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COLLABORATION GUIDELINES FOR A DESIGNATED NURSING EDUCATION INSTITUTION AND ASSOCIATED HEALTHCARE SERVICES

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DECLARATION

I, Estelle Bester, declare that this thesis, “COLLABORATION GUIDELINES FOR A DESIGNATED NURSING EDUCATION INSTITUTION AND ASSOCIATED HEALTHCARE SERVICES” is my original work. It has not been submitted at any other institution before for any degree or examination. All the sources used and quoted were acknowledged by means of complete references in the text and bibliography.

_____

ESTELLE BESTER

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I want to express my appreciation to all who contributed in so many ways to the success of this research paper and helped make it an unforgettable experience for me:

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ABSTRACT

INTRODUCTION

Nursing students face challenges with integrating theoretical knowledge from their education into real clinical settings due to differences between the nursing theory and clinical practices in healthcare-services. This theory-practice gap is common in nursing education, and collaboration between nursing education institution staff and healthcare service counterparts is crucial to address this issue. The study aimed to create context-specific guidelines that foster better collaboration and reduce the theory-practice gap during nursing students' clinical training.

METHODS

In the first phase of the study, an integrative literature review was done, and draft guidelines were compiled. In the second phase of the study, a descriptive qualitative design was used through four focus group discussions of the drafted guidelines with a purposively selected sample of nine theoretical lecturers and 10 clinical facilitators. The data were thematically analysed; categories and sub-categories were identified and described with excerpts from the transcriptions of the interviews; and discussed with literature. The draft set of collaboration guidelines was refined and contextualised with the input of the participants. A final set of context-specific guidelines to improve the collaboration between the theoretical lecturers of the designated nursing education institution and the clinical facilitators of the associated healthcare services to narrow the theory-practise gap during the clinical training of nursing students was described.

RESULTS/FINDINGS

Context-specific guidelines were developed under the headings: Maintain a healthcare service and nursing education institution partnership, Maintain bilateral communication, Maintain cooperation between theoretical lecturers and clinical facilitators in evidence-based practice, Intensify innovation in teaching, learning, and assessment processes, and Build an environment conducive to theory-practice integration.

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CHAPTER 1

INTRODUCTION AND BACKGROUND TO THE STUDY

1.1 INTRODUCTION

Differences between what is taught at the nursing education institution and what is practised at the associated healthcare services are often the norm (Akram, Mohamad and Akram, 2018; Salifu, Gross, Salifu and Ninnoni, 2019:78). Nursing students thus struggle to integrate their theoretical knowledge learned at the nursing education institution in clinical settings (Günay and Kılınç, 2018:85). A theory-practice gap in nursing education occurs often (Huston, Phillips, Jeffries, Todero, Rich, Knecht et al., 2018:29) and the staff from the nursing education institution and the associated healthcare services should find ways to improve their collaboration to reduce the gap during the training of nursing students.

This study aimed to develop context-specific guidelines for collaboration between the designated nursing education institution and its associated healthcare services. Generic guidelines do not fit specific circumstances. It was thus necessary to develop guidelines through a thorough review of the literature regarding collaboration between institutions to improve theory-practice integration in clinical training and cooperatively with theoretical lecturers and clinical facilitators to refine and contextualise it.

1.2 BACKGROUND TO THE PROBLEM STATEMENT

1.2.1 Theory and practice integration

The relationship between nursing practice, research and theory is reciprocal and cyclic in nature. Clinical practice stimulates research to generate knowledge and develop skills to improve practice. On the other hand, nursing theory has to be validated in practice. Nursing students, therefore, need to be taught how to integrate theory and practice to improve patient care (Sterner, Hagiwara, Ramstrand and Palmér, 2019:136). Theory-practice integration occurs when theoretical knowledge informs clinical practice (Factor, Matienzo and de Guzman, 2017:82).

During the training of professional nurses, theoretical content is taught in classrooms and practical skills get developed in associated healthcare services under the guidance of clinical

facilitators to support theory-practice integration (Salifu et al., 2019:72). The theoretical knowledge enables students to understand nursing as a profession, provide them with knowledge about the anatomy and physiology of the body, diseases, and nursing care (including procedures and processes). During clinical training in healthcare services, the students learn how to use theoretical knowledge in evidence-based care of patients (Kerthu and Nuuyoma, 2019:21). The aim of theory-practice integration in nursing education is to teach students to do evidence-based nursing. They should learn how to base their practice on reliable nursing research findings. Theory (research findings) is used to substantiate the choice of nursing procedures that fits a designated patient (Bvumbwe and Mtshali, 2018:320).

