

**NURSING AND MIDWIFERY STUDENTS' LENS:
CONNECTING THEORETICAL KNOWLEDGE WITH
CLINICAL PRACTICE
AN INTERPRETATIVE PHENOMENOLOGICAL STUDY**

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Abstract

Aim: To explore and critically analyse the strategies employed by final-year BSc pre-registration nursing and midwifery students at an inner London university to connect theoretical knowledge with clinical practice, to promote their learning and professional development.

Background: Navigating the theory-practice gap has been a significant challenge for nursing and midwifery students. While there are many perspectives from academics and clinicians, how theoretical knowledge is connected with clinical practice is rarely discussed and studied from the students' perspectives.

Design: Interpretative phenomenological analysis was used to understand nursing and midwifery students' experiences in connecting theoretical knowledge with clinical practice. Rather than attempting to establish objective truth, this thesis focused on participants' subjective experiences.

Method: This study employed a qualitative research design. The data was obtained using semi-structured interviews and analysed using an inductive approach. The study population included ($n=12$) pre-registration nursing and midwifery students enrolled on a Bachelor of Science programs.

Findings: Four themes emerged (1) Complexity of embodied knowledge; (2) Sensing the meaning of personal and professional learning; (3) Demographic attributes and self-understanding; (4) Sense-making of COVID-19.

Conclusion: The process by which pre-registration nursing and midwifery students connect theoretical knowledge with clinical practice is complex and multifaceted. It intersects with other factors and cannot be understood in isolation. This interconnectedness necessitates a thorough examination of all the variables involved.

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Dedication

I dedicate this thesis to the fond memories of two people I lost along this academic journey. Though they are no longer here with us, they were both influential in my life. They have left indelible marks that I will always remember and cherish.

Firstly, to my beloved father, Mr Ramjattan Sankar, whose unwavering support, and guidance laid the foundation for my academic achievements. His wisdom, love, and encouragement inspired me on this journey of knowledge acquisition and academic pursuit.

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List of Abbreviations

AEI	Accredited Education Institutions
BAME	Black, Asian, and Minority Ethnic
BERA	British Educational Research Association
BSc	Bachelor of Science
CASP	Critical Appraisal Skills Programme
CODH	Council of Deans for Health
COPD	Chronic Obstructive Pulmonary Disease
COVID 19	Coronavirus Disease
EU	European Union
GDPR	General Data Protection Regulations
GET	Group Experiential Themes
HCA	Health Care Assistant
HCSW	Health Care Support Worker
HEE	Health Education England
IPA	Interpretive Phenomenological Analysis
IFE	Interprofessional Education
JBI	Joanna Briggs Institute
MSc	Master of Science
MS Teams	Microsoft Teams
NHS	National Health Service
NICE	National Institute for Health and Care Excellence
NMC	Nursing and Midwifery Council
NSS	National Student Survey
PA	Practice Assessor
PAD	Practice Assessment Document
PET	Personal Experiential Themes
PLPLG	Pan London Practice Learning Group
PPE	Personal Protective Equipment
PS	Practice Supervisor
PTSD	Post Traumatic Stress Disorder
RCN	Royal College of Nursing
SANRA	Scale for the Assessment of Narrative Review Articles

SSSA	Standard for Student Supervision and Assessment
TSPN	Teacher, Patient, Student, Nurse
UK	United Kingdom
VLE	Virtual Learning Environment
VoIP	Voice Over Internet Protocol
WHO	World Health Organisation
WIL	Work Integrated Learning

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Chapter 1

Introduction to the thesis

1.1. Introduction

The aim of this thesis is to explore and critically analyse the strategies employed by final-year BSc pre-registration nursing and midwifery students at an inner London university to connect theoretical knowledge with clinical practice, to promote their learning and professional development.

Many studies have shown that a gap exists between what students learn in the classroom and what they encounter in clinical practice. This is known as the theory-practice gap (Saifan et al., 2021; Greenway et al., 2019; Flood and Robinia, 2014). While this gap can be a significant challenge for students, not much is known about how theoretical knowledge is connected with clinical practice from the students' perspectives (Günay and Kılınç, 2018; Needham et al., 2016; Saifan et al., 2015). To understand how nursing and midwifery students connect theoretical knowledge with clinical practice, it is crucial to continue researching this topic. Knowledge obtained could help better prepare nursing and midwifery students to succeed in their respective educational programmes, provide the highest quality care for their patients and contribute towards bridging this theory-practice gap.

Successful completion of a recognised Bachelor of Science (BSc) in nursing or midwifery programmes, demonstrates that students have attained the required knowledge, skills, and values to become a registrant of the Nursing and Midwifery Council (NMC). They can then embark on their professional journey as newly registered nurses or midwives. This is the ultimate goal of students in midwifery and the four fields of nursing namely adult, child, mental health, and learning disabilities. However, the pathway to becoming a registered nurse or midwife is not as straightforward as it may appear. Students need to demonstrate an excellent understanding of clinical skills

underpinned by theoretical knowledge to provide safe and effective patient care. Students must also pass all theoretical exams and practice placements, on their journey toward professional registration.

In this chapter, I present an overview of the problem statement and provide a rationale for why it is an area of concern. Additionally, I outline the research question, aim, and objectives of the study. A summary of my reflexivity and positionality is also included as this will contribute to the contextualisation of this study and clarify my stance. Malcolm Knowles's adult learning theory as the theoretical framework in which this study is grounded is discussed. Interpretive Phenomenological Analysis (IPA) as the philosophical approach is explored, along with its alignment with Knowles's adult learning theory. This chapter also justifies IPA as the preferred methodological and analytical approach. To conclude this chapter, a brief overview of the organisation and structure of the forthcoming chapters is provided. This will offer a roadmap for readers on what to expect for the rest of my thesis.

1.2. Context of study

This study is situated within the context of the United Kingdom (UK), specifically England. The cohorts of students that are of interest is the BSc pre-registration nursing and midwifery students who are currently undertaking their final clinical placements in the final year of their respective educational programs. The aim of this study is to explore and critically analyse the strategies employed by final-year BSc pre-registration nursing and midwifery students at an inner London university, to connect theoretical knowledge with clinical practice, to promote their learning and professional development.

This study stems from research that has shown that there is a divide between theoretical knowledge and clinical practice in nursing and midwifery students' education. This is termed the theory-practice gap, which is

claimed, by Saifan et al., (2021); Greenway et al., (2019); Flood and Robinia, (2014) to be expanding. Relevant current research revealing how nursing and midwifery students connect theoretical knowledge with clinical practice, is rarely discussed and studied from the student's perspective (den Hertog and Boshuizen, 2022; Booth et al., 2017). The latter is the main driver for my study. Understanding this phenomenon from students' perspectives will provide academics and clinicians with valuable insight into how to better prepare and support students on their educational journey to becoming registered nurses or midwives. In addition, it can provide insights into how to bridge the expanding gap between theory and practice. The information in Appendix One's PowerPoint presentation contextualises this study.

To fully appreciate this study, it is necessary to gain insight into the students' educational programs. This will provide a comprehensive overview and a better understanding of nursing and midwifery students' educational structure to the reader. The Nursing and Midwifery Council standards govern the students' education. These standards outline the necessary knowledge, skills, and values students must acquire before qualifying as nurses or midwives. The National Health Service (NHS) and some healthcare organisations in the private healthcare sector are also essential contributors to these students' education. Working in collaboration with Accredited Education Institutions (AEIs), students are provided with opportunities and access to apply their knowledge and skills in real-world clinical settings.

Since the 1970s, the required standard for nursing and midwifery students' education and training programmes has been underpinned by the European Union (EU) directive (NMC, 2021). This directive was established to ensure a minimum standard of education and training for nurses and midwives across the EU. This was also created to allow qualified nurses and midwives to work seamlessly across different member states (NMC 2016; World Health Organisation (WHO, 2001). The directive sets out regulations for student selection, admission, progression, and completion of the respective

programmes. It also specifies requirements for formal qualifications, such as the length of the programme (3 years for BSc's) and the number of required hours of nursing and midwifery education (4600 hours for each programme). It also mandates that students spend 50% of their time in theoretical education and 50% in clinical practice. With the end of the UK's transition period for departing from the EU on December 31st, 2020, EU regulations were no longer mandatory within the NMC standards. However, as these regulations have been integrated into the NMC's standards for a significant period, they cannot be altered or abolished without first undergoing a public consultation process.

The NMC conducted the consultation process in July 2022 and has since released its findings, which led to revised proposals for nursing and midwifery students' education (NMC, 2023). The proposed changes are centred on granting educational institutions additional freedom to set their rigorous admission requirements for nursing and midwifery programmes. This involves amending the entry requirements for enrolling onto these programmes, as the previous criteria were deemed arbitrary and not inclusive. This will ensure that more students have access to high-quality education and training, regardless of their background or circumstances (NMC, 2023).

The revised proposal will eliminate the EU restriction on clinical settings for nursing, and midwifery practice placements. This will allow students to complete their practice in the most relevant and appropriate settings. It will also improve their clinical competence and exposure to different areas of practice. These changes will be particularly significant for midwifery students, as their programme will now be mandated to engage with different maternity providers to enhance care delivery and expose students to a wider array of cultural and leadership practices. In addition, nursing students will have increased flexibility in simulated practice learning. Up to 600 of the 2300 theoretical hours can be fulfilled through this means as opposed to the initial 300 hours proposed. This will ensure that students are exposed to a range of clinical scenarios in a safe and controlled environment, which will

ultimately enhance the quality of patient care. The proposed changes are aimed at widening access to nursing and midwifery programmes, promoting inclusivity for certain communities such as the traveller community, and provide students with the highest quality education to deliver excellent patient care (NMC, 2023).

1.2.1. Problem statement

The theory-practice gap in nursing and midwifery students' education is not just a university or clinical concern; it has been associated with several negative outcomes such as increased student attrition rate, lack of preparation for practice, decreased job satisfaction as newly registered nurses, and even a negative impact on patient safety (Greenway et al., 2019; Buchan et al., 2019; Salifu et al., 2018; Al Awaisi et al., 2015; Flood and Robinia, 2014). Despite extensive research conducted by academics and clinical experts, students' voices are often underrepresented in addressing the theory-practice gap. As such, I have taken on the task of investigating the students' perspectives on how they connect theoretical knowledge with clinical practice to help bridge this theory-practice gap and better prepare students for their future professional roles as registered nurses and midwives.

1.2.2. Significance of the study

This study explores how nursing and midwifery students connect theoretical knowledge with clinical practice to promote their learning and professional development. Furthermore, it seeks to ascertain whether demographic characteristics such as age, gender, and ethnicity have any influence on the student's educational journey to become competent and confident practitioners. Adopting a phenomenological approach supported by theoretical and philosophical perspectives, I hope to contribute to the existing body of knowledge on the pressing issue of the theory-practice gap in nursing and midwifery students' education. The examination of students'

lived experiences also has the potential to provide insights into solutions that can improve their educational programs which include both theoretical and practical components.

It is imperative to note that my original intent for this study was to focus solely on exploring how nursing and midwifery students connect theoretical knowledge with clinical practice. However, the COVID-19 pandemic began just as I was about to apply for ethical approval for my study. It would have been unwise of me not to consider the potential impact this could have on the student's education, given that the cohort selected for this study was on their final clinical placement in the final year of their education. Despite having completed all theoretical modules in their respective educational programs, COVID-19 necessitated rapid adaptation and deployment of theoretical knowledge in clinical practice. Learning about the potential benefits and limitations brought about by the COVID-19 pandemic can offer valuable insight into how nursing and midwifery students coped with this challenge when applying theoretical knowledge in dynamic and high-pressured clinical settings. As a result, given the nature of the research, it was crucial to include an objective that examined the effects of the COVID-19 pandemic on students' educational experiences.

1.2.3. Research Question

How do final-year BSc pre-registration nursing and midwifery students connect theoretical knowledge with clinical practice to promote their learning and professional development?

1.2.4. Research aim

To explore and critically analyse the strategies employed by final-year BSc pre-registration nursing and midwifery students at an inner London university to connect theoretical knowledge with clinical practice, to promote their learning and professional development.

1.2.5. Research objectives

1. To investigate how final-year BSc pre-registration nursing and midwifery students interpret and understand their experiences of connecting theoretical knowledge with clinical practice.
2. To examine the strategies used by final-year BSc pre-registration nursing and midwifery students to connect theoretical knowledge with clinical practice.
3. To explore final-year BSc pre-registration nursing and midwifery students' perspectives on whether demographic characteristics such as gender, age, and ethnicity affect their learning and professional development.
4. To explore the effect of COVID-19 on BSc pre-registration nursing and midwifery students' education.

1.3. Reflexivity and Positionality

As the researcher for this study, it was imperative for me to address any concerns regarding its validity. At the outset of the study, I disclosed my reflexivity and positionality to contextualise my involvement. I also highlight the fact that my personal and professional experiences and perspectives can influence the research process. This is a critical aspect to consider in any research because it acknowledges that research is not conducted in a vacuum and is always impacted by the researcher's individual, professional, and sociocultural perspectives (Holmes, 2020; Guba and Lincoln, 2005).

Bryman (2016) highlighted the importance of researchers knowing their biases. These can impact every aspect of the study, from its design to its conclusion. Furthermore, researchers such as Holmes (2020) and Rowe (2014) have stressed the importance of reflexivity and positionality in the pursuit of rigorous and unbiased research. By revealing my reflexivity and

positionality at the start of this study, I hope to demonstrate my commitment to ensuring reliability and validity. Transparency is critical to establishing trust and ensuring rigorous and ethical research.

1.3.1. Reflexivity

Reflexivity can be both a concept and a process, with the former referring to internal discourse or self-reflection and the latter focusing on subjectivity and how the researcher may influence the data (Ackerly and True, 2010; Dowling, 2006). I believe that it is essential to consider multiple perspectives on a phenomenon to ensure a more nuanced understanding. Probst (2015; p.38) describes reflexivity as *"like an eye that sees itself while simultaneously seeing the world"*, which can present both benefits and challenges. Reflexivity is also described as being used to *"legitimate and validate research procedures"* (Mortari, 2015: p.1). It involves the researcher considering their qualifications, personal and professional experiences, preconceptions, and motivations for their study (Holmes, 2020; Roulston, 2010).

My reflexivity as a registered nurse and nurse educator is filled with both unenthusiastic and nostalgic memories that have influenced this study. I received my education and worked in two countries with very different healthcare systems: Trinidad, my country of birth, and the UK, my current residence. In Trinidad, I had my primary and secondary education. I also had my introduction to nursing education there and it was primarily clinically focused. Although a nursing model was taught in the classroom, nurses had little autonomy in clinical practice. This was because patient care was primarily medically driven, with some compatibility with nursing values. At times, I found this confusing given the dichotomy between the holistic care model taught in the classroom and the paternalistic and reductionist medical model that was prevalent in clinical practice. Despite knowledge of these inconsistencies, I was not confident or assertive enough as a student to challenge this approach. In retrospect, I see how this experience influenced

my reflexivity as a nurse and nurse educator. It has made me more conscious of the importance of encouraging critical thinking in nursing students. It also highlights the need to empower students to challenge established norms and practices.

Upon completing my pre-registration nursing education in the UK, I found it quite distinct from my prior nursing education in Trinidad. In the UK, a nursing model was consistently implemented in the classroom and clinical practice. This allowed nurses to possess a significant degree of autonomy. During my pre-registration nursing education in the UK, equal proportions of time were allocated to classroom learning and clinical practice. During this time, I also noticed that theory did not always reflect the reality of clinical practice. However, I did not dwell on this, instead focusing on successfully completing the programme. In addition, I was preoccupied with adjusting to an entirely different way of learning and living in a foreign country.

As an experienced nurse educator, I am cognisant of the difficulties students face when applying theoretical knowledge to clinical practice. This comprehension has increased my empathy for students. At the same time, I am proud of my accomplishments and expertise. This enables me to collaborate with students to facilitate their education. I acknowledge that my cultural capital and lived experiences as a student nurse, nurse and nurse educator have shaped my perspectives on the student's educational journey. Given this, I consider myself fortunate to contribute to their learning and professional development.

Some scholars contend that reflexivity, or the act of reflecting on one's own biases and role in research, is self-absorbing and an ineffective exercise that only demonstrates arrogance (Mortari, 2015). I disagree and believe that reflexivity is a vital aspect of the research process. Engaging in reflexivity has helped me stay grounded and critically examine my perspective and experiences throughout the research process, from proposal to data collection, analysis, and writing-up phase. It has also made me more aware of how my background as a student nurse and my current

role as a nurse educator might influence my beliefs and preconceptions. I also have an awareness of how these can affect my study's validity.

1.3.2. Positionality

Positionality refers to the researcher's standpoint or perspective and is influenced by their experiences, background, and concept of self (Creswell and Creswell, 2017; Berger, 2015). Understanding and acknowledging one's positionality is vital to ensuring high-quality research that is informed by reflexivity (Gary and Holmes, 2020). Positionality comprises two major components: ontology and epistemology. Ontology is the researcher's worldview or understanding of reality, and epistemology, is the researcher's approach to knowledge and understanding (Grix, 2018; Savin-Baden and Howell, 2013). In this chapter, my ontological and epistemological perspectives will be discussed briefly. In chapter three (**sections 3.2.1 and 3.2.2**), I delve deeper into these philosophical underpinnings, which can provide a better context for my positionality and how it has influenced my study.

In conducting this research, I was guided by my ontology, which is shaped by my lived experiences as a student nurse and nurse educator. Throughout my career, I have worked with students in various aspects of their education. I have served as a clinical mentor, practice educator, academic tutor, and link lecturer. My experiences have given me insight into the challenges nursing, and midwifery students face in connecting theoretical knowledge with clinical practice. Despite striving to be objective in this study, I am aware that my perspective is subjective. As Bourke (2014) pointed out, the quest for pure objectivity is naive and unrealistic, as subjectivity can never be fully eliminated. While I strive to remain objective, I acknowledge that my subjectivity and subjective experiences will inevitably shape my perspective.

Dubois (2015) emphasised that an individual's understanding of reality can never be objectively described because it is only based on their point of view. In the real world, there are multiple realities or perspectives, and it is crucial that this is recognised in research. While I aim to remain mindful of my subjectivity, I also acknowledge my perspective and that other researchers may bring different viewpoints to the table. This is particularly important for research that involves social or political issues, where the results can vary greatly depending on the researcher's stance. Therefore, I strive to remain open-minded in order to gain a deeper understanding of the research topic.

It is widely accepted that no research is neutral or apolitical (Halse and Honey, 2005). This means that my understanding of reality and positionality may differ from others' experiences, beliefs, values, or concepts. However, I am committed to being transparent throughout this research and recognise the potential influence of my positionality on my decisions. Bourke (2014) asserts that awareness of one's positional stance is essential, as the investigation procedure is not always a clear-cut dichotomy between objectivity and subjectivity. Sometimes, objectivity and subjectivity co-exist and impact the research, something I experienced during this study.

Born and educated in the Caribbean, I worked as a midwife assistant before migrating to England 23 years ago to pursue a career as an adult nurse. I eventually became a nurse educator, which has shaped my background and understanding of nursing and midwifery students' education. The unique combination of these lived experiences, along with my status as a quinquagenarian and my cultural background as a Caribbean Asian woman, may impact my perspective on learning and how learning takes place. Consequently, I contend that the collection and analysis of demographic data regarding the research participants is of paramount significance. My objective is not to stereotype participants based on their inherent or culturally ascribed traits. Rather, it is to examine whether these traits have any bearing on their education and professional development. Rowe (2014) notes that other fluid factors such as education and political views can

change over time, leading an individual to alter their perspective on a phenomenon. Taking this into consideration and drawing on my professional and personal experiences, I perceive my positional stance in this study to be that of an emic or insider.

An "emic" or "insider" researcher is familiar with and understands the research and its language, as well as having improved access to study participants (Bramnick and Coghlan, 2007; Berger, 2015). This positional stance can be advantageous because it increases the likelihood of participants being willing to share their genuine experiences because their narratives will be better understood and accurately depicted (Berger, 2015). Nonetheless, this approach may also have disadvantages, such as the researcher's own biases or preconceptions influencing their interpretations of the data.

As an emic researcher, I am also aware of the biases that may result in the imposition of my own beliefs and the blurring of boundaries, potentially leading to the formation of a power dynamic between myself and the participants; a dynamic that can change anytime during the research process. This is because, while I have insider knowledge and may be in a position of privilege, I am equally reliant on the participant's availability, and willingness to engage and provide relevant information. Simultaneously, participants may also have their own agendas that they bring to a study such as social or political motivation or genuinely want to contribute to the body of knowledge (Karnieli-Miller et al., 2009). Being an emic researcher can also have ethical implications, as research is often hierarchical due to the dominance, power, and skills of the researcher (Vanner, 2015).

As a former emic researcher during my Master of Science (MSc) studies, I am reminded that it is not feasible to eliminate the impact of my insider status, but I can endeavour to minimise it. One way to do so is by informing the participants of my role in the study and avoiding sharing my experiences unless explicitly requested by the participant during the interview process. According to Fleming (2018), it is not uncommon for participants to question

the researcher and for the researcher to offer their own experiences to establish rapport. As the researcher, I was cautious of the potential influence of my positionality and the disclosure of information. I sought to avoid any potential compromise of my study's integrity. In the interest of transparency and trustworthiness, I declare that none of the participants were taught by me, nor had I been their personal tutor. The first encounter took place when they volunteered to participate in my study.

1.4. Application of a theoretical framework

The term "theory" is ambiguous. Its comprehension depends on the discipline (social science or education) and the context in which it is used. Sandberg and Alvesson (2021), Tight (2015), and Abend (2008) maintain that the term can encompass a spectrum of connotations such as an opinion, belief, framework, or collection of concepts. Hammersley (2012) emphasises that the definition may also fluctuate and assume opposite meanings based on the user's interpretation.

In pre-registration nursing and midwifery education, the word "theory" has two dissimilar connotations and is sometimes used inaccurately. For example, all forms of study in the classroom are classified as "theory". In contrast, skills and knowledge gained and displayed in the clinical environment are considered as practice. This atypical concept of language, which implies there is no affiliation of theory in practice, could be a contributory factor to the theory-practice gap (Saleh, 2018; Johnson and Webber, 2015). In the context of this study, the use of the word "theory" does not encompass the theoretical foundations that inform the education of nurses and midwives, which are numerous and encompass a broad spectrum of sources, ranging from Florence Nightingale's Notes on Nursing in 1859 to the more recent Person-Centred Nursing by Brendan McCormack and Tanya McCance in 2010 (Chinn and Kramer, 2015; Hickman, 2011). Instead, the term pertains to the theoretical knowledge imparted within an

academic setting, which may not always correspond with the practicalities of clinical practice.

1.5. Malcolm Knowles adult learning theory

A theory can also be described as the lens through which a study is guided, and context is added as it describes, explains, and predicts occurrences or situations (Collins and Stockton, 2018). While some theories may be discipline-specific, others may be generic and can be applied across all disciplines. Adult learning theory is one such theory, and despite the presence of multiple variations, including hybrids, to try and explain how adults learn, I specifically selected Malcolm Knowles's adult learning theory as the theoretical framework to support my study. This is because the six assumptions of this theory place primacy on the different attributes of the adult learner and can be drawn upon to support and explain how learning can be facilitated and students can participate based on their experiences.

Framed in the context of nursing and midwifery students' education, this theory resonates because BSc pre-registration students are considered as adult learners. They are capable and responsible for their learning, which is facilitated by academics and clinicians. The application of adult learning theory is also logical because it is embedded throughout the curriculum in teaching, learning, and assessment strategies. This aspect is of paramount importance due to the high academic standards of nursing and midwifery programmes and the nature of the professions. This necessitates a thorough understanding and practical application of knowledge in dynamic and situational clinical settings. The Standard Framework for Nursing and Midwifery Education similarly stresses the importance of equipping students with the agency to assume responsibility for their learning and to develop their professional abilities to become safe, skilled, and autonomous practitioners (NMC, 2023).

Malcolm Knowles, an American academic in adult education, is often credited with developing the concept of adult learning; however, he was not its founding father, as this concept has a long and complex history. In 1833, Alexander Kapp, a German teacher, introduced the concept of "andragogik," which he copied from the dialectic educational theories and practices of the Greek philosopher Plato (Peltz and Clemons, 2019; Henschke, 2016). Kapp argued that "andragogik" was necessary for character development, which is important for both personal and professional life and is a valued principle for human beings that does not only occur through teaching but also through self-reflection (Loeng, 2018; Wang and Allen, 2014). This idea aligns with the NMC (2023) requirements. Current students of pre-registration nursing and midwifery programs must meet standards of good health and character, as well as maintain these standards post-qualification. Furthermore, self-reflection is crucial to nursing and midwifery education. Its implementation is encouraged across the profession from pre-registration to post registration. In the latter, it is mandatory through the revalidation process. This mandates that nurses and midwives engage in self-reflection every three years to renew their registration (NMC, 2015).

Alexander Kapp's contribution to adult learning was subject to criticism for dividing Plato's philosophy of social justice into two components: teaching and self-reflection (Loeng, 2018; Barrow, 2010). This resulted in limited reception and exploration of adult learning among educators until the early 20th century. However, the idea of adult learning was revived in Germany during the 1920s as scholars revisited various educational philosophies (Reischmann, 2004). During the same era, adult education philosopher Eduard Lindeman also brought the concept of adult learning to Europe and America (Henschke, 2016). Nonetheless, it wasn't until 1966 that adult learning gained widespread acceptance and popularity. This was due to Malcolm Knowles's efforts in articulating and promoting its principles more effectively than other scholars causing its profile and significance to increase (Loeng, 2018; Henschke, 2016).

In his first publication, "The Modern Practice of Adult Education: Andragogy vs. Pedagogy," originally published in 1970, Malcolm Knowles described why he classified the art and science of helping adults learn as andragogy and the art and science of helping children learn as pedagogy. However, his work was criticised for not being transparent about its underlying assumptions or beliefs about knowledge and for not clarifying whether it is intended to be a theory or a "principle of good practice" (Hartree, 1984: p.205). It was also highlighted that Knowles ignored systems of oppression and cultural and political issues related to adult learning (Clapper, 2010; Sandlin, 2005).

Knowles addressed these criticisms in his second publication, "The Modern Practice of Adult Education: From Pedagogy to Andragogy," which was published in 1980 (Ekoto and Gaikwad, 2015; Clapper, 2010). In this publication, Knowles clarified that andragogy is a theory of adult learning, rather than simply a set of principles for good practice. He also provided a more detailed explanation of the assumptions and beliefs that underlie his theory including the idea that adults have different learning needs and preferences than children. He also addressed some of the challenges and limitations of using andragogy and offered suggestions for how these challenges could be overcome.

1.5.1. Knowles's six assumptions

Knowles's six assumptions are based on the idea that certain characteristics are common among adult learners. To address criticisms that andragogy and pedagogy may have some similarities in their principles (Henschke, 2007; Knowles et al., 2005), Knowles's six key assumptions explain the differences between the two concepts as outlined below. These focus on the unique characteristics and needs of adult learners and how these influence their learning process.

1. The need to know: Adults require an understanding of the rationale behind their studies, whereas children can learn without needing to know the underlying reasons.
2. The learner's self-concept: Adults tend to be independent learners with a more developed concept of self, relying less on external guidance compared to children.
3. The role of the learner's experience: Adults can draw on their personal and life experiences and apply them to their studies. Children on the other hand lack such experiences. They are still building their bank of experiences to draw from.
4. Learning readiness: Adults learn when they see a need to do so. Children learn because it is part of their routine, or they are told. Adults are motivated by a personal or professional goal. Children's sense of what drives them has not yet fully developed.
5. Orientation to learning: Adults approach learning as a problem-solving activity. They prefer learning that is immediately applicable to their lives. In contrast, children learn for the sake of learning and gaining knowledge.
6. Motivation: Adults are motivated to learn to achieve a personal or professional goal. While children may be motivated by external rewards or a desire to please their teachers or parents.

Knowles's andragogy has significantly impacted adult education, bringing to light an array of assumptions. However, in critically analysing this theory, it is evident that Knowles's andragogy was constructed within a Western cultural framework. It operates under the assumption of a degree of homogeneity among all adult learners. In today's educational systems, particularly within universities, the student population is characterised by growing diversity, intersectionality, and variations in socio-economic status (Braakmann and

McDonald, 2018). These factors are particularly significant because they reflect the population of nursing and midwifery students at the university where I work and where my study participants originated. Neglecting to account for these realities can result in a failure to address the unique needs and experiences of marginalised adult learners. Students from these backgrounds may require additional support to effectively engage in their learning.

Taylor and Hamdy (2013) and Chan (2010) assert that understanding the nuances of adult learners is paramount. With increasing numbers of students from different cultural and societal settings, recognising and accommodating this diversity is essential for effective adult education. Therefore, new schools of thought or theories need to be developed that are more culturally relevant to support global majority students. Also, transforming education systems that have been predominantly developed from the perspectives of white middle-class males which have been rooted in colonised knowledge (Cushing, 2023; Dantus, 2021; Duff, 2019), requires theoretical frameworks that respect diversity, acknowledge lived experiences, and challenge the dominance of Western-centric universal knowledge.

Nursing and midwifery education must undergo a paradigm shift and be modified to meet the needs of today's diverse student population, including those facing issues related to diversity, intersectionality, and socio-economic status. I will contend that to address the intricate issues faced by marginalised students, Knowles's theory may require to undergo a process of decolonisation. Nonetheless, Knowles's andragogy provides valuable insights into adult learning, and as Henschke (2011) asserts, it remains relevant and has the potential to significantly influence the future of adult education. Although Black feminist theory emerges as a valuable perspective, it is only part of a broader curriculum. Currently, andragogy remains useful in practical terms, particularly when a more inclusive and socially aware theory encompassing all elements of diversity,

intersectionality, and socio-economic status in education is lacking. As a result, I utilised Knowles's andragogy as the basis for my thesis.

1.6. Philosophical perspective

The philosophical perspective of a study is crucial because according to Moon and Blackman (2014, p.2), it is the “*generalised views of the world, which form beliefs that guide action*”. These assumptions and beliefs are frequently related to the nature of reality, knowledge, and the researcher-participant dynamic. Interpretative Phenomenological Analysis (IPA) is a qualitative research methodology that seeks to comprehend the subjective and lived experiences of participants (Smith and Osborn, 2015). This approach is founded on the philosophical perspective of phenomenology, which focuses on the examination of human experience and awareness. I have selected IPA to understand the lived experiences of how students connect theoretical knowledge with clinical practice due to the following three reasons:

1. IPA can be used as both the methodology and analytic framework for this study.
2. IPA can provide a rich, subjective, detailed description of the experiences of students that may not be captured by a quantitative method. This will help me to understand the meanings and significance that students attach to their experiences, and how these meanings assist with their professional development.
3. The focus of this IPA study also aligns well with Knowles' adult learning theory because it acknowledges the wealth of lived experiences that adult learners bring to their nursing and midwifery education. These past and current experiences, when interpreted, can help to understand the phenomenon being studied and contribute to the body of knowledge about how theoretical knowledge is

connected with clinical practice from the students' perspectives. By identifying the causes of any gaps in this connection, solutions for bridging them can be developed. Because IPA is a key component of the methodology and analysis, it will be discussed in further detail in chapter three (**sections 3.3 and 3.9**).

The driver to employ an IPA approach is motivated by my desire to gain a more in-depth and nuanced understanding of the student's experiences and how they make sense of the world around them. I also perceive IPA as well suited for this study because it is based on a philosophy that acknowledges the subjective nature of human experience. It recognises that individuals actively construct meaning and make sense of their experiences through their unique perspectives and interpretations.

1.7. Structure of thesis

1.7.1. Chapter one: Introduction

In this chapter, I highlighted a lack of research from pre-registration nursing and midwifery students' perspectives on how theoretical knowledge is connected with clinical practice. Understanding this connection can help to bridge the theory-practice gap in the education of these students. I presented the aims, objectives and how I intended to undertake the study and why this study is important. The purpose and goals of the study and the reasons for examining this theory-practice gap are also discussed. The use of Malcolm Knowles' adult learning theory as the theoretical framework and IPA as the philosophical perspective for the study are explained. Additionally, I discuss my reflexivity and positionality in the study.

1.7.2. Chapter two: Literature review

This chapter examined the relationship between theory and clinical practice from the perspective of final-year BSc pre-registration nursing and midwifery students. It also aims to bring together the most recent findings and ideas on this topic from various perspectives. To do this, the research question for the literature review, the type of literature review conducted, and the keywords and concepts used to guide the search strategy are explained. I draw on ($n=18$) articles that form the narrative review and used these to demonstrate the gap in knowledge. The process of evaluating the quality of the articles selected to answer the research question is also described. The four themes (1) Diverse pedagogical approaches for connecting theoretical knowledge with clinical practice; (2) Simulation as a safe method for learning; (3) The role of “others” in assisting students with connecting theoretical knowledge with clinical practice; and (4) The effects of COVID-19 on students’ education, identified through the literature review are outlined and discussed. This chapter concludes with a summary of the information presented.

1.7.3. Chapter three: Methodology

This chapter commences by discussing the research paradigm that guided this study, including my ontological and epistemological perspectives and the research methodology and method. It provides an overview of IPA and explains why this approach was chosen for the study, including its limitations and the recognition of alternative approaches. The chapter also addresses ethical considerations, including participant recruitment, selection, and data collection, as well as the evaluation of the quality of an IPA study. The process of organising and piloting IPA interviews is discussed. The chapter concludes with a description of the data analysis method used in this study that gave rise to the findings.

1.7.4. Chapter four: Findings

The findings from this study are presented in this chapter. Using an inductive approach with an ideographic focus, the four themes (1) Complexity of embodied knowledge; (2) Sensing the meaning of personal and professional learning; (3) Demographic attributes and self-understanding; (4) Sense-making of COVID-19, that emerged from the data are described and explained. These themes are anchored in the participants narrative using verbatim quotes. These findings contribute to the body of knowledge on how theoretical knowledge is connected with clinical practice to promote nursing and midwifery students' learning and professional development.

1.7.5. Chapter five: Discussion, Recommendation, and Conclusion

In this chapter, the outcomes of the study are analysed in relation to Malcolm Knowles's theory of adult learning and the information gathered from the literature review. The research question, aim and objectives are considered in relation to the existing body of knowledge on how students connect theoretical knowledge with clinical practice to promote their learning and professional development. The key insights gained throughout the study are highlighted, along with empirical findings and the potential impact on nursing and midwifery students' education. The strengths and limitation of the research are discussed together with potential directions for future research.

1.7.6. Chapter six: Reflection on doctoral journey

A reflection on my doctoral journey is presented in this chapter, which was a professional, personal, and moral endeavour. A brief explanation of my knowledge of the research topic was provided. In addition, I highlight the challenges, life's unexpected turns, and the adversities posed by the

COVID-19 pandemic. Also included is the planning fallacy I had in completing this thesis. Despite this, I mentioned how it was accomplished within a designated time frame, thanks to the wonderful people I met along the way. This chapter concludes the thesis.

1.8. Summary

The main focus of this thesis, the connecting of theoretical knowledge with clinical practice in pre-registration nursing and midwifery students' education to promote their learning and professional development was discussed. The theory-practice gap in students' educational structure was explained, highlighting the need for both theoretical and practical components to work together to produce well-educated, skilled, and competent and confident registered nurses and midwives. The negative effects of student attrition and patient safety were also mentioned. The use of Malcolm Knowles's adult learning theory as the theoretical framework and IPA as the philosophical perspective and methodological and analytical framework was discussed, along with my reflexivity and positionality in relation to the study. The chapter concluded with an overview of the other chapters in the thesis and my reflection on the process of conducting this thesis.

Chapter 2

Literature Review

2.1. Introduction

This thesis investigates how theoretical knowledge is connected with clinical practice through the lens of final-year BSc pre-registration nursing and midwifery students. This chapter synthesises and analyses the latest relevant literature to identify and understand various perspectives. It also presents the literature review methodology. This includes the formulation of the research question, the type of literature review conducted, and the keywords and concepts employed in the literature search strategy. The process of assuring the quality of the articles selected, together with the themes drawn from the literature review exposing the gaps, are highlighted. A summary of the information presented throughout concludes the chapter.

2.2. Focus of the literature review

2.2.1. What is currently known from the literature

The construct of how nursing and midwifery students' theoretical knowledge is connected with clinical practice from the students' perspectives is rarely discussed and studied (den Hertog and Boshuizen, 2022; Booth et al., 2017). This demonstrates a need for further research on this topic, particularly from the students' perspectives, as the inability to connect theoretical knowledge with clinical practice can have severe consequences in terms of increased students' attrition rates and insufficient preparedness for entering the workforce as newly registered nurses or midwives (Buchan et al., 2019; Salifu et al., 2018; Al Awaisi et al., 2015). Moreover, the inability to connect theoretical knowledge with clinical practice can have a negative impact on job satisfaction even after students become newly registered nurses or midwives (Saifan et al., 2021; Greenway et al., 2019).

2.2.2. What the literature is seeking to uncover

The focus of this literature review is to identify any gaps or deficiencies in the current understanding of how nursing and midwifery students connect theoretical knowledge with clinical practice to promote their learning and professional development. This entails recognising any difficulties or obstacles that students encounter when translating their theoretical knowledge to real-world clinical situations, as well as examining any potential weaknesses or shortcomings in the education and training that they receive. The overarching aim of this review is to uncover any areas where there is a lack of understanding or knowledge about how nursing and midwifery students connect theoretical knowledge with clinical practice and to suggest potential measures to enhance their education and preparation for their future professional roles.

2.3. Literature review methodology

The appropriateness and timing of conducting a comprehensive literature review in qualitative research, such as Interpretive Phenomenological Analysis (IPA), have been a subject of much debate. Glaser and Strauss (1967), who developed grounded theory as a structured and systematic approach for collecting and analysing data with the objective of generating new theories and concepts, argued that a literature review should be conducted after data collection and analysis to avoid limiting the focus of the study. Conversely, Fry et al., (2017) and Hamill and Sinclair (2010) maintain that a detailed literature review is not always necessary at the outset of an IPA study, as the goal is to avoid preconceptions that might affect the analysis of the data. Garratt (2013) takes a differing stance, contending that given the pre-existing understanding of a study, the belief that prior knowledge of the literature could influence the outcome of a study should be discredited, as there is no such thing as innocent interpretation. I approached this review as a novice and therefore followed the IPA protocol but remained mindful of other researchers' views on this topic.

To comply with the requirements of an IPA study while also acknowledging Garratt's, (2013) perspective, I conducted a rudimentary literature review to contextualise my study for ethical approval and to fulfil the requirements of the gatekeeper. Subsequently, I carried out a more extensive literature review after data collection and analysis. Acknowledging the existence of more than fourteen distinct typologies of literature reviews (Grant and Booth, 2009), I made the decision to undertake a narrative literature review for my study. This choice stems from the paucity of discussion and research concerning the connection of theoretical knowledge with clinical practice from nursing and midwifery students' perspectives. Opting for a narrative literature review rather than another type of literature review will allow for a thorough exploration of a diverse selection of full-text literature derived from various study types, thereby facilitating a comprehensive contextual understanding. (Siddaway et al., 2019; Bryman, 2016; Green et al., 2006). Secondly, it will highlight the significance of further research by revealing any inconsistencies or gaps in the body of knowledge identified.

