patient around to different health care professionals (Journal).

She appeared to have more abandon as she reflected in her journal, which made sense to me as she could sit quietly and be more thoughtful than when engaging in an interview. In spite of her disappointments, there were occasions during her clinical experience that she perceived as textbook examples of interprofessional collaboration with direct patient involvement. These occasions inspired her to keep faith in the possibilities of practicing the skills that she learned:

> I was also impressed with how the team became very considerate of Mr. C. Everyone made sure that Mr. C. was warm and comfortable enough in his position. Throughout the planning session, every member of the team took turns to say encouragements to keep Mr. C. going. We also thanked Mr. C and his family for their patience at the end of the appointment (Journal).

This team of health care professionals was always focused on the patient while they worked towards the care goal, which was reaffirming for the participant. After another incident where the interaction did not go as planned, ID#142 thought about how patients can sometimes perceive a lack of cohesiveness in their care:

> Uh... The outcome for that is frustration, for the patient… Also, just, uhm, and then kinda the thought of… Uhm, like... I've heard them kinda question the team about this. [Interviewer: Who, the patient?]. Yes, asking, yeah, like, don't you guys know? Uhm… (pause) Aren't you guys all on the same page? Like why do I... Why am I getting this message from one person and a different message from another?

> [Interviewer: Patient confusion?] Yeah, confusion. So, I can tell they weren't satisfied (laughs) at all. They might have some doubts about the quality of their treatment (interview #2).

The participant tended to laugh and speak in bursts when she was thinking through the interactions and exposing her thoughts as they came to her, particularly when contrary to what she thought she *should* say. She would speak of "us" or "we" in the interview #2, as opposed to "I" in interview #1. Perhaps she felt a sense of belonging in clinical environment, part of the team. Her role in the clinical practicum was a bit more restricted as a student than as a graduate, since she was supervised and her actions were mostly structured; however, she was always observing the interactions around her and attempting to make sense of them for her future.

Theme: Learning the fit of own role with others. In the didactic sessions, ID#142 was proud of her role as a facilitator for many events, and she drew parallels between those experiences and interprofessional team collaboration. While the attendants had different professional expertise, their contributions were equally valuable to the discussions in these events:

> And then, also, recognize, I also recognize that everyone in that meeting had different, almost, like, different agendas. Because somebody, some people, some professions were more interested on the rehab process, some professionals were more inter, uh, interested in the diagnostic process. And, so… And, so, as a facilitator, um, I had to kind of lean back, um, and take a look at the overall picture… To… On one hand, make sure that each profession got a chance to ask their questions, but also, um, that no profession was overshadowing another profession (interview #1).

REFLECTIVE ENTRIES TO UNDERSTAND STUDENT LEARNING

For a student in the clinical environment, there are many factors impacting learning, one of which is understanding one's role. The first goal for students in radiation therapy is to find their fit into the uni-professional team, and then to understand how their professional role harmonized with the interprofessional team. In an enjoyable interaction that she recognized as a unique opportunity, ID#142 felt empowered to represent her profession and to exchange information with another profession about their respective roles:

> S was especially curious about our roles in radiation therapy and what the treatment process looks like. She told me that patients have asked her about what radiation therapists do and who they should go to if they had questions about how they're feeling during the treatment. She had also encountered patients who asked her what the treatment machine looks like and how radiation treatments feel like. I shared (to the best of my ability) about the scope of our practice and explained how radiation treatments feel like. For me, I was curious about what the procedure for chemotherapy looks like and what aspects of care should we (as radiation therapists) also consider for those going through chemotherapy (Journal).

As ID#142 continued with her reflection entry, she realized the limitations to the role-playing sessions she had previously participated in, and that the above experience afforded her an opportunity to extend her knowledge of the role of another profession relevant to her own:

> In other words, we only caught a glimpse of, or a very general idea of what different healthcare professional roles look like. When we assume our roles in a clinical setting, our understanding of the other professions seldom gets reinforced. More importantly, we actually don't fully understand the scope of

> practice of other healthcare professions because we don't know what the daily tasks of other professions look like in a clinical setting (Journal).

This participant's experiences illustrated poor and good interprofessional practice and had not deterred her from practicing the skills and behaviours. She maintained her belief in the value of interprofessional education and recognized that the classroom could not completely prepare the students for the authentic environment:

> After reflecting on this experience, I realized that there seems to be a gap between the core IPE curriculum and our clinical education. I realized that spending 2 hours one evening with brief discussions (30 min) on different health care roles may help raise awareness but seems insufficient for building understanding on different scopes of practice. …. I realized that I should continue taking the initiative of meeting and talking to other healthcare professionals to better understand how their roles may evolve in a clinical setting (Journal).

Amid her frustration after an interaction during the Ministry of Health early pandemic warnings, she struggled to remain true to her preclinical ideals but felt inappropriately prepared to navigate the professional boundaries that she encountered:

> It made me question my role and the extent of my role… that I, ah,I am aware that we go... to function effectively as a team we need to be aware of our own goals and we have to be experts at our own roles but then, uhm, you know in terms of the extent of our role in this case are we overstepping if we, uh, ask a little further, if we question other professions ?(interview #2)

In the particular incident she was discussing, the participant believed there were many missed opportunities to improve communication with the patient. Most times she wanted to explore the conversation but felt restrained as in the quote below, where it led to a fuzzy boundary:

> Yeah, and also in these situations [pause] these are all concerns where I got stopped and I hear my supervisor saying ok [student name] that's enough, and like... So in some situations I don't even get to ask cause I get stopped or I get a common thing that's not [involved into the treatment],
>
> you should be asking about the side effects (interview #2).

In general, as a graduate she felt that she understood what it meant to be an interprofessional practitioner and planned to continue to learn and look at the big picture of all professionals contributing to the interprofessional team:

> I got to recognize the patient's concerns right away. I know, uh, what resources we need, what perspectives we need to (clears throat) draw in for those concerns, and then just direct, effective communication on the understanding of the situation, what needs to be done to address the patient's concerns. That to me is, uhm, collaborative practice. And, uhm, as a graduate, I think, uh, moving into the workforce, what I want to bring to the picture is that I am a person that could represent radiation therapy first of all but also, I am a person who is, uhm, able to understand the details within each, uh, health care professional role (interview #2).

Understanding how all the members of the team integrate their expertise to attend to the unique needs of each patient in their care was taught in interprofessional education during the

students' program. Although during the first week in the practicum, ID#142 recognized practice as different in some ways, she committed to developing relationships following the taught concept of interprofessional collaboration.

Theme: Communication to share knowledge. Initially during the first interview, ID#142 could not clearly express the essence of interprofessional education and Interprofessional practice. In the final interview, she had a better grasp of interprofessionalism and had become aware of how collaboration was applied in clinical practice. Upon entering the clinic practicum, she expected to start learning at the team meetings:

> Beforehand I always had this idea that I… You have different… Ideally you would, uh, have different professions and establish [what] a common goal would be and then there's... In my mind I have always pictured a lot of discussion about what the common goal would be and then how you would approach it. In clinic I realized that this process is a lot more efficient and, uhm, and actually from what I took away from my, er, clinical placement, I felt like the common goal has already been addressed so there's no… there's not much of that discussion (interview #2)

It was unexpected that insufficient communication would be a constant in unsatisfactory interactions, particularly between the practitioner and the patients. In one encounter, ID#142 reflected on the impact of *not hearing* and *not clarifying*:

> She [the patient] was frustrated that her radiation oncologist didn't clarify her treatment schedule with her and that he didn't consider her trip. "This is ridiculous, it's like he didn't hear me at all...what's the point of telling him about my concerns, it's like he doesn't even care. I don't want to receive

> treatment here." Mrs. P. said …. At this point Mrs. P. became emotional and started crying (Journal).

The benefit of being flexible enough to understand perspectives other than your own was tested in an experience where the practitioner, the participant, and the patient had different priorities. The participant experienced many emotions when the outcome, and communication, left the patient unsatisfied, and the participant considered her own feelings as a student:

> I felt very confined, discouraged, and slightly frustrated after this interaction. I felt confined because I couldn't share what I know with Ms. M, just because I needed to be supervised and the person supervising me wasn't prepared. I felt discouraged and frustrated after hearing that other healthcare professionals didn't think to ask but also that Ms. M wasn't able to get a straight answer about her antioxidants from a healthcare professional today. Patients shouldn't have to seek information about their treatments from family or friends who don't have medical or professional training (Journal).

During a problem-solving experience that was viewed as exemplary, the participant revisited the event and pulled out the critical components that supported the positive collaboration in her view:

> Everyone was listening to each other, and everyone was taking the time to understand what each other's concerns were. I thought that was a very unique moment. I thought that was a very good representation of collab... collaboration (post clinical interview, line 1337).