Nursing students struggle to integrate and apply theoretical knowledge in the clinical setting (Factor et al., 2017: 82; Shoghi, Sajadi, Oskuie, Dehnad and Borimnejad, 2019:1). Often a dissociation between what is taught in the classroom and what is practised in the clinical setting occurs (Greenway, Butt and Walthall, 2019:3; Kerthu et al., 2019:23; Mina, Reza and Dimitrios, 2019:403; Factor, Matienzo and de Guzman, 2017:84).

1.2.2 Gap in theory and practice integration

Nursing students are confused when the theoretical knowledge and the clinical application of the knowledge in the associated healthcare services do not correspond. The latter differs from the ideal world that is portrayed in theory classes (Factor et al., 2017:84; Kerthu and Nuyoma, 2019:24). Venues for theory classes and simulation laboratories are sufficiently resourced with all the necessary equipment for nursing procedures, but in the associated healthcare services there is often a lack of time and scarcity of resources (Mina et al., 2019:403). The students can often not implement in practice what they have been taught in theory classes (Greenway et al., 2019:5). The clinical setting, therefore, does not support the students to integrate theory into practice (Salifu et al., 2019:78). In some hospitals and clinics, a lack of proper role models for professional socialization is found and in others, the students have to perform routine tasks that do not correlate with the content of the theoretical classes (Salifu et al., 2019:78).

Poor collaboration between theoretical lecturers and clinical facilitators contributes to the challenges that students experience to integrate theory into practical skills. Inconsistency regarding expectations of the theoretical lecturers and clinical facilitators of the students' skills in theory-practice integration is detrimental to the students' clinical learning (Günay and Kılınç, 2018:84).

1.2.3 Collaboration of theoretical and clinical lecturers to prevent a theory-practice gap

Collaboration in nursing education is the inter-professional process where theoretical lecturers from the nursing education institution and clinical facilitators from the associated healthcare services form a team, to enhance theory-practice integration. Teams of theoretical lecturers and clinical facilitators need to work together, share expertise, and value the contributions made within the group (Emich, 2018: 569).

Collaboration of nursing education institutions and associated healthcare services are required to ensure that students get ample opportunities in hospitals and clinics to integrate theoretical knowledge into practical skills (Huston et al., 2018:32). Often theoretical lecturers consider themselves to be more important than the clinical facilitators in the planning and executing of nursing education (Greenway et al., 2019:5). Such unequal relationships lead to poor collaboration and is to the detriment of the training of nurses in evidence-based practice (Shoghi et al., 2019:4). Collaborative support by theoretical lecturers and clinical facilitators enables students to use their theoretical knowledge in patient care and to narrow the theory-practice gap (Bvumbwe and Mtshali, 2018:320).

1.3 PROBLEM STATEMENT

Theory-practice integration in nursing education is faced with numerous challenges due to poor collaboration between theoretical lecturers and clinical facilitators (Mina et al., 2019:401; Bvumbwe, 2016:319-21; Salifu et al., 2019:78). Theoretical education takes place in nursing education institutions and clinical teaching takes place in hospitals, clinics and community settings (Günay et al., 2018:85; Salifu et al., 2019:78). The collaboration of staff from all institutions is therefore of utmost importance (Greenway et al., 2019:5; Factor et al., 2017:85; Bvumbwe, 2016:320). A lack of collaboration weakens the theory and practise integration, leaves students ill-prepared for evidence-based practice and leads to poor patient care (Factor et al., 2017: 82; Shoghi, Sajadi, Oskuie, Dehnad and Borimnejad, 2019:2). Sufficient collaboration between nursing education institutions and their associated healthcare services would assist students to integrate theory in practice (Shoghi et al., 2019:3-4; Greenway et al., 2019:5; Leaver, Stanley and Goodwin Veenema, 2022:7; Bvumbwe, 2016:321; McClure, Lutenbacher and Smith Hayes, 2021:417).