According to Onwuegbuzie and Frels (2016), the term narrative literature review encompasses four different types of literature reviews, each of which critiques and summarises various aspects of the literature. The first, known as the general literature review, provides the latest and most pertinent information on the topic being studied. The second, the theoretical literature review, focuses on the impact of theories on research practices. The third, the methodological literature review, examines the methods used to obtain information. The fourth, the historical literature review, highlights the historical context of the research topic. For my study, I conducted a general literature review to determine if the results obtained were unique or different from previously established knowledge. For ease of communication and discussion throughout the study, I will refer to the general literature review as simply a narrative literature review.

Several processes and frameworks exist for conducting a narrative literature review. For my study, I used Templier and Pars' (2015) six-step approach. This is because it provides a structured and systematic method for conducting a clear and concise literature review. This approach allows the six-step process to be separated into easy-to-follow stages, ensuring each stage is completed thoroughly and effectively. This also makes it easier to keep track of any progress and maintain a clear focus on the research question throughout the review process. Additionally, this approach enabled me to undertake critical evaluation of the selected literature to draw meaningful conclusions. The six steps include the following, (1) Formulating the problem; (2) Searching the literature; (3) Screening for inclusion; (4) Assessing quality; (5) Extracting data; and (6) Analysing and synthesising data.

2.4. Formulating the problem or research question

Developing a clear and concise research question is an essential step in the research design. I understand the importance of determining the type of information necessary and how it will be used to answer the research question. This not only informed the search for relevant literature but also influenced the subsequent analysis. Alvesson and Sandberg (2013) acknowledge the importance of establishing a framework to assist with structuring the research question and determining search terms that align with the overall research aim and objectives.

It is important to note that the Cochrane guidelines recognise the existence of multiple frameworks for the formulation of research questions in quantitative studies. However, no specific framework is mentioned for qualitative studies (Noyes et al., 2011). Qualitative studies often adapt frameworks utilised in quantitative studies. For my study, I chose to utilise the "SPIDER" tool first developed by Cook et al., (2012) and later improved by Methley et al., (2014). This is an innovative tool that addresses the challenges faced when conducting narrative literature reviews. It focuses on the "sample" instead of a "patient" or "population," and it deals with

questions related to attitudes and experiences rather than objective scientific studies. The ability to clearly articulate and guide each step of the literature review process made the "SPIDER" tool an excellent choice for this study. This is because it aligned with my ontological, epistemological, and methodological perspectives.

The aim of this study is to explore and critically analyse the strategies employed by final-year BSc pre-registration nursing and midwifery students at an inner London university to connect theoretical knowledge with clinical practice, to promote their learning and professional development. To maintain this focus, I will use only terms that are relevant to the primary aim of this study when utilising the spider tool to formulate the research question. However, I do recognise that the impact of COVID-19 on students' education has emerged as a key concern and therefore it would have been unwise of me not to include this as an objective in my study. To investigate this aspect, I will use appropriate search terms related to the effects of COVID-19 on student education in the spider tool to search for the relevant literature.

Literature review question formulated using the SPIDER tool: What evidence demonstrates pre-registration nursing and midwifery students' experiences in connecting theoretical knowledge with clinical practice? Please see (**Figure 2.1**) below

Figure 2.1 The “SPIDER” tool used to assist with the formulation of the research question (Methley et al.,2014)

Research Question - What evidence demonstrates pre-registration nursing and midwifery students' experiences in connecting theoretical knowledge with clinical practice?		
Framework – SPIDER		
Element	Definition	Application to study
S- Sample	Group of participants	Pre-registration nursing and midwifery students
PI- Phenomenon of interest	Behaviour or experience	Connecting theoretical knowledge with clinical practice
D- Design	How the study was conducted	Qualitative research technique
E- Evaluation	Measure of outcome	Experience
R- Research type	Qualitative or mixed	Qualitative

2.5. Searching the literature

In addition to assisting with formulating the review question, the "SPIDER" tool was used to assist with creating search terms in preparing the groundwork for the search strategy (**Figure 2.2**). This is because each letter in the "SPIDER" tool corresponds to a specific element of the research question, which helps me ensure that all relevant aspects of the topic are considered during the search process. Several groupings or cluster search terms were created using the combined Boolean operators "AND" and "OR". Truncation to broaden the search was also used for example (student nurs* or student midwife*). To maintain consistency in the search, there were no restrictions on where the terms were searched within the literature.

Figure 2.2 "SPIDER" tool used to assist with the creation of search terms

Tool - spider		Search terms
S- Sample	Group of Participants	Student nurs* OR student midwife*
PI- Phenomenon of interest	Behaviour or experience How students connect theory to practice Covid 19 pandemic or coronavirus	Theory OR practice OR theory AND practice OR clinical area OR clinical practice OR theoretical work OR academic work OR student nurs* education OR student midwife* education AND COVID 19 OR coronavirus OR pandemic
D-design	Qualitative research design	Interviews OR semi-structured OR unstructured OR case studies OR observational studies AND focus groups
E-Evaluation	Experiences	Experience OR views OR opinions OR perspectives OR understanding OR beliefs OR feelings
R-Research type	Qualitative studies	Qualitative or mixed methods

2.6. Databases

For my study, the EBSCOhost database at the university where I work was used for literature searches. This e-management resource system was adequate to provide access to All Databases, CINAHL Complete, Education Research Complete, SocINDEX with Full Text, as well as e-journals and e-books (**Figure 2.3**). Based on the subject's relevance to health care and

education, searches on other databases such as Google Scholar and the RCN library were also undertaken to reduce the risk of omitting significant studies. Several journal email alerts such as the British Journal of Nursing and Nurse Education Today were also set up, from which relevant articles were also retrieved.

Figure 2.3 EBSCOhost database used for literature search

Search strategy	Results
Boolean/Phrase	Student nurs* AND Student midwif* AND experience AND theory to practice AND affect AND Covid 19 AND learning AND clinical education
Expanders	Apply equivalent subjects
Limit to	Full text, Peer reviews
Publication Date	01/01/2015 to 18/02/2023
Source type	All results, Academic Journals (34)
Thesaurus Terms	covid-19 pandemic (2), nursing students (2), online education (2), student attitudes (2), universities & colleges (2), academic achievement (1)
Subject Major Headings	students, nursing (6), covid-19 pandemic (4), simulations (4), clinical, competence (3), empathy (3), intellectual disability (3)
Subject	epidemics (1), health (1), literature reviews (1), medical personnel (1), medical sciences (1), nurses' attitudes (1)
Publishers	biomed central (11), Mark Allen holdings limited (3), Taylor & Francis ltd (3), edam- education consultancy limited (2), oxford university press / USA (2) Wiley Blackwell (2)
Language	English (34)
Geography	Europe (19), UK & Ireland (19), USA (2), Africa (1), Canada (1), middle east (1)
Databases	All Databases, CINAHL Complete (25), Education Research Complete (8) SocINDEX with Full Text (4)

2.6.1. Screening for inclusion

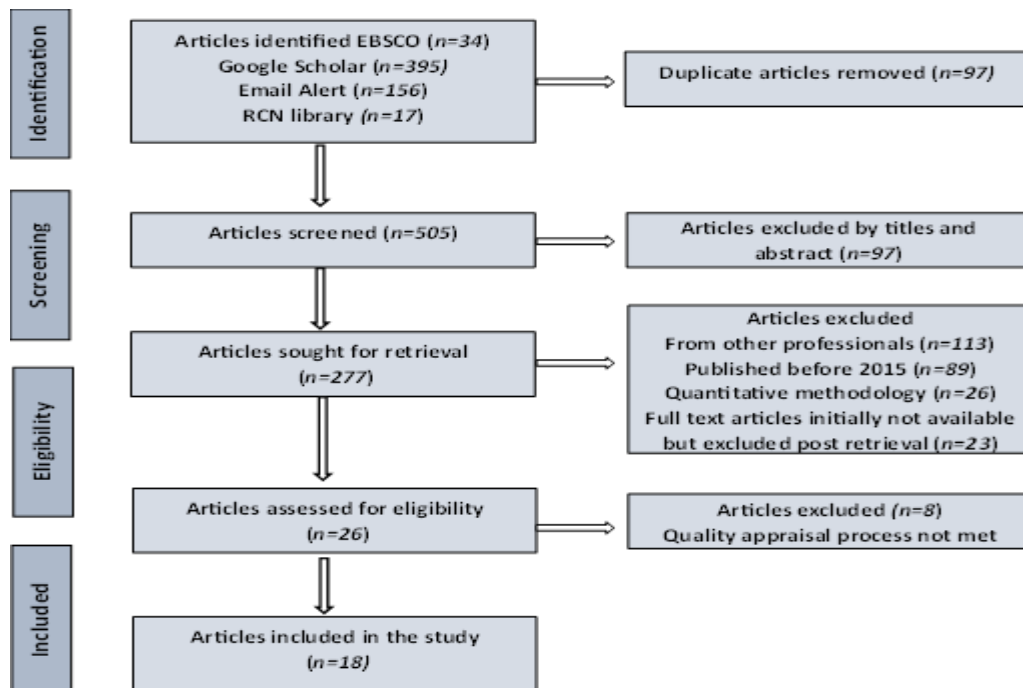
The criteria for selecting articles were based on the eligibility conditions specified in the “SPIDER” tool. This includes selecting articles that focused solely on nursing and midwifery students, their experiences in connecting theoretical knowledge with clinical practice, and the effects of the COVID-19 pandemic on their education. I also only considered articles that utilised a qualitative or mixed method design and were published in English from January 2015 to February 2023. Articles with a sole quantitative design were excluded because they lacked any descriptive element that could convey the meaning of the phenomenon under study.

Initially, 602 articles were identified for review from different sources: EBSCOhost (34), Google Scholar (395), Email Alerts (156), and RCN Library (17). After removing 97 duplicates, 505 articles remained. Upon reviewing their titles and abstracts, 288 articles were excluded, resulting in 277 articles for further consideration. Of these, 251 were subsequently excluded for various reasons, including not being relevant to my study's focus (113), being published before 2015 (89), utilising a quantitative methodology (26), and 23 articles were not available in full text. Despite retrieving these 23 articles and thoroughly examining their full text, they were excluded as they did not fully meet the study's criteria or had similar contents to articles already retrieved. This process resulted in a final selection of 26 articles. Further evaluation of the quality of these 26 articles led to the exclusion of eight more articles, resulting in a representative sample of 18 articles for the literature review. The process for screening articles' eligibility is illustrated in the PRISMA flow diagram (**Figure 2.4**). In an effort to retrieve full text articles, I requested the assistance of the librarians to guide me on the retrieval process and the utilisation of Interlibrary Loan Services. Through this service, requests were made for articles that were unavailable at the university.

Reflective journal dated 05th August 2022. Appointment with the librarian at the Southwark campus to enhance my literature search skills. It became evident that some articles were challenging to access. The librarian guided me through the process of retrieving and requesting articles using Interlibrary Loan Services. She also advised to schedule another appointment if I encountered further difficulties.

Reflective journal dated 09th August 2022: Working at the Havering campus this week. An appointment was made with the librarian at this campus site as still having difficulties retrieving articles. Was a fruitful day.

Figure 2.4 PRISMA diagram for screening of articles



2.7. Assessing quality

A quality appraisal process aids in assessing the credibility, relevance, and outcomes of pertinent research articles to determine whether they are valid and reliable, (Perestelo-Perez, 2013). While there are numerous appraisal processes for evaluating the quality of systematic reviews, such as the Critical Appraisal Skills Programme (CASP) and the Joanna Briggs Institute (JBI), no assessment tool for evaluating the quality of narrative literature reviews has been previously developed (Adeyemi, 2018; Onwuegbuzie and Frels, 2016).

To address the lack of a comprehensive appraisal process for narrative literature reviews, Baethge, Goldbeck-Wood, and Mertens developed the Scale for the Assessment of Narrative Review Articles (SANRA). This was undertaken while all three were serving as experienced editors for the Journal of the German Medical Association and the National Association of Statutory Health Insurance Physicians. Their investigation into quality appraisal process for literature reviews revealed that, high-quality articles

were often disregarded due to the absence of an evaluation tool comparable to those available for systematic literature reviews (Baethge et al., 2019).

SANRA was first created in 2010 and subsequently revised in 2014 to improve its robustness and ease of use. SANRA is a six-scale evaluation checklist, which assigns scores to assess the quality of publications. The scoring system ranged from 0 to 2. With 0 denoting low quality, 1 representing medium quality, and 2 indicating high quality, resulting in a maximum score of 12. A score of below 4 is considered to be indicative of substandard quality. As the only assessment tool for narrative literature reviews, I selected SANRA for this study. The decision to employ this tool was also informed by research conducted by Hanna et al., (2022), Hodgetts and Walker (2021), and Yang et al., (2021), in which SANRA's efficacy in assessing publication quality has been demonstrated. **Figure 2.5** below provides an explanation of how scores will be allocated for each article selected for this study utilising SANRA. The anchor explanations for the implementation of SANRA can be found in **Appendix 2**.

Figure 2.5 Scale for the Assessment of Narrative Review Articles - SANRA (Baethge et al., 2019)

1) Justification of the article's importance for the readership The importance is not justified. The importance is alluded to, but not explicitly justified. The importance is explicitly justified.	0 1 2
2) Statement of concrete aims or formulation of questions No aims or questions are formulated. Aims are formulated generally but not concretely or in terms of clear questions. One or more concrete aims or questions are formulated.	0 1 2
3) Description of the literature search The search strategy is not presented. The literature search is described briefly. The literature search is described in detail, including search terms and inclusion criteria.	0 1 2
4) Referencing Key statements are not supported by references. The referencing of key statements is inconsistent. Key statements are supported by references.	0 1 2
5) Scientific reasoning (e.g., incorporation of appropriate evidence, such as RCTs in clinical medicine) The article's point is not based on appropriate arguments. Appropriate evidence is introduced selectively. Appropriate evidence is generally present.	0 1 2
6) Appropriate presentation of data (e.g., absolute vs relative risk; effect sizes without confidence intervals) Data are presented inadequately. Data are often not presented in the most appropriate way. Relevant outcome data are generally presented appropriately.	0 1 2

2.8. Selecting articles for the review

The ($n=18$) articles selected for this review were mostly qualitative with one mixed method. They utilised a variety of philosophical approaches, including ethnography and phenomenology. The articles were primarily from Europe, Australia, and Africa, indicating the breath of focus on the topic under investigation. This could be attributed to possibly more funding from institutions or agencies to research this topic or an increased awareness or interest in these regions compared to North and South America. Following a review of the articles, relevant data were extracted, compiled, and tabulated. This was for easier access and comprehension for readers, rather than the articles having to be read in their entirety. **Figure 2.6** depicts the distinctive characteristics of the articles selected for my study, such as authors, titles, countries of origin, research designs, objectives, sample size, findings, and themes. The scores that I deemed to be suitable for each article using the SANRA framework are presented below (**Figure 2.7**).

Figure 2.6 Characteristics of literature included for review in my study.

No	Authors, title, and country	Design and Purpose	Sample Size	Findings	Themes identified
1	Cushen-Brewster et al., (2021) The experiences of adult nursing students completing a placement during the COVID-19 pandemic. UK	phenomenological approach aimed to explore the experiences of final year nursing students who completed their final clinical placement during the first phase of the COVID-19 pandemic in 2020	10	This study provided insight into nursing students' experiences during the COVID-19 pandemic and discovered that support mechanisms and a sense of belonging helped to increase their confidence in clinical practise.	1. The importance of support mechanisms. 2.The development of confidence. 3.Innovative learning opportunities.
2	Ewertsson et al., (2017) Tensions in learning professional identities nursing students' narratives and participation in practical skills during their clinical practice: an ethnographic study. Sweden	An ethnographic case study design aims to explore how nursing students describe, and use, their prior experiences related to practical skills during their clinical practice	17	An overarching theme identified was "Learning about professional identities concerning situated power". This encompasses tensions in students' learning when they are socialized into practical skills in the nursing profession.	1. Embodied knowledge. 2. Divergent ways of assessing and evaluating knowledge 3. Balancing approaches

No	Authors, title, and country	Design and Purpose	Sample size	Findings	Themes identified
3	Ewertsson et al., (2015) Walking the bridge: Nursing students' learning in clinical skill. Laboratories. Sweden	A qualitative descriptive design with an inductive approach aims to describe nursing students' experiences of learning in the CSL as a preparation for their clinical practice	16	The Clinical Skills Laboratories (CSL) formed a bridge between the university and clinical settings, allowing students to integrate theory and practice and develop a reflective stance.	1. Conditions for Learning 2. Strategies for learning 3. Tension between learning in the skills laboratory and clinical settings, 4. Development of professional and personal competence
4	Farfan-Zuniga et al., (2022) Nursing students experience during the COVID-19 pandemic: qualitative research. Chili	Qualitative research to explore the professional practice experiences of fifth year nursing students during the covid 19 pandemic.	13	Students faced multiple emotions, physical fatigue, and ethical-clinical dilemmas in daily tasks. Learning and personal growth occurred as a result of the use of various coping mechanisms.	1. Facing a very difficult and stressful situation 2. Recognised the different coping styles in difficult moments 3. Experience of disciplinary learning and personal growth.
5	Happell et al., (2019) 'There's more to a person than what's in front of you': Nursing students' experiences of consumer taught mental health education. Australia	A qualitative study that examines the perspectives of undergraduate nursing students to Expert by Experience-led teaching as part of a co-produced learning module developed through an international study.	51	Teaching by Experts by Experience is effective and impactful on students' approach to practice. It can be used to enhance mental health and holistic person-centred practice in all areas of health care.	1. Person-centred care/seeing the whole person. 2. Getting to know the person, understanding, listening. 3. Challenging the medical model, embracing recovery.
6	Kerthu and Nuuyoma, (2019) Theory practice gap: Challenges experienced by nursing students at the satellite campus of an HEI in Namibia	Exploratory phenomenology explores and describes the challenges BSC (Hons) students face when integrating theory into practice in clinical settings.	10	Nursing students experience challenges in integrating theory and practice. They also appreciate accompaniment and supervision by nurse educators.	1. Theory versus practice, 2. Limited resources in clinical settings 3. Discriminatory attitudes 4. Communication barriers
7	Kuliukas et al., (2021) A cross sectional study of midwifery students' experiences of COVID-19: Uncertainty and expendability. Australia	A cross-sectional study aims to explore Australian midwifery students' experiences of providing maternity care during the COVID-19 pandemic	147	Hospitals and universities communication confusing and inconsistent. Relied on the media and each other. Online learning difficult and isolating. Students felt expendable which increased emotional burden	1. Being expendable 2. Bearing witness 3. Uncertainty 4. Connecting with women 5. Personal anxiety

No	Authors, title, and country	Design and Purpose	Sample size	Findings	Themes identified
8	Lendahls and Oscarsson, (2017) Midwifery students' experiences of simulation- and skills training. Sweden	A qualitative study aimed at exploring midwifery students' experiences of simulation- and skills training.	61	Students valued simulation and skills training for gaining hands-on experience, practice, and the ability to make mistakes safely. These approaches improved learning and created links between theory and practice.	1.Develops hands on skills 2.Communication 3. Power of collaborative learning 4.Highly valued learning
9	Marañón and Pera, (2015) Theory and practice in the construction of professional identity in nursing students: A qualitative study. Spain	A qualitative, study aims to gain insight into nursing students' perception of their theoretical and practical training and how this training influences the process of constructing their professional identity.	23	Both theoretical and practical training is indispensable. Clinical placements were considered essential to confer sense to theory and to shape students' identities.	1. The Value of Clinical Placements 2. The clinical placement mentor as a key figure 3. Theory and the added value of problem-based learning
10	McLeod et al., (2018) Promoting interprofessional learning and enhancing the pre-registration student experience through reciprocal cross professional peer tutoring. UK	A mixed methods approach aims to explore participant experiences of two cross professional peer tutored clinical skills workshops.	120	Students reported that they gained a better understanding of interprofessional roles as well as new skills and confidence. They were also very enthusiastic about interprofessional learning.	1.Personal and professional development 2.Interprofessional teamwork 3.Quality of care 4.Factors influencing the delivery of peer tutoring
11	Morrell-Scott, N. E (2019) Final year pre-registration student nurses' perceptions of which taught theoretical knowledge is important for practice. UK	A qualitative phenomenological approach aims to understand what theoretical knowledge students perceived. to be useful during' pre-registration nursing education, and what was not	18	Demonstrate what aspects of the taught curriculum student nurses perceive to be of use to their practice, and why they perceive this to be the case.	1.Important knowledge to learn every day Practice 2. Irrelevant for my future role 3. Can we have some more
12	Morgan, D. (2019) Learning in liminality. Student experiences of learning during a nursing study abroad journey: A hermeneutic phenomenological research study. UK	An interpretivist hermeneutic phenomenological approach was undertaken to study the learning experiences of students who participated in a study programme abroad	20	The students experienced a phase where learning was initiated by new information. They assumed responsibility for their learning and engaged in sense-making activities to gain understanding.	1.Experiencing a different reality. 2.Active sensemaking. 3. Being with others 4.Being changed and transformed

No	Authors, title, and country	Design and Purpose	Sample size	Findings	Themes identified
13	Nieuwenhuijze, et al., (2020) Midwifery students' perspectives on how role models contribute to becoming a midwife: A qualitative study. Midwifery. Netherlands	A descriptive, qualitative study aim to explore the ways in which Dutch and Icelandic midwifery students identify role models in contemporary midwifery education	44	Midwifery students recognise people who have attitudes and behaviours that they admire. They see these as 'ideal midwives' who they can emulate and aspire to be like.	1opening up the scope of midwifery practice, 2. creating an ideal role model. 3. learning by observing, listening, and doing. 4. Becoming a good midwife.
14	O'Brien and Graham (2020) BSc nursing & midwifery students experience of guided group reflection in fostering personal and professional development. Part 2. Ireland	A qualitative descriptive approach to exploring students' experiences of guided group reflection	101	Group reflection provided positive opportunities for enhancing confidence and fostered personal and professional development.	1Beginnings for reflective learning 2. Engaging in reflective learning 3. Being a reflective practitioner
15	Persson et al., (2015) Analysis of midwifery students' written reflections to evaluate progression in learning during clinical practice at birthing units. Sweden	A qualitative study to Evaluate the written reflection of midwifery students on their of progression in learning and professional development	18	Students' learning progresses according to levels in both cognitive and psychomotor areas of learning, as well as the complexity of the described learning situations.	1. Progression in learning 2. Levels of complexity within cognitive and psycho-motor areas of learning 3. Increased complexity in the description of learning situations
16	Pront and McNeill. (2019) Nursing students' perception of a clinical learning assessment activity: linking the puzzle pieces of theory to practice. Australia	A qualitative study on students' perceptions and experiences following a simulated clinical assessment activity of a large nursing student cohort.	478	Students perceive simulated clinical experience as beneficial for their confidence, learning and for developing professional practice. Nurse educators are also responsible for providing learning experiences for students to link theory to practice.	1. Support promotes learning 2. Focuses on the bigger picture 3. Practice clarifies puzzle pieces of theory to practice.
17	Rasmussen et al., (2022) The impact of COVID-19 on psychosocial well-being and learning for nursing and midwifery undergraduate students: a cross-sectional survey. Australia	Cross-sectional survey aims to explore the impact of COVID-19 on psychosocial well-being and learning for nursing and midwifery undergraduate students in an Australian university	637	Participants appreciated the various and flexible teaching modes that allowed them to balance study, family, and paid employment during COVID 19. Academic staff assistance was greatly appreciated.	1. Psychosocial impact of the pandemic. 2. Adjustment to new modes of teaching and learning. 3. Concerns about course progression and career.

No	Authors, title, and country	Design and Purpose	Sample size	Findings	Themes identified
18	Valen et al., (2019) Nursing students' perception on transferring experiences in palliative care simulation to practice. Norway	A prospective, qualitative study aim to explore nursing students' experiences of participating in palliative care simulation.	11 second year students	Simulation is a highly preferred method for learning about palliative care, as it offers students a chance to develop knowledge, skills, and attitudes through immersive, lifelike scenarios	1. Train as you fight. 2.From chaos to control. 3.Perceived transfer to practise

Figure 2.7 Scoring the articles in the literature review using the SANRA framework .

No	Study	Justification	Aim	Literature search	Referencing	Scientific reason	Presentation of data	Total score
1	Cushen-Brewster et al., (2021)	2	2	0	2	2	1	9
2	Ewertsson et al., (2017)	2	1	1	2	2	2	10
3	Ewertsson et al., (2015)	2	2	1	2	2	2	11
4	Farfan-Zuniga et al., (2022)	2	1	0	2	1	2	8
5	Happell et al., (2019)	2	2	1	2	2	2	11
6	Kerthu and Nuuyoma, (2019)	2	1	1	2	2	2	10
7	Kuliukas et al., (2021)	2	2	0	2	1	2	9
8	Lendahls and Oscarsson, (2017)	2	2	1	2	2	1	10
9	Marañón and Pera, (2015)	2	2	1	1	2	2	10
10	McLeod et al., (2018)	2	2	1	2	2	2	11
11	Morrell-Scott, N.E (2019)	2	2	1	2	2	2	11
12	Morgan, D. (2019)	2	2	0	2	1	2	9
13	Nieuwenhuijze, et al., (2020)	2	1	1	2	2	1	9
14	O'Brien and Graham (2020)	2	1	1	2	2	2	10
15	Persson et al., (2015)	2	1	2	2	2	2	11
16	Pront and McNeill. (2019)	2	2	2	1	0	1	8
17	Rasmussen et al., (2022)	2	2	0	2	2	2	10
18	Valen et al., (2019)	2	2	2	2	1	2	11

2.9. Analysing the literature

To achieve the objective of this literature review, which is to gain a comprehensive understanding of the research conducted on the experiences of pre-registration nursing and midwifery students in connecting theoretical knowledge with clinical practice, an inductive thematic approach was used to analyse the selected articles. According to Bingham and Witkowsky (2022), an inductive approach entails a meticulous examination of data to arrive at general conclusions or themes based on the researcher's interpretation of the raw data. This approach was preferred because it enabled the intuitive emergence of themes from the articles, allowing for a deeper understanding of the phenomenon under investigation. In contrast, a deductive approach would have been inappropriate for achieving the goal of this study, as the objective was not to impose predetermined themes on the data (Bingham and Witkowsky, 2022).

The categorisation of the themes that arose from the analysis of the selected articles into homogeneous groups helped explain the findings' relevance to the study's aim. The themes identified are (1) Diverse pedagogical approaches for connecting theoretical knowledge with clinical practice; (2) Simulation as a safe method for learning; (3) The role of “others” in assisting students with connecting theoretical knowledge with clinical practice; and (4) The effects of COVID-19 on students' education. Each of these themes will be discussed in detail below.

2.9.1. Diverse pedagogical approaches

Individual and group learning methods have been identified and discussed in the literature. However, how students connect theoretical knowledge to clinical practice remains unclear. Barends (2022) suggests that this vagueness may be due to the abstract nature of theoretical concepts versus the concrete nature of practical applications. Additionally, Schaap et al., (2009) suggest that this may be because theoretical knowledge is viewed as

formal or declarative, while practice knowledge is seen as procedural. Despite appearing to be polarised, theory and clinical practice are in fact interdependent and must complement each other, as many practical skills require an understanding of the underlying theoretical knowledge or principles. To gain a deeper understanding of the diverse approaches students utilised to connect theoretical knowledge with clinical practice, will be discussed below following a review of the identified literature, annotated in **Figure 2.8**

Figure 2.8 Annotations of selected articles to explain the Diverse pedagogical approaches for connecting theoretical knowledge with clinical practice.

Study	Findings	My perspectives
Ewertsson et al., (2017)	This study aimed to explore how nursing students use their prior experiences related to practical skills during their clinical practice.	Nursing students do not possess inherent knowledge of skill transfer between different settings, and merely being taught a practical skill is not sufficient to develop this ability. Rather, the transfer of skills is heavily influenced by the students' experiences, observation, hands on learning and interactions with other individuals within the clinical settings.
Morgan, D (2019)	This centred on the learning experiences of students, considering their thoughts on cultural diversity, social factors influencing health, and their own level of confidence in nursing skills. Additionally, it showed how studying abroad can bring about profound changes and promote personal and professional development.	The study indicated that nursing students can gain significant personal and professional growth from studying abroad. The study emphasises the need to recognise the unique learning experiences that students undergo in unfamiliar cultural and social contexts, which can be transformative for their education
Morrell-Scott, E (2019)	Findings demonstrate aspects of the taught curriculum student nurses perceive to be of use to their practice, and why they perceive this to be the case.	From the students' perception, they paid more attention to theoretical modules that can be translated into practice and can assist in patient care and their learning in clinical practice.
Nieuwenhuijze et al., (2020)	During their midwifery education, students identify individuals who display desirable attitudes and behaviours, which they incorporate into an idealised role model that they strive to emulate.	This article highlights the impact of both positive and negative role modelling. It also highlights that not only observation but story telling can also be an important aspects of role modelling
O'Brien and Graham. (2020)	Guided group reflection, according to students, provided positive opportunities for boosting confidence. Students demonstrated comprehension of reflection and valued reflective time within the closed group structure, which facilitated personal and professional development.	According to the students, participating in guided group reflection sessions was very helpful in boosting their confidence. They not only understood the purpose of reflection but also appreciated having the chance to reflect within a supportive group setting.

Persson et al., (2015)	The study discovered that midwifery students improved their learning during clinical practice. The written reflections of the students demonstrated an increased ability to integrate theoretical knowledge with practical experience, as well as a greater awareness of the importance of communication and teamwork.	The study provided a valuable insight into the learning midwifery students highlight the importance of reflective practice in nursing education and suggest that such practices can help students develop critical thinking skills.
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Ewertsson et al.'s (2017) study delved into the experiences of ($n=17$) nursing students from two Swedish universities as they grappled with connecting theoretical knowledge with practical skills during their clinical placements. The use of purposive sampling was justified, considering that these students had already progressed significantly in their nursing education. Employing an ethnographic approach, the researchers immersed themselves in the study to gain a comprehensive understanding of the subject matter.

The study's findings shed light on how students bridged the gap between theoretical knowledge and clinical application. They did so primarily through a combination of observation and hands-on learning, a concept appropriately termed "embodied knowledge" by Ewertsson et al., (2017). During their observational learning process, students also critically assessed whether the clinical practices they witnessed aligned with the theoretical knowledge acquired at university. Notably, students hesitated to question any discrepancies they noticed, fearing that it might have a negative impact on their relationship with their educators.

It's essential to acknowledge the contextual aspect of this study, as it specifically focused on an emergency department setting. Consequently, the applicability of these findings to other clinical environments may be limited due to potential variations in cultural and specialities. This highlighted the need for a more profound exploration of the challenges that students faced during their clinical practice.

Sodhi (2008) defines embodied knowledge as the interpretation and action within an individual's experience, a term coined by Hanna in 1980. Knowledge can be gained through non-cognitive means such as experiential learning. This is widely accepted in nursing and midwifery education (Grace et al., 2019; Hill, 2017). This emphasises the significance of clinical practice in real-world settings. Students can cultivate their embodied knowledge, allowing them to gain a more in-depth understanding of their profession than by simply acquiring theoretical knowledge. By engaging in hands-on experience and developing their skills through practice, students better understand the complexities of their profession and the real-world implications of their actions. To promote holistic and person-centred practice, nursing and midwifery students need to recognise and appreciate embodied knowledge.

Patricia Benner, a nurse theorist, expanded on this concept with her "Novice to Expert" theory in 1982 (Davis and Maisano, 2016). This theory outlines the five stages a nurse progress from being a novice to an expert. Benner posits that novice nurses rely on their educational foundation and personal experiences to develop their skills and knowledge. Conversely, expert nurses integrate their skills and knowledge to the extent that they act naturally, as if knowledge is innate or embodied. This has led to a shift in perception about what it means to be a novice or an expert in nursing. Despite criticism from writers such as Altmann (2007), who questioned whether Benner's work was theory or philosophy, her work is still highly valued. It has had a significant impact on healthcare practices worldwide. Even today, Benner's work is still viewed as a valuable guide for staff development and promotion within healthcare organisations (Ozdemir, 2019).

Nieuwenhuijze et al., (2020) shared a different perspective in their study relating to this theme of diverse pedagogical approaches. This well-structured study delves into the role of role-modelling in midwifery education. Using focus groups and individual student interviews, the data was collected from ($n=44$) students from two different countries adding a

cross-cultural dimension to this study. Findings highlighted the significant impact role modelling has on students as they observe the attitudes and behaviours of midwives whom they admire and aspire to emulate. Modelling was found to be instrumental in shaping midwifery students' knowledge, skills, and behaviour, and more importantly, their professional identity. While this finding provided valuable insight into how students connect theoretical knowledge with clinical practice, the study lacks a more comprehensive discussion of limitations, such as the potential for bias in participant selection. Additionally, further exploration on the specific qualities and characteristics of role models that could have significant influence on students' development would have enhanced this study's overall depth and applicability.

The sociologist Merton developed the term modelling in 1950 to address the socialisation of medical students. He believed that observation followed by imitation of qualified staff's behaviour and actions can have a great impact on students' professional identity (Nouri et al., 2014; Henderson et al., 2006). However, modelling as an intuitive understanding has a rich history in nursing education. This is because it evolved from apprenticeship-style training in hospitals, where students observed the experienced practitioner and then practiced under supervision (McKenna et al., 2020). Loretta Ford and the physician Henry Silver are credited with pioneering the use of modelling as a formal concept in nursing when they developed the first nurse practitioner programme in the 1960s (Rudner, 2021). Modelling has since become an essential component, if not the cornerstone, of nursing and midwifery education.

Virginia Henderson was one of the first nursing theorists to describe the significance of modelling in nursing. In her book "The Nature of Nursing," published in 1966, modelling was discussed in relation to shaping nursing practice. This is because she believed that through this teaching and learning approach, students could learn how to provide effective and compassionate care from experienced staff members. As such, it was imperative that students were encouraged to observe and imitate

behaviours and practices. This would ensure nursing care was delivered consistently and reliably.

Social learning theory, established by psychologist Albert Bandura in the late 1960s, was also based on the principle of social interaction and modelling in shaping human behaviours (Bandura, 2006). In the realm of facilitating teaching sessions for practice assessors, formally known as mentors, this theory is frequently employed to enhance their understanding of one of the many approaches through which students acquire knowledge in clinical practice.

As a means of building professionalism among nursing and midwifery students, the Nursing and Midwifery Council (NMC) places high emphasis on role modelling. They acknowledge the crucial impact qualified staff have on students' attitudes and behaviours (NMC, 2023 a). In light of this, the NMC emphasises the importance of professional values as the bedrock of nursing education and practice. This requires students to acquire not only the necessary technical skills but also cultivate key professional values like compassion, respect, dignity, and integrity. With the significance of role modelling in shaping nursing and midwifery students' outlook and conduct, it becomes crucial that experienced staff serve as positive role models.

Morrell-Scott's (2019) phenomenological study was undertaken with a sample size of ($n=18$) final-year student nurses. Using semi-structured interviews, and IPA for data analysis, these aligned well with the research objective. The study conducted in one university investigated the aspects of the curriculum that students find useful for their clinical practice. Findings from the data revealed that students tended to prioritise subjects directly related to patient care and patient-centeredness, such as clinical skills, anatomy, and physiology. Their focus was on what students perceived as relevant and applicable to their daily practice, or students focused on what made sense or what they could relate to in their practice.

The study acknowledges that the sample size was small and drawn from a single institution. However, a more comprehensive exploration of potential

biases within the study design would have also been beneficial. Additionally, while the study sheds light on students' perceptions of the subject they found useful to clinical practice, it does not fully encompass the relevance of the other subjects to nursing practice. Due to this, it quite rightly suggested that future research could provide a more nuanced understanding of the subject matter.

The term "sense-making," devised by Karl Weick refers to how one structures the unknown through selection, interpretation, and actions, or how information is processed (Ancona, 2012). It is also inferred as assigning meaning to one's experiences (Maitlis et al., 2014). Morrell-Scott's findings place a strong emphasis on sensemaking, which also assists students with identifying the theoretical subjects on which students place the most value and can assist with the development of professional knowledge and skills.

Facilitating this midrange theory of sense-making is imperative in nursing education because it involves the ability to gather and interpret information to make informed decisions about patient care. It also entails understanding and reflecting on the processes that lead to learning. This is indicated in Morgan's (2019) hermeneutic phenomenological study, which examined the experience of ($n=20$) nursing students. This study provided insight into how the sense-making of students' experiences from a placement aboard helped shape their perception and understanding of nursing practice.

It is recognised that the reflective process can also serve as an effective pedagogical approach to enable students to establish a connection between theoretical knowledge and practice. Two qualitative studies conducted by Persson et al., (2015) and O'Brien and Graham (2020), respectively, focused on nursing and midwifery students' experiences of reflecting on their learning and personal and professional development. In Persson et al., study in which ($n=18$) students participated in written reflection, while in O'Brien and Graham's study, ($n=101$) students engaged in group reflection. Despite two different reflective strategies used and the disparity in the number of participants, the findings from both studies indicated that reflection is a valuable approach to supporting students' learning and

development. This was supported by Barbagallo's (2021) qualitative meta-synthesis study, in which data from ($n=14$) qualitative studies was obtained to identify common themes and patterns related to nursing students' perceptions of reflective practice. Barbagallo's study suggests nursing students find reflective practice as a valuable tool for growing their intellectual capacity and abilities.

Reflection is a crucial aspect of nursing education and has been a longstanding practice. It enables both students and qualified staff to examine their actions and experiences. This aids their professional development and supports better patient care (Christiansen, 2011). Several reflection models, including Gibbs' reflective cycle and Schon's reflection "on" and "in" action, are effective tools for active learning through reflective activities. To date, reflection has become an integral component of nursing education, with students provided protected time for this purpose (NMC, 2023 a). For qualified nurses and midwives, reflection is mandatory as part of the revalidation process. This is necessary for maintaining their registration and remaining on the NMC register (NMC, 2015).

Nursing and midwifery students' approaches to learning are explored in the literature, which focuses on diverse pedagogical approaches. While numerous learning opportunities were explored, three gaps were identified in the literature. (1) There was no discussion of specific practical skills and learning experiences that students participated in and how these related to the development of their knowledge and professional identities. (2) In the study by Morgan (2019), there were insufficient details about the nature of the study abroad program and its impact on learning experiences. (3) In terms of modelling, the literature lacked detailed information on the specific qualities or behaviours exhibited by qualified staff that students would like to emulate. It also lacked information on how these factors contribute to students' development. To address the gaps in the literature, further information, and clarity in some areas would have been beneficial. This will be addressed in the discussion chapter.

2.9.2 Simulation as a safe method for learning

Four pieces of literature were examined in this theme. While the methods used in these studies differ, the results obtained were consistent. Simulation is becoming more widespread in nursing and midwifery education because it allows students to improve their knowledge, skills, and behaviour by repeatedly practicing until they become competent, as described by Cant and Cooper (2017). In nursing and midwifery students' education, the principle of "*never the first time on the patient*" (Ahmed and Dziri, 2020; p. 892), emphasises the use of simulation as a teaching, learning, and assessment strategy, as well as a quality improvement tool. Simulation ranges from simple role-playing to the use of low and high-fidelity mannequins and is considered a method of education or training rather than the use of technology (Aebersold, 2018). Its purpose is to "*replace or enhance the real experience with guided experiences*" (Gaba, 2004; p.i2), given zero tolerance for preventable clinical incidents. Annotations in **Figure 2.9** are articles used to illustrate how simulation assists students with connecting theoretical knowledge with clinical practice, which will be discussed below.