On another team collaboration that ID#142 observed, she assessed and compared the team structure of equality and respect as they communicated with each other:

> Even though there were moments where different professionals had gaps in knowledge about the treatment process, this was resolved as members of this team would quickly educate the team and fill in gaps. I found this process of collaboration to be very efficient and direct. There was no waiting around for someone to tell the team what to do, everyone was very motivated to help each other and solve the problem ahead (Journal).

Communication emerged frequently throughout the various themes, suggesting that it was the base skill for interprofessional collaboration as perceived by this participant.

Theme: Respect for the patient and the team. The participant's attention was always on patients' satisfaction with their care and supporting them to advocate for themselves. Facilitation and leadership skills learned in interprofessional education had a significant impact for ID#142, and with these skills she intended to support her patients through active involvement in their care. In one interview, she revisited a patient presentation session during IPE which reinforced her belief in the value of bridging the path for the patient's journey through treatment:

> And to, uh... And... And to show just a little bit of... A little bit more empathy for the people, for... You know, what they're going through because, uh, [the patient who was presenting] felt like in some ways it was lacking, and in some ways it was the reason that she felt bounced around. Uh… And, and another thing she mentioned that stood out to me was that, um, often times in referrals jobs [you] got the quote-unquote, "Uh, this is not a question for me, it's a question for XYZ". And, um, and over a period of time she found it frustrating, and, and just dismissive (interview # 1).

From her perspective, the presenter feeling “bounced around” from professional to professional was indicative of the traditional health care system and was disrespectful to the patient. She contemplated her previous experience and her future role:

> When she said that, it was a moment that I could also relate to, because in my personal experience with healthcare, uh, when I was a patient, I also felt that way. And, so, knowing that and having that in mind, I have the question, well, now that I'm being trained as a healthcare professional, how do I avoid that? (interview #1)

As she approached the completion of her practicum, she considered what she had learned about herself and what she aspired to as a graduate. The various negative experiences did influence some of her thinking, but more as an affirmation of her goals:

> This experience has reinforced my thoughts about the demands of radiation therapy. For my future training opportunities, I hope to practice thinking beyond my scope of practice and really consider what patients have to go through every day after their visit to the cancer centre (Journal).

Good experiences appeared to have initially caught her off guard; however, she re-aligned herself with the learning that she carried to practice and thought about what and how she could achieve collaborative practice:

> I felt proud to learn from this team approach, and uhm and I… Like, I’ve always wanted to see how interprofessionalism plays out in a fast-paced clinic situation. And I got to do that, I got to see it. Surprisingly it didn’t take up a lot of time, I always thought that it could be a time… like… issue and going to be a tedious process... if we sat down with everybody and did it for

> every single case, but I think for efficiency sake, we can kinda put that aside… The most important task is making [sure] our patient is heard and making sure everyone is on the same page and that we all have this common goal together (interview #2).

She believed that she reflected on every experience and learned something valuable; this was important to her to keep her focused.

Theme: Reflection brings a new focus. ID#142 expressed surprise at her self-awareness during the practicum, particularly on her gaps in knowledge and the assumptions that she intuitively made. She recognized that reflecting on her practice was a good learning activity which allowed her to consider the whole experience:

> Well, in short, [laughs, unintelligible] sorry. Reflection has played a huge role, um, for uh, for [pause], I guess attending, for me uh… For… I think consolidating what I've learned from all these events. Uh, because reflection is a time when I can... uh, really slow down and think about what I just heard (pause). And then, make meaning out of what I just heard (interview #1).

ID#142 appeared to be open and enjoyed talking at both interviews. She was engaged with the topic, although her discourse style was momentarily distracting to me due to the number of pauses and "uhms" in the responses. I attributed this to her actively thinking back on the events and taking time to formulate her thoughts. I viewed this participant as having made great efforts to revisit the various activities and bring to mind the associated thoughts and feelings. During interview #1, we discussed how reflection had served her up to this point:

> And so that helps me [pause] like, when I write it down and see it, um, that way, it actually does help me recognize, uh, what I, what I don't understand, and what I could've done better, or [pause]. It also, it helps me brainstorm the questions that I, uh, that I could ask for future interactions to make the conversation smoother or to make the meeting go [pause]. As planned, or efficient (interview #1).

ID#142 felt she reflected often after interprofessional education sessions that she facilitated, but also as a student, most certainly when there were various people involved in some activity together. Discussion with others shaped her perspective of the activity. She considered this reflective practice and as a parallel for interprofessional teamwork:

> It's about really, um, connecting everyone's ideas together to make it into, uh, one whole comprehensive proposal. So, so, [pause] I, so certainly for that project I spent a lot of time reflecting after each time we met on how I, uh, on, like, whether or not did I really advocate for my profession (interview #1).

Her preclinical goals were to be present for the patient, and to that end she reflected on the patient community and tried to anticipate their needs:

> So, like that's how, that's how I make sure that I am on the same page as my patients and that I am reading the same thing, and then what [pause] I feel like that's how I can become aware of their assumptions and also my assumptions and my own understanding of uh, my field. Also now that I understand what the patient understands, what can I bring, uh, from my professional background into delivering this care (interview, #2)

ID#142 had some transformative moments in her practicum, where she felt the need to regroup, reflect, and adjust her point of view. Two examples are at the start of her practicum when she expected to participate in team meetings, and secondly, referrals of the patient to different departmental areas to consult for specialist care

Patterns Across Participants as Overarching Themes

While each participant's experience is unique, it is thought helpful to the reader to identify convergence or patterns across all participants. According to Smith et al. (2012), themes of each participant may represent shared concepts, and these concepts are utilized by the researcher in a more theoretical approach to find overarching themes. To identify overarching themes, I identified categories with common meanings through all the participants' data. The themes directly addressed their experiences and what they considered meaningful after revisiting the interactions, while the third captured their perception of the role of reflection in their learning specifically for interprofessional practice.

Understanding the interprofessional team member's role. The interprofessional team is composed of multiple professionals working towards the patient care goal, knowing their individual scopes of practice, negotiating the practice boundaries, and working as a team. All participants reflected on this overarching theme as critical to their understanding of interprofessional practice.

The centrality of the patient to collaborative practice. The participants considered the patient as the goal of interprofessional practice; however, they at times experienced behaviours that were less than considerate of the patient.

The value of reflection. Learning from one's experiences is important for moving forward professionally, and particularly in health care practice. According to educationalists well versed in reflection, it plays a crucial role in learning and ensures that the learner is aware of

what is taken from experience (Boud et al. 1994; Kolb, 1984; Mezirow, 1990; Schon, 2016). In learning how to practice in the clinical environment, experiences are varied, and both good and bad experiences can influence what is learned. The learners who can critically reflect on these experiences are better able to determine what they will take away.

Chapter Summary

I began this chapter with an account of my reflective journey, then presented the idiographic findings from the three participants in this study. Each of the participants identified their experiences and concerns before, during, and after their practicum, and quotations were used to support the interpretations of the themes present in their accounts. At the end of the Chapter, I introduced the overall or overarching themes that represent the convergence of themes across participants. In Chapter 6, I will discuss these themes in light of the available literature and analyze the significance of the findings.

Chapter 6 Discussion

This study was designed to understand the students experiences of interprofessional practice during their final clinical practicum. The three participants reflected upon their classroom sessions which prepared them for the clinical practicum, the authentic working environment. Prior to entering the clinical practicum, they formulated expectations of practice and identified what their own learning needs were for interprofessional practice. This chapter will discuss the overall themes and make connections to the relevant literature. I searched the ProQuest, EBSCO databases and LibrarySearch using keywords: interprofessional education, interprofessional practice/ collaborative practice, pre-registration, prelicensure, healthcare profession student, clinical practice. There was a scarce amount of literature exploring interprofessional practice amongst pre-registration students, therefore I rely on these researchers and their colleagues which predominantly include Brewer and Flavell (2019); Kent et al. (2018); Kent et al., (2020); Nisbet et al. (2013); Nisbet et al. (2018) and Rees et al. (2018).

Research Question #1: How do health care profession prelicensure students experience IPP in their various assigned clinical placements?

As discussed in the previous chapter, the participants anticipated ensuring the patients' voices were heard, advocating for them, and bringing their own professional perspective to the team meetings as they prepared for joining the clinical environment. The experiences in the didactic interprofessionalism sessions were similar and enjoyable as they gained knowledge that was practice relevant. Following Experiential Learning Theory principles, the knowledge and skills were relevant to their future, thus it supported their motivation to continue learning. In essence, as the participants reflected on their university sessions, they spoke of their goals from a place of belief in interprofessional practice, and a commitment to transfer their learning to the clinical environment.