The designated private nursing education institution uses hospitals, clinics and community healthcare services in the education of students. In the newly introduced 3-year diploma programme for the training of general nurses, the students rotate through the mentioned healthcare institutions. Collaboration problems between the theoretical lecturers and clinical facilitators are often encountered with a detrimental effect on the clinical training of students. Opportunities for theory and practice integration get lost and students are involved in routine nursing procedures where skills and knowledge are contradicted as what is taught in theory class. Without guidelines to improve collaboration, more students will be trained with limited skills in using their theoretical knowledge in clinical practice. At present such guidelines do not exist in the particular context of the study.

1.4 RESEARCH QUESTION, AIM AND OBJECTIVES OF THE STUDY

The research question for the study was: "What context-specific collaboration guidelines are required to ensure that the theory that is taught in classrooms get integrated into practice during clinical training in the associated healthcare services of the designated nursing education institution?"

The study aimed to develop context-specific guidelines to improve collaboration between the staff of the nursing education institution and their counterparts in the associated healthcare services to narrow the theory-practise gap during clinical training.

The objectives of the study were to:

- Compile draft collaboration guidelines from research evidence to narrow the theory-practice gap during the clinical training of nursing students.
- Refine and contextualise the collaboration guidelines to fit the unique circumstances of the designated nursing education institution and associated healthcare services where students do their clinical training.

1.5 DEFINITION OF CONCEPTS

The following definitions were applicable:

Collaboration is the action of working with others to share resources, knowledge and expertise (Bvumbwe, 2016:320). Collaboration in the study is defined as the action of

theoretical lecturers and clinical facilitators to share their knowledge and to ensure that the students get supported in theory-practice integration.

Associated healthcare services referred to all the hospitals, clinics and community services that the designated nursing education institution has a mutual agreement with for placement of nursing students for education and clinical learning. (Dev, Rusli, McKenna, Lau and Liaw, 2020:1132)

Nursing education institution is an academic organization established for the education of students to become professional nurses (Bvumbwe et al., 2018:67). In this study, nursing education institution referred to the designated nursing education institution presenting the 3-year diploma course for training of general nurses (SANC Regulation 171 of 2013), where the research was conducted.

Guidelines are general recommendations to solve problems and to improve certain activities (Hoesing, 2016:4) Guidelines in this study, referred to the systematically developed statements to assist the theoretical lecturers and clinical facilitators to collaborate to the benefit of the students' endeavours to integrate theory in practice.

1.6 CONTEXT / SETTING

The study was conducted at one (1) private nursing education institution campus and its associated healthcare services in the Gauteng province in South Africa. The nursing education institution is accredited with the South African Nursing Council (SANC) for the Diploma in Nursing Science (R171 of 2013) leading to registration with the SANC as general nurses. The students followed a subject program at the institution and did their clinical training at the associated healthcare services. Ten (10) theoretical lecturers were responsible for specific subject theoretical learning at the nursing education institution and ten (10) clinical facilitators for the training at the healthcare services. Students were weekly rotated to units/wards in the healthcare services under the direct supervision of the clinical facilitators who supported them in achieving clinical learning outcomes.

The nursing education institution developed a clinical model to structure clinical training and the researcher hoped to contribute collaboration guidelines to be used in the implementation of the model. The clinical model guided clinical teaching, learning and assessment. It focused on the facilitation of clinical teaching and learning, supervision, remodelling and accompaniment to create an optimal learning environment.

1.7 PHILOSOPHICAL ASSUMPTIONS

Researchers differ regarding the nature of the truth that they search for. Philosophical assumptions are the researchers' viewpoint that guides them to choose a specific strategy to explore the truth of the studied phenomenon and therefore it influences their preferred research methodology (Žukauskas, Vveinhardt and Andriukaitienė, 2018:121). This qualitative research was based on the constructivists' paradigm, which assumes that people (the researcher and participants) interpret the reality (in this study it referred to the collaboration of theoretical lecturers and clinical facilitators) differently (Mertens, 2014:19).

1.7.1 Ontological assumptions

Ontological assumptions support researchers' understanding of reality (Kivunja and Kuyini, 2017:27). In this study, the researcher assumed that multiple realities exist and that it is constructed by the researcher and the research participants (Polit and Beck, 2017:13). The collaboration guidelines were cooperatively refined and contextualised by the researcher and participants.