Figure 2.9 Annotations of selected articles used to explain how simulation is a safe method for learning

Study	Findings	My perspectives
Ewertsson et al., (2015)	Simulation helps students prepare for clinical practice by integrating theory in a safe environment until they feel competent.	The importance of simulation in preparing students for clinical practice. It also encourages student to develop their reflective stance.
Lendahls and Oscarsson, (2017)	Simulation-based and skills training are crucial for students to learn hands-on skills in a safe and repetitive environment without compromising patient safety. These training enhance collaborative learning, reflection, and critical thinking linking theory to practice.	To assist students, learn hands-on skills without compromising patient safety, it is crucial to provide simulation-based and skills training. This helps effectively link theory and practice.
Pront and McNeill, (2019)	Students reported that the simulated experiences provided an authentic learning opportunity that improved their clinical confidence and ability to apply knowledge in practice.	Simulation helps build confidence and competence when applying theory to practice which assist with the improvement of clinical practice.
Valen et al., (2019)	The use of simulation is a favoured approach for acquiring knowledge, skills, attitudes, and a sense of courage. Debriefing after the simulation helps to enhance self-confidence and further solidify students' learning.	Simulation is an effective method for teaching knowledge, skills, and attitudes related to palliative care. Realistic cases that stimulate senses and emotions can help build courage through active participation and debriefing, leading to increased self-confidence

Pront and McNeill (2019) conducted a qualitative study involving a relatively large sample of ($n=478$) second-year nursing students enrolled in a three-year pre-registration nursing program. The justification for this sample size was clear, as it represented feedback from an entire cohort after their participation in a simulated clinical assessment activity. The study drew a parallel between simulation and the concept of "connecting puzzle pieces." This analogy illustrates how simulation can effectively bridge the gap between theoretical knowledge and practical application by integrating the essential components of knowledge, skills, and experiential learning that students require for their professional development. This insight indicates the success of the educational intervention in achieving its intended objectives.

This study offers valuable insights into the advantages of incorporating simulated clinical experiences to bring together theory and practice in nursing education. However, future research should delve into additional aspects such as the characteristics of the student cohort, the specifics of the research methodology, and the long-term impact of such interventions to further enhance its applicability. This study would have also benefitted from a more detailed discussion on the specific advantages and limitations associated with simulated clinical experience. These factors can influence the generalisability of the findings and also enhance the study's transparency and reproducibility.

Ewertsson et al., (2015) qualitative study focused on the experiences of ($n=16$) nursing students. Through content analysis which is deemed appropriate for this study; it was found that laboratory-based clinical simulation enabled students to enhance their understanding, develop new skills, and build their confidence in performing clinical procedures. Additionally, the laboratory was perceived as a safe and supportive hypothetical bridge on which students walked back and forth between theory and practice until learning occurred which added depth to the study. Walking on this "bridge" allowed students to experience what it feels like to be a nurse by practising clinical skills underpinned by theoretical knowledge while

also engaging in communication and interaction with facilitators and colleagues without worrying about endangering patients. This study, however, does not thoroughly delve into the specific conditions for learning within the clinical skills laboratory that contributed to this bridge-building process. A more detailed examination of these factors would have added depth to the study. Koukourikos et al., (2021) concur, as the findings from their study also reflect on the students' feeling of safety while in simulated practice in a laboratory setting, resulting in increased self-esteem and confidence. Ewertsson et al., (2015) also did not mention a comparison group of students who did not have access to clinical skills laboratories. This could limit the ability to assess the unique impact of this learning strategy on learning experiences.

Lendahls and Oscarsson's (2017) qualitative study, conducted over a three-year period and involving ($n=61$) midwifery students, shed light on the positive effects of simulation in terms of enhancing student confidence and improving patient safety. The study also emphasised the crucial role of simulation in bridging theory and practice, thereby facilitating students' learning. However, the study's scope could have been broadened to explore potential limitations associated with simulation, such as teaching methods employed during simulation. The issue of ethical concerns related to simulation in midwifery students' education could have been expanded upon. These considerations could have contributed to a more comprehensive understanding of the role of simulation in the education of midwifery students.

Valen et al., (2019) qualitative study involving ($n=11$) second-year nursing students assessed the perceived transfer of knowledge, skills, and competence into clinical practice. Acknowledging that other studies tend to focus only on the potential benefits of simulated training, Valen et al., (2019) study also explored the advantages of debriefing after such training, which is a crucial aspect of the simulation process because it facilitates reflection, feedback, and learning, ultimately leading to improved performance (Johnston et al., 2017). It must be noted that for this study, only the

perspective from one cohort of students was attained. While the valuable insight of debriefing post-simulation was highlighted, it would have been beneficial to explore the specific components of debriefing that contribute to the perceived transfer of knowledge and skills. This would have provided more practical guidance for educators involved in simulation. This highlights the need for further research into the aspects of simulated training in students' education.

Niu et al., (2021) concur with the above when the effectiveness of debriefing was examined. To add to debriefing positive outcomes, Niu et al., stated that debriefing also improve communication skills, and helps with consolidating learning. According to Zhang et al., (2020) and Rossignol (2017), if debriefing is not done properly after simulated practice, it can also cause psychological stress in students. Mauriz et al., (2021) study on psychological stress and socio-emotional competencies in nursing students found that psychophysiological stress can have a negative impact on cognitive response and effective learning, which can affect clinical performance. This emphasises the importance of effective debriefing post-simulated practice. It also highlights the importance of supporting students with stress management. This is so that students can perform to the best of their abilities in clinical practice.

After reviewing the literature outlined in **(Figure 2.9)**, it is evident that simulation is widely recognised as a valuable pedagogical approach because it provides a variety of benefits. Acknowledging that simulation is a vast and expanding field, it is pertinent to highlight that based on the literature, the following gap has been identified. There appears to be a lack of information on how students transfer their simulation learning to actual clinical practice. This issue will be addressed in chapter five, the discussion chapter.

2.9.3. The role of “others” in assisting students to connect theory with practice

Nursing and midwifery students need to apply theoretical knowledge to real-world clinical settings to build confidence and competence, improve practical skills, and consolidate learning (Manoochehri et al., 2015). While more emphasis is placed on qualified professionals, non-qualified personnel or stakeholders can also contribute to students' learning. They can provide students with valuable insights and perspectives that bridge the gap between theory and practice. They can bring in their experiences and knowledge from their field of work and health care experiences. Collaboration in learning can be extremely beneficial to student success. **Figure 2.10** are annotations from articles used to explain the role of "others" in assisting students in connecting theoretical knowledge with clinical practise. These roles will be discussed in greater detail below.

Figure 2.10 Annotations of selected articles used to explain the role of “others” in assisting students with connecting theoretical knowledge with clinical practice.

Study	Findings	My perspectives
Happell et al., (2019)	Taught by experts by experience, is effective and impactful on students' approach to practice. It is also crucial to enhance understanding of person-centred practice in health care.	As a pedagogical approach, much can be learnt from the expert with the experience because they have the lived experience.
Kerthu and Nuuyoma's, (2019)	Nursing students experienced numerous challenges when in clinical practice however they appreciated the presence of mentors to teach and supervise their clinical practice.	Student nurses appreciated accompaniment and supervision by nurse educators as the students rarely get exposure to clinical practice
Marañón and Pera, (2015)	Students emphasised the importance of clinical placements in helping them understand the practical applications of theoretical concepts and to shape their professional identities. Mentors play a critical role in this process.	The importance of clinical mentors in assisting students with developing confidence, shaping their identity, and connecting theory to practice in real-world situations is emphasised.
McLeod et al., (2018)	Students reported that they gained a better understanding of interprofessional roles and learned new skills. Peer tutors also gained confidence in representing their professionals.	Interprofessional learning has been shown to have benefits for students in different fields. It promotes collaborative teamwork and skills and also for the roles of the other profession.

In an ethnographic study, Maraón and Pera (2015) investigated how ($n=23$) third-year nursing students construct their professional identity through theoretical and practical training. The sampling strategy for this study was intentional, however additional details about the sample size and selection process would have enhanced this study. As research methods, the data were collected through participant observation and discussion groups. These are suitable for qualitative research and were explained in-depth, which is essential for understanding the study's methodology. Data analysis was undertaken using constant comparative method with ATLAS/ti version 6.2 was used for data categorization, organisation, and recovery. While this can enhance the efficiency and rigor of the analysis process, it may result in a loss of the rich contextual information that is crucial in an ethnographic study. Also, ethnographic data can be messy and complex; the use of the technology may oversimplify the data.

The study emphasised the importance of clinical mentors in assisting and guiding students as they navigate the complex clinical environment and various nursing roles. It also emphasises how clinical placements were considered essential to confer a sense of professional identity. Bahramnezhad (2022) concurs with these findings, as outcomes from his study also indicated that professional identity is built on the construct of interpretation of one's own experience and socialisation with others.

According to Jafarianamiri et al., (2022), professional identity encompasses a nurse's values and beliefs, which serve as guiding principles for their behaviour and thoughts during interpersonal interactions. This aspect holds particular significance in student education as it facilitates alignment with professional roles. Additionally, Turner and Knight (2015) emphasised the profound impact that a weak sense of professional identity can have on practitioners, hindering their ability to express their opinions and recognise the value they place on their profession. While building a professional identity is often associated with students' education, according to Maginnis (2018), there is insufficient empirical research to support how pre-registration nursing students develop their professional identities during their

educational programme as this area of their education remains underexplored. However, the valuable contribution clinical staff make to students' education should never be underestimated. This is because not only learning takes place, but friendships are also formed throughout clinical placements.

In clinical practice, qualified nurses and midwives serve as mentors, a role that has been preserved but replaced by the terms Practice Assessors (PAs) and Practice Supervisors (PSs) (NMC, 2023 a). Adopting or being assigned to these roles is critical because it necessitates professional judgement in determining whether students should remain passive observers or when and what clinical tasks they should perform independently or under direct or indirect supervision in clinical practice (NMC, 2023 a). Throughout this process, PAs and PSs are responsible for fostering meaningful working relationships. They encourage students to reflect on what they have learned or observed to consolidate their knowledge. They also ensure that students feel accepted as members of the nursing and midwifery team. Findings from Kerthu and Nuuyoma's (2019) exploratory phenomenological study involving ($n=10$) students also support the above, highlighting that students need mentorship, guidance, support, and strong interpersonal relationships because effective teaching, constructive feedback, and attentive supervision offer significant benefits for students learning in the practice settings.

With nursing and midwifery education seeking to increase pedagogical quality, co-production, co-creation, or co-design, all interchangeable terms (Suikkala et al., 2018), can also be used to involve experts by experience or service users with lived experience in students' education. The use of experts by experience as a teaching and learning approach is defined as the active participation of students, lecturers, and other supporters of the learning process in a collaborative effort to create, share, and apply knowledge (McCulloch, 2009). This approach has been made mandatory by the NMC as a valuable learning tool because it helps students think differently while learning from others. Although no guideline for its

implementation is provided, the NMC stated in their standards framework for nursing and midwifery students' education that programmes should be designed, delivered, evaluated, and co-produced in collaboration with stakeholders and service users (NMC, 2023).

Happell et al., (2019) qualitative study delved into the first hand encounters of mental health nursing students as they engaged in an expert-by-experience-led teaching module. This multinational study involved a cohort of ($n=51$) students and employed a research design consisting of focus group interviews conducted across six different countries. Notably, the research process was robust, employing a rigorous two-stage data analysis procedure that enhanced the study's validity.

The study's outcomes reveal that the module had a profoundly positive and transformative influence on the students. It significantly altered their approach to clinical practice, particularly in terms of embracing a person-centred approach to patient care. It is worth noting that students began to regard patients as the true experts in their own health journeys. This shift in perspective provided a contemporary view emphasising patient autonomy and involvement in decision-making. Importantly, the study stands out for its clarity and thoroughness in explaining its various components. It meticulously outlines the research methodology, including the use of focus group interviews and a participant sample. Furthermore, the data analysis process was well explained, enhancing the credibility of the findings. The potential for future research to build upon this education strategy is also recommended.

The findings from Happell et al., (2019), coincided with those of O'Connor et al., (2021) systematic review, in which ($n=23$) studies were included. Although the themes were numerous due to the plethora of literature reviewed, there is no doubt there are benefits to the student learning experience through expert-by-experience teaching. This supports the NMC position that it should be included in the curriculum.

A further pedagogical approach identified in the literature that is appropriate for learning in nursing and midwifery students' education is interprofessional education (IPE). It has been described as a method of bringing students from various healthcare professions together in a collaborative team environment to gain knowledge from and with each other (WHO, 2010). IPE is becoming important in nursing and midwifery education due to the increased acuity level of patients and the complex and challenging care environment that healthcare professionals must navigate (Lestari, 2016). IPE programmes also provide students with the opportunity to learn about another profession's role and how, through collaborative working, patient care outcomes can be improved.

McLeod et al., (2018) adopted a mixed-method approach to explore the experiences of ($n = 67$) nursing and ($n = 53$) physiotherapy students. This method enhances the breadth of the study, allowing for a more in-depth exploration of participant experiences. Although the two groups of students were identified, it would be beneficial to have a more detailed breakdown of the demographics to ensure the sample is representative of the student population. This would help in understanding potential variations in experiences among different groups. Qualitative data were collected via focus groups, whereas quantitative data were collected via an interprofessional learning scale questionnaire completed before and after the workshops. The findings were positive indicating that students gained confidence, developed a better understanding and appreciation of the role of a different profession, and learned new skills. This study highlighted the students' positive mental attitude towards interprofessional learning.

IPE has numerous benefits, including a positive opinion towards other professions when working collaboratively (Reeves et al., 2016). It has also made people from different professions aware of not only their own roles but also the roles of others and how to work with each other's professional strengths and skills in the interest of providing the highest quality patient care. Recognising the importance of IPE and teamwork in providing effective and safe person-centred care, the NMC has designated this as a

core component of preregistration nursing and midwifery students' education (NMC, 2023 b).

While each piece of literature looked at a different topic and studied it in a different context within this theme of the role of “other” in assisting students to connect theory with clinical practice, the following gaps were consistent across all four pieces of literature: More information could have been on the potential challenges and limitations of the studies, and in particular on whether research findings were generalisable or only applicable to the study groups. While the following is not specific to any study, there could be a host of reasons why this may be the case such as limitations and challenges may be overlooked or deemed insignificant, or researchers may be focused on publishing more positive research.

2.9.4. The effects of COVID-19 on students' education

Since COVID-19 was declared a pandemic on March 11, 2020 (WHO, 2020), it has caused widespread disruption in the healthcare sector and in nursing and midwifery students' education. The literature shows that COVID-19 has had a negative impact on nursing and midwifery students' education due to amendments in their educational programmes, the implementation of social distancing, lockdowns, and restrictions on physical contact. This has resulted in disruptions to campus life, increased stress, and a lack of access to clinical placements for some students. The long-term effects of these disruptions are still unknown. Annotation of the selected articles on the effects of COVID-19 on nursing and midwifery students' education can be found in **Figure 2.11** below.

Figure 2.11 Annotations of selected articles used to explain the effects of COVID-19 on students' education

Study	Findings	My perspectives
Cushen-Brewster et al., (2021)	Students found placement to be a well-supported positive experience, with improved team cohesion and integration. Students gained confidence as a result of developing clinical skills. The VLE were welcomed because it provided an essential method of supportive communication, academic assessment, and reflective discussion.	Clinical placement in a supportive environment that fosters a sense of belonging aided in increasing confidence in clinical practise despite adversity in the form of COVID-19.
Farfan-Zuniga et al., (2022)	Students faced multiple emotions, physical fatigue, and ethical-clinical dilemmas in daily tasks. Learning and personal growth occurred as a result of the use of various coping mechanisms.	A study which did not only dwell on the negative factors of COVID-19 such as fatigue and stress but also identified the positive outcomes such as learning and personal growth.
Kuliukas et al. (2021)	Students found hospital and university communication to be confusing and inconsistent, and they relied on mass media and each other to stay informed. Moving to online learning and being separated from peers made it difficult to learn. During clinical placements, students felt expendable in terms of their value and contribution, which was reflected in the lack of essential equipment such as personal protective equipment.	Students found communication between hospital and university confusing and inconsistent. They relied on the news and each other to stay remain current. Learning became more difficult after transitioning to online and not being able to be with peers. Students felt their value and contribution was not consider which was reflected in a lack of essential personal protective equipment in clinical placement.
Rasmussen et al., (2022)	While COVID-19 was perceived as a stressful time, participants appreciated the various and flexible teaching modes that enabled them to balance their study, family, and paid employment responsibilities. Academic staff assistance was highly valued.	Lack of motivation to study, feelings of isolation stress and anxiety all had a detrimental impact on students' well-being and ability to learn. Students' stress and anxiety were reported to have been reduced by timely communication and support from academic staff and clinical facilitators/mentors.

The four studies identified in this theme produced similar results despite using different data collection methods. Cushen-Brewster et al., (2021) phenomenological study explored the experiences of third-year nursing students in their final clinical placement during the COVID-19 pandemic. The study's method relied on semi-structured interviews conducted through a virtual platform. While this approach was appropriate for data collection during the pandemic, there was a lack of a detailed discussion of the limitations and potential biases in the data collection process. A more thorough exploration of these aspects would have enhanced the study's transparency and reliability.

The study identified three key themes which provide valuable insights into the experiences of nursing students during the pandemic. Additionally, the study emphasised the positive impact of support mechanisms on students' confidence while in clinical practice during COVID-19. Although this is a valuable finding, the study does not delve into the specific types of support that were most effective or the challenges faced by students in accessing support. A more detailed examination of the nature and effectiveness of support mechanisms would provide a deeper understanding of the student's experiences.

In a study by Kane et al., (2021) it was highlighted that students' stress was caused by moral decision-making, with some students feeling obligated to attend clinical practice. Students who embraced the learning opportunities valued the advice given by organisations such as Health Education England (HEE), the Pan-London Practice Learning Group (PLPLG), and the Council of Deans for Health (CoDH) on how healthcare learners can stay safe during the pandemic (Bliss, 2021).

In the UK, the NMC issued emergency and recovery standards in which there was flexibility in nursing and midwifery education programmes that allowed students from their second year to undertake 80% of their placement in clinical practice and students in the final six months of their training to undertake extended clinical placements to support the NHS (NMC, 2020a; NMC 2020b). Students who were unable to attend practice could have had up to 300 hours of simulated practice at the university to meet the minimum training hours (NMC, 2020b). These 300 hours of simulated practice could only be completed once the lockdown and travel ban were lifted and students and lecturers were allowed to return to universities.

Health Education England also issued guidance outlining that students in the final six months of their training can forfeit their supernumerary status and opt-in to work as paid healthcare support workers (HEE, 2020). During this process, students who chose this option were supported and supervised

in clinical practice to complete their nursing or midwifery programme. Students who were unable to accept this offer due to various reasons, for example, being at risk of contracting COVID-19 due to comorbidities had their respective clinical placements suspended until it was safe to resume practice. Students were provided with alternative learning pathways to complete their programme, such as online lectures and simulations. Students, staff, and patients' health and safety were always the top priorities. Alternative learning pathways were adjusted to ensure students received the most effective learning experience and was not placed at any disadvantage as a result of COVID-19.

It is imperative to note that students from Black, Asian, and Minority Ethnic (BAME) groups were disproportionately affected by health inequalities, resulting in some students shielding during the COVID 19 pandemic, which affected their attendance in clinical practice (Public Health England, 2020; Universities UK, 2020). Shielding was due to the fact that this community of students is more vulnerable and at a higher risk of severe illness and death as a result of COVID-19. As a consequence, the impact of COVID-19 on this specific group of students' mental health has been a cause for concern (WHO, 2020).

Findings from Farfan-Zuniga et al., (2022) qualitative study involving ($n=25$) nursing students shared some similarities with Cushen-Brewster et al., (2021) findings. The Data collection method together with all other aspects of this study was explicitly explained. This added credibility and validity of this study. Some students embraced the opportunities to be involved in all aspects of patient care during COVID-19, which contributed to their professional development and growth. However, other students who were not so keen expressed concerns about the professional and moral dilemmas they witnessed, such as dehumanisation in the dignity of patient care. They also had personal dilemmas, such as the fear of infecting family members due to working in highly infectious clinical environments. This was compounded by the lack of Personal Protective Equipment (PPE). As a result, students experienced stress, anxiety, and insomnia. It must be noted

that the focuses of this study were on the impact of the pandemic in Chile, which is valuable, but it would have been beneficial to provide a broader global perspective on the challenges faced by nursing students during the pandemic. This could have helped positioned this study more within the larger international context.

Two cross-sectional studies conducted by Kuliukas et al., (2021) and Rasmussen et al., (2022) both shared similar outcomes. In Kuliukas et al., (2021) study, ($n=147$) midwifery students were recruited through social media. This study reported that midwifery students experienced a significant level of anxiety and uncertainty during the pandemic, both at university and in clinical practice. Students felt undervalued and expendable by the manner in which they were treated. This included not being provided with adequate PPE and being expected to care for COVID-19 patients. Furthermore, they were not supported by their academic institutions, adding to the students' stress and anxiety. While the finding of this study was pertinent, the recruitment strategy may have introduced selection bias. Students who are more active on social media or have specific concerns related to the pandemic may be overrepresented. The study appropriately highlights the need for improved communication from hospitals and universities during health crises, as well as the importance of emotional support for students. However, the study could have delved deeper into potential strategies or recommendations for addressing these issues in midwifery students' education.

Rasmussen et al., (2022) study which was undertaken with ($n=637$) nursing and midwifery students. The study used a self-administered online survey. The study achieved a response rate of 22%, which raises questions about the representativeness of the sample. It's essential to acknowledge that the 22% who responded may not fully represent the experiences and perspectives of all nursing and midwifery students at the university. The findings might be skewed toward those who engaged more online and felt more strongly about the pandemic's impact.

The study findings revealed that students' motivation and focus on their studies were reduced due to the different modes of course delivery, namely online, with which the students were unfamiliar. Isolation due to not attending university to interact with colleagues also had a negative impact on students' psychosocial well-being. While this study identifies key themes related to psychosocial well-being and learning, it could have benefited from a more robust discussion of practical implications. In this study, the need for ways to support and maintain motivation among nursing and midwifery students were also mentioned, but it did not delve deeper into potential avenues for future research in this area.

For both Kuliukas et al., (2021) and Rasmussen et al., (2022) studies, cross-sectional methodology was selected. This may not have been the most appropriate methodology during COVID-19 unless this was undertaken for a specific reason. During a rapidly evolving pandemic like COVID-19, the situation can change quickly. Therefore, the data collected may not capture the dynamics or trends over time.

The World Health Organization (2020) recognised COVID-19's profound impact on nursing and midwifery students' education. Due to university closures, cancellations, and rescheduling of clinical placements, not all students gained the hands-on experience needed to complete their clinical training as scheduled by the university in collaboration with clinical practice (Hutchings et al., 2022). Other challenges were also presented, such as the shift from traditional classroom teaching to online. This was not always a viable substitute for face-to-face teaching, particularly for skills modules.

Recognising nursing and midwifery students' high levels of stress and anxiety, the WHO (2020) emphasised the importance of providing psychosocial support, such as access to counselling services, to manage stress and build resilience. Other organisations developed guidance and resources and offered support for nursing and midwifery students during the pandemic, depending on their geographic location. A few of these were guidance on PPE, infection control and prevention, and ethical

considerations in care (American Nursing Association, 2022; RCN, 2022; Hartz et al., 2022).

From the articles reviewed, the salient points on the impact of COVID-19 on nursing and midwifery students' education appear to be stress, anxiety, depression, and isolation from peers secondary to online teaching and health disparity in ethnic and racially minoritised groups. Students also benefitted as they took advantage of COVID-19 opportunities to enhance their knowledge and skills. Students in the UK who opted into work were also paid due to their status as a student being changed to HCSW. In addition, they were still assessed to complete their programme of study in a timely manner.

It is crucial to recognise that students' experiences and needs vary across countries and healthcare systems. While the COVID-19 trajectory is still unknown (Kane et al., 2021; Townsend, 2020), further research is needed to determine the extent of the impact of the pandemic on students' academic and professional development as well as their psychosocial well-being. Following a review of the literature on COVID-19 effects on student education, only one gap was identified. That was two out of the four studies used a cross-sectional research design, which has the potential to limit the ability to capture the complexities of students' experiences. This will be addressed in the discussion chapter.

2.10. Summary

This chapter identifies gaps in the literature that support the need for my proposed study. It consists of explaining the formulation of the research question, and strategies for literature search, including screening for inclusion, extracting, and assessing quality, and analysing and synthesising the data on how nursing and midwifery students connect theoretical knowledge with clinical practice. The four themes drawn from the literature were: (1) Diverse pedagogical approaches for connecting theoretical

knowledge with practice; (2) Simulation as a safe method for learning; (3) The role of “others” in assisting students in connecting theoretical knowledge with practice; and (4) The effects of COVID-19 on students’ education. These themes, together with gaps in knowledge identified in the literature, will be addressed further in the discussion chapter.

Chapter 3

Methodology

3.1. Introduction

In this chapter, the research paradigms used for my study are presented and discussed. This includes the methodology and method employed to address the research aim and objectives. Furthermore, an explanation will be provided on how IPA as an approach aligns with my ontological, epistemological, methodological assumptions and data analysis. Also included is a critical evaluation of IPA's idiographic approach and its compatibility with hermeneutics. Ethical consideration relating to approval, consent, confidentiality, recruitment, selection, and inclusion and exclusion criteria for participants are also discussed. The approach to data collection, any challenges encountered during this process and how they were addressed, and the conduct of a pilot study are described. Finally, the methods used for data analysis and quality assessment are outlined.

3.1.1. Research aim

To explore and critically analyse the strategies employed by final-year BSc pre-registration nursing and midwifery students at an inner London university to connect theoretical knowledge with clinical practice, to promote their learning and professional development.

3.1.2. Research objectives

1. To investigate how final-year BSc pre-registration nursing and midwifery students interpret and understand their experiences of connecting theoretical knowledge with clinical practice.

2. To examine the strategies used by final-year BSc pre-registration nursing and midwifery students to connect theoretical knowledge with clinical practice.
3. To explore final-year BSc pre-registration nursing and midwifery students' perspectives on whether demographic characteristics such as gender, age, and ethnicity affect their learning and professional development.
4. To explore the effect of COVID-19 on final year BSc pre-registration nursing and midwifery students' education.

3.2. Research paradigm

The term "paradigm," first coined by Thomas Kuhn in 1962, refers to a set of practices or principles (Kivunja and Kuyini, 2017). It can also describe how meaning is constructed from data through a specific methodological approach (Hughes, 2010; Guba and Lincoln, 2005). Researchers' experiences, views, beliefs, and thought patterns shape their paradigms (Creswell, 2014). A paradigm is claimed to be made up of four features: ontology (the nature of reality), epistemology (what is knowledge), methodology (the research process), and axiology (value in research) (Lincoln and Guba, 1985). Understanding all four features is key because it highlights the researcher's philosophical approach to guiding a study (Welford et al., 2011) and serves as a framework for the research process. If the features are not aligned, it can affect every aspect of the research.

Reflective journal date 06th February 2021. I am struggling with understanding the meaning of the words ontology, epistemology, and axiology. This feels like trying to understand a foreign language. I need to undertake some reading to get my head around these terminologies. I can only move forward with this aspect of my thesis when these are better understood.

For this study, I carefully selected the paradigms that informed my ontological and epistemological stances and the strategies for data collection and analysis. While there is no correct way to conduct a study, there are certain criteria to follow to ensure it is well structured. This includes ensuring that the paradigms are compatible with one another because they are interconnected. **Figure 3.1** depicts the paradigms I found most appropriate for my study. In the sections that follows, I will explain why I chose each paradigm and how they work together to address the research question.

Figure 3.1 Research paradigms selected for my study

	<u>Ontology</u> What is reality? Subjective		<u>Epistemology</u> How can I know reality? Interpretive		<u>Methodology</u> What, I used to acquire knowledge? Qualitative		<u>Method</u> What tool was used to gain knowledge? Semi-structured interviews		<u>Methodological Assumptions</u> How was data explored? Inductive		<u>Data Analysis</u> How data was explored to develop sense-making IPA

3.2.1. Ontological perspective

Ontology is the branch of philosophy that deals with being and existence (Lincoln and Guba, 2013). Ontology refers to a researcher's beliefs or assumptions about what can be known and studied (O'Gorman and MacIntosh, 2015). It is a crucial step in the research process because it helps the researcher understand the nature of reality and the social world they are studying. This includes whether it is a single or multiple entity, whether it is constructed by the researcher's perception, or whether it exists independently (Ormston et al., 2014). Establishing and identifying my ontological perspective helped me explore my understanding of reality. This will also enable readers to understand my study. If my ontology is not

carefully considered, my positionality and interpretation of the research topic may be misrepresented.

Before I could establish my ontological perspective for this study, I had to understand this abstract concept first. This proved challenging due to its complexity. Once I had a deeper grasp of ontology, I realised that it is a combination of various factors rooted in aspects of my identity, culture, and beliefs. Factors influenced by my previous roles as a midwife assistant, student nurse, registered nurse, clinical facilitator, and my current role as a nurse educator. Over the years, my various identities, and experiences, as well as my knowledge of adult learning theories, have shaped my perspective on nursing and midwifery students' education. This understanding is significant because it helps me avoid distorting my interpretation of the research topic. It also enables readers to better understand my perspective.

Pierre Bourdieu introduced the term "habitus" to denote an individual's unconscious disposition to associate cultural capital or essential knowledge with past and present experiences (Murphy and Costa, 2015). It operates at an unconscious level and can influence how a researcher interprets a phenomenon (Light, 2011). While I am aware that my habitus is not permanent and can change over time depending on the situation, I also recognise that it currently shapes my thoughts and behaviour about my study. I am also aware that nursing and midwifery education and practice involve both subjective and objective knowledge. However, my personal and professional perspectives on how theoretical knowledge is connected with clinical practice makes my ontological stance subjective, which aligns with constructivism.

Constructivism highlights the role of human experiences and perceptions in shaping reality (Cohen et al., 2007). It is founded on the philosophical principle of solipsism. This holds that reality is formed by the mind, which cannot be separated from human perception because there is certainty the

mind exists (Pihlstrom, 2020; Ural, 2019). I recognise that perception is subjective and varies from person to person. This means that the meaning assigned to things can change over time as a result of a person's socio-cultural, professional, and other factors related to their exposure to the social world (Parahoo, 2014; Garratt, 2013). While objectivism maintains that there is only one truth because phenomena are believed to be independent and external to the individual (Bryman, 2016; Carson, 2005), I disagree with this way of thinking. I believe that the perception of the world is dependent on the individual and highly contextualised, resulting in diverse perspectives on the same phenomenon. This aligns with critical realism.

Reflective journal dated 13th February 2021. I need to explore critical realism, and the opposite of this in more depth to establish a balanced view. Also need to look at positivism and post-positivism. What does this mean and how does it impact my study? More importantly, how do I align these with an IPA study to make sense?

Critical realism suggests that reality is made up of multiple layers. It is influenced by an individual's experiences, perceptions, and interactions with society. According to this viewpoint, reality is not only shaped by objective facts but also by subjective experiences and social interactions (Buch-Hansen, 2005). Critical realists, unlike empirical realists, believe that our understandings of reality are inherently flawed. To truly understand the existence of a phenomenon, a researcher must look beyond the superficial and delve deeper into the phenomenon's underlying foundations (Banifateme et al., 2018). This perspective is similar to post-positivism, which holds that not everything can be known because reality depends on an individual's thought process and how it is understood and constructed (Krauss, 2005). This subjectivity is a strength of qualitative research, unlike positivism, which is based on objectivity and the idea that genuine knowledge can only be obtained through empirical testing and scientific verification (Outhwaite, 2015).

To gain a deeper understanding of the intricacies of how theoretical knowledge is connected with clinical practice, I sought the perspectives of pre-registration nursing and midwifery students who are in their final year and almost at the end of their respective educational programs. My thought process and rationale for selecting this specific cohort of students lies in the fact that they have completed all of the theoretical aspects and are now undertaking their final clinical placements in their programs. This unique position gives them the ability to provide valuable insight into the topic under study, resulting in the generation of rich data. I also envisage that in this final phase of their education, how students connect theoretical knowledge with clinical practice will be more salient, as these cohort of students are soon to become registered nurses and midwives. Through the information obtained, academics and clinicians will be able to better support current and prospective students in their education, assist in bridging the theory-practice gap, and, most importantly, indirectly improve patient care. While I recognise that individual student's beliefs and realities may differ and that it may not be possible to be completely objective or subjective, I do not seek to judge the students. My intention is simply to gather information, for which I am grateful. I am also aware of my own subjectivity and recognise the importance of transparency in research (Garratt, 2013). By acknowledging my ontological awareness, I aim to provide a more transparent and nuanced understanding of the research topic.

3.2.2. Epistemological perspective

Epistemology focuses on the nature of knowledge and how it is obtained (Cohen et al., 2007). It is related to ontology and considers the connection between the researcher and what is being studied (Denzin and Lincoln, 2011). Grix (2018) asserts that ontology and epistemology serve as the foundation of research. As the researcher undertaking this study, I acknowledge the inherent influence of my personal, professional, and positional knowledge on my understanding of the research topic. Additionally, I recognise the impact of my educational experiences in

Trinidad, characterised by rote learning and reductionism, which may not be universal but may resonate with some participants who share similar backgrounds in primary and secondary education. I also recognise that the world's existence is not dependent on my knowledge. Furthermore, knowledge acquisition and development are ongoing processes that extend beyond personal interpretation. In my study, I aim to explore how nursing and midwifery students connect theoretical knowledge with clinical practice by examining their perspectives. This interpretive approach allows me to make sense of how students make sense of their experiences (double hermeneutics), including the challenges they face when applying theoretical knowledge to practice in a pluralistic world.

The interpretive perspective asserts that society shapes reality, which can be understood by exploring human experiences and perceptions (Creswell, 2009). My goal is not to create generalisations but to comprehend each participant's individual experiences. I recognise that this approach is subjective, and I have acknowledged my own biases and prejudices in this study. While it is impossible to completely remove my personal views, I aim to be transparent and truthful about any that may impact the study. Termed interpretive awareness (Rossum and Hamer, 2010; Sandberg, 1997) this means that I am aware of the interpretation process during the study and have tried to ensure its credibility.

3.2.3. Research methodology

The choice of methodology for a study should be based on the issues being explored and should be aligned with the chosen paradigms to demonstrate the quality and methodological integrity of the study (Bradshaw et al., 2017; O'Reilly and Kiyimba, 2015). I have adopted a constructivist ontological and interpretive epistemological stance for this study because, I seek to comprehend students' perspectives on their realities with the understanding that there is no single reality. Therefore, a qualitative research methodology is most appropriate, as it is well-suited to inquiries that explore social

phenomena or human problems (Moorley and Cathala, 2019; Creswell and Poth, 2018). This methodology allows me to examine nursing and midwifery students' experiences and perspectives in a more distinct, and detailed way. According to Burns and Grove (2009), "interpretivism" is subjective, interactive, and focused on giving meaning to lived experiences. It is exploratory and seeks to gather high-quality, in-depth understanding of reality rather than a large quantity of data (Rubin and Rubin 2011; Creswell, 2009). This approach, which seeks to understand participants' perspectives, is referred to as "emic." By using interpretivism, I can ask "how," "what," and "why" questions to collect rich, detailed data that would not be possible with a quantitative methodology. While many different qualitative methodological approaches can be used in research, I have chosen IPA as it serves both as a methodological and analytical approach for this study.

Reflective journal dated 06th March 2021. I need to interpret how the students interpret their experiences. This means that I need to look at different methodological approaches which would allow this double hermeneutic process. Despite reviewing various approaches such as ethnography and narrative analysis, I have selected IPA. This approach will allow me to better understand the students' experiences by exploring their subjective perspectives, thoughts, and feelings. It will also help me to identify patterns in their interpretations of their experiences, which will assist my interpretation when making informed decisions about their educational practices.

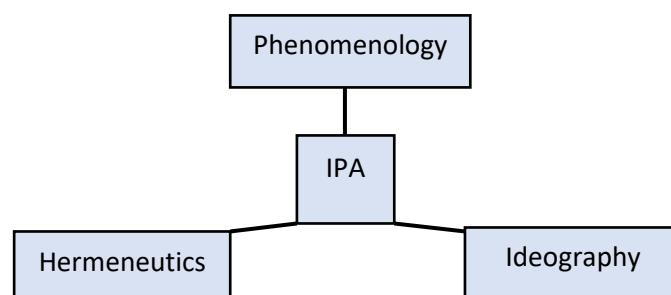
3.3. Interpretive Phenomenological Analysis (IPA)

According to Pietkiewicz and Smith (2014), IPA is a research approach that aims to understand individuals' lived experiences. This is achieved by exploring, interpreting, and understanding how they make sense of their personal, social, and subjective worlds. It is based on the premise that participants are self-interpreting beings, and the focus is on the researcher's interpretation and understanding of the participant's interpretation of their lived experiences. This detailed and multifaceted examination and

interpretation of experiences allows the exploration of different perceptions or realities, moving beyond simply describing them. The emphasis on interpretation and understanding of experiences makes IPA distinct from other phenomenological approaches (Peoples, 2021). As a result, it is ideal to explore and answer the research aim and objectives of my study.

IPA is a qualitative research method that originated in health psychology (Biggerstaff and Thompson, 2008). In the belief that a paradigm shift was required to better understand psychological experiences and demonstrate the value of qualitative research. Developed in the 1990s by Jonathan Smith, the idea behind IPA is interpretivism, which holds that knowledge can be gained through interpretation (Ormston et al., 2014). IPA is frequently used in health and social science research due to its emphasis on understanding and exploring human experiences. It also allows people to express themselves by writing about their own encounters. Three other approaches heavily influenced IPA: phenomenology, hermeneutics, and ideography (**Figure 3.2**). These approaches can be used to understand and analyse nursing and midwifery students' experiences as they connect theoretical knowledge with clinical practice to promote their learning and professional development, which is explained below.

Figure 3.2 IPA and its influence by three other approaches



3.3.1. Phenomenological approach

Phenomenology is a philosophy that studies human experiences and perceptions as they are consciously perceived and expressed (Tuffour, 2017; Pietkiewicz and Smith, 2014). It is based on the belief that human life is made up of phenomena. These can only be understood through perception, not through external factors. According to phenomenologists, understanding an individual's subjective perspective on past events is crucial for shaping their present experiences (LoBiondo-Wood and Haber, 2017). The fundamental principle of phenomenology is that “*experience should be examined in the way it occurs and in its own terms*” (Smith et al., 2012: p.12). It is critical to maintain this principle to accurately understand and analyse human experiences.

Edmund Husserl and Martin Heidegger are recognised as the foundational philosophers of phenomenology, or the examination of human experiences and perceptions from a first-person perspective (Peoples, 2021; Tuffour, 2017). Other philosophers have also contributed to phenomenology. Their approaches often do not align with Husserl's or Heidegger's foundational philosophies (Tuffour, 2017). For this study, Husserl and Heidegger's work will be examined, as their philosophies represent the two main categories of phenomenology namely transcendental or descriptive, and hermeneutic or interpretive, respectively. While Husserl's phenomenology will be briefly mentioned, Heidegger's hermeneutic approach is considered more suitable for this study. This will be discussed in further details and will be employed to analyse how nursing and midwifery students connect theoretical knowledge with clinical practice.