> I truly think that... Uh, practicing interprofessional, uh… collaborative behaviours can really lead to a better patient outcome. And… and I've been convinced by, um, patients that I've heard from, patients I've, um, heard from, interacted with, and also my personal experience with a interprofessional team. And I also think it's… it can, it can improve the efficiency of care (ID#142, interview 1).

The interprofessional component of their placement was unstructured and unsupervised, and allowed for interactions with multiple professionals in the course of their uni-professional learning. The interactions were dependent on the participant's motivation to seek out opportunities or recognize interprofessional situations and reflect to make sense of their observations. The term informal learning refers to the influences on the learners that occur during their workplace experiences, in the spaces and around the edges of the more structured activities (Eraut, 2004). Lempp et al. (2004) suggest that it exists as the unspoken organizational and cultural influences that are to be adopted if the individual is to function in the workplace. Whatever the circumstances, learning will take place, however, the determinants are more unpredictable in the informal or hidden scenarios. Influences such as a physician making conversation with the radiation therapists while waiting to see the patient, or a physician not responding to a phone or email message creates some meaning to the observer. I use the physician in these examples as that was the profession perceived as operating with the highest status.

The idiographic findings suggest that ID#142 and ID#171 were somewhat disappointed with the reality of interprofessional practice in clinical practice. Participant ID#152, appeared to have had more opportunities for observation of good role modelling, she took stock of the skills, behaviours, and attitudes to add to her strategies for her future processes. From the

participants' perspective, the barrier to successful teamwork was most often the lack of respectful communication, or one-way directional communication from the physician to the team including the patient. There were three overall themes representing the experiences during the period of this study.

The Interprofessional Team Member's Role

All three of the participants had the interest cultivated at the university to share knowledge about and with each other. Theoretically, if they understood the role of other professionals, they would be able to find their place and understand when different expertise may be a required to support holistic care. The participants took their own unique set of expectations to the clinical environment, hence the reality shock (Coakley et al., 2019). Fitting into the clinical environment is different as a student than as a graduate practitioner. There were times when their discourse held a radiation therapy team identity, "we" and other times when they withdrew to the student identity. Identity, according to Social Identity Theory, relates to an individual's perception of self and belonging to and being valued as a team member in their profession of choice (Levitt-Jones et al., 2009; Tajfel & Turner, 1979). The student identity may revolve around a different set of values, and responsibilities than the graduate. They were able to step back during challenging interactions and learn from the team professionals who would role model the problem solving. Students do not fully understand the complexities of the practice environment until they are living through it as they practice and observe the professionals in real-life (Thistlethwaite, 2013). From observations of the health care professionals' encounters, the participants honed-in on what did not work and why it did not.

The reflective entries and the narratives highlighted that the participants emerged at the end of the practicum with a good understanding of how the various scopes of practice could interact to enhance patient care. Although the observed interaction was not always grounded in

principles that they expected, they were able to reflect on the experience, problem solve and internalize the advantages of the interprofessional team practice. These findings are in agreement with a study by Kent et al. (2020), which investigated interprofessional practice learning at various placement settings for pre-registration students of six different professions using reflections as their data source. They identified that by the end of the study, students had gained more confidence in their own professional role, as well as increased understanding of the interprofessional practice team members' roles. These researchers explored the depth of learning as seen through responses on reflections and concluded that the learning evident from these reflections was unique to the individual and not necessarily due to depth of experience or year of study in the training program.

The overlapping boundaries of the team members remained a concern in the current study, participants were not clear on when and how far they could cross the boundaries. Recognizing that each situation would be different and may result in possible conflict, each participant determined strategies that offered them comfortable ways to practice in most situations (Kim et al., 2016; Sexton & Orchard, 2016). ID#142 developed confidence in her ability to communicate her concerns to the team; ID#152 focused on her goal to advocate for the patient while ID#171 decided to look beyond her singular task with an aim to support the other team members, while addressing holistic patient care.

> Nobody is perfect so errors will happen, but if they can be resolved in a positive way, it can have a positive ripple effect. (ID#171 journal).

Rees et al. (2018) explored the experiences of professional-student interactions and the learning that could develop from these interactions from both a student and a professional perspective. Their findings support the development of mutual respect and enhanced knowledge of others' roles and scope of practice boundaries. The researchers found that the

consequence of positive experience was improved learning and navigation of the workplace while negative experiential episodes decreased learning and decreased interprofessional practice attitudes. In the current study, when the participants observed poor interactions, the learning did not necessarily decrease. They reflected on why or what was barring the success of the interaction, identified their disappointment and it may have influenced their intention to practice collaboratively as new graduates.

Brewer et al. (2012) evaluated the impact of clinical Iinterprofessional education on practice. The participants in Brewer et al.'s study reported feeling more confident asking for consults or sharing knowledge with other professionals due to their increased knowledge of the roles of others. The current findings suggest that interprofessional education supported the ability of the participants to work in a professional environment and continue learning.

The Centrality of the Patient to Collaborative Practice

While the interprofessional education teaching is that the patient is a member of the team, I struggled to understand what is meant by this for quite a long time. To me it didn't make sense: the patient has no expertise except knowing what they would like as an outcome and what they are able to do. These things are valid but how do they contribute to the outcomes from a care perspective? Then my ah-ha moment arrived out of the blue one day. Every single patient should be at the centre of the team care, communication and ultimately practice. When care is fragmented at delivery, there is knowledge of the various pieces but not necessarily how the pieces fit for the person for whom the care is designed: the practitioners miss the voice of the patient. Collaborative care implies that the professionals work together to design the fit of the expertise from various sources, such that the team can deliver holistic care that meets the patient's preference.

REFLECTIVE ENTRIES TO UNDERSTAND STUDENT LEARNING

The participants learned from their observations that in order to collaborate as a team, there should be a relationship that encourages respectful communication as a core criterion (Taylor et al., 2017).

> So that's important the communication with respect and that each person knows their job and has a role to play in treating the patient. Skills are important because we are treating the patient and they are at the centre of care (ID#152, interview 1)

Participants looked forward to their clinical placement as they felt that they would have opportunities to engage meaningfully with the real patient in the authentic practice environment. This perspective is consistent with Ding et al.'s (2020) and Visser et al. (2019) studies in which they integrated medical learners within an interprofessional team in an authentic collaborative environment with structured care processes. Ding et al.'s participants felt that in their interprofessional setting, they had more opportunities to stay engaged with the patient and communicate directly with them. Similarly, Visser et al.'s participants noted the patient centredness. Granted these were working with structured interprofessional settings while the current study was an informal or unstructured learning environment, my study participants had similar perspectives. As with my participants, the learners in Visser et al.'s study became more aware of the loss of autonomy experienced by the patient in the care setting, and how it can be lessened by the team approach to the patients' concerns.

Participants were prepared to work in teams, this was a uni-professional expectation. They were concerned with how they would use their newly acquired knowledge to inform their graduate practice which is consistent with studies by Kent et al. (2020).

By the end of the interview #2, when comparing the participant's intent to practice interprofessionally, one of the three, ID#152, remained fully commitment to being part of the

interprofessional team and using all the skills that she had learned. For ID#171, the intent appeared to be less as it depended on the culture of the organization, and the staff with whom she would be working. ID#142 also appeared to have had a diminished intent to practice interprofessionally based on how it was modelled in her experience, but she was determined to achieve the patient care goals. Remarkably this was not interpreted to mean that they valued interprofessional practice less, simply that they recognized the barriers in the limitations of the workplace.

Research Question #2: How does reflection impact their learning in the clinical practicum?

Reflection was identified by all the participants as something that they routinely do. They followed this habit in the clinical environment to better understand their actions, the teams' actions and to process their experience for professional growth. The motivation to reflect in this study likely occurred because it was a requirement, which may have made them more deliberatively attentive to their observations and interactions. Reflecting made them more conscious of their learning (Boud et al., 1990; Persson et al., 2018). For example, after an interaction with a patient, ID#142 on one occasion recognized with surprise that she had made assumptions about the patient's desires, she had behaved with profession-centredness instead of patient-centredness.

The culture and the work practices of the organization were important presage factors of learning which were understood through reflecting on behaviours and events that were observed (Nisbet et al., 2018; Rees et al., 2018). The participants were attentive to the patient's perspective of their care as it was presented in the university sessions: the theory of interprofessional practice appeared to be clearly understood in terms of the behaviours, skills and attitudes taught.

The participants were asked to reflect on their interprofessional interactions, during the learning of their profession-specific practice, and it was expected that the participants would have a wider range of interprofessional learning opportunities. The reality was that the participants experienced few opportunities to interact with other professions and there appeared to be overall fewer interprofessional behaviours observed by the participants than expected.

Reflection supported increased confidence in professional role and interactions for one participant, while awareness of practice and limitations for example, physician centrality, other status boundaries and institutional cultural attitudes were factors for the other two. In their scoping review of studies on interprofessional practice with prelicensure students using workplace initiatives, Kent et al. (2017) found that reflection was a common mechanism used to moderate the interventions. The authors suggest that experiencing the collaborative task followed by reflective practice enabled the success of the interprofessional initiative (Hean et al., 2018; Kent et al., 2017). The participants in my study were thinking reflectively during the interviews and engaged in reflection in their journals. They reflected to share their experiences, and while the entries were not all evidence of critical reflections, neither were they all descriptive. I indicate the general depth of reflection merely as a curiosity and to identify that there was at minimum a basic level of reflection apparent. The analysis was outside the scope of this study but would be an area for future research.

Constructivists support the belief that purposeful reflection aids the learners in putting the parts of their experiences together to make sense of it all (Kolb, 1984; Schrader, 2015). The participants in my study used reflection to aid in the synthesis of the various thoughts and ideas that would form their take-away from around their experience. The ah-ha moment could happen at any time: it is a spontaneous event and any intention that the reflector may have to guide the direction does not necessarily work (Rose, 2013) as one participant substantiated:

> Um, that whole, like, you know, you… uh, you're trying so hard to remember something that's at the tip of your tongue, but then the second that you stop trying to remember it comes to you all by itself [laughs]. (ID#171)

The participants engaged in reflection when they encountered complex situations, they found that it enhanced self-awareness of gaps, limitations and understanding their strengths, and allowed them the view through the patient's lens. As they participated in the clinical environment, they made connections to the interprofessional education principles to make sense of their experiences.

Research Question #3: To what extent does reflection help the participants to construct meaning in interprofessional education and practice?

Learning in the clinical practicum placed the participant amidst complexity, in which some situations were challenging due to the impact of multiple factors. Reflection put the learners in the driver seat to determine their learning needs. According to Eraut (2004), and Nisbet et al. (2018), learning in these circumstances can be reactive or deliberative. Reactive learning is the immediate and spontaneous reflection on the interaction or observation involved with future possibilities: it is analogous to Schön's reflection in action. Deliberative makes learning more explicit through discussions and problem solving and planned follow up actions. The participants in my study made sense of their experiences in both these ways by writing their reflective entries and also by being able to tell their story in the interview. When they were engaged in these actions, they gained insight into their biases and their frames of reference by using reflection which encouraged change and transformation. Nevertheless, as suggested by Eraut (2004), the student may not have been aware of the extent of their learning, particularly

that which was incidental to the unplanned activities, whereas deliberative learning would be expected in the activities where the curriculum was more formally structured.

Having practice with Schön's reflection in action may also have been a useful strategy for the students, to make their learning more explicit in these situations. A learner that practices reflective practice, according to Schön (1987), will be aware of what they have taken from their experience. In unstructured or informal learning situations such as the clinical environment, most of the learning may be more implicit, meaning the learner is unaware: "informal learning is largely invisible because much of it is either taken for granted or not recognized as learning" (Eraut, 2010, p. 249). I see similarities in Eraut's reactive learning process to Schön's reflection in action in that it occurs while one is performing an action and it provokes spontaneous reflection. In Schön's theory of reflection in action, the doing of the thing stimulates the thinking about the thing - it is where the professional can reason out their doing and make it more purposeful to bring out the learning.

Valuing Reflection to Learn

Reflection provides a different view of the world and hence the potential to grow; the prized moments from reflection are not always noteworthy chunks, but pieces that when added together can become enlightening. The quiet and the solitude of the setting, a place that makes the ID#152 comfortable were the aspects that had an impact on her reflective state, where it felt safe to step back and consider the emotional aspects of her experience. ID#142 liked to reflect by questioning her actions and decisions after her interactions. While ID#171 was always thoughtful, she also relished the peaceful setting to think about the experience that she may have filed away. Her method was to share perspectives with others to better understand the meaning. These preferences were important to connecting the experience, the theory and ultimately the new knowledge.

All three participants believed that they learned more from making mistakes. While they did learn from their positive experiences as well, I feel that this may be less obvious as it is associated with the feel-good moments. There is less disruption to self when things go well. Surprise and emotional upheaval are the aspects that typically pushes one to reflect. There were times during the interview when I felt that new awareness emerged as the participant was recounting her experience: there would be a pause or laugh and look away. Reflection does not come easily at times.

Chapter Summary

In this chapter I considered the findings from the idiographic data. These were reviewed across the participants to identify the overarching themes from my study. Once identified, I made connections between those themes, the relevant literature, and my reflections. The next chapter will conclude the dissertation by including a discussion of the implications for the interprofessional education curriculum and the organization with the aim of interprofessional collaborative practice as praxis.

Chapter 7. Conclusions and Implications

The previous chapter provided information and issues relevant to the experiences and learning of interprofessional practice. In this chapter, I will discuss the implications of the overarching themes for interprofessionalism curriculum planners and the organizations from my perspective. As I conclude the chapter, I will present the significance and conclusions of the present study and suggest some directions forward.

Implications

The purpose of interprofessional education is preparing the students health care professional to continue learning and to practice collaboratively as graduates. The process begins by encouraging the health care profession students at the university, to interact with, trust and respect each other's role within the care team by the time they become graduates. After the university sessions, the students then participate in their final clinical practicum at various clinical sites across Ontario, this study took place during the clinical practicum just before graduation as health care professionals. After my time with the participants, and based on my findings, there are several implications that would benefit interprofessionalism curriculum delivery, and the organizations to support achieving interprofessional collaborative practice.

Implications for IPE Curriculum Delivery

From participants' interviews and reflections, the interprofessional curriculum provided good preparation for the students in understanding the concept of interprofessional practice. However, all three participants were disappointed by the reality of practice in the clinical environment. First, they were armed with expectations of how they would practice and did not realize that they could only be prepared with the ideals of practice (Dutton & Sellheim, 2014, Dutton & Sellheim, 2017). On entry into the clinical environment, participants noted the gap between the taught interprofessional curriculum and the observed practice. Two of the

participants expressed an increase in their frustration due to the dissonance between what they believed would occur and the actual occurrences. This is similar to the results reported in Dutton and Sellheim (2017), and likely impacted the participants' intentions for future practice. Perhaps some discussions regarding the parameters which may impose practice differences in the clinical environment, as well as the virtues of ideal practice as a starting point, could minimize the dissonance. Second, in large class sessions, the participants were not all engaged, which limited the learning from those sessions: a possible solution could be to adapt the sessions to different learning abilities. By reimagining the class size and reducing the noise volume, effective facilitators should be able to draw out the quiet students. Those students who may not believe that their professional voices are equally valuable to the discussions. Alternatively, facilitation should enhance strategies that reinforce that everyone is of equal status in the team dedicated to providing optimum care.

As a side effect of teamwork, conflict tends to be a common challenge resulting from unprofessional behaviour and ranging to poor team communication. Conflict ultimately affects the delivery of patient-centred care. In order to successfully collaborate with other professions, each team member should be grounded in conflict resolution. During interactions where the participants observed frustration and distrust, they were not able to observe role modelling of behaviour aimed towards an understanding and resolution of the conflict. These participants will become graduates shortly and will work within a similar environment and will likely encounter the same experiences. Consequently, observing strategies that are used in real life could instill confidence in dealing with future conflicts, and thereby minimize the frustration and disenchantment within the team. Conflict resolution learning opportunities that include problem-solving skills and reflection may empower the students in power status interchanges within the interprofessional clinical practicum and beyond to their personal and graduate professional lives (Buttrick et al. 2016; Oandasan & Reeves, 2005).

I argue that a primary step towards solving the above practice situations would be practice simulations which engage the students in mindfulness and reflection. The curriculum could include real-life simulation processes and discussions that may lead to a realization of uncertainty and acceptable response (Cheng et al., 2017). The participants revealed wanting "not to step on anyone's toes", or to listen to their supervisor in situations that were not straightforward or simply resolved. Students and new graduates typically look for a checklist or a step-by-step procedure as they begin their own practice. When events do not conform to that approach they will experience stress - this is what is meant by the swampy lowlands, the uncertainty of practice (Schön 1987). According to Cheng et al. (2017), reflective practice includes what they identify as self-monitoring, which allows the individual to become aware of their limitations and know when to seek help. Reflection-in-action is considered continuous self-monitoring and leads to the recognition of their uncertainty (Cheng et al., 2017). If the students have an ability and opportunity to attain mindfulness, it will be possible for them to not only recognize their limitations but to reflect-in-action, determine their learning needs, and build strategies as they work toward expertise. When the participants learned more about their role and the interconnections with the roles of other professions after observations, they demonstrated self-awareness as they reflected in-action and on-action. By faculty recognizing and addressing the hidden learning that exists in the work environment and making the learning more explicit, the students are better able to navigate their practicum, integrating what they already know with what they are learning (Kinsella, 2001).