3.3.2. Husserl's phenomenology

Edmund Husserl is considered the father of transcendental or descriptive phenomenology (Peoples, 2021). He claimed that to understand the true meaning of a phenomenon, we should focus on the participant's

experiences and intentionally set aside any prior experiences or biases through a process known as "*bracketing*" or "*epoche*" (Husserl, 1927, as cited in Smith et al., 2012). This process involves the researcher suspending all knowledge or judgment about the phenomenon to allow the participant to fully reflect on and describe their experiences (Chan et al., 2013). Husserl believed that phenomenology should be based on the principle of presuppositional. This involves paying attention only to the participant's experiences and making a conscious effort to eliminate any biases.

As an emic researcher, I bring a significant amount of positional, professional, and personal knowledge to the table regarding the connection between theoretical knowledge and clinical practice. This knowledge encompasses my practical work experience and my role as a reflective practitioner. It is essential to acknowledge that such subjective knowledge can introduce biases into the research process. Nonetheless, I also acknowledge the significance of human factors in shaping a researcher's pre-existing notions and understandings of the subject being studied. It is often impossible to completely set aside these preconceptions, especially when I have lived experiences related to the subject under study. While I acknowledge that Edmund Husserl's work has laid the foundation for phenomenological thinking and has its followers, particularly those who advocate for bracketing as a means of demonstrating validity, I find it difficult to fully embrace his concept of transcendental or descriptive phenomenology. This is because bracketing conflicts with IPA's philosophical foundation. IPA relies heavily on the concept of double hermeneutics, or interpretation, in which I am an active participant as the researcher.

3.3.3. Heidegger's phenomenology

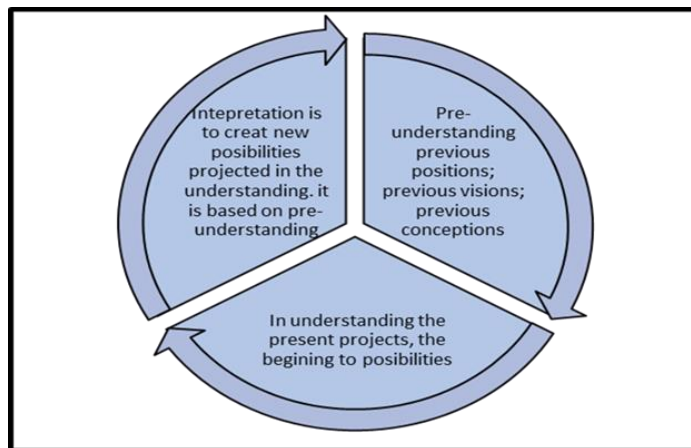
Martin Heidegger, a student of Edmund Husserl, was the second foundational phenomenologist who developed a hermeneutic philosophy. He disagreed with Husserl's concept of presuppositional, arguing that

experiential exploration should not be a reductionist process in which the researcher discards their preconceived knowledge (Ramsoy and Overgaard, 2004). Heidegger believed that researchers could not completely bracket themselves from "being in the world," or what he called "Dasein" (Toffour, 2017). In the context of an IPA study, the aim is for the researcher to fully immerse themselves in the world of the participants and interpret their lived experiences through a cultural and socio-historical lens to co-create the meaning of that experience (Love et al., 2020). Gadamer (1976) describes this process as a "fusion of horizons." This is where the researcher and participant interact and understand each other and the phenomenon based on their respective horizons of experiences and meanings (Flood, 2010; Lopez and Willis, 2004).

Maurice Merleau-Ponty, a French phenomenologist, focused on the concept of embodiment. He drew on Husserl and Heidegger's work, with a particular emphasis on the latter. Ponty held that the body is the centre of awareness and that human experiences can only be understood in context. This is due to the fact that a person's understanding of the world is based on assumptions and prior experiences that can only be interpreted (Käufer and Chemero, 2015). Intersubjectivity is the process by which subjective experiences or interpretations are shared to create the social meaning of a phenomenon (Carr and Cheung, 2004).

Heidegger's hermeneutic circle (**Figure 3.3**) is described as a recursive rather than linear process of simplifying, analysing, and interpreting data until it can be understood. As there is no such thing as an uninterpreted world, this process can be repeated cyclically until the subjective data makes sense (Peoples, 2021; Horrigan-Kelly et al., 2016; Cerbone, 2009). This process has been described as "*the use of lenses*" (Peoples, 2021 p.33). Since this double hermeneutic approach will be applied for my study, Heidegger's interpretive phenomenology is more appropriate and will be used instead of Husserl's transcendental or descriptive phenomenological approach.

Figure 3.3 Heidegger's hermeneutic circle (Sebold et al., 2018)



3.3.4. Hermeneutic approach

Hermeneutics is a philosophical approach that originated from the Greek word "hermeneutic," meaning to explain, utter, or interpret. It was first used to discuss how messages are conveyed in human language and was based on Plato's description of spoken or written words as a representation of inner thoughts (Zimmermann, 2015). Developed by philosophers such as Heidegger, Schleiermacher, and Gadamer as an evolutionary process for theorising the conditions under which interpretation is possible, hermeneutics can be described as the "*practice or art of interpretation*" (Dallmayr, 2009: p. 23), and has become a popular choice of philosophical underpinning for qualitative research (Tan et al., 2009).

As a concept, hermeneutics is commonly used in both the social and natural sciences. Although different viewpoints exist, philosopher Paul Ricoeur is known for his contributions to connecting hermeneutics and phenomenology (Tan et al., 2009). Through this combination, Ricoeur identified two types of hermeneutics: the hermeneutics of suspicion, which is used for explanation and involves questioning data to uncover hidden motives, and the hermeneutics of empathy, which involves understanding an event from the insider's perspective (Willig, 2013). However, as a researcher, I believe that

hermeneutics is not just about suspicion and empathy. It also involves understanding a phenomenon and facilitating change if needed.

Smith et al., (2012) suggest, interpreting participant experiences in an IPA study requires more than just empathy and suspicion. It also involves a hermeneutic questioning process to clarify information. This double hermeneutic process enables participants to explain their perceptions of the phenomenon to aid the researcher's understanding, which is a fundamental principle of IPA (Garrett, 2013). This approach aligns with Heidegger's interpretive phenomenology, which emphasised the significance of the hermeneutic circle. This outlines how "*the meaning of a word becomes clear in the context of the whole sentence, and the meaning of a sentence relies on the individual words' cumulative meanings*" (Smith et al., 2009: p. 28). To explore and make sense of the phenomenon from the students' perspectives, I will use a combination of the hermeneutics of empathy and the hermeneutics of questioning. Hermeneutic of suspicion was eliminated because, the aim of this study is not based on scepticisms but to interpret and understand students' lived experiences.

Reflective journal dated 27th March 2021. Through a double hermeneutic process, I need to be mindful that I am not just listening to the participants' interpretation of their experiences. I also need to interpret and understand these experiences in my own way. This means I need to grasp the full meaning of their experiences without losing the essence and significance that these experiences hold for the participants. Through this complex process, I aim to uncover the depth of the participants' narratives.

3.3.5. Idiographic approach

Idiography is "concerned with the particular" (Smith et al., 2012: p. 29), focusing on the individuality and uniqueness of a participant's voice and experiences (Moses and Knutsen, 2019). This makes IPA explicitly idiographic, as it aims to understand and examine the lived experiences of

individual participants to make sense of their interpretation of a phenomenon and how it is expressed (Smith and Osborn 2015). I believe that a participant's thoughts, beliefs, experiences, and behaviour reveal a story about them; a subjective quality that is central to IPA and from which learning can occur. This is consistent with Winter's (1988) idea, as described by Delderfield and Bolton (2018), that humans do not store experiences like data on a computer but rather tell them as stories. While IPA is not about generalisation, each participant's experiences will be analysed individually. The meaning will be placed in the context of how it aligns with other participants' shared meaning. According to Smith et al., (2012), the outcome of this process can be labelled as "theoretical generalisability", as the researcher can draw on their own experience to understand the impact on their own and others' professional practices.

3.4. Acknowledgement of alternative approaches

This study explores and critically analyses the strategies employed by final-year BSc pre-registration nursing and midwifery students to connect theoretical knowledge with clinical practice, with the goal of promoting their learning and professional development. I utilised IPA for this study, while also recognising similarities with other qualitative approaches like discourse analysis, narrative analysis, and grounded theory. However, after a thorough evaluation, I concluded that these methods were not the most appropriate for achieving my study objectives.

Discourse analysis is a research method that involves analysing language used in a social context to study communication (Johnstone, 2018). Although it has similarities to IPA, discourse analysis focuses on the discourse or language used. This is more than the cognitive or experiential aspects of the phenomenon being studied. This may not be appropriate for my research, as I aim to examine participants' experiences and their meanings. Without an emphasis on the specific experience being investigated, discourse analysis may only examine the language used

without investigating the underlying meanings and phenomena it refers to (Smiraglia, 2015). Therefore, it was concluded that this approach was not appropriate for my study.

Narrative analysis is a research method that involves analysing interview data to understand how and why individuals discuss various aspects of their lives. Although it has similarities to IPA, narrative analysis primarily concentrates on the narrative or story being told. This is more than the underlying meanings and phenomena being explored. It may not consider essential content, such as double hermeneutics and idiography, which are critical to IPA. Therefore, it was concluded that this approach was not appropriate since it did not align with my study's aim and objectives.

Grounded theory is a research method that involves collecting and analysing data in order to develop a theory. This technique differs from other methods, such as IPA. The aim of my research was not to develop a theory but to investigate a specific phenomenon in depth, paying particular attention to the unique characteristics of the participants. Moreover, because the number of participants in this study was small, grounded theory would not have been practical. Therefore, I concluded that this approach was not appropriate for this study.

3.5. Research method: semi-structured interviews

While methodology refers to the overall approach or framework for acquiring knowledge, methods refer to specific techniques or strategies used to collect data (Mackenzie and Knipe, 2006). In selecting a method for a study, it is important to consider the research problem being investigated and the data sources available rather than making assumptions based on philosophical principles (Punch, 2013; Grix, 2018). When studying a process using a qualitative methodology with an idiographic focus, a flexible data collection method is often the most appropriate (Ruben and Ruben, 2011). In the case of an IPA study, semi-structured interviews with open-ended questions are

often considered an exemplary and popular method for facilitating meaningful reflection. This is because it allows participants to reveal their subjective experiences through an interactive relationship with the interviewer (O'Reilly and Kiyimba, 2015; Smith et al., 2012). It is also the reason it was selected for my study.

Semi-structured interviews, described as "*conversations with a purpose*" (Smith et al., 2012, p. 57), allow for a dialogue to occur between the researcher and the participants in real time. This method permitted the interviewer to begin the interview with warm-up questions, modify inquiries, and provide prompts when necessary. Developing an excellent relationship with the participants, generates rich, in-depth data. However, it is important to recognise that this method also has some disadvantages. It generates large amounts of data, which may be time-consuming to transcribe and analyse. A researcher must also have excellent interviewing skills, and the participant must have control over the topic given their lived experience and the choice to disclose as much or as little as they feel comfortable (Given, 2008). Overall, semi-structured interviews are an effective method for collecting data in an IPA study, but it is important to consider the potential limitations and challenges as well such as not asking probing or follow up questions and it can be very time consuming.

3.5.1. Interview protocol

The interview protocol is a procedural guide that helps the researcher organise and conduct the interview process (Patton, 2015). For my study, the interview protocol served as more than just a list of questions to ask during the interview. It provided reminders of what to say or ask before and after the interview. It also highlights additional information to collect, such as consent and demographic data (Jacob and Furgerson, 2012). The interview protocol (**Appendix 3**) was developed as a supplementary guide to facilitate the interview process. This allows for flexibility in asking questions to seek clarification and interpret the meaning of what the participants are trying to

convey. It was designed to capture the richness and depth of participants' experiences, consistent with IPA goals.

The interview protocol for my study was structured with an introduction, body, and conclusion. The introduction section involved welcoming and thanking the participants and acknowledging receipt of their consent forms. It also outlined the purpose of the research, the length of the interview, and the collection of demographic data. The protocol body consisted of pre-prepared, open-ended warm-up and main body questions. It also included prompt questions to encourage the participants to stay on track with the conversation. The conclusion encompassed a comprehensive summary of the interview findings and expressed gratitude to the participants for their valuable time and invaluable contributions to the study. Employing an interview protocol proved instrumental in maintaining question consistency throughout all interviews and establishing a structured framework for the interview process. As a novice researcher, it significantly aided me in staying focused and facilitating participants' willingness to openly discuss the topic under investigation.

3.5.2. Sampling

There are no specific guidelines or right answers to the question of determining the sample size for an IPA study. However, it is generally recommended to have a small sample size while remaining flexible and pragmatic (Finlay, 2011; Smith et al., 2009). Given the idiographic focus of IPA, a smaller sample size is often preferred, as the emphasis is on capturing the rich details of the participants' experiences rather than the quantity of data. A sample size of one participant is not uncommon in phenomenological studies (Sim et al., 2018). For example, Robson's (2002) study on grief following late pregnancy termination due to foetal abnormality used a sample size of one. The study met the IPA criteria in terms of the quality and richness of the data collected.

For a professional doctorate, there is no agreement on the appropriate sample size. Smith et al., (2012) argue that interviews should be prioritised over the number of participants. They recommended ($n=4-10$) interviews. On the other hand, Plano-Clark (2010) suggested that a sample size of ($n=4-10$) participants is sufficient for a professional doctorate study. The ongoing debate over the appropriate sample size for an IPA study in terms of the number of interviews versus the number of participants is a source of contention (Noon, 2018; Smith et al., 2012; Plano-Clark, 2010). The lack of agreement on this issue can be viewed as a critique of IPA studies.

Initially, I planned to recruit ($n=15$) participants for my study. However, after considering Smith et al., (2012) and Plano-Clark's (2010) perspectives above, as well as concerns associated with a larger sample size that does not reflect the ideographic nature of an IPA study as well as the volume of data it generates, which can limit in-depth data analysis (Smith et al., 2009), I opted to reduce the sample size to ($n=12$) participants. The first two participants from this group of twelve were selected for a pilot study. The primary goal of this pilot study was to ensure that the interview procedure ran smoothly and that the interview protocol was fit for purpose. The outcomes of the pilot study yielded such rich data that I decided to incorporate this into my study. The ten remaining participants, who formed the core group for the study, were able to provide valuable and informative data, such that no new themes emerged from the data or data saturation was reached.

To safeguard confidentiality and anonymity, pseudonyms were assigned to each participant. The demographic data of the participants are presented in **(Figure 3.4)**. It is noteworthy that the gender distribution of the participants aligns with the overall gender balance observed among registered nurses. According to the NMC's 2020 annual report, approximately 89% of registered nurses are female, while the remaining 11% are male.

Figure 3.4 Participants' demographic data

Participants	Age	Gender	Ethnicity	Nursing Field
Dan	24	Male	White	BSc Adult
Elsie	45	Female	BAME	Mental Health
Faizal	22	Male	BAME	BSc Adult
Florence	22	Female	BAME	Midwifery
Freya	44	Female	BAME	BSc Adult
Harriet	40	Female	White	BSc Adult
Joel	37	Male	BAME	BSc Adult
Joseph	27	Male	White	BSc Adult
Nancy	26	Female	White	BSc Adult
Olivia	30	Female	BAME	BSc Adult
Poppy	21	Female	White	BSc Adult
Sophie	34	Female	White	Midwifery

3.5.3. Inclusion and exclusion criteria

Reflective journal dated 15th May 2020. BSc students will definitely be selected for this study because I am not familiar with these groups of students. As the Course Director for the PG Dip program and module leader of various modules, I am familiar with this cohort of students. Due to unfamiliarity with the BSc students, ethical issues surrounding participants and their feeling of obligation to participate in my study will be circumvented.

The eligibility criteria to participate in this study were that participants had to be in the final year, on their final clinical placement in the pre-registration BSc nursing and midwifery programmes. This requirement ensured that participants had been exposed to a significant number of clinical placements, which would allow them to provide rich and in-depth data. While IPA studies often involve a homogeneous sample, there may be some variation among the participants in this study. This study was open to participants of various genders, ages, and ethnicities. This approach was appropriate as it reflected the diversity of the nursing and midwifery

students' population. As the researcher, I was also interested in exploring whether there were any differences in perspectives on the phenomenon being studied based on demographic data.

Certain students were subjected to exclusion criteria. This included students who returned to the programme after a break in their studies. It also included those who had to repeat placements due to academic or clinical referrals. It also applied to those not enrolled on the BSc pre-registration Nursing or Midwifery programmes at the university in which my study was undertaken. The rationale for this is to allow for a more targeted and focused investigation within the defined parameters of the study.

3.6. Ethical considerations

As a researcher, it is crucial to consider the systems, principles, and standards that regulate and guide research conduct. This is to ensure the rights, safety, well-being, and dignity of all involved, including the organisation, researchers, and participants (Sibinga, 2018). Ethical considerations are particularly significant because research has the potential to cause anxiety, harm, and stress to participants (Hammersley, 2012; Robinson, 2011; Denzin and Giardina, 2016). My study was deemed to be of medium risk by the ethics committee. The debriefing sheet provided information on available support for participants, if required (**Appendix 4**).

There are two perspectives on ethical considerations in research: ethics as regulations involving adherence to ethical rules and ethics as decision-making, which involves the researcher exercising moral and sound judgment throughout the entire research process (Resnik, 2018; Banks et al., 2013). This study upheld both perspectives. To ensure appropriate research practices, established guidelines and frameworks must be followed (Stutchbury and Fox, 2009). Ethical approval was obtained from the School of Law and Social Science Research Ethics Committee at the university where the participants were enrolled as students (**Appendix 5**). The study

followed the British Educational Research Association's (BERA, 2018) ethical guidelines for educational research to ensure ethical conduct throughout the study.

3.6.1. Informed consent

Resnik (2018) and Vanclay et al., (2013) highlight the importance of informed consent. To participate in a study, individuals must voluntarily agree after being fully informed of the study's nature and potential implications. Participants who expressed an interest to take part in my study were sent a participant information sheet (**Appendix 6**) via confidential email. This outlined details regarding the risk, benefits, and how the data would be stored, used, and disposed. Participants were also informed of their right to withdraw at any time without this having any repercussion on their programme of study. After the distribution of two consent forms (**Appendix 7**), participants were instructed to carefully read all documents before signing both copies of the consent forms. The participant to keep one copy, and the other returned to me. Interviews were conducted only with participants who returned their signed consent forms. To ensure ethical standards were followed, all materials distributed to the participants were approved by the ethics committee.

3.6.2. Maintaining confidentiality

Due to restriction as a result of the COVID-19 pandemic, paper documents were not used. GDPR required all electronic data to be encrypted and stored on a computer that required a password. To maintain confidentiality, participants were assigned pseudonyms, which will be used in any subsequent reports or publications resulting from the study. These steps were necessary to protect participants' anonymity. It was also to show respect and provide assurance, as well as demonstrate the researcher's responsibility for managing the participants' data. The collected data will be

kept for up to ten years before being disposed. This is to guarantee that no personal data is shared with a third party and to prevent misuse of the data. It also ensures that participants' privacy is fully respected.

3.7. Recruitment and selection of participants

Before recruiting participants for this study, a formal request was made to the Deputy Dean for the School of Health and Social Care, who is also the gatekeeper and lead nurse for nursing and midwifery for the university (**Appendix 8**). The gatekeeper can grant or deny access to research participants (Emmerich, 2016). After receiving approval for the request, discussions were held with the lead nurse for midwifery and the course directors for the four fields of nursing. This was to explain the study and make a request for it to be advertised to the potential participants in midwifery and in each field of nursing.

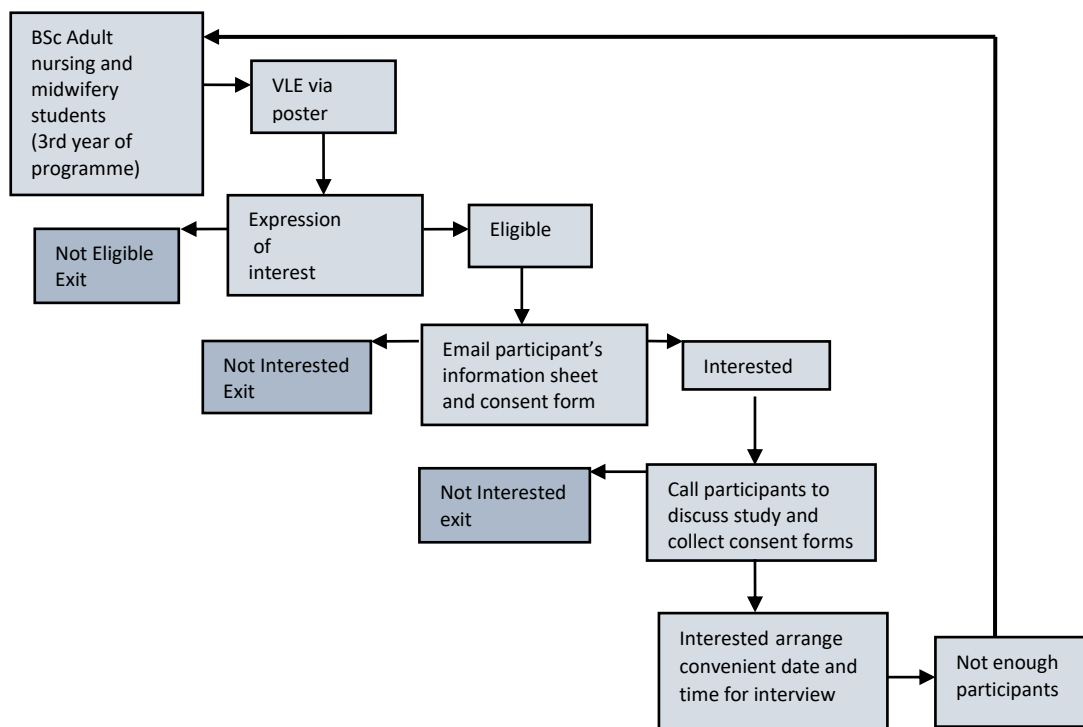
The advertisement was posted on the University's Virtual Learning Platform (VLE) under each program code, ensuring that it was only visible to third-year students in midwifery and the four nursing fields. Due to the COVID-19 pandemic, a moratorium on face-to-face interactions with participants was implemented, which led to the suspension of in-person teaching at the University at the time of recruitment. As a result, all communication with participants to discuss the study was conducted using Voice over Internet Protocol (VoIP) technologies such as email and Microsoft Teams (MS Teams).

It is important to maintain homogeneity among IPA study participants. This allows for a better understanding of the overall contextual perspective of the phenomenon being studied (Creswell, 2014). To recruit a homogenous group of participants with similar lived experiences, I chose purposive or judgement sampling rather than probability sampling. This sampling strategy allows for the deliberate selection of participants based on the researcher's judgment and practical experience (Shorten and Moorley, 2014). It was also

chosen because of the participants' knowledge, experiences, and potential to address the research questions (Creswell, 2014). However, it should be noted that purposive sampling does not generalise results to the population of interest.

Despite re-advertising, there was no response from students enrolled on the child or learning disability nursing fields. It remains uncertain whether the absence of response was a result of the limited number of students in these particular nursing fields or if it was influenced by the ongoing Covid-19 pandemic. However, participants from other fields who did respond to the advertisement were contacted individually through email. They were provided with additional details about the study and assessed to determine if they met the predefined inclusion criteria. Those who returned their signed consent forms were contacted again to schedule a mutually convenient time and date for the interview. (**Figure 3.5**) illustrates the process of participant recruitment and selection

Figure 3.5: Recruitment and selection process



3.8. Piloting the IPA interview

Pilot studies are small-scale research projects that are not necessarily focused on results. It is used to test methods and procedures to identify and address any difficulties before the main study (Kim, 2010; Arnold et al., 2009). Considered a vital part of a research design, a pilot study is designed to improve the quality of the research by enhancing its validity and reliability (Gudmundsdottir and Brock-Utne, 2010). While pilot studies are commonly used in quantitative research to test research instruments that measure statistical data (Malmqvist et al., 2019), pilot studies are believed to be underused, underreported, and more complex in qualitative research due to the subjective nature of the data being collected, such as experiences and opinions (Gudmundsdottir and Brock-Utne, 2010).

For this study, even though I knew the complexities of conducting a pilot study, I thought it was extremely valuable. I was using MS Teams for the first time as a medium for conducting and recording interviews. I wanted to ensure I could manage the MS Teams platform effectively. The pilot study was also an excellent opportunity for me to refresh my interviewing skills and pre-test the appropriateness of my interview questions, a recommendation by Smith et al., (2009). Additionally, they proposed conducting pilot interviews for the initial two participants and making necessary adjustments to the interview questions. The aim is to ensure that the questions align with the objectives of the study and are easily understandable by the participants, thereby enhancing the rigor of the questioning process. As part of my professional doctorate studies, I engaged in a module that included comprehensive training on interview techniques, which was assessed as part of the course requirements.

After conducting a pilot study that included two interviews, I felt confident in using MS teams, my interviewing skills and ability to ask probing questions. I also believed the questions were suitable, and I was satisfied with the level of dialogue generated with the participants within the given timeframe. As a

result, I saw no need to alter the interview questions or change the interview protocol. The outcomes of the pilot study yielded rich data that, after consultation with my supervisors, it was agreed that the data should be integrated into the main study.

3.8.1. Organising and conducting IPA interviews

All interviews for my study were conducted during the onset of the COVID-19 pandemic. While face-to-face interviews are considered the "*gold standard*" (Novick, 2008, p. 397), the constraints imposed by the COVID-19 pandemic such as the closure of the university, necessitated a temporary suspension or moratorium on in-person or face-to-face interviews. To circumvent this limitation, interviews were conducted utilising Microsoft Teams (MST), a virtual platform widely employed by the University for teaching and communication purposes. The use of this technology offered numerous advantages compared to telephone-based interviews, including the capacity to conduct interviews face-to-face (albeit virtually) and to simultaneously record and transcribe the interviews verbatim in real-time. Being able to observe the participants' facial expressions and body language, together with their verbal responses, added another dimension to data collection. Conducting the interviews via MST also allowed for the detection of subtle, implicit concerns such as negative experiences (Willig, 2013; Robson, 2011).

Birdwhistell (2010) declares approximately 65-70% of all communication is conveyed through nonverbal cues. Research has also shown that, when internet service and equipment function properly, the quality of virtual interviews does not differ from those conducted in person (Deakin and Wakefield, 2013; Cabaroglu et al., 2010). In addition, participants were in their own homes, which are generally considered a comfortable and non-threatening environment that allows for the discussion of sensitive topics (Nicholas et al., 2010). Participants also had the option to obscure or change the backgrounds on their computer screens to maintain privacy, as

backgrounds can reveal information about a participant's hobbies, lifestyle, and place of residence.

While conducting interviews via MS Teams has several advantages; it is essential to also acknowledge and consider the disadvantages. Notably, a definite physical barrier is created by the computer screens. This can potentially make it difficult to initiate a fluid conversation, particularly when interacting with unfamiliar participants. Additionally, there may be internet connection issues and limited and timed storage capacity for recording materials. Furthermore, participants could be distracted by others and there could also be concerns surrounding the inability to see or hear the participant hindering the richness of data collection. In one particular instance, a participant was briefly distracted by their child. As a consequence, the interview was momentarily halted and resumed only when the participant had regained focus and was prepared to continue.

Noon (2018) and Smith et al., (2009) describe IPA interviews as a conversation with a purpose that typically lasts an hour. For my study, each interview lasted between 45 and 60 minutes. I used semi-structured interviews because this aligned with the qualitative methodology and idiographic focus of my study. Semi-structured interview is also recommended by Smith et al., (2009) because it allows the researcher to delve deeply into the lived experiences of the participants. The interview protocol was formulated around a series of open-ended questions intended for participants to tell their stories and lead the conversation, which focused on their experiences and sense-making of how they connect theoretical knowledge with clinical practice. Where aspects of their experiences remained unclear or not fully understood, I asked probing questions to explore this in more depth. Post-interview, no participants were recalled for verification of their stories. Participants were emailed a debrief sheet following the interview (see Appendix 4).

The duration for conducting all ($n=12$) interviews was approximately three months, due to the need to re-advertise. One participant was recruited through the snowball sampling strategy, whereby a participant who had already been interviewed suggested their colleague as a potential participant. Snowballing technique is when participants guide the researcher to the next participant by way of referral. This technique also validates the study and credibility and trustworthiness of the researcher to the next participant (Shorten and Moorley 2014).

3.9. Data analysis

While there are many benefits to using electronic software for data analysis, such as time savings and increased validity, I chose to undertake this process manually. The rationale for this, was to fully immerse myself in the double hermeneutic process. This process involves fully capturing the nuances of participants' experiences, which may be overlooked if analysis software was used. In particular, I wanted to avoid digitalising something that should be intuitive. Van Manen (2014), a phenomenological scholar, argued that while thematic analysis may be facilitated by software, the phenomenological comprehension of a study that aims to explain the meaning of lived experiences cannot be produced through a coding process. If commonalities are reduced to codes, the true depth or meaning of experiences may be lost.

Maher et al., (2018) also argue that manual data analysis produces more insight and is a more rigorous process because it allows for more interaction and engagement with the data. To guide the data analysis and provide transparency for readers, I followed Smith et al., (2012) six-step approach for each data set. I also engaged with the hermeneutic circle during the analysis of each data set, as this is an iterative process that is idiographic and inductive, with the primary focus being on allowing themes to emerge from the raw data.

All interviews were transcribed verbatim. The following explains of how Smith et al., (2012) six-step approach in the data analysis process was applied.

1. Reading and re-reading the data: This involved reading the transcript and listening to the interview recording several times, immersing myself in the data and engaging in mental recall of the interviews. During this iterative process, I carefully examined the data for any themes I may have previously overlooked. I ensured that I captured all the details and nuances of my interaction with the participants. I completed this process for all 12 transcripts.
2. Initial noting: During this step, I listened to the recorded interview while reading the transcript, using different coloured pens to highlight phrases, comments, and expressions that emerged (**Appendix 9**). I then created a key in a column on the transcript to identify the meaning of each colour code, labelling them accordingly (e.g., linguistic comments, descriptive comments from participants' accounts of their experiences, and comments from my knowledge of the research topic). This step was undertaken in conjunction with the first step, which Smith et al.,2012 claim merges naturally.
3. Developing experiential statements formally called emergent themes: After reviewing the transcript, I focused on the colour-coded data to identify and categorise experiential statements, such as what the participants were trying to convey about their interpretation of their experiences. These experiential statements were then condensed and made more concise, reducing the volume of data while still maintaining the essence of the source from which the statement emerged. Throughout this process, I kept the research objectives in mind to act as a guide.
4. Searching for connections across experiential statements: Using theoretical knowledge, I looked for patterns, differences, similarities,

or information that could establish connections among experiential statements. This led to the formation of major and minor experiential statements, which were then organised in a table for easy reference on the transcript. Experiential statements that did not fit into emerging patterns or were not evidently strong were dropped.

5. Moving to the next case – Steps one to four was repeated for the remaining transcripts.
6. Looking for patterns across cases: I searched for connections between experiential statements across all transcripts. Once these connections were identified, I reconfigured common experiential statements into Personal Experiential Theme (PET) and Group Experiential Theme (GET) which I added to a separate column on a table. Arroll (2015) argues that experiential statements will emerge when it is identified in at least three of the participants' narratives of their experiences. However, I disagree with this criterion in the context of an IPA study, as it is not about the collective but rather the richness and quality of the data collected, even if it comes from a single participant. The emergent experiential statements will be discussed individually during the write up phase in the findings chapter.

3.10. Member checking or participant validation

Prior to data analysis, it is customary to engage in member checking, a process in which participants are provided with their transcripts to review for accuracy. This practice is widely regarded as an integral aspect of ensuring trustworthiness and upholding validity in qualitative research (Moorley and Cathala, 2019). Nonetheless, there are ongoing debates surround the feasibility and value of member checking in qualitative research due to various factors, such as the time gap between data collection and participant verification (Hallett, 2013; Koelsch, 2013). Buchbinder (2011)

argues that member checking may not significantly contribute to study validity due to the power dynamics between researchers and participants, potentially resulting in participant only affirming the transcription. Moreover, scholars have raised concerns that, despite its intended purpose of enhancing validity, the member checking process can potentially cause harm to participants particularly those who have experienced trauma (Candela, 2019; Hallett, 2013; Goldblatt et al., 2010).

For my study, I decided not to conduct member checking. This was due to the traumatic experiences recounted by participants during their clinical practice amidst the COVID-19 pandemic. This choice was made to prevent any potential distress associated with revisiting these experiences. Additionally, I recognised the ethical concerns surrounding requesting participants to relive these challenging experiences such as psychological distress and emotional discomfort.

Larkin and Thompson (2012), asserts that for an IPA study, member checking may be less appropriate because of the interpretive nature of this type of study. Dibley et al., (2020) concur, claiming that it undermines the philosophical underpinnings of a study that constitutes hermeneutics. This is because the goal is to create an understanding between the researcher and participant at the time of the interview rather than to demonstrate absoluteness or truth. McGaha and D'Urso (2019) discusses that member checking is insufficient or inaccurate when validating an interpretive phenomenological analysis (IPA) study and call for other methods to assess validity, trustworthiness, or quality.

3.11. Maintaining quality in qualitative research

There are uncertainty, doubt, and lack of consensus surrounding the assessment of the quality of qualitative studies. This is because they do not meet the criteria established for quantitative studies, which are based on objectivity, achieve scientific status, and involve sample sizes that are

statistically valid and can be generalised to the population (Yardley, 2011; Hollway, 2007). As a consequence, qualitative studies are sometimes classed as inferior to quantitative studies. This should not be the case because these two studies are based on different conceptual approaches and paradigms. They should be evaluated on their own merits. Maintaining quality in qualitative studies involves adhering to rigorous methodologies and methods including, participant selection, data collection and analysis. Reporting and dissemination of findings should be transparent (Mays and Pope, 2020). By following these principles, a researcher can ensure the quality and credibility of their qualitative studies.

3.11.1. Maintaining quality for my study

The quality of an IPA study, which is described as the most “*participant orientated*” qualitative approach (Alase, 2017 p.10), focuses on exploring and interpreting the social context of participants. It has small sample sizes that lead to theoretical generalisability which cannot be measured using quantitative criteria. While various lists, guidelines, and recommendations have been proposed to assess the quality of qualitative studies, I have selected Yardley's (2000) framework because it is widely regarded as the most effective and versatile approach for assessing quality in qualitative research across a range of disciplines (Braun and Clarke, 2013). This framework has been endorsed by Smith et al., (2009) as a means of ensuring the quality of an IPA study. The framework consists of four key criteria, although “*a single study doesn't need to meet all of these criteria*” (Yardley, 2008, p.248). The following provide an explanation of how these criteria apply to my study.

1. Sensitivity to context, refers to the importance of considering the theoretical foundations and relevant literature for the study, as well as the socio-cultural setting and participant perspectives, and all ethical issues (Yardley, 2000).

I demonstrate context sensitivity in several ways. Chapter One introduces the theoretical and philosophical underpinnings of the study and explains why they are appropriate. In chapter two, I review the relevant literature and identify the knowledge gap addressed by the study. Chapter three discusses how and why the chosen paradigms align with the research question and are suitable for the study. Chapter four addresses the ethical issues involved in collecting and analysing data. I discussed the importance of allowing participants to explain what is meaningful to them and how their sociocultural backgrounds shape their perspectives.

2. Commitment and rigor, focuses on the researcher's in-depth engagement with the study topic, including a clear explanation of the methodological approach and the skills and competence of the researcher (Yardley, 2000).

In chapter one, I demonstrated my personal and professional knowledge of the topic through reflexivity and positionality. I explained why IPA was the best methodological approach for this study. Through the thoroughness of my data collection and analysis processes, I aim to demonstrate rigor and competence in managing this IPA study.

3. Transparency and coherence, denotes the clarity of the argument and the persuasiveness of how the data is collected, interpreted, and presented, as well as the alignment between the different aspects of the study, such as the fit between theory and method (Yardley, 2000).

In chapter one, I discussed my reflexivity and positionality in an open manner so that readers could understand the extent to which my own biases and experiences may have influenced the study. In chapter three, I ensured coherence by disclosing all aspects of the research process. I provided audit trails to demonstrate how I justified each paradigm and how they fit together. I subsequently presented part (findings on COVID-19) of my preliminary results at the Association of Southeast Asian Nations (ASEAN) International

Nursing Conference in October 2021 (virtual). I also participated in a roundtable discussion on qualitative data collection during the COVID-19 pandemic at the SIGMA Nursing International Congress in July 2022 (Edinburgh). I also presented my study at a teaching session for doctoral students in May 2023. This session focused on “getting the setting and sample right”.

4. Impact and Importance, refers to the significance of the study in terms of its theoretical, practical, and socio-cultural impact (Yardley, 2000).

The findings of my study will have practical implications for nursing and midwifery educators and clinicians in understanding how students apply theoretical knowledge to clinical practice. In addition, the study will have broader relevance for other professions that involve both theoretical and practical components in their educational structures. The study will also contribute to the body of knowledge on how the theory-practice gap can be bridged. Also, how students can be better supported in their education.

3.12. Summary

In this chapter, the research paradigms guiding my study were presented. The alignment of these paradigms with the chosen research methodology and methods for answering the research questions was justified. The theoretical foundations of IPA and its reliance on phenomenology, idiography, and hermeneutics were discussed. The rationale for selecting this qualitative approach as the methodological framework and for data analysis was provided. Recruitment, selection, and data collection procedures were outlined, along with demographic data on participants. Ethical considerations such as informed consent, confidentiality, and data management were also addressed. The chapter concluded with an evaluation of the study's quality using Yardley's (2000) framework. In the next chapter, the findings will be presented and the process by which conclusions were reached will be explained.

Chapter 4

Findings

4.1. Introduction

This study examines how final-year BSc pre-registration nursing and midwifery students connect theoretical knowledge with clinical practice to promote their learning and professional development. Given that the study was conducted during the COVID-19 pandemic, it also examined the impact this may have had on participants' learning during this unprecedented time. To help guide the investigation of this phenomenon, the following research objectives were developed:

1. To investigate how final-year BSc pre-registration nursing and midwifery students interpret and understand their experiences of connecting theoretical knowledge with clinical practice.
2. To examine the strategies used by final-year BSc pre-registration nursing and midwifery students to connect theoretical knowledge with clinical practice.
3. To explore final-year BSc pre-registration nursing and midwifery students' perspectives on whether demographic characteristics such as gender, age, and ethnicity affect their learning and professional development.
4. To explore the effect of COVID-19 on final year BSc pre-registration nursing and midwifery students' education.