Implications for the Organization

Students learn from observation in the workplace, whether positive or negative and they will select what they will take forward to their practice (Grosser et al., 2020; Kent et al., 2020; Nisbet et al., 2018). In the clinical environment, the students perceived that there were

professionals who did not appear motivated to practice collaboratively; or as one participant stated, “it's more just people doing nothing interprofessionally”. The participants expected that there would be team meetings and all voices would be heard and contribute to the patients’ care plans. In taking the stance of a critical phenomenology point of view, I see some significant systemic changes that would support interprofessional collaborative practice. Primarily, the top-down relation of the medical model needs to be changed, to support an initial goal of increased staff motivation and positive role modeling towards an end goal of patient centred practice. All professions should feel that they have the ability to discuss and initiate changes within a supportive team; this may be verbalized but does not appear to be felt as true in practice. Secondly, conflict will always occur in collaborative teams where there are different personalities added with power imbalances. The participants had some training in conflict resolution in classrooms; however, it would have been beneficial to observe the graduate staff engage in some realistic and professional processes of resolution. Instead, they saw part of the team shut down, and become distrustful of other professions. The participants understood that they were feeling powerless to speak up.

> uhm …I feel like a lot of times [thinking pause] with the whole hierarchy thing a lot of therapist can get very frustrated with uhm…say that the radiation oncologist they didn't answer emails they didn't answer questions they didn't answer phone calls we have a patient like sitting here that needs an answer now and like they get a little bit frustrated but they don't really have an outlet for that …to express that to the radiation oncologist, it's usually kind of just an understanding within the profession that something that bothers them but not necessarily anything to say like [laughs]…(Postclinical interview)

This participant felt very much the same way after her interaction with her radiation therapist preceptor.

> I felt very confined, discouraged and slightly frustrated after this interaction. I felt confined because I couldn't share what I know with Ms. M, just because I needed to be supervised and the person supervising me wasn't prepared. I felt discouraged and frustrated after hearing that other healthcare professionals didn't think to ask but also that Ms. M wasn't able to get a straight answer about her antioxidants from a healthcare professional today (journal)

When these participants become graduate practitioners, the cycle of dissatisfaction and resentment is likely to continue if there is no change. If things remain as they are, these graduates will emulate their role models and this inability to resolve conflict will repeat for the next cohort of students. Critical phenomenology promotes becoming aware of the social structures embedded in the organizational culture as they represent the hidden curriculum in the clinical environment. There have been over 10 years of new graduates who have participated in interprofessional education, yet it appears there are still only pockets of exemplary professionals. If the health care system values the principles of collaborative practice, more attention should be provided to this area, such that new social structures can be put in place.

Although the following suggestion may require some long-range thinking, scheduling regular interprofessional practice activities, such as team meetings, and freeing up some time for staff and students to attend these activities may display the organization’s commitment to interprofessional practice. Thus, such a plan could inspire staff to be more engaged in collaborative practice. Recognizing that team cohesiveness and effectiveness depend on connections between members through respectful communication, the findings of my study

suggest that a working space assigned closer geographically to other members of the team would promote more accessibility. All participants reflected on occasions where it was difficult to make contact and communicate with the physician in a timely manner. ID#152, for example, wrote in her journal: “The doctor was busy at the time but arranged to go down quickly to the [nursing centre] to see the patient but it was up to us to convince the patient to stay.” Being physically close and easily available is thought to enhance team practice of patient-centred care (Falk et al., 2013). Additionally, when the team is empowered to organize themselves centred around a weekly meeting, the members may come to realize, and demonstrate to students, that individually they are all of equal importance to team success.

Student learning is critical to each profession. ID#142 discussed her experience of a unique opportunity to meet with another health care professional. She thought that the interaction facilitated her learning because the health care professional was knowledgeable about their own role:

> I realized that spending 2 hours one evening with brief discussions (30 min) on different health care roles may help raise awareness but seems insufficient for building understanding on different scopes of practice. (Journal)

An initiative that may enhance learning of interprofessional practice is that the organization capitalize on the informal nature of the environment by positioning an interprofessional practice facilitator in the clinical setting. The person in this role could be a resource for students and staff, for example by negotiating opportunities for a small group of learners to interact or observe different professionals at work. This position could be supported with an online, *available when needed* [emphasis] resource that would support a synchronous group debrief or post-interaction discussion. In this way learning that was taken from the

experience would become more explicit (Nisbet et al., 2013; Rees et al., 2018). This could move the organizational culture along the pendulum to prioritizing collaborative patient-centred care.

The Significance of My Research Experience

Perhaps my first learning revelation is regarding recruitment and the time and dedication that is necessary to acquire volunteers. I realized too late that asking participants to participate in weekly reflections would be a deterrent to recruitment, and as I saw my volunteers diminish, I continued to reflect and to consider how I would proceed. I feel that recruitment is a crucial area as it impacts the entire study. I would have said that I knew this was important prior to the study. However, it became apparent to me that understanding processes such as connecting with the students and speaking to their interest and making explicit the beneficial aspects of recruitment are areas in which I need to advance my learning.

As with the participants, I have experienced a personal transformation of perspectives along the way. While the findings do suggest that interprofessional collaboration is not fully realized in practice, my understanding of why that may be so, has changed my initial thinking. I now see the possibility of interprofessional collaboration within health care. The students expressed their commitment to the interprofessional education principles as they reflected on the lessons learned. Moreover, they were ready to interact and practice what they had learned. For the participants, the interviews were moments of reflecting on their experiences and attending to their thoughts. Reviewing their data allowed me to shift my perspective such that I could stand close to their world and understand their experience while using my positioning as a health care professional. In transformational learning theory, when curriculum activities and discussion are relevant to their future practice, the learners will use their past experiences and prior knowledge to make connections and decide their own learning (Mezirow, 1990). My epistemological belief is based on constructivism. I hold the view that in the form of group

reflection, the educator could scaffold the learner through to the development of their reflective process and their awareness of the learning from experiences. This perspective is similar to Vygotsky's Zone of Proximal Development (Vygotsky, 1930/2019),

Finally, it was illuminating to learn the perspectives of the participants in what they learned and how they view the professionals in the practical world. By using reflection as the data collection method, I feel that the participants had opportunities to think about what they learned and what they observed. Additionally, they could challenge their thinking about how they felt they would practice going forward. They questioned their assumptions and all participants recognized that they chose to be there for the patient. Using reflection as a learning strategy has always been my focus, therefore this study has reconfirmed for me that working with learners to develop a reflective manner is a worthwhile strategy.

While this study was illuminating; it is not generalizable; however, it implies that there are opportunities for students to develop learning relationships and to expand their knowledge about, and across professions. When health care professionals model interprofessional practice and undergraduate students are able to observe how the practice works, it increases the possibility that the students will practice in that way as graduates.

Completing this study represented significant growth for me, most relevant as an educator and a researcher. My circumstances were unique, the larger challenges were the low recruitment numbers and the impact of COVID-19 as I described in Chapter 4. Looking back, these were pivotal moments in the process of carrying out research: it does not necessarily flow easily. For this stated reason, it is important to have a well-considered plan at the outset along with a Plan B, that schedules in flexibility. I have learned that it is also important to understand the extent of the support available. If I could offer some advice to other novice researchers, I would suggest accepting every offer of support as you build a network but be clear about what

you expect and what is being offered. In true social constructivist style, I feel that dialogue and relationships provided scaffolding that I required to complete this study

Future Research

A future research direction would be to extend this study to include a larger number of health care profession students. This would examine any professional differences or attitudes that may play a part in the learning as they participate in their uni-professional practicum. A focused critical methodological approach may further highlight the systemic issues discussed as arising from the medical model, with the result that it leads to the desired transformation for healthcare.

A second path for research would be to perform a long-term study across the clinical practicum through to a period of graduate practice. Such a study should include a diverse population of health care professions including different genders. In order to acquire expertise in their profession, all students have to accomplish their respective competencies during their time in their practicum. This is essential for interprofessional practice, and the patients benefit. Until the programs are able to assess their professional competencies in a different manner, all research into how students progress in interprofessional practice should be carried out as a process during the authentic clinical practicum, instead of an evaluation during an intervention. An objective of such studies could be to understand the complex structures, such as personal attributes of the learners, and the informal learning environment that affect the changes in adoption of collaborative practice from the practicum to working as a health care profession graduate. Another objective could be to determine to what extent learning interprofessional education sustains students' understanding of the value, and their subsequent practice, of interprofessional competencies as a graduate.

Conclusion

REFLECTIVE ENTRIES TO UNDERSTAND STUDENT LEARNING

The aims of this study were firstly to gain an understanding of the participants' interprofessional practice experiences in their clinical practicum through their reflections, and secondly, to understand how and what they learned. Interpretative Phenomenological analysis was used to collect and analyze the qualitative data. The findings indicate that there were both good and challenging experiences from the perspective of all three participants. They also suggest that contrary to my initial sense of uncertainty, there was learning taking place and students valued the new method of practice, namely interprofessional practice. The interprofessional team in full function can work as a community of learners that learn with, from, and about each other, make a special connection to each other, and support each other in delivering holistic care to their patients. A critical mass of health care profession graduates is required to realize effective collaborative practice. Therefore, the more foundational support provided for students in the clinical environment, the more likely the expected changes are to occur.

My initial observation when I began this study was that care delivery had not changed, and these findings confirm this from a patient's perspective. Health care has remained profession-centric, with tiered statuses, and while there are professionals that communicate, respect, and work well within interprofessional teams, there is more that can be done to reach the goal identified by the World Health Organization in 2010. My participants believed in the ideals of interprofessional practice, were positive about their interprofessional education learning, and had the intention of practicing collaboratively as much as they were able.

> I might go to another hospital as a new grad and then find that it's a different culture there and maybe it's a culture that does that all the time or maybe it's a culture that's never really tried that before, it could really depend on who you're working with. (Interview #2, ID171)

The participants' perspectives of their experiences in this study, culminated in three overarching themes important to learning interprofessional practice: understanding the interprofessional team members' role, the centrality of the patient to collaborative care, and valuing reflection to learn. The common thread woven throughout these themes was respectful communication.

This study provides a rare look at the students' journey across the bridge to graduate practice. The findings suggest that we have made some progress but that further research is warranted if we are to make interprofessional practice a viable and valuable praxis.

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Appendix A Recruitment Flyer

SEEKING INDIVIDUALS TO PARTICIPATE IN A RESEARCH PROJECT:
UTILIZING REFLECTIVE ENTRIES TO UNDERSTAND STUDENT LEARNING OF INTERPROFESSIONALISM DURING THEIR CLINICAL PRACTICUM: A PHENOMENOLOGICAL STUDY

I am inviting volunteers to take part in this unique study that aims to understand:

a) How healthcare profession students experience interprofessional interactions in the clinical environment.
b) How the students make use of their skills, knowledge and behaviours learned during IPE and
c) How reflection is related to the student learning from their clinical experiences.

You are invited to participate if you are a health care profession student who has participated in IPE since year one at the U of T and will be entering your final clinical practicum for a minimum duration of 4 months. You also have a smartphone and cellular wi-fi or a desktop computer.

You are not eligible to participate if you do not want to participate in self-reflection.

As a participant in this study, you would be invited to:

1. An interactive session on reflection (max. 1.5 hours)
2. A one-one one Skype interview *before* you go to your clinical practicum (45 minutes)
3. Submit a written reflection once every week during your clinical practicum, using a downloaded journal App. You will be reimbursed the cost at the interactive session. Arrangements to submit hardcopy reflections may be made with me prior to clinical placement.
4. A one-on-one Skype interview at *completion or near end* of your clinical practicum (45 minutes)

To learn about this study or to participate please contact:

Principal Investigator:
Renate Bradley, rbradley@michener.ca, 416-596-3101 ext. 3901
Supervisor:
This study is supervised by: Dr. Debra Hoven, debrah@athabascau.ca

The Athabasca University Research Ethics Board has reviewed this study.
The University of Toronto Research Ethics Board and
The Michener Institute of Education at UHN have also reviewed this study

Radiation Oncology UNIVERSITY OF TORONTO The Michener INSTITUTE of Education at UHN Athabasca University

Appendix B Information and Consent Form

LETTER OF INFORMATION / INFORMED CONSENT FORM

Utilizing Reflective Entries to Understand Student Learning of Interprofessionalism During Their Clinical Practicum: A Phenomenological Study

Principal Researcher:

Renate Bradley,

rbradley@michener.ca

Supervisor:

Dr. Debra Hoven

debrah@athabascau.ca

This is an invitation to participate in a research study.
This form is part of the process of informed consent. The information presented should give you the basic idea of what this research is about and what your participation will involve, should you choose to participate. It also describes your right to withdraw from the project. In order to decide whether you wish to participate in this research project, you should understand enough about its risks, benefits and what it requires of you to be able to make an informed decision. This is the informed consent process. Take time to read this carefully as it is important that you understand the information given to you. Please contact the principal investigator, *Renate Bradley* if you have any questions about the project or would like more information before you consent to participate.
It is entirely up to you whether or not you take part in this research. If you choose not to take part, or if you decide to withdraw from the research once it has started there will be no negative consequences for you now, or in the future. If you withdraw past four (4) weeks after the final interview, the researcher will be unable to remove your information from the final results.

Introduction
My name is *Renate Bradley*, I am a faculty member in the Radiation Therapy Program held jointly by the U of T and the Michener Institute of Education, and in the Department of Radiation Oncology at U of T. Currently, I am also a candidate in the *Doctor in Distance Education* Program at Athabasca University. As a requirement to complete my degree, I am conducting a research project to learn about the students' experiences as they interact with the many health care practitioners during their clinical practicum. I intend to do this by asking the participants to reflect on these experiences. I am conducting this project under the supervision of Dr. Debra Hoven at Athabasca University.

Why are you being asked to take part in this research project?
You are being invited to participate in this project because you are registered in an undergraduate health profession program; in your final clinical practicum; and have taken part in interprofessional educational (IPE) activities during your time at the University of Toronto. You also have a smartphone with access to cellular data/wi-fi, or access to a desktop.

REFLECTIVE ENTRIES TO UNDERSTAND STUDENT LEARNING

What is the purpose of this research project?
The purpose of this research is to gain insight into how you learn IPE and how your interactions influence your adoption of interprofessional practice. There will be a maximum of 15 participants.

What will you be asked to do?

The study will require the participants to take part in:

1. A Skype interview arranged to take place before you go to your clinical practicum, the interview will be audio-recorded. This will be scheduled for 45 minutes.

2. Downloading an Application for journal writing (Penzu Pro)

3. A Reflection workshop to discuss how to write a reflective entry for this study and practice using the electronic journal. This will be scheduled for 1.5 hour.

4. A written reflective entry once every week until the completion of your clinical placement and submitted to the researcher using a journal application. The estimated time that it will take for each entry is subjective, however, it is anticipated that it will require approximately one hour of your time every week.

5. A second Skype interview arranged near completion of your clinical practicum, this will be audio-recorded. This will be scheduled for 45 minutes.

The interviews will be arranged with you for a time that is convenient to your schedule.
A written account of your interview will be sent to you for review and verification by email, to be returned with your feedback 2 weeks later.

What are the risks and benefits?

There are no anticipated risks to you from participating in this study. Your involvement is entirely voluntary, and you may refuse to answer any questions or to share information that you are not comfortable sharing. If at any time you feel stressed or overwhelmed, please contact the counseling services available to U of T students at the Health and Wellness Centre @ 416-978-8030 or the 24-hour crisis resource Gerstein centre @ 416-929-5200.
A potential benefit of the study to you is that you will practice reflection as a skill to improve your learning. As well, the results may suggest the direction for IPE curriculum for future students.

There will be no payment for participating in this study, however, those participants who continue to completion of the study, will receive a $25.00 gift certificate as a thank you for their time. Participants who withdraw prior to the end of the study will not be eligible for the gift certificate. You will also receive the reimbursement total of $US 20.00 for the cost of the App (Penzu Pro) for one year at the scheduled reflection workshop. This App is used to complete the study journal and is downloaded from iTunes ™ or Google Play™. If you would prefer to submit hardcopy journal entries, arrangements may be made with the researcher regarding the details of postal or email submissions.

Do you have to take part in this project?

As stated earlier in this letter, involvement in this project is entirely voluntary. If you do not wish to continue in this study for whatever reason, you may withdraw up to four (4) weeks after the final interview, with no obligation and no disadvantage whatsoever by contacting the researcher by phone or email provided above. All your information will then be deleted from the final study results.

How will your privacy and confidentiality be protected?

The ethical duty of confidentiality includes safeguarding participants' identities, personal information, and data from unauthorized access, use or disclosure.
The interviews will be recorded and written into text by the researcher. The researcher will be the only person to have access to the information collected from you as the participant. All information will be kept in a password locked file on a secure computer or encrypted USB.
All information will be held confidential, except when legislation or a professional code of conduct requires that it be reported.