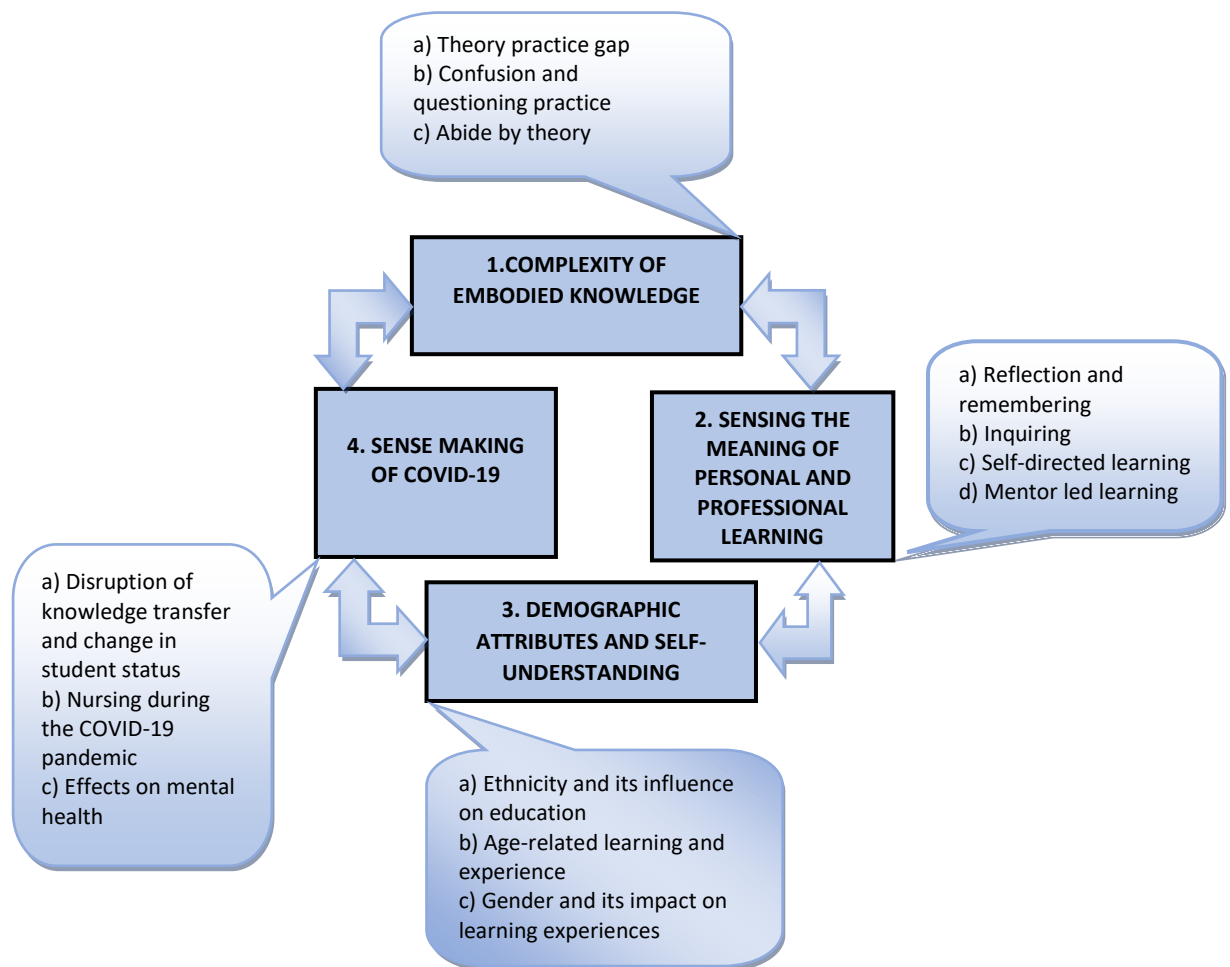
Figure 4.1 is a graphical representation of the findings from my study. The labelling of these themes deviates from conventional methods. This is because, in an IPA study, they are specifically chosen to align with the researcher's understanding of the data as seen through the lenses of interpretative (Dibley et al., 2020).

Reflective journal dated 09th January 2021. Huge amounts of data to analysed, which will take a long time. IPA study themes are labelled as superordinate and subordinate as recommended by Jonathan Smith. These were very difficult to label because my interpretation is that students interpret their educational programs as being confusing and messy. I am not sure if this confusion stems from being on placement during the first wave of COVID-19. During this time, the students experienced numerous disruptions and had to work under challenging situations. Also, not sure if they provided data based on what was occurring at the time and not on past experiences of their educational programmes.

Reflective journal dated 28th August 2021. New Book published by Smith and Nizzer on August 21. Labelling of themes now changed. The subordinate theme is now Group Experiential Themes (GET), and the subordinate theme is now Personal Experiential Theme (PET). I need to review the labelling of my study's themes to reflect currency.

The four GETs are :(1) Complexities of embodied knowledge; (2) Sensing the meaning of personal and professional learning; (3) Demographic attributes and self-understanding; (4) Sense making of COVID-19. All four GETs are represented by the inner quadrilateral shapes, labelled in bold and capital letters. The respective PETs are in thought bubbles on the outside as illustrated in **Figure 4.1**. These themes emerged through an interpretive analysis of the transcripts of the participants' interconnected, multidimensional, and subjective experiences. The themes captured how I interpret, the participants interpretation of their connection of theoretical knowledge with clinical practice. The influence of factors such as age, gender, ethnicity, and the impact of the COVID-19 pandemic on the participants' learning and professional development was also considered in the labelling of two GETs.

Figure 4.1 Findings from my study depicting Group Experiential Themes (GET) and Personal Experiential Themes (PET)



Initially, the primary focus will be on outlining and explaining the overarching GETs that emerged from the group's collective experiences. This will be followed by an exploration of how the individual threads of PET interweaved to form each distinct GET. In line with the idiographic nature of an IPA study, direct excerpts extracted from the transcripts of each participant will be utilised to provide a porthole view of their stories and substantiate claims from their unique lived experiences. I have used the extracts that best capture the phenomenon. It should be noted that these are presented verbatim. While they may contain grammatical errors, I feel this upholds the authenticity of this thesis.

4.2. Group Experiential Theme

Four main group experiential themes, together with their personal experiential themes, emerged after inductive analysis. An example of how I undertook this process to arrive at two of these themes is provided in **Appendix 9**. While it is imperative to recognise that IPA focuses on the individual experiences of each participant, the themes were based on instances where one or more participants had similar experiences. Participants' individual experiences will be discussed in the personal experiential theme. To address the research aim and for ease of explanation, the four objectives of my study are aligned with the four group experiential themes as depicted in (**Figure 4.2**).

Figure 4.2 Alignment of my study's objectives with the four Group Experiential Themes

Research Objectives	Group Experiential Themes
To investigate how final-year BSc pre-registration nursing and midwifery students interpret and understand their experiences of connecting theoretical knowledge with clinical practice.	Complexity of embodied knowledge
To examine the personal and pedagogical strategies used by final-year BSc pre-registration nursing and midwifery students to connect theoretical knowledge with clinical practice.	Sensing the meaning of personal and professional learning
To explore whether student demographic characteristics such as gender, age, and ethnicity impact their learning and professional development experiences.	Demographic attributes and self-understanding
To ascertain the effect of COVID-19 on BSc pre-registration nursing and midwifery students' education.	Sense making of COVID-19

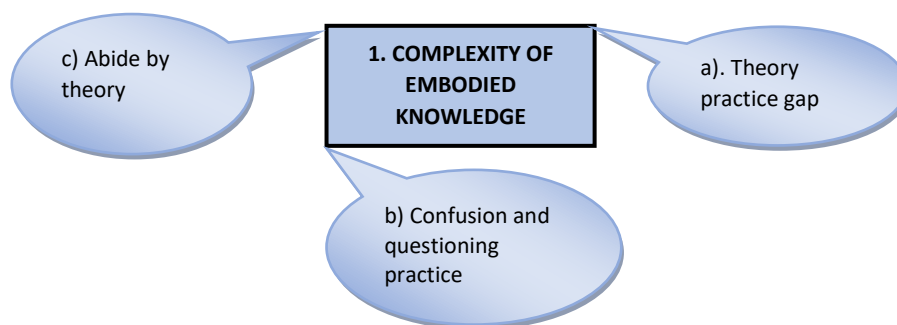
4.3. Group experiential theme one: complexity of embodied knowledge

This theme was labelled "Complexity of Embodied Knowledge" because I perceived that participants' interpretation of connecting theoretical knowledge with clinical practice is intricate and not straightforward. This complexity arises from the need to blend physical, emotional, and reflective experiences to develop a holistic grasp of patient care that extends beyond

theoretical learning. This theme posed a challenge because there is an assumption that students can seamlessly apply the theoretical knowledge they learn at university into clinical practice, which, in reality, is not as straightforward as it appears.

This theme, along with its related personal experiential themes, offers an overview of how participants understood and interpret their experiences of connecting theoretical knowledge with clinical practice. While the participants recognised the presence of a theory-practice gap in their educational programmes, they also experienced confusion, uncertainty, questioning of practice which made it complex. They also accepted theory as a key influence on their nursing and midwifery education. **Figure 4.3** presents a diagrammatical representation of group Experiential Theme one with its respective personal experiential themes, each of which will be explained below.

Figure 4.3 Group Experiential Theme one: the complexity of embodied knowledge with its related personal experiential themes



4.3.1. Personal experiential theme - theory-practice gap

Before exploring how nursing and midwifery students connect theoretical knowledge with clinical practice, it was important for me to establish whether they were aware of any gaps between theory and practice in their educational structure.

From my interpretation of the data, the majority of participants indicated that such a gap exists in their respective educational programs. They provided a variety of explanations for this gap, as revealed in their narratives below. There were also discrepancies in their justifications for why they thought this occurred. Understanding the participants' experiences of the theory-practice gap was critical to the study.

P1. Joel: *"The teaching that we have learned in the university and the nurses doing it is different in practice. The ideas and the way that the mentors are teaching us as well is like there are two differences and as a student, we have to follow our mentor's teaching. I have to follow what they are doing in practice because they have to follow their policies and procedures".*

Joel's narrative suggests that he is aware of the existence of a theory-practice gap. His account demonstrates that he also recognises the differences in the pedagogical approaches between theory and practice. Additionally, when shadowing his mentor, he also follows clinical policies and procedures which may or may not differ from those presented at university.

P2. Sophie: *"the university's golden standard is not what is in the hospital's golden standard in practice. Lecturers told us we know you do it differently in the clinical setting, but this is the way we want you to do it for your exam and you adhere to it".*

According to Sophie's narrative, theoretical knowledge and clinical practice are seen as two distinct sets of standards. For student to be successful in their exams, they must adhere to the theoretical standards. Her comments also suggest that lecturers are aware that students are taught differently in clinical practice, indicating that academic staff also acknowledges the existence of the theory-practice gap.

P3. Florence: "This is simply because it is a different experience and, you have to work with a mentor who is also able to connect theory to practice. Some mentors do things a certain way because that's just how they have been doing it for years and years".

According to Florence's narrative, what is experienced at university and what is experienced in clinical practice are two distinct experiences. She also highlighted the importance of students working with mentors who can assist with connecting the gap between theory and practice but noted that some mentors may still adhere to traditional approaches in the clinical setting. This inconsistency could be a contributory factor to the confusion that nursing, and midwifery students experience in their education.

P4. Harriet: "in university, it's very much like the ideal way nursing should be done. The theory is there for a reason; it is how it should be done. She (the mentor) was like we don't need to do that here".

Based on Harriet's experience, it appears that the gap between theory and practice is due to the perception that theory represents an ideal while practice does not. This suggests that students may not always apply what they have learned in theory. This is because when in the clinical setting, they are expected to follow established clinical practices.

P5. Olivia: "when you get to practice and sometimes you don't always see what you expect people to do from what you learn before. Some professionals do things differently, I don't know what, I don't know what the reason is if it's just because of lack of time or pressure which I don't think is right or it's not, it's just not justifiable for me so I ask".

Olivia recognises that clinical practice differs from what is taught at university and that this practice also varies among professionals. While she noticed this discrepancy, she is unsure of the reason behind it, although she speculates that it could be due to a lack of time or work demands.

From my interpretation and based on the participants' experiences, several factors appear to contribute to the theory-practice gap. These include.

- Differences in pedagogical approaches, policies, and procedures between theory and practice
- Alignment of theory with exams rather than clinical practice
- Perception of theory and practice as distinct experiences, with some professionals still adhering to traditional approaches in practice
- Perception of theory as the ideal and practice as not meeting this ideal
- Limited time or “pressure” on the ward due to workload

4.3.2. Personal experiential theme - confusion and questioning practice

My interpretation is that participants perceived their educational programs as two separate entities that did not connect, i.e., theory and practice. This led to confusion, and participants questioned practice in their search for clarity and understanding.

P4. Harriet: “She (mentor) was like we don’t need to do that here. I ask her to explain because I was just a bit like left bewildered”.

Harriet expressed her confusion after attempting to connect theoretical knowledge with practice and being told by her mentor that theoretical knowledge was not required in the clinical area.

P5. Olivia: "I don't know what the reason is if it's just because of lack of time or pressure which I don't think is the right or it's not, it's not justifiable for me so I ask".

Olivia was perplexed as to why theoretical knowledge did not translate into practice, and she wondered if it was because of time constraints or work pressures. She questioned practice because she did not understand why theory could not be connected with practice, which she thought was unjustified.

P6. Elsie: "It doesn't always connect in some way with what they taught me at university and in practice they are telling me something else so, in that way sometimes it is confusing, and I have to ask for clarification"

Elsie experienced a different pedagogical approach in practice as compared to university, which has caused confusion and prompted her to seek clarification. This was also the case for Nancy, Poppy, and Joseph, who, due to a lack of understanding, questioned this phenomenon as described in their narratives below.

P9. Nancy: "I didn't really end up understanding and bringing theory and practice together much, so I always ask"

P10. Poppy: "So, me personally, I had lots of problems with theory and practice, so I just ask"

P11. Joseph: "I don't know, maybe it's asking lots of questions; I don't know exactly"

This personal experiential theme highlighted that several participants struggled with understanding how theoretical knowledge is connected with clinical practice, leading them to question practice for clarity. Some participants did not question practice, and there could be several reasons for this, such as being aware of how to apply existing knowledge to clinical practice, having positive experiences and understanding of the theory-practice phenomenon, being timid, or not being curious enough to ask questions.

4.3.3. Personal experiential theme - abide by theory

Even though nursing and midwifery students' education is equally divided between university and clinical practice, my interpretation is that participants believe their theoretical knowledge took priority over clinical practice. Various explanations were provided for why this might be the case hence the labelling of this theme.

P2. Sophie: "the university's golden standard is not what is in the hospital's golden standard in practice. Lecturers told us we know you do it differently in the clinical setting, but this is the way we want you to do it for your exam and you adhere to it".

Sophie is indicating that despite lecturers acknowledging the clinical setting, the focus of attention should be on the university or theoretical work as this correlated with passing exams. Harriet rationalised Sophie's thinking where she stated the following.

P4. Harriet: "theory is there for a reason; it is how it should be done".

Dan and Freya also shared similar sentiments. According to their respective accounts, the theoretical component of their programmes surpasses and prepares students to perform the clinical task.

P7. Dan: "I think that theory in the classroom is a lot better than what you get in placement. They basically have so much information even more so than what they would teach you in placement so you could kind of connect the dots quite easily".

P8. Freya: "I read all the theoretical aspects and with my founded knowledge, I perform the task confidently".

Based on the participants' accounts of their experiences, it appears that what is taught at university was perceived as more important to what is practiced in the clinical area because:

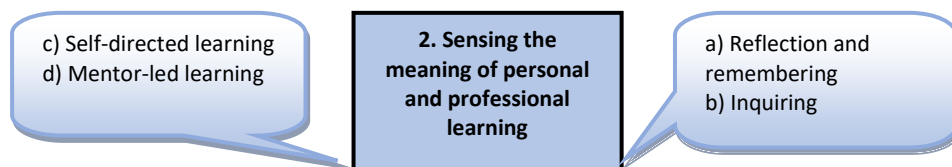
- Theory was explained as a priority for students to succeed in their exams.
- More information was provided at the university than in clinical practice.
- University equipped students with the necessary knowledge to confidently undertake clinical placements.

This theme revealed that most of the participants were aware that the theory-practice exist, although they were unable to fully understand why. Based on their experiences, they offered suggestions and questioned practice. Despite this, some participants still remained confused or unsure of their education. Some participants simply applied what they learned at university in clinical practice, viewing theory as the gold standard and essential for success in their programme. Aspects from this theme will require further investigation and will be addressed in the discussion chapter.

4.4. Group experiential theme two: sensing the meaning of personal and professional learning

This theme was labelled according to my interpretation of the participants' interpretation (double hermeneutics) of how they connect theoretical knowledge with clinical practice. Outlined below are their unique perspectives on how they made sense of their personal and professional learning.

Figure 4.4 Group experiential theme two: Sensing the meaning of personal and professional learning with its related personal experiential themes



4.4.1. Personal experiential theme - reflection and remembering

The connection of theoretical knowledge with clinical practice demonstrates participants' ability to translate abstract concepts into meaningful actions. However, how and at what level this is undertaken varies among participants, according to their narratives.

P4. Harriet: "I think that it's having the basics there in your head it's just once you are there am just remembering how it should be done".

P8. Freya: "I'll try to do a technique like remembering as well as what we have been taught at university"

Harriet and Freya both agreed that once the fundamental theoretical knowledge is understood, it can be recalled in clinical practice.

P5. Olivia: “one of the things that helps me as well to link theory with practice is reflection. I will reflect on the things I've done well and not so well and things that I can improve”.

Olivia proposed that reflecting helps her to contextualise her knowledge and develop a deeper understanding of how theoretical knowledge is connected to practice. It is a requirement of the NMC that students have protected reflection time while in the clinical settings.

P7. Dan: “my strategy from before where I'd use a system, I'd use it like, I compare things to everyday object to kind of remember”.

Dan uses a method of comparing everyday objects to clinical practice so that he can remember as he explains.

“Chemo medication has to stay in the fridge, you don't take it out literally, until you actually need to use it because if you store it at room temperature basically the medication disperses, and you won't get the full dose of the actual medication. So, I would now link chemo medication to just a regular fridge”.

P9. Nancy verbalised that:” My strategy will be more critical, more of what to analyse things and all like observe and then ask, why what is going on and then reflect”.

Although Nancy also engaged in reflection, her strategy differed from that of the other participants. She chose to first analyse the situation, observe, and then ask questions. Whereas the others reflected, remembered, and compared their experiences to everyday objects to help recall their memories.

Reflection and remembering are key skills for participants to develop to connect theoretical knowledge with practice. Reflection entails pausing to consider and analyse one's experiences, thoughts, and actions. Remembering, on the other hand, involves recalling information and experiences. Participants can effectively connect theoretical knowledge with clinical practice by remembering and reflecting on their own experiences. They can also apply the knowledge and concepts they have learned to real-world situations. While remembering is about recalling memories and not about critical thinking, reflection, on the other hand, help participants understand theory and its connection to practice better. This will be discussed further in chapter five.

4.4.2. Personal experiential theme - Inquiring

Ascertaining learning needs can be challenging for participants. While some may depend on academic and clinical staff to facilitate learning, my interpretation is that some participants were proactive in their learning by being inquisitive when unsure of how theoretical knowledge is connected with clinical practice. This highlights the importance of providing guidance and support to participants with a view to enabling them to take ownership of their own learning. Furthermore, providing a safe space to ask questions should help foster an environment of active learning.

P2. Sophie: "In practice, if I am unsure of something, I always ask sometimes more than once"

P4. Harriet: "I am here to bother you, so I am just letting you know that I would like you to show me this or like you to let me do this".

Harriet viewed this as a bother, but in her quest for knowledge, she is determined to seek information from qualified staff. She is also not afraid to let them know that she is there to learn.

For Elsie and Poppy, this was about questioning practice, seeking answers when unsure of something.

P6. Elsie: “spending more time doing things and pushing myself a little bit more and probably asking more questions”.

P10. Poppy: “I follow my mentor’s instruction and if I don’t understand I ask questions you know what I mean”.

Using inquisitiveness demonstrated that participants were seeking clarity, were curious, self-motivated, willing to learn, or wanted to expand their knowledge. Their narratives demonstrate how they took ownership of their learning by actively asking questions in clinical practice to gain knowledge. In nursing and midwifery education, having a curious mindset is important for gaining a better understanding, interest, and insight into patient management and care.

4.4.3. Personal experiential theme – self-directed learning

Beyond participants' academic studies at university and hands-on learning in clinical practice, their educational achievements are also shaped by the degree to which they are actively involved in self-directed learning activities. My interpretation is that participants develop their own strategies to acquire knowledge, which took various forms. In the following narratives, participants describe how they connected theoretical knowledge to clinical practice through self-directed learning.

P2. Sophie: “I give myself more time to read and write something while in between. If I get distracted at least I have a little bit more time to go back to what I need to do to meet the requirements”.

Sophie's approach to self-directed learning was echoed by both Elsie and Freya as all three participants explained how prior reading helps with organisation or preparation for practice.

P6. Elsie: "I probably would say as well organising myself a little bit better as well by reading before I go into practice".

P8. Freya: "I read all the theoretical aspects and with my founded knowledge, I perform the task".

Florence and Nancy used a different approach to self-directed learning. They both turned to research to assist with their learning.

P3. Florence: "I will go and do research about it or look at what the NICE guidelines say or what the national guidelines say about this particular procedure and then I also look at videos".

P9. Nancy: "I then have a little research to see the theory behind why we do what we do, then coming back the next time when I see something like that, I am able to put it into practice myself".

Some participants used extra reading as a personal learning strategy, while others went further by reviewing research and/or guidelines on aspects of patient care to better understand the rationale behind their actions in clinical practice. This approach has a positive impact on educational outcome.

4.4.4. Personal experiential theme – mentor-led learning

To assist with developing skills, values, proficiencies and confidence in clinical practice, it is important to have a clinical mentor now Practice Assessor (PA) or Practice Supervisor (PS) who can guide and support students' professional development. For the purpose of this thesis, I will use

the word mentor as this is what the participants referred to. This is a mandatory NMC requirement that all students in clinical practice are assigned a PA and PS. The extent to which a student relies on their mentor varies depending on students' level of knowledge, skills and the task required to be performed.

From my interpretation, some participants, although in the final year, final placement of their educational program, relied heavily on their mentor for guidance with their practice learning as in the case of Joel, Freya, and poppy.

P1. Joel: "go with what my mentor is teaching me"

P8. Freya: "whatever the mentors are saying that I try to do"

P10 Poppy: "I follow my mentor's instruction and if I don't understand I ask questions you know what I mean".

While these actions are not incorrect, participants should be thinking more critically and independently rather than just following their mentor's instructions. Nursing and midwifery programs prepare students to become autonomous practitioners over the course of three years. As students reach nearer to the end of their respective programmes, they should also be able to work under minimal supervision. It must be acknowledged, not all students will learn at the same pace. Some students may still require more guidance and support than others.

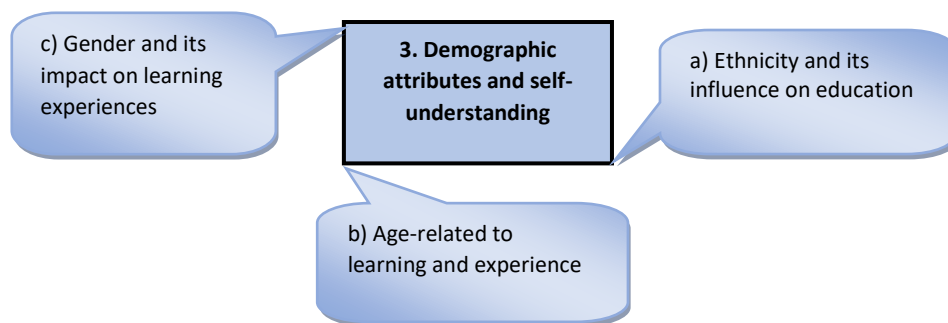
The themes identified showed that participants have a good insight of the learning strategies that were most effective for them in acquiring, retaining, and maintain their knowledge in nursing and midwifery education. The strategies included reflection, inquiry, personal learning, and mentor-led guidance, which were reflective of the participants' individual learning styles, as well as their professional judgment on what works best for them.

4.5. Group experiential theme three: demographic attributes and self-understanding

An understanding of the influence of demographic characteristics on learning has become increasingly crucial in today's educational world. While nursing and midwifery students as adult learners bring with them a bank of life experiences that help shape how they acquire knowledge. An objective of the study was to explore what impact ethnicity, age, and gender, may have on the participants learning journey of connecting theoretical knowledge with clinical practice.

Figure 4.5 provides a diagrammatical representation of my interpretation of participants' perspectives regarding the impact of their demographic characteristics on the integration of theoretical knowledge with clinical practice.

Figure 4.5 Group Experiential theme three: Demographic attributes and self-understanding with its related personal experiential themes



4.5.1. Personal Experiential Theme - ethnicity and its influence on education

There is no widely accepted definition for the term ethnicity (Liebkind, 2006). This is often associated with culture, language, and religion. The participants in this study used the term ethnicity interchangeably with culture and race

and reported that it had either a positive or negative impact on their education for various reasons.

From my interpretation, participants' perceptions of their countries of origin influence their values, making their clinical experiences positive, as Joel and Sophie explained.

P1. Joel: "ethnicity wise it affects me positively" I am from the Philippines, and we have been known to provide good nursing care".

P2. Sophie (Eastern European): "I think in a way it affected me positively, positively because in my culture well, we are very hard-working people".

While Poppy's English accent was an advantage, her narrative illustrated the subtle microaggression faced by her non-white colleagues indicating some undertones of discrimination in her narrative.

P10. Poppy (White British): "culture I don't think it had an advantage or a disadvantage. I think it was a little easier on placement. Patients who use to say I can't understand this person or that person. I never had any of those issues on placement".

At the same time, Freya also expressed her own experiences of what Poppy described, demonstrating how ethnicity may impact learning experiences.

P8. Freya (Asian Other): "my ethnicity, sometimes because of the way I speak, some people say they don't understand me, and I have to repeat myself several times".

Nancy stated that her ethnicity had no direct influence on her education, but it actually did provide her with certain privileges that helped enhance her

learning. However, she also acknowledged that her Black, Asian, and Minority Ethnic (BAME) colleagues did not receive the same opportunities due to their ethnicity. This suggests that ethnicity can have an indirect impact on education by providing some individuals with privileges that may not be available to others.

P9. Nancy (White British): "I just feel my culture and ethnicity did not affect my learning as such like, I did not experience anything different, but it gave me an advantage in certain places with certain people. If I was a black or an Asian girl or anything like that, then maybe I would not have had the same experience. I just know from my friend's experiences on the wards that their ethnicity may have hindered them a bit with their learning. My friend had a completely different experience than I did, and I think that was because of ethnicity which is a disadvantage".

The concept of ethnicity, race and culture is complex and can sometimes be difficult to discuss due to its multifaceted nature, which includes language, beliefs, and values. These factors can have significant implications for learning, as demonstrated by Florence's experience. She used the term ethnicity interchangeably with culture and race and felt that it would be disrespectful or impolite to ask questions of any qualified staff member whom she considered as aunties because of their seniority.

P3. Florence (African Other): "culturally we were taught that to respect our elders, so when we come into practice it is quite difficult for me not to see my mentors as aunties. I found it difficult to question them on certain things that they are doing".

Conversely, there can also be ethnic or racial stereotyping in which judgement can be made about a person's ability to undertake tasks, roles or a job as echoed by Olivia.

P5. Olivia (Black African): "Ethnicity I did not think so but sometimes it might have. Some people might underestimate you and think you are unable to do anything".

In the case of Faizal and Elsie, both were conscious of the perception of self and how others may see them which impacted their learning.

P12. Faizal (British Pakistani): "As a young male, sometimes female patients may be uncomfortable with you caring for them, especially an Asian. So maybe ethnicity does play a part".

P6. Elsie (Black Caribbean): "I think ethnic background does have an impact on the way you live in the way you do things. For me subconscious and this can have an impact on learning".

The narratives provided in this study indicate that ethnicity has an impact on the students' education, presenting a challenging aspect of the research. From my interpretation, none of the participants explicitly described their experiences as being based on racism and microaggression, although subtle implications may exist within their accounts. While some participants shared positive experiences related to their ethnicity, it became evident that others faced notable challenges and obstacles, making the exploration of these nuances a complex aspect of the study and will require further exploration in the discussion chapter.

4.5.2. Personal experiential theme - age-related learning and experience

This study also investigated the influence of age on learning and professional growth, which holds significance in the education of nursing and midwifery students. Recognising the diverse age groups of students and the unique challenges they face in these professions; it is crucial for

academics and clinicians to develop suitable pedagogical approaches. Vaughn et al., (2009) conducted a study involving ($n=246$) students and found that those over 25 years of age tend to be more self-directed learners in comparison to their younger counterparts. Also, according to Murman, (2015), cognitive ability decline is commonly associated with ageing, which can affect a person's ability to learn new skills as well as comprehend and retain information. Below are the participants perspectives on their ages and how they believe this influence their learning.

P1. Joel (37 yrs.): "my age does affect my learning because as I am older, I do not remember as I use to as before".

P2. Sophie (34 yrs.): "as I am older makes it harder at a time to concentrate and to try to write something maybe affecting some of the quality of the work. Sometimes it is also harder to retain information".

Joel and Sophie believe that ageing is linked to a decrease in their ability to learn, although this may not necessarily be the case as viewed by other participants. Some had a more positive view of ageing according to their narratives.

P3. Florence (22 yrs.): "I feel as though the profession, I have gone into it is a very professional career and really forced me to think and really mature very quickly".

P4. Harriet (40 yrs.): "I always say that it is because I'm getting old, I can't remember things. I think sometimes my age went in my favour. Now I am a bit older and am quite confident in who I am, I think sometimes my memory isn't what it used to be but with life experience, it definitely sorts of put you in a good place".

P5. Olivia (30 yrs.): “in fact, this has its positive and negative side because personally, I think I'm mature enough to do the course and sometimes because I look smaller even some patients showed less confidence”.

Poppy although the youngest in the group, considered age from both an advantage and disadvantage perspective.

P10 – Poppy (21 yrs.)- “I think it can be at an advantage sometimes because you are young and don't have any prior experience in the care sector you learned to do things their way. I think this same thing can be at a disadvantage because we have no previous experience, they have to teach us everything”.

Mature participants expressed a more critical perception of age, recognising its potential negative impact on learning and professional development which can contribute to how they make effective connection to theory and clinical practice. Memory retention, concentration, and limited clinical experience were considered as hindrances associated with age by this group of participants. Furthermore, appearing younger than their actual age could adversely affect learning, particularly if patients lack confidence in the participant's abilities. However, mature participants also acknowledged certain advantages that come with age, including life experiences and increased maturity, which could contribute to building confidence. Despite the claim that learning abilities may decline with age, participants emphasised the ongoing value of their life experiences, maturity, and decision-making skills when integrating theoretical knowledge with clinical practice.

4.5.3. Personal experiential theme - gender and its impact on learning experiences

The gender gap in educational attainment has been attracting much attention in recent times. This could possibly be due to the rapidly changing societal attitudes and beliefs which hold that men and women have different roles and responsibilities. Also, perceptions of gender influence on education are now more contextualised with no exemption to nursing and midwifery students' education. With more males entering the profession which was once highly female-gendered; male applicants are encouraged because everyone can bring something unique to the table. Narratives demonstrates how participants felt their learning was affected due to their gender.

Both Joel and Faizal expressed that their gender as male students can be a challenge and affect learning, especially when caring for female patients. Faizal was faced with an additional challenge in the form of cultural beliefs as a result of being Asian.

P1. Joel: "younger female patients do not want a male nurse just because of the personal care".

P12. Faizal: "As a young male, sometimes female patients may be uncomfortable with you caring for them especially an Asian".

There were gender disparities between participants which affected learning. Females experienced situational barriers in the form of childcare as explained by Sophie and Elsie.

P2. Sophie: "as a female, you have children to look after. This does affect how you learn because childcare is a big issue".

P6. Elsie: "I think so because as a female you may have extra duties such as childcare and even worse if you are a single parent".

While menstruation is a natural physiological process, it can have a negative impact on well-being which can ultimately affect one's education as Harriet narrates:

P4. Harriet: "being female has an influence on your learning but sometimes you are not able to concentrate as you should when it's that time of the month (menstruation) which can make you feel down".

According to Joseph's observations, gender has little bearing on academic performance. He believes that female students struggle to learn is as a result of malevolent behaviour among females given that nursing and midwifery are primarily female-dominated professions. It should be noted that there was no mention of the male gender and its impact on learning in this context.

P11. Joseph: "I don't know if it is just necessarily gender or personality. The difference is I saw some girls struggle, it's almost like a girly "bitchy thing".

As I delved into the data analysis, I grappled with comprehending the intricate complexities that influenced participants in terms of gender and learning. Among the male participants, two expressed concerns about providing care for female patients, shedding light on the complexities of gender dynamics in healthcare. Likewise, among the female participants, two have gendered responsibilities in relation to childrearing, while another grapples with managing menstrual symptoms that impact her learning. Additionally, a male participant recounted observing female colleagues facing difficulties for reasons he considered "girlish," reflecting the varying views on gender-related challenges. One female participant's decision-

making was also influenced by her beliefs about childcare, adding another layer of complexity to the gender-related themes explored.

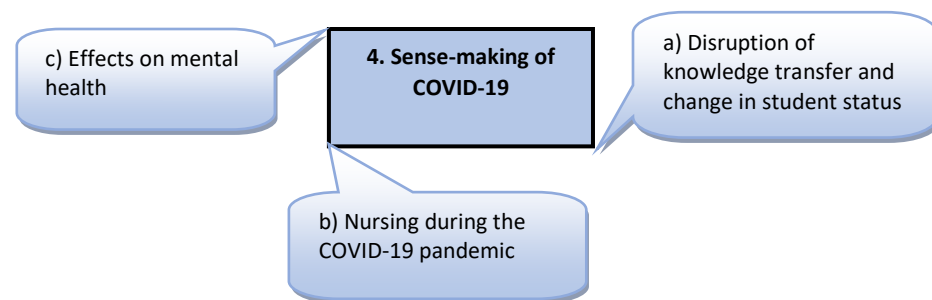
Demographic characteristics that intersect such as ethnicity, age, and gender can influence a student's ability to connect theoretical knowledge with clinical practice. These intersectionalities introduce complexity into the study, as they influence students' abilities in various ways. Student's cultural background can profoundly shape their perspective on the learning process and the individuals facilitating their learning. Age also emerges as a potential challenge, particularly when students face situations where patients doubt their competence to provide care based on their age. Furthermore, gender adds another layer of complexity, as cultural expectations and stereotypes can impact how a student approaches patient care, creating disparities in experiences. In my study, some participants shared positive experiences, while others recounted negative ones. Additionally, some participants who were not directly affected by these factors observed instances involving their colleagues but did not explicitly identify them as discriminatory. This highlights the intricate and multifaceted nature of how these demographic characteristics can influence the learning process, presenting a challenge for me to comprehensively capture and understand these dynamics. This will be explored and discussed further in **Chapter 5. Subsection 5.6**

4.6. Group experiential theme four: sense-making of COVID-19

I labelled the theme sense-making because it involves exploring how participants made sense of the new realities, uncertainties, complexities, and implications for their education brought about by COVID-19.

The pandemic has had a profound impact on nursing and midwifery student education, necessitating a sense-making process to understand and navigate the challenges it presents. Figure 4.6 is an illustration of this GET and its related PETs.

Figure 4.6 Group Experiential theme four: Sense-making of COVID-19 with its related personal experiential themes



4.6.1. Personal experiential theme - disruption of knowledge transfer and change in student status

To provide context, the final clinical placement in the nursing and midwifery education program is a 12-week management placement during which students consolidate their learning. They are provided with the opportunity to manage a ward or alternative placement area under supervision. However, all placements were suspended after the first week of being in clinical practice due to the COVID-19 pandemic. Given the need for additional staff and the fact that nursing and midwifery students were close to completing their programmes, local and national initiatives were implemented to provide two options. Option 1 was for students to relinquish their student status and work as paid employees in the capacity of a Health Care Support Worker (HCSW) or "aspirant nurse" for the duration of their placement. Option 2 was for students who were shielding to stay at home and return to complete their placements when it was deemed safe to do so by the university in collaboration with respective NHS trust.

Those students who chose to work as paid HCSWs signed a contract of employment with the relevant NHS Trust for the duration of their placement. This was called the opt-in decision with the title aspirant nurse . While working as paid employees, these students were still required to complete the required skills and proficiencies outlined in their Practice Assessment Document (PAD) or practice learning record, which tracks their progress and achievement of learning outcomes throughout each practice learning

endeavour. Upon completing this opt-in period and meeting all mandatory requirements, the students were considered to have successfully completed their final clinical placement.

All the participants in this study had their consolidation or management experiences disrupted due to the COVID-19 pandemic. Ten students had their status changed when they chose to work as HCSWs, while two students were shielding and stayed at home due to underlying health conditions. The following narratives provide a glimpse into the participants' experiences as perceived.

Joel and Dan chose the opt-in option, which required them to work as paid HCSWs. They were required to work alongside a suitably qualified professional who could supervise and sign their PAD once they had achieved the necessary proficiencies. Their narratives provide insight into their experiences during this period:

P1. Joel: "When we opt into work, I thought I will go and still perform my management placement but, I did not do so. I never had management experience during the current period. I never had the experience to perform like a student nurse, I am more of an HCA".

P7. Dan: "there was a requirement for us as students to basically suspend the placement, we had to go for the aspirant nurse's temporary job".

Sophie and Olivia, on the other hand, were both shielding due to underlying health conditions and did not apply to work as HCSWs. This had significant implications for their learning and their ability to complete their management or final placement. At the time of data collection, both participants were waiting for the university and the relevant NHS Trust to determine when they could safely return to complete their placements. Sophie and Olivia describe their experiences in the following narratives:

P2. Sophie: "I wasn't able to opt in, so my self-confidence was affected. It was the first time in my life that my weight actually affected my work".

P5. Olivia: "I have an underlying health condition which increases my susceptibility to contracting the virus, I'm still waiting to be reallocated in order to finish my placement, but this could not be facilitated".

The COVID-19 pandemic had an impact on all final-year nursing and midwifery students. The Nursing and Midwifery Council (NMC) and Health Education England (HEE) had to make decisions about how these students could complete their placements while at the same time also increasing the nursing and midwifery workforce. Students were provided with the option to work as paid employees; however, some were affected by the pandemic in different ways and were unable to take up the option to work and complete their placements.

4.6.2. Personal experiential theme - nursing during the COVID-19 pandemic

During the first wave of the COVID-19 pandemic, students' clinical placements involved exposure to various complex, disturbing, and emotional patient situations, including caring for critically ill, rapidly deteriorating and dying patients and performing last offices or caring for the body after death. Although these are all part of nursing care and may have been experienced by the students on previous placements, the scale and speed at which these situations occurred during the pandemic have left students with negative psychological experiences. The following narratives provide insight into the impact of the pandemic on the participants.

P8. Freya: "the impact is significant because I could not see my family. After that COVID all my assignments grades being very low. I was so worried I couldn't focus on my reading. I

was concerned because I was ill, luckily, I had to test, and it was negative. Psychologically, I was concerned and worried that am I going to catch this COVID while I am commuting to placement and work”.

COVID-19 had a negative impact on Freya's. It caused psychological distress which affected her studies, and this was reflected in her grades. There were also concerns about traveling to and from her placement when she was seriously ill, fearing that she might have contracted COVID-19. Freya also had to avoid her family due to some members being vulnerable to catching the virus.

Nancy's experiences were similar to Freya's in that she avoided her family to reduce the risk of them contracting COVID-19. Nancy also described the psychological impact that COVID-19 had according to her narrative.

P9. Nancy: “I had nowhere to stay, I ended up staying in a hotel for ten weeks to isolate myself, I found it really hard. I was on my own, I was very isolated, and it is a scary time as well. I just don't like the whole time I was going to work with Covid and come home to the hotel and I wouldn't see a soul. My dad got cancer and I can't be around him. He also got COPD and emphysema. My nan is also high risk. I started feeling like you go to work to save lives and then you were just putting people in body bags”.