How will my anonymity be protected?

Anonymity refers to protecting participants' identifying characteristics, such as name or description of physical appearance.
Your data will be identified with a random identifier ID number after collection.
The results of this study may be published at a later date; therefore, all participants will be identified by false names or identifiers and there will be no link to your real identification.
Every reasonable effort will be made to ensure your anonymity; you will not be identified in publications without your explicit permission.

How will the data collected be stored?

All information will be kept in a password locked file on a secure computer or encrypted USB.
Research individuals of the following agencies will have access to the final report from the research project: Athabasca University, University of Toronto and the Michener Institute of education at UHN.
If any further project is designed to use this data, it will have to be approved by the Research Ethic Boards.

Who will receive the results of the research project?

The researcher will be presenting this research at conferences and in publications at completion, and the existence of the research will be listed in an abstract posted online at the

Athabasca University Library's Digital Thesis and Project Room and the final research paper will be publicly available.
Direct quotes will be reported in the results but no personally identifying information.
An executive summary of the results may be made available to any participant by contacting me at the number on this consent form.

Who can you contact for more information or to indicate your interest in participating in the research project?

Thank you for considering this invitation. If you have any questions or would like more information, please contact me, (the principal investigator) by e-mail rbradley@michener.ca or 416.596.3101 ext. 3901 or my supervisor at debrah@athabascau.ca. If you are ready to participate in this project, please complete and sign the attached Consent Form and return it to the researcher at the scheduled workshop.
Thank you.

Renate Bradley

This project has been reviewed by the

• Athabasca University Research Ethics Board. Contact the Research Ethics Office by e-mail at rebsec@athabascau.ca or by telephone **at 1-800-788-9041, ext. 6718**

• The University of Toronto Research Ethics Board. Contact Research Oversight and Compliance Office – Human Research Ethics Program at ethics.review@utoronto.ca or 416-946-3273

• The Michener Institute of Education at UHN Research Ethics Board. Contact 416-596-3101

Should you have any comments or concerns regarding your treatment or your rights as a participant in this project, please contact the Research Ethics Offices using the contacts provided above.
The research study in which you are participating may be reviewed for quality assurance to make sure that the required laws and guidelines are followed. If chosen, a representative(s) of the Human Research Ethics Program (HREP) may access study –related data and /or consent, materials as part of the review. All information accessed by the HREP will be upheld to the same level of confidentiality that has been stated by the research team.

REFLECTIVE ENTRIES TO UNDERSTAND STUDENT LEARNING

Informed Consent:

Your signature on this form means that:

• You have read the information about the research project.

• You have been able to ask questions about this project.

• You are satisfied with the answers to any questions you may have had.

• You understand what the research project is about and what you will be asked to do.

• You understand that you are free to withdraw your participation in the research project without having to give a reason, and that doing so will not affect you now, or in the future.

• You have not waived your legal rights in the event of harm.

• You understand that if you choose to end your participation during data collection, any data collected from you up to that point will be destroyed.

• You understand that if you choose to withdraw after data collection has ended (4 weeks post final interview*), your data is being analyzed anonymously, and therefore cannot be removed once the data collection has ended.

Please check one of the boxes for each question: YES NO

I agree to be audio-recorded	◯	◯
I agree to the use of direct quotations	◯	◯
I allow anonymized data collected from me to be archived in the University Library's Digital Thesis and Project Room	◯	◯

I am willing to be contacted following the interview to verify that my comments are accurately reflected in the transcript.	◯	◯
I would like to receive a copy of the result	◯	◯

Your signature confirms:

• You have read what this research project is about and understood the risks and benefits. You have had time to think about participating in the project and had the opportunity to ask questions and have those questions answered to your satisfaction.

• You understand that participating in the project is entirely voluntary and that you may end your participation at any time without any penalty or negative consequences.

• You have been given a copy of this Informed Consent form for your records; and

• You agree to participate in this research project.

_____ _____

_____

Signature of Participant Date Print Name

I have explained this project to the best of my ability. I invited questions and responded to

any that were asked. I believe that the participant fully understands what is involved in participating in the research project, any potential risks and that he or she has freely chosen to participate.

_____ _____

Signature of Principal Investigator Date

Appendix C Reflection Guidance for Study Entries (Handout)

Most if not all of you will have done reflections as a part of your IPE curriculum

What is reflection as required for this study?

The entries required are based on your experience(s), whichever one you choose to write about. Typically to reflect is to look within yourself, relive a situation. The situation may be emotionally charged, or caused confusion at some level, or just makes you uneasy for some reason that you are not aware of as of yet.

Having a quiet place to relax and time to think is useful for reflection.

Emotional aspects

If a situation is full of negative emotion it may be difficult to reflect until you become aware of the emotion and work through it.

If you feel that your reflection or your experience has been stressful and you require support the following services are available to you as U of T students:

Health and Wellness centre at the University of Toronto @ 416-978-8030.

Faculty of Medicine students may also access OHPSA @ 416-978-2764

24-hour crisis resources: Gerstein centre @ 416-929-5200

Good2Talk @1-866-925-5454

Reflection is important for learning by doing, which is the point of your practicum experience.

The reflective writing is meant to help you to sort out the bits of knowledge, attend to developing ideas and awareness of your role in what is happening around you during this

experience. Reflection is not like a recipe, it is *honest* effort and should help you gain some *clarity* and an appreciation for the *perspectives of others.*

What should you write about?

You decide what experience you will write about, none is better than the other; the important aspect is that the experience means something to you.

You do **not have to use** each question or any of the questions if you are comfortable writing your reflective entry, these are guides if you need them

Questions that may facilitate your reflection

- Describe the issue: is there anything else that you need to consider in terms of the context? If you step back does the issue look different?
- What is the significance of the issue to you?
- How do you feel about it? Do your feelings relate to any action?
- Was this a good /bad experience and does it have any implications?
- What other information do you need (ideas, references, knowledge/opinions from peers?
- Has something like this happened before?
- Have issues arisen that will help you think differently about it?
- In what way are the views of others important here?
- How have the motives for the context of the reflective writing affected the manner in which you are writing the reflection?
- Are there ethical/ moral/ wider professional issues that you would like to explore.

Reference: The guidance information has been adapted from material of Jenny Moon at http://www.humanities.manchester.ac.uk/studyskills/essentials/reflective_learning/reflective_writing.html

Step 1

Go to https://penzu.com/reflective-journal-template or

Download Penzu App free from iTunes or Google Play to your iPad or iPhone.

Step 2

Go to your desktop log in and sign up for Penzu Pro (you will be reimbursed $US 20.00 for the cost).

Sign in, attend to your settings, **turn off Auto renew**.

Step 3

Log into mobile APP or desktop, practice your reflective writing

Please record a reflective entry once every week for your clinical practicum period.

Thank you for attending today!

Appendix D Interview#1 Protocol (Skype)

Section 1: Demographics

Question 1: What is your future profession? _____

Question 2: What is you age range?

Under 20__ 21-25 __

26-35 __ and over__

Question 3: Gender?

M_____

F_____

Other___

Question 4: Have you participated in reflection or reflective writing before?

Yes__ No__

Section 2: Questions

Question 5: In your own words, tell me what *interprofessional educat*ion is

Question 6 Think back on a specific interprofessional education session /activity *offered at the University*, Describe how you felt, what you *thought,* heard *during the event*

Prompt: Talk about what you felt after the session

Prompt: Talk about why you settled on this experience, what happened?

Prompt: how did that impact you? Think back on a specific interprofessional education session/activity

Question 7: Reflect on what you have learned from Interprofessional education activities at UofT and describe the learning for me.

Prompt: So if IPE means ….. share with me the part(s) of the session that made some impact for you

REFLECTIVE ENTRIES TO UNDERSTAND STUDENT LEARNING

Question 8: Describe your expectation of your practice in the clinical environment, with regards to *interprofessionalism* and the fit within your profession.

Prompt: Talk about what you noticed in your observation of other teams interacting,

Prompt: identify for me the skills/behaviours that can directly be applied to clinic

Prompt: which competencies do you find useful?

Question 9: How committed are you to practicing the behaviours and skills that you have learned?

Prompt: what processes do you generally use to reflect on actions?

Prompt: describe how a reflective practice would work for you in future

Prompt: do you value reflecting, why or why not?

Additional possible prompts:

- What were you thinking just then?
- how do you think he should have reacted?
- so when you say you did nothing, what exactly did you do?
- Would you seek out more information on your own to learn?
- What is the difference between a leader from the interprofessionalism team stance and the person in charge of care
- How would you describe the team care that is practiced at your site?

Thank you

I will be in touch to book the 2nd interview. All the best in your clinical practicum.

Appendix E Interview #2 Protocol (Skype)

Thank you for taking time again to meet with me as I conclude the data collection for the study.

Question 1: In your own words, what is interprofessional practice or collaborative practice ?

Question 2: Think back on a specific practice experience

Describe how you felt, what you *thought*, heard during the experience?

Question 3: Reflect on *interprofessional practice* in your clinical practice *as you experienced it* and describe it for me

Prompt: How do you think reflection plays a role in your learning

Question 4: Describe the clinical environment, with regards to interprofessional *practice* and the fit within your profession.

Prompt: What skills were important?

Question 5: How committed are you to practicing the i*nterprofessional* behaviours and skills that you learned?

Appendix F Athabasca University Ethics Approval

Athabasca University
RESEARCH CENTRE

CERTIFICATION OF ETHICAL APPROVAL - RENEWAL

The Athabasca University Research Ethics Board (AUREB) has reviewed and approved the research project noted below. The AUREB is constituted and operates in accordance with the current version of the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (TCPS) and Athabasca University Policy and Procedures.

Ethics File No.: **23001**

Principal Investigator:
Ms. Renate Bradley, Graduate Student
Centre for Distance Education\Doctor of Education in Distance Education

Supervisor:
Dr. Debra Hoven (Supervisor)

Project Title:
Utilizing reflective entries to understand students' lived interprofessional experiences in their clinical practicum: a phenomenological study.

Effective Date: June 14, 2019 **Expiry Date**: June 30, 2020

Restrictions:

Any modification or amendment to the approved research must be submitted to the AUREB for approval.

Ethical approval is valid *for a period of one year*. An annual request for renewal must be submitted and approved by the above expiry date if a project is ongoing beyond one year.

A Project Completion (Final) Report must be submitted when the research is complete *(i.e. all participant contact and data collection is concluded, no follow-up with participants is anticipated and findings have been made available/provided to participants (if applicable))* or the research is terminated.

Approved by: **Date:** May 7, 2019

Carolyn Greene, Chair
Athabasca University Research Ethics Board

Athabasca University Research Ethics Board
University Research Services, Research Centre
1 University Drive, Athabasca AB Canada T9S 3A3
E-mail rebsec@athabascau.ca
Telephone: 780.675.6718

Appendix F 2nd Ethics Renewal Approval

Athabasca University
RESEARCH CENTRE

CERTIFICATION OF ETHICAL APPROVAL

The Athabasca University Research Ethics Board (AUREB) has reviewed and approved the research project noted below. The AUREB is constituted and operates in accordance with the current version of the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (TCPS) and Athabasca University Policy and Procedures.

Ethics File No.: **23001**

Principal Investigator:
Ms. Renate Bradley, Graduate Student
Centre for Distance Education\Doctor of Education in Distance Education

Supervisor:
Dr. Debra Hoven (Supervisor)

Project Title:
Utilizing reflective entries to understand students' lived interprofessional experiences in their clinical practicum: a phenomenological study.

Effective Date: June 14, 2018 **Expiry Date**: June 13, 2019

Restrictions:

Any modification or amendment to the approved research must be submitted to the AUREB for approval.

Ethical approval is valid *for a period of one year*. An annual request for renewal must be submitted and approved by the above expiry date if a project is ongoing beyond one year.

A Project Completion (Final) Report must be submitted when the research is complete *(i.e. all participant contact and data collection is concluded, no follow-up with participants is anticipated and findings have been made available/provided to participants (if applicable))* or the research is terminated.

Approved by: **Date:** Jun 14, 2018

Connie Blomgren, Chair
Centre for Distance Education, Departmental Ethics Review Committee

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Athabasca University Research Ethics Board
University Research Services, Research Centre
1 University Drive, Athabasca AB Canada T9S 3A3
E-mail rebsec@athabascau.ca
Telephone: 780.675.6718

Appendix G University of Toronto Ethics Approval

RIS Protocol Number: 36351

Approval Date: 27-Sep-18

PI Name: Ms Renata Bradley

Division Name:

Dear Ms Renata Bradley:

Re: Your research protocol application entitled, "Utilizing reflective entries to understand students' lived interprofessional experiences during their clinical practicum: a phenomenological study"

The "Health Sciences" REB has conducted a "Delegated" review of your application and has granted approval to the attached protocol for the period 2018-09-27 to 2019-09-26.

Please be reminded of the following points:

- An **Amendment** must be submitted to the REB for any proposed changes to the approved protocol. The amended protocol must be reviewed and approved by the REB prior to implementation of the changes.
- An annual **Renewal** must be submitted for ongoing research. You may submit up to 6 renewals for a maximum total span of 7 years. Renewals should be submitted between 15 and 30 days prior to the current expiry date.
- A **Protocol Deviation Report** (PDR) should be submitted when there is any departure from the REB-approved ethics review application form that has occurred without prior approval from the REB (e.g., changes to the study procedures, consent process, data protection measures). The submission of this form does not necessarily indicate wrong-doing; however follow-up procedures may be required.
- An **Adverse Events Report (AER)** must be submitted when adverse or unanticipated events occur to participants in the course of the research process.
- A **Protocol Completion Report** (PCR) is required when research using the protocol has been completed. For ongoing research, a PCR on the protocol will be required after 7 years, (Original and 6 Renewals). A continuation of work beyond 7 years will require the creation of a new protocol.
- If your research is funded by a third party, please contact the assigned Research Funding Officer in Research Services to ensure that your funds are released.

Best wishes for the successful completion of your research.

Appendix H Michener Institute Ethics Approval

THE Michener INSTITUTE For Applied Health Sciences

Research Ethics Board, Room 1048
222 St. Patrick Street
Toronto, Ontario, M5T 1V4
416 596 3138
www.michener.ca

Project Identification Number:	**TMI2018**-002
Project Title:	**Utilizing reflective entries to understand students' lived interprofessional experiences in their clinical practicum: a phenomenological study.**
Approval Date:	2019-02-06
Expiry Date:	2020-02-05

Renate Bradley
The Michener Institute of Education at UHN
222 Saint Patrick Street
Toronto, ON M5t 1V4

Dear Renate:

Thank you for submitting your proposal for review by the Research Ethics Board (REB) at The Michener Institute. Your submission has been carefully reviewed and approved as of the above listed date.

The approval of this study includes the following documents:

Certification of Ethics Approval, Athabasca University, 2018-06-14
Certificate of Ethics Approval, University of Toronto, 2018-09-27
Letter of information /consent, 2018-10-09
RB semi structured Interview protocols, 2018-10-09
RB Workshop Plan, 2018-10-09
Recruitment poster rev, 2018-10-09
Research Protocol, 2018-10-09
Michener - REB-Submission-Checklist-Form, 2018-10-09
Michener - REB-Submission-Form 1, 2018-10-09
Your CV, 2018-10-09
Your TriCouncil TCPS2 core certificate, 2013-06-18

The Protocol, informed consent document, information distributed to participants and conduct of the study must not be altered after the approval date unless a request for amendment/change has been submitted and approved by the REB, with the exception of those situations where the modification has occurred to eliminate an immediate hazard to research participants or the changes are logistical or administrative in nature.

Research Ethics Board, Room 1048
222 St. Patrick Street
Toronto, Ontario, M5T 1V4
416 596 3138
www.michener.ca

All correspondence with the REB must include the assigned Project Identification Number, which has been included in this letter. The REB requires immediate notification of any and all serious adverse events and significant protocol deviations.

In the event that you anticipate your study will continue past the approval date listed here, you are required to submit a renewal form to the REB in advance of the expiration date. Also, once your study has ended, you are required to complete and submit the Research Ethics Board - End of Study Report Form.

All REB approved studies are subject to review by the Michener REB. All applicable contracts and agreements must be received and reviewed before the study may commence. As the Principal Investigator, you are responsible for the ethical conduct of this study and adherence to all current scientific, regulatory and ethical standards for the protection of human research participants.

On behalf of the Michener REB, I offer our best wishes on the completion of your study.

Sincerely,

Appendix I Reflection Entry Adjustment

Checking in

Renate Bradley <rbradley@michener.ca>
Thu 14/11/2019 14:10

[redacted]

Hi All
I have been thinking about all of you at this time, and I have received the reflections that you have submitted so far. Thank you.
I am realizing that as you attempt to finish up the term, it may become onerous to complete weekly reflections in November. I am suggesting a reflective blog at the end of November summarizing your interactions. There are no entries expected for December and January is the final month of reflections.
I will be contacting you in January about a date/time for the final interview in February.

Please let me know by email (I return to the office December 3) if you have decided to withdraw from the study.
I do wish you the very best in your clinical course.
Renate