“We had a makeshift mortuary at the hospital, all the dead bodies were just being put there and seeing that was quite harrowing. I needed my big break to have some time to just sit around and do nothing just enjoy myself for a little while as it did take a toll on me eventually without even knowing. If I went straight into work from finishing the course, I think I would have found it quite hard. The only positive thing was I went on to do

the aspirant nurse and end up having a bit of money in my pocket as well”.

Like Nancy, Joseph was affected by the high rate of patient deaths and the events leading up to this. Even though he was not involved in the decisions making process, the shortage of ventilators and the decisions made by the medical team regarding which patients should be ventilated and who should receive end-of-life care caused him to feel guilty. As a result of these experiences, Joseph is uncertain about what the future holds and the potential for developing post-traumatic stress disorder (PTSD).

P11. Joseph: “It cupped me over massively in certain areas anyway the deaths that we saw. I was knackered at the end of my shift. I had the full PPE on all the time I was, I can’t even describe it. I was absolutely drained. I think I struggle with this, in certain areas anyway, the deaths that we saw. You know when you saw on the news you had one ventilator and two patients? I literally had that case. I had two people who needed ventilating and they had to choose one of them to ventilate; this was right at the start of COVID when there was a real shortage of ventilators and suddenly it all kicked off and it was mad. So, one person was made end-of-life, and one person was put on the ventilator, is that right? I know it was not necessarily me making the decisions as such, but you still felt responsible yeh. I don’t know if people maybe will suffer from something like PTSD that kind of thing where you have like the traumatic experience, and I don’t know if you will see it now or maybe 10 years’ time”.

Faizal's experiences were similar to that of his colleagues. He observed rapid patient deterioration and death as a result of COVID-19. As he reflected on this experience, he described it as feeling surreal. He also emphasised on the pressure he felt when he was unsure how to respond in certain situations, such as when he was alone with a patient.

P12. Faizal: "You had loads of patients coming through the door, nobody knew what was going on, nobody understood why patients were deteriorating so rapidly. It was an unreal experience and unfortunately, a lot of people had died. I felt that pressure and I did not know how to react because I have never been under that much pressure or pressure at all. There were moments where there was only me and the patient for example who was rapidly deteriorating out of nowhere and the hardest bit was afterwards. You keep replaying those memories in your mind".

In contrast, Poppy did not provide as many details as the other participants but, she gave a brief account of the fear that COVID-19 brought into her life and what she witnessed during her clinical placement as a result.

P10. Poppy: "I was definitely very scared. It was the fear of the unknown as well and we didn't know what was going on from like a health point of view. I saw a lot of things that maybe I wouldn't have seen if COVID didn't happen".

Students pursuing nursing and midwifery education often look forward to building friendships, improving their knowledge and social skills, gaining a career, and for some, experiencing financial independence for the first time. However, due to the COVID-19 pandemic, the participants experienced unique educational challenges that tested their resilience in psychological, emotional, and physical ways. While the participants may have completed their educational program, some of their experiences may continue to have an impact and it is uncertain whether these experiences will have long-term effects. This will warrant further investigation.

4.6.3. Personal experiential theme - Effects on mental health

The COVID-19 pandemic has brought a range of concerns not only for patients and families affected by the virus, but also for those caring for them. Due to staff shortages, increased workload due to higher levels of patient acuity and deaths, and changes in student status, students reported that their mental health had been negatively impacted by the pandemic. The data showed that the effects on the participants' mental health are clearly expressed in their narratives.

P2. Sophie: "I wasn't able to opt-in, so my self-confidence was affected. It was the first time in my life that my weight actually affected my work. it's made my mental health itself feel really bad, it's kind of my own fault".

Sophie narrates how her mental health was affected and also expresses self-blame for this outcome. In contrast, Olivia's mental health was indirectly impacted due to a pre-existing health condition. Her distress was caused by the financial implications of not completing the program on schedule, as well as the anxiety-provoking experience of returning to the clinical setting after a period of shielding.

P5. Olivia: "it has affected me psychologically, and financially not being able to complete the course till now and this is very distressing for me. I had to shield for three months without even stepping out of the house. I felt a bit anxious and stressed just to be able to go back".

Nancy, Poppy, and Joseph's narratives are particularly noteworthy because they reflect the realities and the impact of the COVID-19 pandemic had on the mental health.

P9. Nancy: "I started feeling like you go to work to save lives and then you were just putting people in body bag. I need my

big break to have some time to just sit around and do nothing just enjoy me for a little while as it did take a toll eventually without even knowing”.

P10. Poppy: “I was definitely very scared. It was the fear of the unknown as well and we didn't know what was going on from a health point of view. I saw a lot of things that maybe I wouldn't have seen if COVID didn't happen”.

P11. Joseph: “It cupped me over massively” in certain areas anyway the deaths that we saw. I don't know if people maybe will suffer with something like PTSD that kind of thing where you have like the traumatic experience, and I don't know if you will see it now or may be in 10 years' time”.

There is no doubt that the effects of COVID-19 on the participants' clinical experiences presented significant physical, psychological, and emotional tests on their resilience and tolerance. These challenges emphasise the importance of examining the consequences of the pandemic comprehensively, the profound effect it has had on the participants' education, and, more importantly, the significant impact it has had on their well-being.

As the researcher, I felt emotional just listening to the participants recall their experiences on sense-making of COVID-19. This emotional impact posed several challenges as I struggled to listen to these narratives while trying to understand the emotional toll on the participants. Additionally, I also had the responsibility for ensuring their well-being during the interviews, which required being prepared to halt any interviews if signs of distress were detected. Striking a balance between sensitivity to participants' emotional experiences and the collection of valuable data was a task I had to navigate while maintaining the integrity of the study.

Reflective journal dated 24th August 2020. I initially believed that gathering data would be the least challenging aspect of my research. However, I was mistaken. I was not prepared for the strong emotions that arose while listening to the students' narratives, particularly those related to COVID-19 and the students' experiences in clinical practice. I also found myself questioning the ethical implications of our students being in clinical practice while I was working from the safety of my home during this unprecedented time. I was out of harm's way, they were exposed and facing the challenges of COVID-19. Can I really claim I supported these students in clinical practice? A few students spoke about the possibility of developing PTSD later in their careers, highlighting the emotional burden they were carrying. This led me to consider a more significant issue: could these students, who would eventually become fully qualified professionals, be adequately recognised, and supported for the emotional challenges they faced? Specifically, would they receive compensation if they ever needed to file claims related to mental health issues resulting from their experiences during the pandemic?

Ethical considerations, including obtaining informed consent and addressing the potential long-term impact on participants, were my main priorities during the interview process. Navigating this demanded being sensitive and having a strong commitment to ethical research practices. It is worth mentioning that no signs of participant distress were observed, nor did any of the participants ask for the interview to be discontinued. I walked away after the final interview thinking that the memories that caused mental anguish for the participants would likely remain vivid or may fade over time, and perhaps the interviews conducted offered the participants some form of therapy by being able to speak about their respective experiences.

4.7. Summary

This chapter presents the findings of my research which aimed to understand the strategies final-year BSc pre-registration nursing and midwifery students used when connecting theoretical knowledge with clinical

practice in order to facilitate their learning and professional development. Also including were the impact of COVID-19 on their education and the effects of demographic characteristics such as age, gender, and ethnicity/race on learning and professional development. Post analysis of the data, four main themes emerged: (1) Complexities of embodied knowledge; (2) Sensing the meaning of personal and professional learning; (3) Demographic attributes and self-understanding and (4) Sense-making of COVID-19. These findings, along with the information presented in the previous chapters, will be discussed in chapter five.

Chapter 5

Discussion, Recommendations and Conclusion

5.1 Introduction

This chapter examines and discusses the research findings in relation to the research aim and objectives. It also critically examines and explores areas of congruence and divergence with the literature review findings. The theoretical framework for this study is grounded in Malcolm Knowles's andragogy. This will be threaded throughout the discussion to demonstrate how pre-registration nursing and midwifery students, as adult learners, connect theoretical knowledge with clinical practice to promote their learning and professional development. Furthermore, the study's methodological strengths and limitations that contribute to its validity are also discussed. The chapter address the research claims. It will present suggestions for future research directions and potential implications for nursing and midwifery students' education. This chapter concludes with a concise summary of the key points and insights of the study. It will emphasise the study's originality and contribution to the body of knowledge. To remind the reader I have restated the research aims and objectives below.

Research Aim: To explore and critically analyse the strategies employed by final-year BSc pre-registration nursing and midwifery students at an inner London university to connect theoretical knowledge with clinical practice, to promote their learning and professional development.

Research Objectives:

1. To investigate how final-year BSc pre-registration nursing and midwifery students interpret and understand their experiences of connecting theoretical knowledge with clinical practice.

2. To examine the strategies used by final-year BSc pre-registration nursing and midwifery students to connect theoretical knowledge with clinical practice.
3. To explore final-year BSc pre-registration nursing and midwifery students' perspectives on whether demographic characteristics such as gender, age, and ethnicity affect their learning and professional development.
4. To explore the effect of COVID-19 on BSc pre-registration nursing and midwifery students' education.

5.2. Synopsis of previous chapters

In chapter one, the context for the study was established, the aim and outcomes identified, and an explanation was provided for why the theory-practice gap is an area of concern and why there is a need to study how students connect theoretical knowledge with clinical practice. An account was also provided of why this study was undertaken from nursing and midwifery students' perspectives. My reflexivity and positionality articulated my status in this study and how I dealt with and manages situations such as power bias moving from Mynasha the lecturer to Mynasha the doctoral student and researcher. IPA was identified as the philosophical approach and Malcolm Knowles's adult learning theory (andragogy) as the theoretical framework in which this study is grounded.

Chapter two focused on the literature review and its processes, including the formulation of the research question. The literature search resulted in the selection of ($n=18$) peer reviewed articles. Following a review of these articles, four themes emerged: (1) Diverse pedagogical approaches for connecting theoretical knowledge with clinical practice; (2) Simulation as a safe method for learning; (3) The role of "others" in assisting students with connecting theoretical knowledge with clinical practice; and (4) The effects of COVID-19 on students' education. The articles reviewed and the gaps identified will be discussed in this chapter.

Chapter three focused on the paradigms selected to undertake this study. Ethical considerations, participant recruitment, selection, and interview processes were included. Particular emphasis was paid to IPA, with a specific focus on Martin Heidegger's philosophy. This is because of its double hermeneutic approach, which I adopted for my study. This philosophy takes into consideration the multiple perspectives, worldviews, and experiences that can influence the interpretation of data. It allows for a more comprehensive understanding of data analysis by acknowledging the interpretive nature of the researcher and the participants.

Chapter Four was concerned with the research findings. The data obtained were thematically analysed using an inductive approach, leading to the emergence of four major group experiential themes: (1) Complexity of embodied knowledge; (2) Sensing the meaning of personal and professional learning; (3) Demographic attributes and self-understanding; and (4) Sense-making of COVID-19. Each group's experiential theme carries its own personal experiential theme (**Figure 5.1**), which will be discussed below.

Figure 5.1 Group experiential themes together with their respective personal experiential themes

Group experiential themes (GET)	Personal Experiential Themes (PET)
Complexities of embodied knowledge	a) Theory practice gap b) Confusion and questioning practice c) Abide by theory
Sensing the meaning of personal and professional learning	a) Reflection and remembering b) Inquiring c) Self-directed learning d) Mentor led learning
Demographic attributes and self-understanding	a) Ethnicity and its influence on education b) Age-related learning and experience c) Gender and its impact on learning experiences
Sense-making of COVID-19	a) Disruption of knowledge transfer and change in student status b) Nursing during the COVID-19 pandemic c) Effects on mental health

5.3. Discussion of research findings

5.4. The complexity of embodied knowledge

Within the theme of complexity of embodied knowledge, three personal experiential themes were identified. These includes (1) The theory-practice gap; (2) Confusion and questioning practice and (3) Abiding by theory. Through a double hermeneutic lens, I can only describe these themes as intricate ways in which nursing and midwifery students' emotional, psychological, and social experiences influence their abilities to connect theoretical knowledge with clinical practice. Sodhi (2008) asserted that embodied experiences are shaped by numerous factors such as personal values, cultural and social norms, and previous experiences. The latter, if negative, can impact students' confidence, self-belief, and ability to engage in critical reflection and decision-making as they navigate the complex landscape of clinical practice (McCarthy et al., 2018). The three personal experiential themes are discussed below.

5.4.1. Theory practice gap

The participants acknowledge that a theory-practice gap exists in their education. Numerous rationales have been provided for this according to their explanations, which entail that theoretical knowledge and clinical practice are perceived as two distinct experiences resulting in different pedagogical approaches; theory is described as ideal and aligned with passing theoretical exams and not clinical practice; in some clinical areas, practice is still undertaken traditionally or skills are being undertaken in a customary way over a long period of time without changing; and due to time pressures, clinical practice varied and did not always connect with what was taught at university (See pages 103 and 104).

According to the literature, several factors are attributed to the theory-practice gap in nursing and midwifery students' education. However, for my study, those that I thought most pertinent will be examined. The first is the transfer of nursing and midwifery students' education from hospital-based apprenticeship learning to university-based education in the 1990s (Pursell and McCrae, 2021). This modification was implemented to enhance the status and credibility of the profession by allowing nursing and midwifery students to be educated at a degree level (Ousey, 2011; NMC, 2010). The goal is to ensure that newly registered nurses and midwives will have the knowledge and skills necessary to provide high-quality patient care, make evidence-based decisions, and ultimately lead policy reform to transform healthcare services (McKenna et al., 2020). While this amendment to the educational programmes was necessary, it also resulted in a divide in how students are taught in the classroom and in clinical practice (Monaghan, 2015; Ousey and Gallagher, 2007). This is acknowledged as one of the main reasons for the theory-practice gap (Wood et al., 2015; Mckendry et al., 2012).

Apprenticeship is based on the premise that students learn clinical skills by doing and is often characterised by hands-on experiences (McKenna et al., 2020). Students worked in hospital-based nursing schools under the supervision of nurse teachers who also worked at the school (Jackson et al., 2013). According to AlMekkawi and Khalil (2020), students also spent more time in clinical practice, gaining extensive clinical experience to become competent and confident. Therefore, there was little cause for concern or issues raised about connecting theoretical knowledge with clinical practice during apprenticeship training (Jackson et al., 2013).

Education transfer from hospitals to higher education has changed how students are educated. Students must now spend 50% of their time in theory and 50% in clinical practice (NMC, 2023). Students are tutored at universities by academic tutors with nursing or midwifery backgrounds and teaching qualifications, and they are mentored in clinical settings by registered nurses or midwives (Dunleavy and Duggan, 2019). This meant

that registered nurses and midwives in clinical practice had to undergo an additional NMC-approved mentorship training program prior to mentoring and supervising students in clinical practice (Veeramah, 2012).

In May 2018, the NMC published an updated standard for student supervision and assessment in practice, commonly called the SSSA. This standard outlines the training and experience needed by registered nurses and midwives in clinical practice to become practice assessors and practice supervisors, formally called mentors and sign of mentors (NMC, 2018). Despite measures put in place to support the shift in the students' education from apprenticeship to university-based, it is still fraught with multi-dimensional issues. These include, but are not limited to, inconsistencies between what is taught in theory and what is taught in clinical practice; a lack of clear communication between academic and clinical staff; and students feeling unaccepted and unsupported by the clinical team. (Panda et al., 2021; Mehigan, 2020; Greenway et al., 2019). Another reason brought to the forefront for the theory-practice gap is that students face difficulties when applying theoretical knowledge to real-life clinical situations because they cannot generalise what they have learned in theory to apply to practice (Bagheri and Bazghaleh, 2016; Kermansaravi et al., 2015).

Ko and Kim's (2022) phenomenological study in which ($n=9$) nursing students were interviewed found that, students experience transition shock, or a feeling of indifference, to what is learned in theory and its application to patient care in unfamiliar clinical environments. Also, students sometimes lack the confidence to engage in clinical practice due to insufficient knowledge (Ryan, 2016). These learner and rule-governed statuses contribute to nursing and midwifery students' inability to translate theoretical knowledge into clinical practice, resulting in students being more likely to be impacted by the theory-practice gap than experienced nurses (Saifan et al., 2021; Scully, 2011).

To date, the theory-practice gap has become one of the most persistent issues in nursing and midwifery students' education for reasons that are multifactorial. Some researchers view this gap as a natural phenomenon that will never be resolved. Earlier researchers such as Steel (1991) explains that classroom teachings do not reflect clinical practice realities because theoretical principles alone are insufficient for proper application in real-life situations. Additionally, the inherent differences between the academic setting and clinical practice settings contribute to the theory-practice gap. Similarly, McCaugherty (1991) asserts that classroom learning cannot provide an accurate picture of the complexity of the clinical environment or the patient's condition. Both studies suggest that this theory-practice gap is unavoidable.

Conversely, some researchers believe that altered pedagogical approaches can bridge this gap. For example, Saifan et al., (2021) claim that curriculum reform should be considered to synchronise classroom, laboratory, and clinical teaching. Academics and clinicians need to take this into account and amend their pedagogical approaches in the classroom and in clinical practice. This is so students can understand patient care principles. Vosoughi et al., (2022) proposed an academic-practice model called TPSN (Teacher, Patient, Student, Nurse). This model consists of three components: mentoring, preceptorship, and integrated clinical education. It is claimed to be an interactive model for accountability in nursing education, aiming to bridge the theory-practice gap. Despite extensive efforts, no literature has been found utilising this model. This could be because the model is still novel.

While suggestions for bridging this gap are being made, further work in this area is still required because of its complexity. Collaborative thinking needs to occur between academics and clinicians and student nurses and midwives. As adult learners, the students' unique needs and lived experiences need to be considered. Knowles et al., (2015) suggested that adopting a more andragogical approach to teaching and learning may help address this theory-practice gap. An example of this is the concept of

relevance to practical learning. By utilising this concept, educators and clinicians can help students link what they have learned theoretically to the relevance of real clinical situations rather than teaching in silos (Albrecht and Karabenick, 2018). Also, during their programmes, students acquire knowledge that becomes embodied. As adult learners, they need to take some ownership of their education by being proactive and engaging in self-directed learning.

5.4.2. Confusion and questioning practice

According to the participants' narratives, the process of integrating theoretical knowledge with clinical practice can generate confusion, prompting them to question the applicability of certain practices (See pages 105 and 106). Various explanations have been proposed to understand this phenomenon. One such explanation posits that the theoretical and clinical dimensions of nursing practice are frequently segregated, with different individuals performing these tasks in separate physical spaces (Leonard et al., 2016). This separation assumes that students, during their university education, have already acquired a solid theoretical foundation and developed critical thinking skills, which they subsequently consolidate through the practical application of their knowledge in clinical settings. However, it is important to recognise that this assumption may not always hold true. Also, adding to this confusion is that learning takes place in different contexts, mode, and organisation culture (Eraut, 2004).

Kandiko and Kinchin (2012) assert that students' confusion could also be related to the deconstruction and then reconstruction of theoretical knowledge to understand real-life clinical situations. Wells et al., (2015) also added that nursing and midwifery students are provided with an enormous amount of theoretical knowledge to process, understand, and apply in clinical practice. Due to classroom and clinical practice being separate, students sometimes find it difficult or confusing to apply this theoretical knowledge within the clinical environment.

Adult learners are more self-directed and need to know why something is required to be learnt. As a result, nursing and midwifery students have a heightened need to comprehend theoretical knowledge before its application to clinical practice. Practice assessors and supervisors, therefore, need to provide opportunities for students to practice, ask questions, or voice their concerns. Additionally, they need to provide guidance and signpost students to policies, procedures, and guidelines. This will help students understand how to apply theoretical knowledge in real-world clinical situations, thereby bridging the theory-practice gap.

5.4.3. Abiding by theory

Abiding by theoretical knowledge is a crucial aspect of nursing and midwifery students' education. This is because it equips them with the underlying principles and concepts necessary to make informed decisions. It also provides students with a solid foundation upon which to build when encountering various situations in clinical practice (Grove et al., 2012). As a result of abiding by theoretical knowledge, the ability to connect theory to practice will be enhanced. Students can be reassured that their clinical practice is grounded in sound philosophical principles. This approach recognises that learners need to see the relevance of theoretical knowledge to their own experiences.

During clinical placements, students acquire knowledge and skills through their personal experiences and engagement in clinical practice. The integration of theory and practice connects the principles of andragogy with embodied experiences. This connection is established when students actively participate in the educational components of their program and reflect upon their own experiences as adult learners, effectively applying their acquired knowledge in real-world clinical settings (Merriam and Bierema, 2013). By comprehending the intricate nature of embodied experiences, academics and clinicians can develop teaching strategies that enhance the integration of theory and practice among students.

Recognising that learning encompasses more than cognitive processes alone, but also encompasses physical actions, emotions, and lived experiences, educators can design pedagogical approaches that engage students in a holistic manner. This can be achieved through the facilitation of experiential learning activities, simulations, case studies, and reflective practices that encourage active student engagement with real-life scenarios and self-reflection on their own embodied responses and actions. Such approaches assist students in developing a comprehensive understanding and application of theoretical knowledge to clinical practice. Ultimately, this fosters more meaningful learning experiences and contributes to improved clinical outcomes for all parties involved.

5.5. Sensing the meaning of personal and professional learning

Sensing or understanding the strategies students use to connect theoretical knowledge with clinical practice can be complex. This complexity arises from the students bringing their unique set of experiences, backgrounds, and learning styles to the learning environment (Bednarz et al., 2010). This diversity makes it challenging to identify universal strategies that work for every student. What might be effective for one student may not necessarily work for another.

It is also imperative to recognise that students may process information differently as it involves not just cognitive ability but also the integration of affective and psychomotor skills, as well as clinical reasoning. By examining students' lived experiences, academics and clinicians can gain a deeper understanding of how students make meaning of their learning and engage with their programme of studies. Knowledge of this can be used to develop more effective teaching strategies such as simulation or case studies (Bradon and All, 2010). It can also help identify areas in which students experience difficulty and provide targeted support to those students. By pinpointing the specific barriers faced by students, educators and clinicians

can intervene appropriately, offering guidance to enhance the students' learning journey. Ultimately, leading to better learning outcomes for students.

5.5.1. Remembering and reflection

Nursing and midwifery students' education is intricate. Effective teaching and learning strategies are required to develop students' knowledge and skills to provide safe and effective patient care. Students also need to develop critical thinking skills to make quick decisions and respond to unexpected situations. As a strategy for connecting theoretical knowledge with clinical practice, participants verbalised that remembering, and reflection played a significant role in their learning (See pages 109 and 110).

Nursing education involves acquiring a vast amount of information and remembering this, is a crucial aspect of the learning process. It allows students to recall previously learned knowledge and skills to apply them in real-world clinical situations. According to Badiei et al., (2016), this could be in the form of actions, words, or mental images. As students' progress through their education, they are expected to develop a bank of knowledge to draw upon. While remembering is pertinent in applying theoretical knowledge to clinical practice, it is the lowest among the six levels of cognitive domains according to Bloom's taxonomy, which includes remembering, understanding, applying, analysing, evaluating, and creating in a progressive manner (Sobral, 2021).

Remembering being at the lowest level in Bloom's taxonomy; students may not have a deep understanding of theoretical knowledge, which may limit their ability to apply it in clinical practice. Participants in my study who are soon-to-be registered nurses should have moved beyond lower-level and engaged in higher-level critical thinking. This is because this aligns with decision-making, problem-solving, and managing challenging clinical situations (Huang et al., 2016). However, some students may find it difficult

to engage in higher-level thinking after years of lower-level thinking. In addition, some students may not be ready for clinical practice challenges and tasks despite being in the final year of their programme (Morrell-Scott, 2022). This could explain the lack of preparation for practice as newly registered nurses.

Reflective practice and remembering complement each other (Howatson-Jones, 2016). Reflection involves thinking about one's practice and what can be learned from it (Wain, 2017). It is situated at a higher level in Bloom's cognitive domain and enhances critical thinking (Bass et al., 2017). It is also commonplace in nursing and midwifery students' education, as it is mandatory that students have protected time for reflection (NMC, 2018). In recognising the significance of reflective practice, Bjerkvik and Hilli (2019) conducted a systematic review of ($n=17$) publications pertaining to reflective writing in undergraduate clinical nursing education. The review discovered that students demonstrate reflection; however, their reflective abilities were predominantly descriptive and with limited reflective skills. Instead of concentrating on the learning process associated with reflection, the students centre their attention on their emotions and coping mechanisms. This phenomenon can bear consequences for students' educational journey as it may hinder their capacity to engage in insightful critical reflection, which is conducive for meaningful learning. Furthermore, this inclination towards emotions and coping strategies can result in missed learning opportunities as it restricted awareness of learning needs, ultimately impeding students professional development.

5.5.2. Inquiring

Inquiry-based learning is active learning that is strongly student-centred. It is characterised by the process of asking questions to seek answers or solutions (Kirubaraj and Santha, 2018). Inquiring can assist students with critical thinking, problem-solving, teamworking, and communication skills that are required in challenging and complex clinical environments. A shift

from passive to active learning allows students to learn by asking questions. This is fundamental for the development of higher order thinking as students seek to better understand situations to make informed decisions, which in turn helps with professional development and competence.

Teaching nursing and midwifery students is increasingly seen as facilitating self-directed learning rather than conveying knowledge to students (Dickson, 2010). As a result, both academic and clinical staff encourage students to inquire about any concerns or queries. This is pertinent in an environment where patient safety is paramount and there is much to learn. As adult learners, students need to be proactive in their knowledge quest. By inquiring, exploring ideas, and seeking answers, students can become more engaged in their learning.

While there are pros to inquiring, there are also cons, as identified in Gropelli and Shanty's (2018) descriptive study involving ($n=196$) undergraduate nursing students. One-third of students reported fear of asking questions if something seemed wrong in clinical practice because of a lack of confidence. In an earlier study by Elcigil and Sari (2007), students were afraid to ask questions in clinical practice for worry that they would be judged as inept or incompetent in front of colleagues and other members of staff. The frantic pace of the clinical area also discourages students from being inquisitive, as staff is pressed for time to complete clinical tasks rather than answer students' questions (Killam and Heerschap, 2013). The above could inhibit student from seeking knowledge that connects theory to clinical practice.

5.5.3. Self-directed learning

Self-directed learning is a crucial aspect of nursing education for students to enhance their theoretical knowledge, which impacts clinical practice. As adult learners, this demonstrates autonomy as students identify their learning needs, goals, and strategies to achieve them, along with evaluating

their own progress (Knowles, 2005). As a pedagogical approach, it can take many forms, but online learning is becoming more popular (Bramer, 2020). By engaging in this activity or purposeful learning approach, students can develop a deeper understanding of nursing theory and its link with clinical practice. They can also enhance their critical thinking skills and improve their ability to provide safe and effective care to patients.

Williamson (2007) undertook a study on the development and testing of a self-rating scale of self-directed learning in higher education. It was found that in the UK, student nurses assess their self-directed learning ability as moderate. This is claimed to be attributed to numerous factors such as age and gender, previous level of education, attitude to learning, and learning needs (Wong et al., 2021; Slater and Cusick, 2017; Williamson, 2007). While the importance of self-directed learning is emphasised because it is claimed that students who undertake this process are more likely to reach self-actualisation (Arnold, 2017), it must be acknowledged that this approach to learning can also present challenges for students. Students may have difficulties with balancing academic demands with their personal and professional responsibilities. They may also encounter barriers to accessing educational resources or opportunities, such as limited access to technology or financial constraints (Bandit, 2020). To support students, educators and institutions can provide a range of resources and opportunities. These include access to libraries and signposting students to online learning platforms, mentoring and coaching, and self-directed learning opportunities.

5.5.4. Mentor led learning

Learning in clinical practice is crucial because it allows students to apply theoretical knowledge to real-world clinical situations. Students are also given the opportunity in the clinical environment to perfect their skills and competencies for providing safe and effective patient care. The terminology mentor, more commonly known to the group of participants in this study, has

been changed to Practice Assessor (PA) and Practice Supervisor (PS) by the NMC in 2018. This was undertaken as part of the overhaul of nurse education to strengthen assessment decision-making. For the purposes of this study, I will continue to use the term "mentor" as described by the participants .

Mentors act as an intermediary between theory and practice to assist students in clinical practice. They serve as role models, providing guidance, support, and feedback to students as they develop their skills and knowledge. Mentor-led learning could be described as an approach to assisting and facilitating students' education in the clinical setting and has been seen as a solution to enhancing students' sense of empowerment (Bradshaw et al., 2018). They also provide a supportive learning environment that helps students develop their confidence and professional identity.

According to Foster et al. (2015), the availability of literature on nursing students' mentorship experiences is surprisingly limited. However, the findings from my study indicated that participants relied heavily on their mentors for guidance (See page 114). Although this reliance may indicate compliance and respect, it is important for nursing students, as adult learners, to cultivate a greater sense of autonomy in their learning and actively question established practices rather than solely adhering to their mentors' directions or instructions. This approach will signify that students are taking ownership of their education and actively engaging in the clinical practice. Moreover, by questioning practice, students have the opportunity to offer alternative perspectives, identify areas that requires improvement, and challenge outdated practices, which were observed by the participants in my study. This active engagement will contribute to the ongoing development and advancement of nursing knowledge and practice.

Participants also need to demonstrate that they are exercising their critical thinking skills as soon-to-be registered nurses. They should be actively engaging in intellectual discussion with their mentors. Encouraging a dynamic relationship between students and mentors fosters an environment that seeks deeper understanding and promotes exploring alternative perspectives. However, according to Brown et al., (2020), not all students seek to develop a professional relationship with their mentor which can have a negative impact on their learning. This can be true if some mentors are still undertaking outdated practice or undertaking skills that are not evidence based. Students could be afraid to challenge this practice for fear of any negative consequences such as their placement being failed by the mentor (Bickhoff et al., 2017). By developing a relationship and having constructive and meaningful conversations with their mentors, students can enhance their learning experience, and develop their critical reasoning skills.

5.6. Demographic attributes and self-understanding

This group experiential theme explores participants' learning in relation to demographic characteristics, including ethnicity, age, and gender. The insights gained from examining these factors can be utilised by academics and clinicians to enhance existing educational programs or develop new ones. Furthermore, this knowledge can equip academics and clinicians with the necessary competencies to cultivate a diverse and inclusive learning environment. It also has the potential to eliminate educational disparities and promote a more equitable educational system. This will ultimately lead to improved educational outcomes, increased social mobility, and better outcomes for all students.

5.6.1. Ethnicity and its influence on education

The term ethnicity has been widely used in the literature since the 1970s, but this terminology still remains ambiguous (Fenton, 2010). According to Morning (2015), this is because the term ethnicity involves a wide range of

beliefs that varies across different societies and the context in which it is used. William (1997) in Spanakis and Golden (2013) defines ethnicity as a complex, multidimensional construct that encompasses factors of geographical origin, biological, cultural, economic, political, and racism. It must be noted that there has been extensive research in the UK in recent years on racial inequalities in pre-registration nursing education, in particular, the race awarding gap. This gap indicated that White students have a higher chance of attaining first or second-class degrees as opposed to their BAME colleagues (Advance HE, 2020; Equality and Human Rights Commission, 2019). However, only three pieces of literature has been found specifically from the perspectives of nursing and midwifery students' that explore whether ethnicity has any influence on their education.

Drawing from the three-literature obtained, it was noted that ethnicity exerts a significant impact on nursing and midwifery students' educational experiences. Unfortunately, this appears negative, as evidenced in the study by San Miguel et al. (2006). They identified that first-year pre-registration nursing students whose first language was not English were seen as different and had poorer experiences during their clinical placements. Levett-Jones and Lathlean (2009) mixed method case study conducted with ($n=380$) third-year preregistration nursing students from three universities also acknowledged that, students who are perceived to be dissimilar from their White peers were more likely to encounter discrimination and biases from both staff and patients. In a more recent phenomenological study by Pryce-Miller et al., (2023) in which ($n=16$) undergraduate and post graduate BAME degree levels students in nursing, midwifery, and allied health; findings suggest that this group of students face discrimination and persistent inequalities throughout their studies.

Data from my research revealed that participants used the word ethnicity to mean race interchangeably with culture and there was a mixture of both positive and negative experiences. Not all participants who had positive experiences attributed this to the colour of their skin but rather, to their country of origin or cultural background and values. Two participants, (Joel

and Sophie) believed that their ethnicity, which accentuates hard work and dedication is the reason for their positive student experiences (See pages 116). They also demonstrated feeling a sense of community by using the word “we” when speaking about their ethnicity. This displayed a sense of pride in their background and the values they brought with them into the nursing and midwifery programs and clinical areas.

On the contrary, one British White participant (Nancy) did not think her ethnicity or culture had any effect on her learning but later pointed out that it did give her an advantage to access people and places. Nancy also brought to the attention she would not have been afforded those experiences had she been from a BAME background (See page 117). Recognising her culture and or ethnicity placed her in an advantageous position as opposed to her BAME colleagues’ points in the direction of White privilege.

Hobbs (2018) describe White privilege as an undeserved advantage that provides White people with benefits due to the colour of their skin. He further added that the disadvantage resulting from racism is frequently cloaked in invisibility, which makes it difficult to recognise. In a wider context, the BAME students experience can be classed as institutional racism whether intentional or unintentional as there were disparities in access to learning opportunities for this marginalised group of students. The acknowledgement of the White participant (Nancy) who did not think her ethnicity place her at an advantage but was given more opportunities than her BAME colleagues; her experience could also inextricably be connect to the good/bad binary of racism. According to DiAngelo (2018), the binary nature of racial classifications hinders White individuals from recognising their racial identity and, the inherent advantages that come with it within systemic and institutional racism.

There was also a sense of microaggression from two participants Poppy and Freya which could be picked up from the undertone in their narratives (See page 116). Microaggression which can be an inconspicuous insult and often happens automatically or unintentionally, can sometimes be

overlooked because of its subtlety (Solorzano et al., 2000). According to Pusey-Reid et al., (2022) and Guidi et al., (2020), this can have significant effects on students' well-being as it can cause emotional and psychological harm leading to stress, anxiety, and racial battle fatigue. It could also affect academic performance, and a sense of invisibility and not belonging both immediate and long-term as students face difficulties participating and engaging in learning activities (Morales, 2021). Although research on microaggression is growing, according to Williams et al., (2020) nursing-related research into microaggressions and the impact on underrepresented students' success is sparse.

Participants also used the term ethnicity to mean race interchangeably with culture. One participant (Florence) found it particularly difficult to communicate or question her mentors as she perceived them as elders (See page 117). Culture shapes attitudes, beliefs, and values (Balante et al., 2021). In some cultures, there is a strong emphasis on respecting elders. Posing questions to an older person can be seen as a sign of disrespect. Without questioning and seeking answers can lead to a student's lack of understanding, critical thinking, and analysis, which are essential components of effective learning.

In my study, it was found that ethnicity although used interchangeably with race and culture, it can have an impact on learning and understanding among students, as well as between students and patients and students and qualified members of staff. Understanding nursing and midwifery students from diverse ethnic backgrounds may bring different perspectives, experiences, and knowledge to both the classroom and clinical practice. This can enrich the learning experience for all involved. Unfortunately, ethnic, racial, and cultural differences can lead to misunderstandings and biases, hindering effective learning (Lewis et al., 2021; Bhopal, 2018). Therefore, it is pertinent to recognise and understand the needs and experiences of students from different ethnic or cultural backgrounds.

It may be a challenge to teach about ethnicity, cultural competence, systemic racism, social inequities, and White supremacy, however it is necessary as it forces us to see colour and have those difficult conversations. According to Koch (2021), if racism and oppression are to be eliminated in nursing and midwifery, there needs to be an education system that encourages discussion and reflection in these difficult areas. By avoiding discussions about racism, White advantage, and privilege, educators, whether intentionally or unintentionally, contribute to the perpetuation of White supremacy. Developing a system in which this is addressed, can assist academics, clinicians, and students as adults learners understand the complexities of racism and oppression. It can also help people recognise and reflect on their own biases, so they provide better support to each other, students, and patient care. Furthermore, it can provide students with the skills and knowledge to identify and address oppressive situations when encountered during their education.

5.6.2. Age-related learning and experience

With increased initiatives promoting access to nursing and midwifery education, students enter the profession at different ages. Students bring their life experiences, which can impact their learning approach. Following the concept of andragogy, experience comes with age. Younger students may have less life experience to draw upon in their studies, while the opposite for older students is assumed to be the case. To tailor teaching strategies to support nursing and midwifery students, academics and clinicians must understand students' perspectives of their learning and experiences and how this relates to their ages. By so doing, students can be supported in a way that maximises their learning potential although, some students think age place them at a disadvantage especially if they are older.

Two participants from my study , Sophie (age 34) and Harriet (age 40) associate age with declining cognitive function (See pages 119). This is supported by Murman (2015) and Harada et al., (2013), who assert that as we age, memory-enhancing tasks that require rapid information processing or transformation are impacted by the normal aging process; however, a lot of knowledge and experience accumulated over the years is retained. This knowledge can be used to compensate for any decline in cognitive abilities, allowing older student to remain productive and engaged in their work.

Conversely, for younger students, the very nature of the nursing and midwifery professions, in which knowledge, skills, critical thinking, exposure to real-world situations, and working alongside experienced practitioners are essential, may help them mature quickly. This can result in a greater sense of responsibility and a more mature outlook on studies, work, and life. However, it can also cause students to feel overwhelmed and out of their depth. Ultimately, how students react to the pressures of the profession depends on the individual. This can be perceived as positive, negative, or both .

While there is a growing body of knowledge in relation to age-related learning and experiences in mature nursing and midwifery students that explain how emotional intelligence, resilience, and communication skills are developed (Berhe and Gebretensaye, 2021; Snowden et al., 2015; Wrey et al., 2009), only one study was found exploring the experience of junior students. Fenwick et al., (2016) used a descriptive exploratory qualitative approach to explore the experiences of ($n=11$) midwifery students aged below twenty. Results yield three themes in which students described as the challenges of being a younger student. The first being not owning a driver's license, the second is on biases experienced because of their age and the third the need to develop strategies to navigate their way on the course. No study was found on younger nursing students; therefore, limited comments can be made on this group age-related learning and experience. This also highlighting a gap in knowledge on how age is related to learning and experience in particular nursing education.

5.6.3. Gender and its impact on learning experiences

This aspect of the study is not focused on claims about learning between the sexes. Instead, it focuses specifically on gender and its impact on nursing and midwifery students' education. Nursing and midwifery have been seen as female-dominated professions however, there is evidence that the first set of nurses were men with religious affiliations or education (Klainberg and Dirschel, 2009). The gender shift came about as a result of Florence Nightingale's sanitary reforms in which nursing was centred on the extension of mothering, in which females were viewed as better at caring for others (Sasa, 2019; Ross, 2017). Males were not seen as suitable because *"their broad hands are not fit to touch, bathe, and dress wounded limbs, even though they might have gentle hearts for humanity"* (DeVito, 2016, p. 246). The only nursing area where males were considered suitable was mental health nursing because physical strength was needed to help with patient restraint (Evans, 2004).

In the late 19th century, nursing and midwifery education moved away from the socially constructed female gender role as there is no strong evidence to suggest that gender affects caring behaviours (Liu N-Y et al., 2019). Furthermore, modern democratic societies place a high value on gender equality (Block et al., 2019). That being said, as more males enter the nursing and midwifery professions, which some may see as tokenism because men are underrepresented in this workplace environment, it must be noted that gender bias still exists (Sasa, 2019).

In pre-registration nursing and midwifery students' education, gender plays a significant role in their learning experiences, and this can make male students uncomfortable, as they are tainted by gender stereotyping, discrimination, and stigmatisation (Sasa, 2019; McLaughlin et al., 2010). Female students are not immune, as they also have their own challenges related to gender and societal roles. They are still considered the subordinate female in a male-dominant patriarchal health system (Gunn et

al., 2019). These biases can affect students' self-esteem, confidence, and learning experiences (Cho and Jang, 2021; Liu et al., 2019).

My study found that two out of the four male participants felt their gender affected their learning. For one participant (Faizal), this also intersected with his ethnicity, which added a different dimension to his learning experience, as per his account (See pages 121). These findings coincide with that of Chan et al., (2013), ethnographic qualitative study in which ($n=18$) full-time male nursing students were interviewed. Findings revealed that one of the concerns of male students was caring for female patients and the impression those patients may have of them, such as being abnormal or obscene.

For female participants, situational barriers can have a negative impact on their learning experiences. This can be presented in the form of natural physiological processes such as menstruation as well as childcare (See page 122). Karout et al., (2012) conducted a cross-sectional study with ($n=352$) nursing students in Beirut, Lebanon to determine the prevalence and pattern of menstrual symptoms among these students. Their findings revealed that dysmenorrhoea and premenstrual symptoms were severe enough to interfere with daily activities and academic performance. Similar results were obtained from Seven et al., (2014) study which was conducted with ($n=380$) nursing students. Overall, menstrual symptoms can have a significant impact on nursing student's well-being and academic and clinical performance, highlighting the need for increased awareness and support for this issue within nursing education.

In terms of childcare responsibilities, this can add an extra layer of complexity to students learning. Female students are more likely to be the primary carers for children (Sharma et al., 2016). Balancing childcare duties with academic and clinical placements can be difficult as there can be financial implications with childcare resulting in the student having to work part time. This leads to time constraints for studies that may not be flexible. All of this can lead to emotional and mental overload on the student.

Students often struggle with this dual role which can have a negative impact on learning experiences and academic outcomes (Ashipala, 2022; Taukeni, 2014; Funiba, 2011). It may also have an effect on female students' ability to participate in clinical placements due to shift patterns, which are an important part of their education.

A study undertaken by Behboodi Moghadam et al., (2017), in which ($n=20$) student nurses who are mothers were interviewed, found that balancing childcare and nursing studies required planning and sacrifice, with childcare taking precedence. Despite difficulties and feelings of guilt, stress, and anxiety, students often develop coping strategies such as seeking support from family and friends and adopting a time management schedule that is conducive to childcare and studies to balance their dual roles and complete their educational program (Maisela and Ross, 2018; Munn, 2017). If childcare issues cannot be resolved, these students are more inclined to withdraw from their nursing or midwifery program (Ashipala, 2022). Taking an interruption, which is a temporary formal break from their studies can benefit some students. In this situation it means that students can have bonding time with their child and return to complete their programme of study as per arrangements made with the university. Also, as adult learners, the participants affected can seek advice and knowledge of the resources available, such as childcare subsidies, flexible course scheduling, and online learning options. This information should also be readily available to all students through students portals and university websites.

From my study, it has been demonstrated that demographic characteristics such as ethnicity, age, and gender can have an impact on nursing and midwifery students' educational experiences and how they engage in learning. As well as, how that learning helps them to make the connection between theory and clinical practice. To effectively cater to students' diverse needs, academics and clinicians must acknowledge these factors and adapt their teaching strategies accordingly. It is crucial to recognise that these characteristics can impact how students learn and apply theoretical concepts to real-world clinical scenarios. By being cognisant of this,

educators can create a supportive and inclusive learning environment that maximises students' learning potential. Taking responsibility for fostering such an environment entail demonstrating empathy and understanding towards students' individual circumstances. Additionally, providing flexibility in class scheduling whenever feasible and guiding and signposting students in the right direction where they can access resources.

5.7. Sense-making of COVID 19

Sense-making of COVID-19 is intricate and not yet fully understood (Zion et al., 2022). It involves studying how the virus impacts nursing and midwifery students' education as well as patient care. It also involves students making sense of their experiences and adjusting to different ways of studying and practicing in the clinical environment. Additionally, it includes the uncomfortable realisation of health inequalities and its impact on their education and their health. The following personal experiential themes will address sensemaking of COVID-19 from nursing and midwifery students' perspectives.

5.7.1. Disruption of knowledge transfer and change in student status

COVID-19 has caused widespread disruptions in nursing and midwifery students' education within the university and clinical settings. At the onset of the pandemic, social distancing, isolation protocols, and national health guidelines all recommended the temporary closure of all educational institutions (HEE, 2020). It resulted in an abrupt discontinuation of face-to-face teaching (NMC, 2020 a). Universities had to adapt to alternative methods of providing education. This presented a major challenge for students, as they had to quickly embrace online teaching and digital learning. It also added another level of stress, anxiety, and uncertainty for some students especially those who learn best through physical human engagement and for others in areas where digital literacy and digital poverty

exist. With regards to the latter, it is claimed that up to one in ten households lack access to the Internet in the UK (Serafino, 2019). Additionally, students were uncertain about exams and programme completion, which is understandable at the forefront of a crisis. Students' anxiety with regards to the completion of their education can be a contributory factor to poor health outcomes such as anxiety, stress, and depression (Crawford, 2020).

The NMC published emergency standards for nursing and midwifery students' education in July 2020 (NMC, 2020a). These standards provided guidance on how Accredited Education Institutions and their associated NHS Trust partners could enable students to support workforce capacity and, in the process ensure patient safety. The standards also outlined amended changes to students' education, including reduced supervision capacity in clinical practice. This was due to staff shortage and deployment, and patients' acuity (Swift et al., 2020). The standards also stipulates that all first-year students should undertake only theoretical work. For second-year students, there was more flexibility as they were allowed to complete eighty percent of their education in clinical practice. Students in the final six months of their training in the third year were allowed to undertake extended placements. This meant that students could work as paid employees for the final six months of their programme but during this time, they were still required to meet all learning outcome to successfully complete their nursing and midwifery programmes (NMC, 2021a). Additionally, Health Education England (HEE, 2020) also provided guidance for students on the opt in scheme to be paid as discussed in **Sections 2.9.4 and 4.6.1**.

Opting in to work as a HCSW provided some students with a sense of being part of history, an opportunity to be paid to be on placement and to be part of something that will be professionally worthwhile because they were contributing to the NHS at a time of need (Swift et al., 2020). For others, it was also a time of confusion regarding being paid as an HCSW while still holding their student status. Participants in my study did not feel they had the student experience because of the alteration to their student role (See

page 125). This is despite the fact that they had to achieve their proficiencies and get their Practice Assessment Documents (PADs) signed off to demonstrate they had successfully completed their respective educational programmes.

With the phasing out of the pandemic, the NMC retracted its emergency standard in September 2021 and replaced it with a recovery standard. This was to enable Accredited Education Institutions to restore nursing and midwifery students' education to some form of normality while still allowing some flexibility in the students' programmes (NMC, 2022). This recovery standard paid particular attention to simulation, in which students can practice and learn for up to 600 out of the 4600 total program hours. This is to compensate for the times students were unable to practice clinically or there are limited or no clinical placement capacity. AElS made significant efforts to adapt to this recovery standard so that no students were placed at a disadvantage with their education. Students who participated in my study all successfully completed their programme, albeit not at the same time, as two students were shielding at the time of data collection.

5.7.2. Nursing during the COVID-19 pandemic

The COVID-19 pandemic has presented unprecedented challenges to nursing and midwifery students. Students who were unable to accept the HEE opt-in offer during the first wave of the pandemic due to personal or health reasons did not have access to hands-on clinical skills training or simulated practice, because of the closure of the university. These students took the theory-only route, with clinical placements postponed. While this may have been the appropriate decision for them at the time, it is claimed that some students felt a sense of failure as a result of not being able to go out on clinical practice to gain new knowledge and step up to the challenge to support their colleagues (Swift et al., 2020).

Participants who opted to work in the clinical area expressed feeling increased pressure. This was because they had to live in isolation in order to protect vulnerable family members from the virus (See page 126 and 127). This must not have been an easy decision for students in this situation. In Slettmyr et al., (2019) qualitative study on altruism in nursing, findings indicated that there is a sense of ambivalence between protecting loved ones while at the same time putting the needs of patients first. While this could lead to cognitive dissonance, Slettmyr et al, further explained that in today's modern healthcare system, society's expectations of altruism tend to conflict with nurses' perceptions of their work although they are being paid.

Participants also claimed to feel under pressure in clinical practice because they did not know what actions to take due to rapid patient deterioration which often led to deaths. Participants recalled their experience (See pages 128 to 129). In situations like what these participants experienced, concerns were raised about the judgment of recruiting student nurses and midwives to work in the clinical area during the COVID-19 pandemic. While this judgement call was justified by the NMC and HEE as students were needed to support the NHS, Hayter and Jackson (2020; p 3116) questioned whether placing students in clinical practice was *“a valuable intervention by universities to fighting the epidemic or a reckless placing of nursing students in harm's way with little evidence to support the necessity to do so”*. In this same vein of thinking, they also emphasised that along with civic duty, universities need to remember that they also have a legal and moral obligation to protect the welfare of their students. Swift (2020) also queried the strategies that were used to entice students to work during COVID-19 and, raised concerns about whether emotive messages were used to pressure students to commit to work in clinical practice. It is known from previous pandemics that student nurses were made to believe that they have a moral and professional obligation to volunteer and work in the clinical area (Rosychuk et al., 2008).

Some participants also experienced heightened levels of nervous tension while trying to keep pace with their studies, working on the front line and fear of the unknown as per their narratives (See pages 126 to 127). The onset of the pandemic gave students little time to contemplate what they were signing up for. Findings from Gómez-Ibáñez et al., (2020) phenomenological study provided several rationales why students opted into work during COVID. Some of these includes, they saw it as demonstrating their commitment to the profession and therefore their responsibility to assist fellow colleagues and, despite not having completed the degree they considered themselves to be "nurses". Nursing during COVID-19 was a unique experience for students because they had never been in a situation like this before. Students appropriately described this as a fear of the unknown. Despite past pandemics, there is still uncertainty and not enough evidence regarding the short-term or long-term effects of pandemics on nursing students, according to Goni-Fuste et al., (2021).

5.7.3. Effects on mental health

On May 5, 2023, the WHO declared the COVID-19 pandemic no longer a global health emergency. However, it is not over and has significantly impacted nursing and midwifery students' mental health. Studies have shown that this group of students is at higher risk of mental health challenges. This is because of modifications to their theoretical education and the adoption of the HCSW role for clinical practice. In this role, they witnessed and had to manage situations they never dealt with before or were prepared in the classroom to deal with (Kerbage et al., 2021; Savitsky et al., 2020). As a result, students suffer from increased levels of anxiety, stress, depression, moral injury, and burnout (Haririan et al., 2022; Riedel et al., 2022; Sögüt et al., 2021).

Being at the forefront of the pandemic in their HCSW roles, participants in my study were faced with working in a life-threatening environment as they were exposed to the COVID-19 virus. They also worked in highly

pressurised situations where they witnessed rapid patient deterioration and deaths. This could have long-lasting effects, as narrated by participants Nancy, Faizal and Joseph (See pages 130 to 131).

Findings from several studies indicated that students were unprepared for clinical practice given what they witnessed and the conditions under which they had to work during this unprecedented time (Rood et al., 2022; Michel et al., 2021; O'Flynn-Magee et al., 2021). Usha et al., (2022) cross-sectional study measured the mental health impact of COVID-19 on nursing students found that because of the variety of mental health issues encountered by students, this can have long-term consequences, including triggers for PTSD as future nurses.

The pandemic did not only affect those students working in the clinical area. It also created an atmosphere of uncertainty and increased stress for students who could not be in clinical practice at this time. This caused frustration and anxiety as participants worried about the disruption of their education and future careers. Sophie and Olivia shared similar experiences (See page 130).

The COVID-19 pandemic has had a significant impact on nursing and midwifery students' mental health, creating increased stress and anxiety, social isolation, disruption to clinical placements, and the fear of infection. Academic institutions and healthcare organisations must recognise the impact of the pandemic on the mental health of student nurses and midwives. They must also provide adequate support to address these challenges and maintain their psychological well-being. This may include access to mental health resources, debriefing sessions, peer and tutors and practice assessors' support. It is crucial that this support be prioritised as students played a critical role in the healthcare system's response to the pandemic.

5.8. Relating research findings to the literature review

In chapter two, published literature was synthesised and analysed to evaluate claims pertaining to how pre-registration nursing and midwifery students connect theoretical knowledge with clinical practice. A similar analysis was undertaken of the literature on the impact of COVID-19 on students' education. In this section, the gaps identified in the literature will be addressed. The literature findings will be compared to those from my study with the aim to support and identify new contributions to knowledge on how student nurses and midwives effectively connect theoretical knowledge with clinical practice. This will help detect any knowledge gaps and areas for further research. For ease of access, both findings are outlined in (Figure 5.2).

Figure 5.2 Findings from the literature review together with findings from my study

Literature review findings	My study findings Group experiential themes	My study findings Personal experiential themes
Diverse pedagogical approaches for connecting theoretical knowledge with clinical practice e.g., observation, hands-on learning, role modelling, sense-making, simulation, reflection and learning through interprofessional education.	Complexities of embodied knowledge	a) Theory practice gap b) Confusion and questioning practice c) Abide by theory
Simulation as a safe method for learning	Sensing the meaning of personal and professional learning	a) Reflection and remembering b) Inquiring c) Self-directed learning d) Mentor-led learning
The role of "others" in assisting students with connecting theoretical knowledge with clinical practice	Demographic attributes and self-understanding	a) Ethnicity and its influence on education b) Age-related learning and experience c) Gender and its impact on learning experiences
The effects of COVID-19 on Students' education	Sense-making of COVID 19	a) Disruption of knowledge transfer and change in student status b) Nursing during the COVID-19 pandemic c) Effects on mental health

Three of the four themes identified from the literature review encapsulate how nursing and midwifery students connect theoretical knowledge with clinical practice to promote their learning and professional development. All methods identified in each theme interconnect. They also run across all six cognitive levels of Bloom's taxonomy, from lower-level cognitive skills or thinking ability such as observing to higher-level cognitive skills such as sense-making. This is necessary for students to develop critical thinking skills, learn effectively, and remain engaged and motivated in preparation for clinical practice.

From my study, the methods identified on how students connect theoretical knowledge with clinical practice differ from those identified in the literature apart from reflection. They also run across all levels of Bloom's taxonomy. Conversely, participants utilised lower level thinking skills such as remembering. They also relied on mentor handholding and guidance in clinical practice. Acknowledging learning needs to be viewed in context, and the methods identified are all imperative for knowledge development. Those pinpointed in my study while important throughout the participants' education were more appropriate for those in the first and early part of the second years of their education.

Participants in my study were at the final stage of their education and although displaying skills such as reflection which is at a higher cognitive level, does not necessarily mean that learning is taking place. According to Bjerkvik and Hilli (2019), reflection could be done at a descriptive level to cope and manage emotions. Participants should be displaying higher-level cognitive skills necessary for sound clinical judgments and decision-making such as interpreting, appraising, and evaluating. At this stage, students also need to be practicing under minimal supervision in preparation to become autonomous practitioners. A lack of higher cognitive skills can affect students in several ways such as decrease confidence and motivation, the inability to adapt to the ever-changing clinical environment, and also the inability to think critically and connect theory with practice.

As adult learners in the final phase of their programme, participants should also be utilising their embodied knowledge as a strategy for connecting theory with clinical practice; however, it was found that this was deficient. Participants perceive embodied knowledge as complex. While this is often implicit and difficult to explain as it involves practical experiences underpinned by theoretical knowledge (Craig et al., 2018), participants articulated that they found it challenging when connecting theoretical knowledge with clinical practice. This is because they perceived their educational structure as two separate entities. Knowledge gained at university was seen as superior, ideal, and linked to passing exams. This contrasted with knowledge gained in clinical practice, which was seen as acquiring and developing skills for patient care. As a result, some participants abided by theory and could not make sense of or understand how this could be transferred to clinical practice. This led to students' confusion, questioning of practice, and difficulty in developing embodied knowledge.

From the literature review, simulation emerged as a significant mechanism for connecting theoretical knowledge with clinical practice. It is ironic that the participants in my study had recently completed a simulation-based module prior to their final placement. This made it also surprising that they did not explicitly articulate its role as a conduit for their theory-practice education. The only identified gap in the literature review under this theme of simulation pertains to the paucity of research examining the mechanisms through which knowledge is transferred from simulation to practice. Drawing from Bruce et al., (2019) study, it is noteworthy that students not only recollected the intricacies of their simulated experiences but also recalled how the simulated experience made them feel, which led to knowledge acquisition. However, there is still insufficient empirical evidence and exploration on this area of simulation. Therefore, further research is still warranted.

One of the gaps identified from the literature review was that there was no discussion on how specific practical skills and learning experiences relate to students' knowledge and professional identity development. According to Marañón and Pera (2015), all practical skills and learning experiences assist students with the development of knowledge albeit at different levels, because students must be able to understand the theoretical concepts underpinning clinical practice. Also, learning experiences play a fundamental role in the development of students' professional identities. As students engage in clinical practice, they develop a sense of themselves as healthcare professionals. However, according to Maginnis (2018) and Jackson (2017), this is an area that is underexplored in students' education. This is because it is multidimensional and is influenced by a range of factors such as knowledge, skills, values, and experiences.

Another crucial gap identified from the literature was in relation to modelling or role modelling and the specific qualities or behaviour experienced staff should display that students could emulate to assist with professional development. It is imperative to address this because, according to Jack et al., (2017) and Baldwin et al., (2014), modelling has been given sparse attention in nursing education and in the literature. This is compared to other disciplines, such as medicine. This lack of attention is especially concerning, given the importance of role modelling which is essential in promoting professional values and attitudes. It is also an effective means for students to acquire new skills without trial as there is no room for errors in patient care. By observing qualified staff's clinical competence, confidence, and caring behaviour, students can gain insight into the manner and qualities that can positively impact their development in preparation for becoming registered nurses or midwives.

The inability of student nurses and midwives to connect theoretical knowledge with clinical practice due to a lack of higher cognitive thinking and embodied knowledge may result in confusion, frustration, stress, and a lack of confidence. Additionally, it could impact their ability to learn and grow professionally. It also has implications for patients because students will be

ill-equipped to adequately assess and manage patient care responsibilities which could potentially lead to adverse patient outcomes. Ultimately, the inability to connect theoretical knowledge with clinical practice can have implications for both the student and the patient they are caring for.

Based on the literature reviewed and findings from my study, COVID-19 had a devastating impact on students' education, as discussed in **Section 5.6**. Findings suggest that students experienced increased levels of anxiety, depression, and stress during the pandemic, which may have long-term effects on their mental health. However, it will take time to fully understand the impact of COVID-19 on nursing and midwifery students as research is still ongoing. For my study, considering that data was collected during the first wave of the COVID-19 pandemic, I cannot refute or dispute that this may have had a bearing on the participants' experiences and the information provided at the time.

The literature review on COVID-19's effect on pre- registration nursing and midwifery students' education found only one gap. This was pertaining to the data collection method. Out of the four literature pieces analysed, two utilised cross-sectional research designs, which may impose constraints on comprehensively capturing the intricacies of students' experiences. This limitation stems from the fact that cross-sectional data collection entails observing and gathering information at a specific point in time, offering only a restricted understanding of students' experiences.

5.9. My original contribution to knowledge

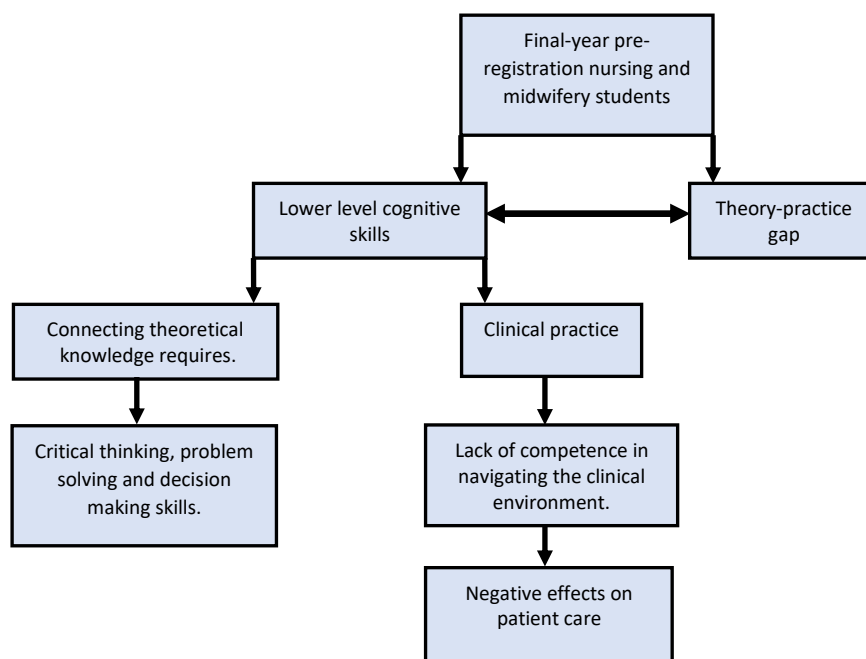
From this thesis I have found that the ways in which pre-registration nursing and midwifery students connect theoretical knowledge with clinical practice is complex and multifaceted. It intersects with multiple factors and cannot be understood in isolation, nor should it be approached in isolation. This interconnectedness requires a comprehensive analysis of all the factors involved. These include teaching and learning strategies, students' level of critical thinking and decision-making, demographic characteristics, personal

and emotional challenges, level of support, the position of where students are in their educational programme, and the psychosocial environment in which teaching and learning takes place. As part of this doctoral study, the impact of the current global challenge, COVID-19, was also considered.

Empirical findings and contributions to the body of knowledge together with answers to the research aim and objectives. My study revealed that:

- 1) Nursing and midwifery students in the final year of their programs have demonstrated a tendency towards lower-level cognitive skills to connect theoretical knowledge with clinical practice. This will hinder their ability to engage in critical thinking, problem-solving and informed decision making in real-world clinical settings. As a result, their competence to navigate a dynamic and multifaceted clinical environment may be compromised. Moreover, patient care and overall outcomes could be negatively affected. Additionally, this lack of critical thinking may further contribute to the theory-practice gap. Please see **Figure 5.3** for a diagrammatical representation of the effects on the use of lower level cognitive skills when connecting theoretical knowledge with clinical practice.

Figure 5.3 Effects of lower-level cognitive skills when connecting theoretical knowledge with clinical practice.



- 2) As adult learners, nursing, and midwifery students experienced challenges in integrating embodied knowledge into their clinical practice, leading to a sense of confusion. This confusion arises from the perception that university teaching and clinical practice are separate entities with different objectives: theory for academic exams and clinical practice for patient care. This division restricts students' capacity to effectively transfer knowledge from the classroom to real-world clinical settings. To address this theory-practice gap, it is imperative to place greater emphasis on specific pedagogical approaches such as case studies, simulation exercises, and reflective practice. These strategies will aid students in successfully applying their theoretical knowledge to practical clinical scenarios.
- 3) Demographic characteristics such as gender, age, and ethnicity have a significant influence on students' learning and professional development. Academics and clinicians must take this into consideration and create an inclusive and supportive environment for all students. This is because it fosters a sense of belonging and acceptance among students. This will also encourage students to be engaged in their learning and thrive in their professional development.
- 4) This is not a novel contribution but adds to the existing body of knowledge. It also addresses research objective number four. The effects of COVID-19 on students' education have been multifaceted, encompassing disruptions, hurdles, and adverse mental health outcomes. Specifically, pandemic-related disruptions have generated an extraordinary transformation in students' education, necessitating them to relinquish their learner status and function as HCSWs. This shift has impeded their engagement and motivation. Additionally, the pandemic has exacerbated stress and anxiety in light of the unpredictable future. Furthermore, it has increased pressure on students to adapt to clinical situations and assist with managing rapid patient deterioration and death.

Nursing and midwifery, as a profession, require not only students' knowledge of theory and practice but also their capability to integrate and apply this knowledge in clinical situations. Without using higher-level cognitive skills such as critical thinking, decision-making, and drawing on embodied knowledge gained through experience, students may find it difficult to provide effective and appropriate care for patients. This may also impact on students' ability to progress in a timely manner in their nursing and midwifery education. In combination with the negative impact of their demographic characteristics and possible short- and or long-term effects on mental health as a result of COVID-19, this can likewise lead to frustration and students wanting to leave their respective professions.

5.10 Strengths and limitations of the study

5.10.1 Strengths

This study demonstrated its strength by adopting Interpretative Phenomenological Analysis (IPA) as a philosophical framework for gathering and analysing in-depth individualised data derived from participants' lived experiences. By employing this adaptable participant-centred approach, I was able to explore and interpret the participants' subjective interpretations of their experiences, thereby engaging in a double hermeneutic process. Consequently, this study achieved a nuanced comprehension of the intricate nature of participants' experiences when connecting theoretical knowledge with clinical practice.

Furthermore, the qualitative methodology employed in my thesis effectively identified the influence of personal, sociocultural, political, and environmental factors on the learning process of nursing and midwifery students as they connect theoretical knowledge with clinical practice. Another notable strength of my thesis lies in its ability to uncover the meanings attributed by participants to their experiences, a feat that would have been challenging to achieve using an alternative methodology. This profound understanding of how participants connect theoretical knowledge

with clinical practice serves as a valuable guide for curriculum development, modifications to pedagogical strategies, and support mechanisms provided to all students. Moreover, the findings of this study hold potential for transferability to other professions, as they highlight the importance of considering the diverse contextual factors influencing students' learning experiences across different domains.

5.10.2 Limitations

Limitations include. Data collection from participants at one university, no participants from the child or learning disability field of nursing, and use of online interviews.

Initially, all participants were recruited from one university. While this simplified the logistics of advertising, recruitment and interviewing which all took place during the COVID-19 pandemic. I understand that this single university's findings may not represent the broader population or another university. This may limit the diversity of perspectives as this one university's culture, teaching methods, or specific curriculum requirements may influence participants' experiences and perspectives.

Subsequently, there was a lack of representation from the child and learning disability fields of nursing despite readvertising for participants. This could result in a failure to capture different perspectives as each field of nursing has its own unique characteristics, challenges, and approaches to education. To encompass a broader representation of all four fields of nursing, further studies may be warranted.

Lastly, while conducting online interviews has its place such as during COVID-19 when there was a moratorium on face-to-face interviews, this method of obtaining data can make establishing trust and rapport with the participant difficult. This is because of the physical separation of the researcher from the participant. Adding to this, subtle nuances and

nonverbal cues can also be missed which could have an impact on the richness and depth of the data collected. Ensuring participant confidentiality also becomes uncertain as the researcher has limited control over the interview environment chosen by the participant. Additionally, issues such as background noises, poor internet connection, and external distractions may negatively impact the overall quality and effectiveness of the interview.

5.11 Recommendation and implications for nursing and midwifery education

My study has made a valuable contribution to the body of knowledge with regard to nursing and midwifery students' education. Particularly, it highlights that BSc pre-registration nursing and midwifery students in the final clinical placement in the final year of their educational programs, have demonstrated a tendency towards the utilisation of lower-level cognitive skills to connect theoretical knowledge with clinical practice.

My study has also raised several other concerns that require both academics and clinicians to delve deep and investigate further. This is especially important in terms of improving the educational experiences of nursing and midwifery students and their ability to effectively connect theoretical knowledge with clinical practice. By so doing, it may be possible to bridge the theory-practice gap, which is often framed as a deficit model that identifies a misalignment or breach between theoretical knowledge and clinical practice within nursing and midwifery students' education.

This deficit model tends to emphasise weaknesses or problems rather than strengths or positive attributes. If the gap in nursing and midwifery students' education is to be bridged, it is crucial to adopt an alternative perspective that moves away from this deficit model to a more positive or strength-based approach centred on recognising and leveraging the strengths inherent in nursing and midwifery students' education. This strength is the voice of the students which is often underestimated and underrepresented despite the

National Student Survey (NSS) being completed annually. As a result, further research needs to be undertaken to truly value the impact of student voices in nursing and midwifery students' education. Several recommendations are made based on the findings of my study in order to facilitate a shift in perspective.

5.11.1. Curricula recommendation

It is recommended from my thesis that a paradigm shift is needed in nursing and midwifery students' education to reframe established perspectives. This means the curricula should no longer be solely Western-centric. There must be an explicit deconstruction of colonial narratives within healthcare and nursing history. This process is not simply about developing educational strategies. It is a process of transformation in which the curricula are redeveloped or redesigned to include diverse voices and perspectives from global majority scholars, academics, clinicians, and students.

The impact of social determinants on health, including a critical examination of how healthcare policies and practises can perpetuate or alleviate health disparities, must also be included. This is needed now more than ever in the wake of the COVID-19 pandemic and its impact on global majority patients, staff, and students who care for them. Acknowledging the impact of colonialism on health disparities and healthcare access is of paramount importance if the curricula need to focus on social justice, bridging the theory-practise gap and equipping nursing and midwifery students to be agents of change.

The curricula also need to adopt a critical pedagogical approach, with particular attention paid to the concepts of relevance to practice. Adopting this approach involves integrating critical pedagogical principles such as fostering critical thinking, empowerment, cultural awareness, and reflection in order to cultivate engaged, socially conscious nursing and midwifery students, from the first to the final year of their respective educational

programs. Students must also be encouraged to become advocates for themselves, their colleagues, and their patients in the face of injustice. These recommendations emphasise the need for curricula that prepares nursing and midwifery students not only with clinical skills but also with critical thinking abilities, cultural competence, and a global perspective. The curricula need to include strategies in which students can feel empowered to challenge established norms and social injustice and work towards a more equitable and inclusive healthcare system.

5.11.2. Student engagement recommendation

It is imperative for nursing and midwifery students from diverse backgrounds to be given the opportunity and to take an active role in the decolonisation process of their education. This encompasses their participation in assisting with shaping the program contents to ensure that they get a diverse and well-rounded educational experience. Creating a dedicated space for open dialogues and discussion on decolonisation, where students can freely share their experiences, apprehensions, and innovative ideas, is of paramount importance. Encouraging nursing and midwifery students to critically examine Western-centric narratives and propose alternative perspectives is fundamental for fostering cultural competence.

As students assist in shaping their educational pathway, this will serve as a testament to acknowledging them as adult learners who take ownership of their own education. Consequently, the curricula become a reflection of the evolving needs, aspirations, and challenges of the students, transforming their education into a collaborative and student-centred approach. Furthermore, recognising diverse cultural perspectives within the nursing and midwifery students' educational environments can help create a more inclusive and enriching learning experience.

In the process of sharing their perspectives on decolonisation, nursing and midwifery students also need to be aware of the critical pedagogical strategies that are included. These are strategies which encourage students to engage in reflective practice, critical thinking, debates, questioning assumptions, and examining issues from different viewpoints. Students should also be provided with information and participate in scenarios on how to manage social injustice for themselves, their colleagues, and the patients they serve. This is to assist the students in becoming agents of change for their own learning. Encouraging critical thinking skills fosters an environment where students communicate effectively, question dominant narratives, assess their own biases, enhance problem-solving and assist with effective decision-making. These will not only facilitate how students connect theoretical knowledge with clinical practice but also contribute towards bridging the theory-practice gap.

5.11.3. Academics and clinicians engagement recommendation

To foster the decolonisation of nursing and midwifery curricula, academics and clinicians need to engage in a collaborative effort. These professionals need to attend diversity training and workshops that will equip them with the knowledge and awareness necessary for recognising the importance of cultural competence and inclusivity within the curricula.

In order to enhance their understanding of the diverse student population they teach and supervise; they also need to adopt an intersectionality lens. This would require developing a deeper understanding and appreciation of cultural norms, values, and beliefs held by students from different backgrounds. This approach ensures that a wide range of perspectives, including those from a global majority, are considered. Moreover, by engaging academics and clinicians in these ways, the curricula can be transformed to better reflect students' diverse and evolving needs, ultimately developing the goal of decolonisation.

The integration of critical pedagogy principles into nursing and midwifery students' curricula requires the active collaboration of academics and clinicians. They must come together to explore the foundations and methodologies of critical pedagogy to enhance the understanding and application in nursing and midwifery students' education. Furthermore, by incorporating culturally relevant pedagogy when facilitating students' education, academics and clinicians can foster an inclusive learning environment that supports students from diverse backgrounds. This helps avoid biases and stereotyping. Achieving cultural competence in this manner requires an ongoing commitment to pedagogical strategies that embrace diversity and inclusivity. This is significant in both the classroom and in clinical practice.

It is also imperative that academics and clinicians adhere to these principles so that educational experiences can be created that go beyond facilitating learning or imparting knowledge. By engaging academics and clinicians in these collaborative efforts, the curricula can evolve into a dynamic and transformative educational experience that equips students with the critical thinking skills necessary to address simple and complex healthcare challenges.

Furthermore, it is recommended that academics and clinicians continue to take on the responsibility of conducting both cross-sectional and longitudinal studies to assess the impact of the COVID-19 pandemic on students' educational experiences. Given their unique roles and perspectives within the academic and clinical settings, academics and clinicians are well-positioned to lead and contribute significantly to these research endeavours. These research should delve into multifaceted aspects, including the evolving dynamics of remote and hybrid learning, the socio-emotional well-being of students, the adaptation of pedagogical strategies, and the continuous refinement of healthcare training amidst the persistent challenges posed by the pandemic. By embracing this research role, academics and clinicians can provide critical insights and actively contribute to the development of evidence-based strategies that can enhance the

resilience and effectiveness of student education during and after COVID-19.

5.12. Implication for nursing and midwifery students' education

My study's finding has implications for both academic and clinical practice. When re-evaluating and redesigning curricula, attention needs to be paid on how to develop and promote higher-level cognitive skills for nursing and midwifery students as they progress towards the final year in their education programmes. To achieve this, academics, and clinicians need to employ strategies that foster active learning, engagement, and the seamless integration of theoretical knowledge with clinical experiences. Such strategies may encompass evidence based-practice, case-based learning, simulation exercises, and interactive web-based educational strategies. Furthermore, clinical mentors should play a pivotal role by offering guidance, constructive feedback, and opportunities for reflection and concept mapping of students' education, thus facilitating the connection between theoretical knowledge and its application in clinical practice.

In terms of assessments, a shift beyond memorisation and recall are imperative. Assessments should be designed to evaluate students' capacity to apply theoretical knowledge in diverse patient scenarios, demonstrating critical thinking skills and informed decision-making to effectively address clinical problems. This is crucial to enabling students to continuously enhance their own understanding of the interplay between theory and practice. By addressing these aspects, nursing and midwifery programs can better equip students to develop higher-level cognitive skills.

5.13. Professional body involvement

The NMC, as the regulator for nurses and midwives plays a crucial role in setting standards for nursing and midwifery students' education in the UK.

Through close collaboration with academic institutions and clinical practice, the NMC seeks to ensure that curricula conform to their defined criteria and align with the essential competencies required for safe and effective practice.

Concerning decolonisation (although not explicitly stated in such terms), the standards require educational institutions to incorporate principles of diversity, inclusivity, and cultural competence into their educational programs. This includes the requirement that “*the educational environment promotes fairness, impartiality, transparency, and positive interactions among individuals from diverse backgrounds*” (NMC, 2023: pg. 8, Part 1). Although these standards are established in compliance with equality and human rights legislation (NMC 2023), the practical implementation often falls short of achieving the intended objectives.

Global majority nursing and midwifery students continue to report instances of racism from staff, colleagues, and patients (Walker et al., 2023). These students are also evaluated against NMC standards that emphasise prioritising people, upholding dignity, and promoting professionalism, but both academic and clinical environments do not consistently embody these principles (Moncrieffe et al., 2019). This highlights that substantial efforts still need to be collectively undertaken by the NMC, HEIs, and clinical practice partners to rectify the existing disparities and create an inclusive and equitable educational environment for all nursing and midwifery students.

In terms of promoting critical pedagogy, the NMC plays a significant role in endorsing and supporting the integration of critical pedagogical approaches into nursing and midwifery curricula. This is accomplished by providing standards on how the curricula should be designed, developed, delivered, and evaluated. These standards aim to ensure that students receive a well-defined framework and progression that combines theoretical knowledge with practical application, progressively increasing in complexity. While there is some compliance with these standards, there still exists a deficiency in pedagogical alignment within nursing and midwifery students' education,

particularly concerning inclusivity mandated by the NMC (Moncrieffe et al., 2019). This is indicating that regular reviews of the curricula are essential to ensure alignment with contemporary healthcare practices and decolonisation.

Overall, the NMC's involvement in decolonising the curricula and promoting critical pedagogy in nursing and midwifery education is paramount in driving transformative change within the profession. By setting standards and offering support alone is not enough. The NMC need to be more involved or offer clearer guidance which can facilitate a shift toward more inclusive, culturally competent, and critically engaged nursing and midwifery education.

5.12. Conclusion

There are varied factors that impact how nursing and midwifery students connect theoretical knowledge with clinical practice. These can be internal and external. Internal or (personal) includes age, gender, and ethnicity while external includes how students are taught and supported in their learning by those in educational roles. Connecting theoretical knowledge with clinical practice is a complex process that involves applying embodied and theoretical knowledge and skills in real-world clinical settings. This study found that student nurses and midwives in the final clinical placement of their respective programmes predominantly rely on lower cognitive-level skills to connect theoretical knowledge with clinical practice. They also perceive university education and learning as separate from clinical practice education. If nursing and midwifery students are to effectively connect theoretical knowledge with clinical practice, they will need to be supported in a 360° way. This will involve collaboration and coordination between the university academics and clinical educators. By working together, they can create a cohesive and coherent learning experience that encourages students to utilise higher-level cognitive skills for connecting theoretical knowledge to real-world clinical practice.

To ensure the relevance and currency of nursing and midwifery education, it is imperative that HEIs work collaboratively with clinical practice partners. Guided by the NMC, they must embrace decolonisation in view of the evolving educational landscape and the need to promote diversity, inclusivity, and cultural competence within nursing and midwifery education. This transformative endeavour requires HEIs and clinical partners to proactively reevaluate and modify existing curricula, pedagogical approaches, and practices to better align with the principles of decolonisation. Such initiatives are not only essential for fostering a contemporary educational environment but also for preparing students to meet the diverse and dynamic challenges of the health care profession.

Chapter 6

Reflection on doctoral journey

6.1. Introduction

This reflective chapter details my doctoral journey, with a specific focus on my approach to investigating how nursing and midwifery students connect theoretical knowledge with clinical practice. While I have prior knowledge and familiarity with this topic, I approached this study with an open mind, not fully aware of the extensive undertaking ahead. My aim was not to promote a prescriptive or idealistic approach to nursing and midwifery students' education. Instead, I wanted to explore the experiences from the students' own unique perspectives. Recognising the abundance of existing studies primarily from the perspectives of academics and clinicians, my aim was to shed light on this issue from the viewpoint of the students themselves.

6.1.1. Personal and professional reflection

As I embarked on my research journey, I was intrigued by the dichotomy between the theoretical and practical dimensions of nursing and midwifery education. While the theoretical aspect emphasises objectivity and real-world problem-solving, the practical aspect is subjective, requiring practitioners to draw upon their professional expertise and consider contextual factors when making informed decisions. My ultimate goal was to uncover valuable insights on how nursing and midwifery students make the connection between theoretical knowledge and clinical practice to promote their learning and professional development. The aim was also to seek answers that would help to bridge the theory-practice gap. As a nurse educator and researcher for this study, I found myself navigating the intricate relationship between theoretical knowledge and clinical practice.

My research was a personal and professional venture that I pursued with passion and dedication. It was not driven for a need for recognition or research output. Rather, my motivation stemmed from a profound desire to address the educational challenges faced by nursing and midwifery students. I hope to use the knowledge gained from my study to create positive changes that enhance the quality of students' educational experiences. To achieve this, I intend to actively engage in curriculum development, paying particular focus on teaching and learning strategies. This includes advocating for educational excellence, collaborating with colleagues, and sharing ideas. This is both within the university where I work and in clinical practice, where I am an academic link lecturer.

The pursuit of this study was also a moral one, which filled me with a deep sense of purpose and goal. I persevered despite personal adversities such as the passing of two loved ones which has brought a profound sense of grief, sadness, and a range of complex emotions. I also persevered despite the impact Covid-19 has had on all aspects of society, including research endeavours. The challenges and disruptions caused by the pandemic have been significant, and like other researchers, I had to adjust my methods and approach in response. I also had to adapt to more flexible ways of working and supporting students in clinical practice during this unprecedented time. Simultaneously, I took on the temporary responsibility of serving as interim deputy Head of Division at work to support the team. This significantly increased my workload and had a profound impact on my study time. However, my dedication and passion for this research never wavered. Despite setbacks, I managed these challenges with resolute determination to complete this thesis.

6.1.2. Reflection on the taught phase

Not being in a student role for some time, I eagerly looked forward to the taught phase of my doctoral journey, especially since it was in a different school than nursing. To my delight, the teaching sessions exceeded my expectations with their smoothness, pace, and relaxed atmosphere. What caught me by surprise was the pedagogical approach used. This deviated from the positivist and teacher-centric methods that emphasised passing which I was accustomed. Instead, the approach embraced constructivism and collaboration alongside prioritising students' understanding of what was taught. This departure from my previous nursing experiences was highly enjoyable, engaging, and insightful. As a result, I have adopted some of this in my own teaching.

Initially, I encountered some glitches grasping unfamiliar concepts like ontology and epistemology, which seemed like a foreign language to me. The complexity of these ideas was overwhelming, and I struggled to fully comprehend their essence. However, through persistent efforts and active involvement with the subject matter, a breakthrough emerged, and everything made sense. Over time, I gradually established meaningful connections among the different concepts, which solidified my understanding and appreciation of the taught phase and research process at hand.

6.1.3. Reflection on the research phase

During this phase, I encountered significant challenges, particularly in managing the complexities of data collection and analysis. The demanding RES 2 and RES 3 requirements further added to the complexity, all amidst the heightened impact of the COVID-19 pandemic. The closure of the university presented obstacles for advertising and recruiting participants as traditional face-to-face contact was not possible due to a moratorium. Instead, I had to solely rely on the university's digital learning platform for

these processes. Although it took some time, participants who were enthusiastic and curious about this study did respond.

Each participant who volunteered to take part and be interviewed via MS Teams disclosed personal details that reveal aspects of their lived experiences, thoughts, and feelings. I was deeply moved by the participants' trust and generosity throughout the study. Their willingness to share a part of themselves through their unique experiences and insights has been humbling. At times, listening to the students' experiences was emotional for me, particularly when they spoke about the impact of COVID-19 pandemic on their studies, clinical experiences, and personal lives.

I understand the ethical implications of research. However, my personal and professional inclination as a person and nurse compelled me to physically reach out and provide comfort to participants after their interview, which could not occur. I now appreciate that the human element of conducting face-to-face interviews cannot be truly replaced, especially considering the sensitive nature of some of the experiences I asked the students to recall. This experience served as a poignant reminder of the necessity of acknowledging and honouring research participants' humanity. It also became evident to me that while technology can serve as a valuable research tool, it cannot replicate human connection. Additionally, I realised that research is not just about collecting data. It is also about appreciating and understanding participants, without whom this study would not be possible.

The process of transcribing the data was a testing time of my patients not being an IT "savvy" person. During the data collection phase, I was unaware of the computer's real-time transcription capability. Consequently, I manually transcribe the data, repeatedly playing the recordings to capture the participants' complete expressions. Although this was a painstaking process, it allowed me to deeply engage with the data in preparation for analysis.

The data analysis itself was time-consuming due to the substantial volume of data generated. Just when I believed everything was on track for completion of data analysis, a recently published book by Smith and Nizza in 2021 presented revisions to the approach used in IPA. This was specifically with regards to the labelling of themes derived from the data. This unexpected development required me to reevaluate and modify my data analysis themes accordingly.

6.1.4. Reflection on the writing up phase

As I delved deeper into this study during this writing up phase, it provided me with a transformative experience. This allowed me to gain an in-depth understanding of the task faced by students when connecting theoretical knowledge with clinical practice. Through their perspectives and experiences, I gained valuable insights of factors that are at play in their educational structure. However, this in itself was not an easy feat. It entailed an iterative process involving continuous back-and-forth between writing, reviewing transcripts and relevant literature, and making critical decisions regarding the most appropriate approach to adopt. The aim was to ensure that all aspects were well-supported, intelligible to the reader, and, above all, logically coherent.

The process of writing was not only time-consuming but also posed challenges such as writer's block, difficulty maintaining concentration, and mental exhaustion since I do not consider myself a writer. To address these issues, I turned to my passion for painting as a form of relaxation and diversion from writing. Painting gave me a means to temporarily detach from the write-up phase and gain a renewed outlook. I have discovered that this artistic outlet facilitates improved focus and productivity when I resume writing.

I feel overwhelmed by the knowledge gained from this study as I reflect on the journey to achieve these outcomes. Also, on the opportunity provided to present parts of my work both internationally and locally. As a result, I am filled with anticipation about the future direction of these findings. I am hopeful that it will contribute to the development of effective strategies that facilitate the integration of theoretical knowledge with clinical practice. Also, it will contribute towards bridging the theory practice gap in nursing and midwifery students' education. The findings from my research also have the potential to have a significant impact beyond individual students and educational institutions. In healthcare settings, this will indirectly benefit patient care. As research continues to seek answers to the theory-practice gap, I conclude with the words of Benjamin Harris Brewster, United States attorney and politician (June 30, 1828 – August 23, 1897).

“Theory is when everything is known but nothing works. Practice is when everything works but nobody knows how”.

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Appendices

Appendix 1 Power Point Presentation of the thesis

**NURSING AND MIDWIFERY STUDENTS' LENS: CONNECTING
THEORETICAL KNOWLEDGE WITH CLINICAL PRACTICE.
AN INTERPRETATIVE PHENOMENOLOGICAL STUDY**

Mynesha Sankar
School of Law and Social Sciences
London South Bank University

Director of Studies – Professor Calvin Moorley
Supervisor- Professor Nicki Martin

Research Scope-

- Participants
- Location

Research Question: How do final-year BSc pre-registration nursing and midwifery students connect theoretical knowledge with clinical practice to promote their learning and professional development?

Objectives:

1. To investigate how final-year BSc pre-registration nursing and midwifery students interpret and understand their experiences of connecting theoretical knowledge with clinical practice.
2. To examine the strategies used by final-year BSc pre-registration nursing and midwifery students to connect theoretical knowledge with clinical practice.
3. To explore final-year BSc pre-registration nursing and midwifery students' perspectives on whether demographic characteristics such as gender, age, and ethnicity affect their learning and professional development .
4. To explore the effect of the Covid-19 pandemic on BSc pre-registration nursing and midwifery students' education .

Background

Research has shown there is a divide between theoretical knowledge and clinical practice in nursing and midwifery students' education (theory-practice gap) (Saifan et al., 2021; Greenway et al., 2019).

Relevant current research: How nursing and midwifery students connect theoretical knowledge with clinical practice is rarely discussed and studied from the students' perspectives (den Hertog and Boshuizen, 2022; Booth et al., 2017).

```
graph LR
    subgraph Theoretical_Framework [Theoretical Framework]
        AL[Adult Learners] --> TF
        TLA[Teaching, Learning and Assessment] --> TF
        TF --- MK[Malcolm Knowles Andragogy]
        TF --- SA[Six assumptions]
    end
    subgraph Philosophical_Perspective [Philosophical Perspective]
        P[Phenomenology] --> PP
        I[Idiographic] --> PP
        PP --- IPA[IPA]
        PP --- H[Hermeneutic]
    end
```

Literature review

Narrative Literature review

($n=18$). An inductive thematic approach.

1. Diverse pedagogical approaches for connecting theoretical knowledge with clinical practice

2. Simulation as a safe method for learning

3. The role of "others" in assisting students with connecting theoretical knowledge with clinical practice

4. The effects of Covid-19 on students' education

Research Design and Methodology

Methodology
used to acquire knowledge?
Qualitative

Method
What tool was used to gain knowledge?
Semi-structured interviews

Methodological assumptions
How was data explored?
Inductive

Data Analysis
How data was explored to develop sense - making
IPA

Sample: ($n=12$) – (2 for pilot study)

Sampling strategy – Purposive

Data Analysis - Smith et al., (2012) Six -step approach

Findings

GROUP EXPERIENTIAL THEME (GET)	PERSONAL EXPERIENTIAL THEME (PET)
1. Complexities of embodied knowledge	a) Theory practice gap b) Confusion and questioning practice c) Abide by theory
2. Sensing the meaning of personal and professional learning	a) Remembering and reflection b) Inquiring c) Mentor-led learning d) Self-directed learning
3. Demographic attributes and self - understanding	Ethnicity, age and gender had both positive and negative effects on students and their education
4. Sensemaking of Covid -19.	a) Disruption of knowledge transfer b) Change in student status c) Negative effects on mental health

Discussion

How do final-year BSc pre-registration nursing and midwifery students connect theoretical knowledge with clinical practice to promote their learning and professional development?

Literature review

Approaches for connecting theoretical knowledge with clinical practice e.g., observation, hands-on learning, role modelling, sense-making, simulation, reflection and learning through interprofessional education

My Study findings

Approaches for connecting theoretical knowledge with clinical practice remembering, inquiring, mentor-led learning, reflection, self-directed learning

Blooms Taxonomy

Remember, Understand, Apply, Analyse, Evaluate, Create

Conclusion

Complex and multifaceted. It intersects with multiple factors and cannot be understood nor should it be approached in isolation.

Original Contribution to Knowledge

In the final year of their programs, BSc preregistration nursing and midwifery students have demonstrated a tendency towards utilising lower-level cognitive skills to connect theoretical knowledge with clinical practice.

As adult learners - integrating theoretical knowledge with clinical practice is challenging, leading to confusion about their education programs.

Demographic - significant influence/impact on students' learning and professional development.

The effects of COVID-19 - encompass disruptions, hurdles, and adverse mental health outcomes.

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Appendix 2 Anchor explanation for SANRA

SANRA – explanations and instructions

This scale is intended to help editors assess the quality of a narrative review article based on formal criteria accessible to the reader. It cannot cover other elements of editorial decision making such as degree of originality, topicality, conflicts of interest or the plausibility, correctness or completeness of the content itself. SANRA is an instrument for editors, authors, and reviewers evaluating individual manuscripts. It may also help editors to document average manuscript quality within their journal and researchers to document the manuscript quality, for example in peer review research. Using only three scoring options, 0, 1 and 2, SANRA is intended to provide a swift and pragmatic sum score for quality, for everyday use with real manuscripts, in a field where established quality standards have previously been lacking. It is not designed as an exact measurement of the quality of all theoretically possible manuscripts. For this reason, the extreme values (0 and 2) should be used relatively freely and not reserved only for perfect or hopeless articles.

We recommend that users test-rate a few manuscripts to familiarize themselves with the scale, before using it on the intended group of manuscripts. Ratings should assess the totality of a manuscript, including the abstract. The following comments clarify how each question is designed to be used.

Item 1 – Justification of the article's importance for the readership

Justification of importance for the readership must be seen in the context of each journal's readership.

Consider how well the manuscript outlines the clinical problem and highlights unanswered questions or evidence gaps – thoroughly (2), superficially (1), or not at all (0).

Item 2 – Statement of concrete/specific aims or formulation of questions

A good paper will propose one or more specific aims or questions which will be dealt with or topics which will be reviewed.

Please rate whether this has been done thoroughly and clearly (2), vaguely or unclearly (1), or not at all (0).

Item 3 – Description of the literature search

A convincing narrative review will be transparent about the sources of information on which the text is based. Please rate the degree to which you think this has been achieved. To achieve a rating of 2, it is not necessary to describe the literature search in as much detail as for a systematic review (searching multiple databases, including exact descriptions of search history, flowcharts, etc.), but it is necessary to specify search terms, and the types of literature included. A manuscript which only refers briefly to its literature search would score 1, while one not mentioning its methods would score 0.

Item 4 – Referencing

No manuscript references all statements. However, those that are essential for the arguments of the manuscript – “key statements” – should be backed by references in all or almost all cases. Exceptions could reasonably be made for rating purposes where a key statement has uncontroversial face-validity, such as “Diabetes is among the commonest causes of chronic morbidity worldwide.”

Please rate the completeness of referencing: for most or all relevant key statements (2), inconsistently (1), sporadically (0).

Item 5 – Scientific reasoning

The item describes the quality of the scientific point made. A convincing narrative review presents evidence for key arguments.

It should mention study design (randomized controlled trial, qualitative study, etc), and where available, levels of evidence.

Please rate whether you feel this has been done thoroughly (2), superficially (1), or hardly at all (0). Unlike item 6, which is concerned with the selection and presentation of concrete outcome data, this item relates to the use of evidence and of types of evidence in the manuscript's arguments.

Item 6 – Appropriate presentation of data:

This item describes the correct presentation of data central to the article's argument. Which data are considered relevant varies from field to field. In some areas relevant data would be absolute rather than relative risks or clinical versus surrogate or intermediate endpoints. These outcomes must be presented correctly. For example, it is appropriate that effect sizes are accompanied by confidence intervals. Please rate how far the paper achieves this – thoroughly (2), partially (1), or hardly at all (0). Unlike item 5, which relates to the use of evidence and of types of evidence in the manuscript's arguments, this item is concerned with the selection and presentation of concrete outcome data.

Appendix 3 Interview Protocol



INTERVIEW SCHEDULE

Study Title - Student nurses' lens: connecting theory to clinical practice.

Welcome		
Thank you for agreeing to participate in this interview. Before we commence, is there any questions you would like to ask about the interview?		
Demographic details		
M/F	Age	Ethnicity
Warm up questions		
Q1. Can you share your experience with me about your academic life before starting University? Q2. What have you enjoyed most about your pre-university education? Q3. Why have you chose nursing as your career? Prompt: What was studies like for you prior to starting University? Prompt: Did you have any strategies for the way in which you learn?		
Experience of the nursing programme		
Q1. Can you share your experience with me about undertaking the taught aspect of the programme? Q2. Can you share your experience with me about undertaking the practical aspect of the programme? Q3. What impact did COVID 19 have on your learning? Prompt: What are some of your positive experiences about the programme? Prompt: What are some of your negative experiences about the of the programme? Prompt: Did COVID 19 have any effect on your learning?		
Value placed on the programme		
Q1. What aspect of the programme you found most beneficial? Q2. What aspect of the programme you found least beneficial? Prompt: Was there any aspect of the programme you found to be most helpful? Prompt: Was there any aspect of the programme you found to be least helpful?		
Connecting theory with practice		
Q1. What difficulties did you experience when connecting theory to practice? Q2. What challenges have you encountered during your nursing education? Q3. What personal strategies have you learnt and developed to assist you with connecting theory to practice? Q4. Can you explain what helped you to develop as a professional during the programme?		

<p>Q1. What difficulties did you experience when connecting theory to practice?</p> <p>Q2. What challenges have you encountered during your nursing education?</p> <p>Q3. What personal strategies have you learnt and developed to assist you with connecting theory to practice?</p> <p>Q4. Can you explain what helped you to develop as a professional during the programme?</p> <p>Prompt: What did you think hindered you from connecting theory to practice?</p> <p>Prompt: What are some of the tactics you employ to assist with your learning?</p> <p>Prompt: How did you overcome challenges you experienced on the programme?</p> <p>Prompt: How has the nursing programme helped you to develop as a professional?</p>
<p>Participants' perception of learning</p> <p>Q1. In retrospect, would you have done anything differently in relation to your nursing education?</p> <p>Q2. What would you do differently in relation to learning in future nursing courses?</p> <p>Prompt: Looking back at your educational journey on the programme, would you do anything differently</p> <p>Prompt: For future learning, would you do anything differently?</p>
<p>Summary</p> <p>We discussed the following, your experience of the nursing programme, value you placed on the programme, connecting theory to practice and participants' perception of learning. Is there anything additional you will like to add or discuss? We have now come to the end of the interview.</p>
<p>Thank you</p> <p>Thank you for taking the time to contribute to my study. You have provided a copious amount of data for me to work with. Much appreciated.</p>

Appendix 4 Participant's debriefing sheet



**London
South Bank
University**

Participant Debriefing Sheet

Study Title: Student nurses' lens: connecting theory to clinical practice

Thank you for your participation in this study.

Purpose of the study

The aim of this study is to examine student nurses' experiences of their theoretical and practical education, to identify how they make the connection between these two areas to facilitate their learning and professional development.

How was the data collected

In the study, you were asked a series of questions pertaining to your experience on the pre- registration nursing programme. This data collection session lasted approximately thirty-sixty minutes and was audiotaped. All participants interviewed in this study were asked the same questions.

Statement acknowledging participant's contribution

Your participation is not only greatly appreciated by the researcher involved, but the data collected will contribute towards filling a current void in knowledge which will benefit academics and clinicians, by facilitating better understanding of how to support future students experiencing difficulties at university and in clinical practice. The study will also contribute to our understanding of student nurses' theory-practice integration in the face of a pandemic. Finding can be transferred and may benefit other professions whose educational structure comprises of theoretical and practical aspects.

Rights to withdraw

You can withdraw your data within one week from the date of the interview without providing any reason. This would not have any consequences to you. If you would like to do so, please let us know.

Statement proving support

If as a result of your participation in the study if you recalled unpleasant situations that caused upset, please contact your GP. You can also self-refer to the Student Health and Wellbeing team for support. Their contact details are studentwellbeing@lsbu.ac.uk or 020 7815 6454. If you are unable to contact the Wellbeing team yourself, a referral can be made for you.

If you have any questions regarding this study please contact me the researcher: Mynesha Sankar, Senior Lecturer, School of Health and Social Care | London South Bank University, 103 Borough Road, London, SE1 0AA | +44 (0)20 7815 8008 | sankarm3@lsbu.ac.uk.

You can also contact my Director of Study (first supervisor), Dr Calvin Moorley, Associate Professor for Nursing Research & Diversity in Care | Department of Health and Social Care | London South Bank University | 103 Borough Road, London, SE1 0AA | +44 (0)20 7815 4704 | moorleyc@lsbu.ac.uk

Thank you

Mynesha Sankar
Doctoral student

Appendix 5 Ethical approval

From: LSBU PGR Manager <do-not-reply-pgr-manager@lsbu.ac.uk>

Sent: 04 June 2020 10:33

To: Sankar, Mynesha 5 <sankarm5@lsbu.ac.uk>

Subject: Decision - Ethics ETH1920-0161: Miss Mynesha Sankar (Medium risk)

London South Bank University

Dear Mynesha

Application ID: ETH1920-0161

Project title: Doctoral Research Project

Lead researcher: Miss Mynesha Sankar

Thank you for submitting your proposal for ethical review.

I am writing to inform you that your application has been approved.

Your project has received ethical approval from the date of this notification until 4th June 2024.

Yours

Giorgia Varriale

[Ethics ETH1920-0161: Miss Mynesha Sankar \(Medium risk\)](#)

Appendix 6 Participants information sheet



Participant Information Sheet

Study Title: Student nurses' lens: connecting theory to clinical practice

Date: 28th May 2020

Contact Details: Mynasha Sankar, London South Bank University, 103 Borough Road, London, SE1 0AA, sankarm3@lsbu.ac.uk | +44 (0)20 7815 8008

Location: London South Bank University (LSBU) or online

What is the Study Title?

Student nurses' lens: connecting theory to clinical practice.

Reason why you have been invited to participate in the research study?

You are being invited to participate in a research study. Before you decide to take part, it is important for you to understand why the research is being undertaken and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish.

What is the purpose of the study?

A gap exist between theory and practice in student nurses' education and the rationale for this is not fully understood. This gap is expanding and is linked to students' attrition and lack of preparation for practice as newly qualified nurses. This study aims to examine student nurses' experiences of their theoretical and practical education to identify how they connect these two areas to facilitate their learning and professional development.

Why have you been asked to participate?

You have been asked to participate in the study because you are in the final year of your nursing programme, have been exposed to a variety of clinical placements and have completed all the academic modules. This places you in the best position to provide information on how the connection is made between theory and clinical practice to facilitate learning and professional development.

Do you have to participate in this study?

It is your decision whether to take part in this study. If you decide to take part, you will be provided with a copy of this information sheet to read and keep. You will also be asked to sign a consent form. You can withdraw from this study at any time without giving a reason. This will not have any effect on your place on the programme or the outcome of your study. If you decide to withdraw, you only need to inform me and or my supervisor. This is to ensure that no further contact will be made with you about this study.

What will happen if you participate and decide to opt in the study?

If you decide to participate in this study, you will have to contact me by either email or phone to express your interest. You will then be invited to meet with me, however, given COVID19 an arrangement will be made to have a discussion via Voice over Internet Protocol (VoIP) e.g. MS teams or Skype, where the study will be explained and any concerns addressed. Following this, if you decide to continue with the study, you will be asked to complete and sign two of the same consent form. One copy you will retain and the other you will return to me. An arrangement at a mutually convenient date and time will then be made on when an interview can take place. This will be facilitated by me and is expected to last approximately thirty-sixty minutes. During this time, you will be asked questions relating to your programme of study and how you make the connection between the theoretical and practical aspects to facilitate your learning. All communication during this interview will be audiotaped.

What are possible disadvantages or risks to you for participation in this study?

You will not be disadvantaged in any way and there is minimal risk involved from participating in this study. Issues relating to maintaining your anonymity will be our priority therefore no information that could identify you will be published. Potential risk may occur if you recall unpleasant situations that may cause upset and if this happens, the interview will cease immediately and only restart or reschedule if you agree to continue. You will be advised to contact your GP. Participants can also self-refer to the Student Health and Wellbeing team for support. If the participant is unable to contact the Wellbeing team, a referral will be made with their consent.

What are the possible benefits to you for participation in this study?

By participating in this study, you will be contributing to a body of knowledge on how student nurses make the connection with theory and practice to facilitate their learning and professional development. You will also be contributing to our understanding of student nurses' theory-practice integration in the face of a pandemic.

What is the outline of data collection and confidentiality?

All participants' data will be kept strictly confidential, only myself and my supervisor will have access. Hard copies of research information including your consent form will be kept in a locked cabinet. Digital files would be on a password protected computer. Information that may identify you will be removed from your transcript as all data will be coded and names replaced with pseudonyms. Anonymity will be maintained on any report or publication of the study. Data from this study will be kept securely in paper and electronic forms for a period of 10 years after the completion of the study.

What will happen to the findings of the research study on completion?

The findings of the research study will be used for my professional doctorate thesis. This will also be used for academic papers, meeting and conference presentation. A copy of the published research can be obtained by contacting either me or my supervisor.

Who is organising and funding the research?

This research is being conducted for my professional doctorate course in the School of Law and Social Sciences, Education Division at London South Bank University. This study is not receiving funding from any organisation.

Who has reviewed the study?

This study has undergone ethics review in accordance with LSBU, School of Law and Social Sciences, Division of Education policy and procedure.

Who to contact for further information?

If you have any questions regarding this study please contact me the researcher: Mynesha Sankar, Senior Lecturer, School of Health and Social Care | London South Bank University, 103 Borough Road, London, SE1 0AA | +44 (0)20 7815 8008 | sankarm3@lsbu.ac.uk.

You can also contact my Director of Study (first supervisor), Dr Calvin Moorley, Associate Professor for Nursing Research & Diversity in Care | Department of Health and Social Care | London South Bank University | 103 Borough Road, London, SE1 0AA | +44 (0)20 7815 4704 | moorleyc@lsbu.ac.uk

If you have any concerns regarding the conduct of the research, you can contact: Professor Nicola Martin, Head of Research, Higher Degrees and Student Experience | Division of Education | London South Bank University, SE1 0AA | +44 (0)20 78155779 | martinn4@lsbu.ac.uk

Thank you for taking time to read this information sheet

Researcher: Mynesha Sankar

Appendix 7 Consent form



Research Project Consent Form

Full title of Project: Student nurses' lens: connecting theory to clinical practice.

Consent for participation in interview

Ethics approval registration Number:

Name: Mynesha Sankar

Researcher Position: Student, Professional Doctorate in School of Law and Social Science

Contact details of Researcher: Sankarm3@lsbu.ac.uk | +44 (0)20 7815 8008

Taking part (please tick the box that applies)	Yes	No
I confirm that I have read and understand the participant information sheet and had the opportunity to ask questions.	<input type="checkbox"/>	<input type="checkbox"/>
I understand that my participation is voluntary and that I am free to withdraw at any time, without providing a reason.	<input type="checkbox"/>	<input type="checkbox"/>
I agree to take part in the above study.	<input type="checkbox"/>	<input type="checkbox"/>

Use of my information (please tick the box that applies)	Yes	No
I understand my personal details such as phone number and address will not be revealed to people outside the project.	<input type="checkbox"/>	<input type="checkbox"/>
I understand that my responses will be anonymised, may be quoted in publications, reports, posters, web pages, and other research outputs.	<input type="checkbox"/>	<input type="checkbox"/>
I agree for the data I provide to be stored (after it has been anonymised) in a specialist data centre and I understand it may be used for future research.	<input type="checkbox"/>	<input type="checkbox"/>
Note for Supervisory team: Include statements below if appropriate		
I agree to the interview discussion being recorded using electronic devices.	<input type="checkbox"/>	<input type="checkbox"/>
I agree to the interview discussion being manually recorded on paper.	<input type="checkbox"/>	<input type="checkbox"/>
I agree to the use of anonymised quotes in publications.	<input type="checkbox"/>	<input type="checkbox"/>
I agree to assign the copyright I hold in any materials related to this project to Mynesha Sankar	<input type="checkbox"/>	<input type="checkbox"/>

_____	_____	_____
Name of Participant	Date	Signature
_____	_____	_____
Name of Researcher	Date	Signature

Project contact details for further information:

Project Supervisor: Dr Calvin Moorley | Phone: +44 (0)20 7815 4704 | Email address: moorleyc@lsbu.ac.uk

Appendix 8 Gatekeeper's request

From: McGrath, Anthony 2
Sent: 13 May 2020 08:34
To: Sankar, Mynesha 3
Subject: Re: permission request

Mynesha

Very happy to support. Good luck

Anthony McGrath
Deputy Dean and Lead Nurse
Head of Nursing and Midwifery
School of Health and Social Care
London South Bank University
0207 815 8015

On 13 May 2020, at 00:48, Sankar, Mynesha 3 <sankarm3@lsbu.ac.uk> wrote:

Dear Anthony

I am writing to request your permission to interview ten to fifteen (n=10-15) final-year BSc adult nursing students from London South Bank University for a study entitled Student Nurses' Lens: connecting theory to clinical practice.

This study is being undertaken for my professional doctorate thesis. The study requires approval from London South Bank University's Research Ethics Committee and as part of that approval process; I am required to obtain the gatekeeper's permission from where the participants are being recruited.


This study aims to examine the relationship between student nurses' experiences of their theoretical and practical education to identify how they connect these two areas to facilitate their learning and professional development.

The overall outcome of this study will fill a void in knowledge on students' theory-practice integration and provide academics and clinicians with better awareness and understanding of how to support students experiencing difficulties at university and in clinical practice. The study will also shed new light on how student nurses integrate theory to practice in the face of a pandemic.

Attached is the Participant's Information sheet and consent form which contains additional details. Should you require further information, please do not hesitate to get in contact with me. Many thanks.

Kind Regards
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Appendix 9 Data analysis


	Linguistic comments such as words and expressions			
	Descriptive comments of experience from the participant			
	Rationale for actions			
Questions	Participants' narratives	Researcher's interpretation	Personal experiential themes	Group experiential themes
To explore how students interpret their experiences in connecting theory to practice.	(P1 – Joel) <i>"The teaching that we have learned in the university and the nurses doing it is different in practice". University has told us that we have to put the leads into the extremities but in practice, instead of putting it into extremities, they put it into the shoulders and into the belly so they are two different ways you feel about that the different area in practice which could sometimes be a bit confusing. The ideas and the way that the mentors are teaching us as well is like there are two differences and as a student, we have to follow our mentor's teaching. I have to follow what they are doing in practice because they have to follow their policies and procedures".</i>	-Theory and practice are not always connected -Follows mentor in practice -Compliance with trust policy and guidelines -Differences in practice leave students feeling confused	-Theory-practice gap -Follows mentor -Feeling confused	-theory practice gap -unsure/confusion -questioning practice -abide by theory  COMPLEXITIES OF EMBODIED KNOWLEDGE
	(P2 – Sophie) <i>- "Theory is different from practice. The university's golden</i>	-Theory differs from practice -Follows mentor's instruction in practice.	-Two standards identified	

	<p>standard is not what is in the hospital's golden standard in practice. Lecturers told us we know you do it differently in the clinical setting, but this is the way we want you to do on your exam and you adhere to it. In practice, we just do what our mentors say".</p>	Lecturers aware theory and practice differ		
	<p>(P3 – Florence) -"Practice is simply because it is a different experience and, you have to work with a mentor who is also able to connect theory to practice. Some mentors do things a certain way because that's just how they've been doing it for years and years. As a student who's under them, I feel as though the person you are working with can also impact the way you connect theory to practice. But theory is theory is practice is practice looking after patients.</p>	<ul style="list-style-type: none"> -Cognisant of differences between theory and practice -are also aware mentors can influence students learning -theory and practice seen separately 	<ul style="list-style-type: none"> -Theory and practice, seen as two different approaches to learning -practice is for looking after patients 	
	<p>(P4 – Harriet) -"In uni it's very much like the ideal way nursing should be done. The theory is there for a reason; it is how it should be done. She (mentor) was like we don't need to do that here. I ask her to explain because I was just a bit like left bewildered".</p>	<ul style="list-style-type: none"> -University teaching is perceived as ideal -Clinical practice is undertaken differently from what is taught at university. -Student is bewildered 	<ul style="list-style-type: none"> -Theory ideal -Clinical practice different -Student confused 	
	(P5 – Olivia)			

	<p><i>"-When you get to practice and sometimes you don't always see what you expect people to do from what you learn before in university. Some professionals do things differently. I don't know what, I don't know what the reason is if it's just because of lack of time or pressure which I don't think is the right or it's not, it's not justifiable for me so I ask".</i></p>	<ul style="list-style-type: none"> -Clinical practice undertaken differently -Leads to student confusion -Students now question what the right way is. 	<ul style="list-style-type: none"> -Learning in theory and practice differs -Unsure of how theory is connected with practice -Offers suggestion 	
	<p>(P6 – Elsie)</p> <p><i>-“I think generally that what I learnt, in theory, connects with what I did in practice. I think generally it does connect but not in every case. It doesn't always connect in some way with what they taught me at uni and in practice they are telling me something else so in that way sometimes it is confusing, and I have to ask for clarification. And with some individual nurses do things differently.</i></p>	<ul style="list-style-type: none"> -sometimes theory and practice differ -This leads to student confusion -need to ask questions for clarity 	<p>Sometimes theory connects with practice.</p> <p>Leads to confusion</p>	
	<p>(P7 – Dan)</p> <p><i>-“ I think that theory in the classroom is a lot better than what you get in placement basically. They basically provide us with so much information even more so than what they would teach you in placement so you could kind of connect the dots quite easily”. “When the theory is there (we get</i></p>	<ul style="list-style-type: none"> -Theory adequately prepares you for practice -No issues connecting theory with practice -Theory and practice seen as different 	<ul style="list-style-type: none"> -Theory prepares you for practice -Theory and practice differ 	

	told the theory in class), but when you physically go there and then you see it for yourself, you kind of put two and two together so definitely the theoretical knowledge is very good but sometimes it cannot prepare you all that well for actual practice.			
	(P8- Freya) - "I read all the theoretical aspects and with my founded knowledge, I perform the task confidently. Some students believe that there are some different aspects of learning theory are not applicable to practice. For me, there are no issues with it. For me, it is very applicable. They don't perform the way we've been taught because of their time limitation that's how I understand it"	-Theory and practice are two different approaches to learning -No issues with connecting theory with practice -Practice is undertaken differently because of time limitation	-Theory practice differs. -Offers suggestions for why this is the case	
	(P9- Nancy) -"I found it quite difficult until like the third year". I think it just clicked one day for me. Once you start finding out why things are happening you start to put definitely with anatomy and Physiology. I didn't really end up understanding and bringing theory and practice together much, so I always ask"	-Found connecting theory to practice quite difficult until the third year. This was due to a lack of comprehension of the process. -Sometimes able to connect theory to practice -if not, question practice	-Theory and practice are difficult to connect. -Initially unable to link theory with practice -Question practice	
	(P10 – Poppy) "I am not sure, because as I say, I always use to think why I was	-Not sure how theory is connected to practice	-Unsure of how theory and practice connect	

	<p><i>learning this you know, there is obviously a reason why we were being taught certain topics in certain subjects to sort of think about. So, me personally, I had lots of problems with connecting theory with practice, so I just ask".</i></p>	<ul style="list-style-type: none"> -Experienced problems -Ask questions 	<ul style="list-style-type: none"> -Ask questions for clarification 	
	<p>(P11 – Joseph)</p> <p><i>-“ I don't know. I found it was like mainly your personality and what you have absorbed or learnt. It was just there. Maybe, it was connecting things or associating things. I don't know, maybe it's asking lots of questions. I don't know exactly". I thought I did but then you see, what I was taught at university was done differently in practice.</i></p>	<ul style="list-style-type: none"> -Don't know how theory is connected with the practice -Theory and practice are seen as separate -Thinks learning is based on personality 	<ul style="list-style-type: none"> -Don't know the connection between theory and practice. -Question practice 	
	<p>P12 – (Faizal)</p> <p><i>-“ I don't really know, and I don't understand it very well, to be honest. In my mind, I sort of kept them as separate things. I just thought the theory was the theory and practice were well practice to care for patients.</i></p>	<ul style="list-style-type: none"> -Not sure -Theory and practice as two separate entities 	<ul style="list-style-type: none"> -Sees theory and practice as different -practice is for patient care -Not sure how theory is connected with practice 	

Question	Participants' narratives	Researcher's interpretation	Personal experiential themes	Group experiential themes
To identify the personal and pedagogical strategies students, employ to assist with connecting theory to practice.	(P1 – Joel) <i>“Go with what my mentor is teaching me. Making sure that it is a safe way to practice; it is evidenced based and also it falls into the local policies and procedures of the trust”.</i>	-Follows mentor's instructions Ensuring practice is safe -Compliant with trust policy.	-Follow instructions -Ensure patient safety -Follow the trust policy	Reflection/remembering. -Inquiring -Self-directed learning -Mentor led learning  SENSING THE MEANING OF PERSONAL AND PROFESSIONAL LEARNING
	(P2 – Sophie) <i>“I give myself more time to read and write something while in between. If I get distracted at least I have a little bit more time to go back to what I need to do to meet the requirements. In practice, if I am unsure of something, I always ask sometimes more than once”.</i>	-Read about procedures to prepare for practice -Ask mentors	-Read -Question mentors	
	(P3 – Florence) <i>“In the first year, it was more mentor-led. As a third-year student, now I've been able to go out of my way. I will go and do research about it or look at what the NICE guidelines say or what the national guidelines say about this particular procedure and then I also look at videos. I also find the education team in my hospital helpful”.</i>	-The first year relied on the mentor. -Third year, look at guidelines, watch videos -Ask the ward manager or someone from the education team.	-year one mentor led -Year three, self-directed	
	(P4 – Harriet) <i>-“I say to my mentor, I am here to bother you so I am just letting you know that I would like you to show me this or like you to let me do this”.</i> <i>-“I think that it's having the basics there in your head it's just obviously once you are there am just remembering how it should be done. That is how I was taught to do it so yeah”.</i>	-Proactive in her learning -asking the mentor -Remembering once in practice	-Proactive -Remembering -Asking mentor	
	(P5 – Olivia) <i>“So, when I'm in practice, what helped me a lot to link theory to practice is to attend skill sessions held by the education team, especially in the first year. One of the things that helps me as well to link</i>	-Attend clinical skills sessions held by the skills team. -Reflection	-Attend skills sessions -Reflection	

	<i>practice to theory is reflection. I will reflect on the things I've done well and not so well and things that I can improve".</i>			
	(P6 – Elsie) <i>-“ By spending more time doing things and pushing myself a little bit more and probably asking more questions. I probably would say as well organising myself a little bit better as well by reading before I go into practice”.</i>	-Spend time with hands-on practice -Asking questions -Reading before practice	-Questioning practice -Reading -Practicing	
	(P7 – Dan) <i>-“I find that the information that we are given in the lecture rooms, they basically provide us with so much information even more so than what they would teach you in placement so you could kind of connect the dots quite easily. My strategy from before where I'd use a system, I'd use it like, I compare the thing to everyday object to the kind of remember”.</i>	-Think back to information provided by lecturers and connect the dots when in practice. -Compare things to everyday objectives to remember.	-Reflection -Remember -Comparison	
	(P8- Freya) <i>“Whatever the mentors are saying that I try to do. I'll try to do it technique like remembering we as well, the things we have been taught at university. I also read all the theoretical aspects and with my founded knowledge, I perform the task”.</i>	-Follow mentor teaching in clinical - Remembering theory that underpins practice. -Read to acquire knowledge	-Mentor led -Remember -Read	
	(P9- Nancy) <i>-“My strategy will be more critical more of what to analyse things and all like observes and then ask why or what is going on and then reflect. I then have a little research to see the theory behind why we do what we were doing there coming back the next time I see something like that being able to put into practise myself”.</i>	-Analyse things first - Observe practice - Reflection on practice - Research practice	-Observation -Ask questions -Undertaking research -Reflection	
	(P10 – Poppy) <i>-“ I follow my mentor's instruction and if I don't understand I ask questions you know what I mean. I also follow what the policy says. I also think back to what we were taught at uni but this sometimes does</i>	-Follow mentors instructions - Follow policy in practice -Question practice -Reflection on what has been taught	-Mentor led -Ask questions -Follow policy -Reflection	

	not work because they do things differently in practice from what we have been taught.	at the university		
	(P11 – Joseph) <i>-“ I don't know. I found it is like mainly your personality and what you have absorbed or learnt. Maybe, it was connecting things or associating things. I don't know, maybe it's asking lots of questions; I don't know exactly”.</i>	-Believes personality is responsible for how one learns -connecting things to remember -Questioning practice	-Remembering - Asking questions	
	P12 – (Faizal) <i>-“ I don't really know. I found it really interesting because when you are giving a patient a medication, and you're reading the list and it says it has this effect on the nephrons in the kidneys; you say oh, I learnt this in biosciences. However, I don't really know”.</i>	-Unsure of how theory is connected to practice -Recall theoretical knowledge when in practice	-Remembering	