1.7.2 Epistemological assumptions

An epistemological assumption refers to the description of how we acquire knowledge about reality (Kivunja et al., 2017:27) . In this study, the researcher interacted with all relevant participants to develop collaboration guidelines for the theoretical lecturers and clinical facilitators to narrow the theory-practice gap in the clinical training of nursing students of a designated nursing education institution.

1.7.3 Methodological assumptions

Methodological assumptions refer to the use of research approaches, and methods for data collection, analysis and interpretation of information (Kivunja et al., 2017:28). The study was qualitative in nature and used descriptive and explorative research methods. The researcher acted as a facilitator of the focus group discussions that assisted her to develop collaboration guidelines for the theoretical lecturers and clinical facilitators to narrow the theory-practice gap in the clinical learning of nursing students at the designated nursing education institution and associated healthcare services. The participants co-operated with the researcher to refine and contextualise the guidelines.

1.8 SIGNIFICANCE / CONTRIBUTION

The significance of this study was to cooperatively compile guidelines for improved collaboration between theoretical lecturers and clinical facilitators to strengthen their relationship for better teamwork and communication to enhance theory-practice integration in healthcare service. Improved collaboration can strengthen the relationship between healthcare services and nursing education institutions that will lead to achievement of quality outcomes for nursing students learning and healthcare services goals. Collaboration will also help to strengthen nursing education, nursing practice and evidence-based practice.

1.9 DELINEATION

All the theoretical lecturers and clinical facilitators of the designated private nursing education institution and associated healthcare services were included in the study. All of them had experience in the clinical and theoretical areas of nursing education. The collaboration guidelines applied to the designated nursing education institution and its associated healthcare services only.

1.10 SUMMARY OF THE CHAPTER

Chapter 1 described the background and the problem statement. It also addressed the significance of the study, the aim and objectives, the research question, the definition of concepts, the setting and philosophical assumptions. In the next chapter, the methodology of the research is described.

CHAPTER 2

METHODOLOGY OF THE RESEARCH

2.1 INTRODUCTION

An overview of collaboration problems between hospital services and nursing education institution was given in the previous chapter. This chapter describes the research methodology and ethical considerations applied to the study.

In the first part of the chapter, the search strategy, literature collection process and quality analysis of the integrative review process, was described regarding collaboration between nursing education institutions and associated healthcare services to narrow the theory-practice gap during clinical training of nursing students. It also addressed the drafting of collaboration guidelines.

In the second part of the chapter, the study population, sampling and sample size for focus groups to help with refinement and contextualisation of the draft collaboration guidelines to narrow the theory-practice gap during the clinical training of nursing students were described. Then the data collection and organization, data analysis and ethical consideration was described to develop final set of collaboration guidelines.

2.2 RESEARCH DESIGN OF PHASE ONE OF THE STUDY: AN INTEGRATIVE REVIEW

Integrative literature reviews are systematic research processes that follow a specific methodology (Toronto and Remington, 2020:88) to source, review, critique and synthesize the findings of research reports (Gregory and Denniss 2018:895; Torraco 2016:412). The review in this study aimed to collect evidence regarding good collaboration practices between nursing education institutions and the associated healthcare services and more specifically between theoretical lecturers and clinical facilitators to improve theory-practice integration during clinical training. A synthesis of the literature enabled the researcher to draft a set of collaboration guidelines for the designated nursing education institution and associated healthcare services.

2.2.1 Search strategy

Integrative reviews enable researchers to gain a holistic understanding of specific problems (Toronto et al., 2020). Selecting literature in integrative literature reviews is a sampling process. The researcher defined the topic (a collaboration between nursing education institution and healthcare services for theory-practice integration) to guide the search terminologies that refer to phrases or words that identify major concepts within the literature search (Grove, Burns and Gray, 2013:104). The researcher used the phrases collaboration between clinical and theoretical nursing lecturers; collaboration between institutions of education and training; and collaboration between colleges/schools/universities and hospitals in nursing education and training.

Literature was searched in five databases namely PubMed, Science Direct, Medline/EBCHOST, CINAHL, and Scopus. These databases enabled a comprehensive search from multiple journals regarding nursing, nursing education, social sciences and other healthcare systems. The following inclusion criteria applied: literature published in English; full-text availability of the articles; peer reviewed; and publications between January 2016 and January 2021.

Due to an insufficient number of articles obtained, the initial search terms were adjusted to the following:

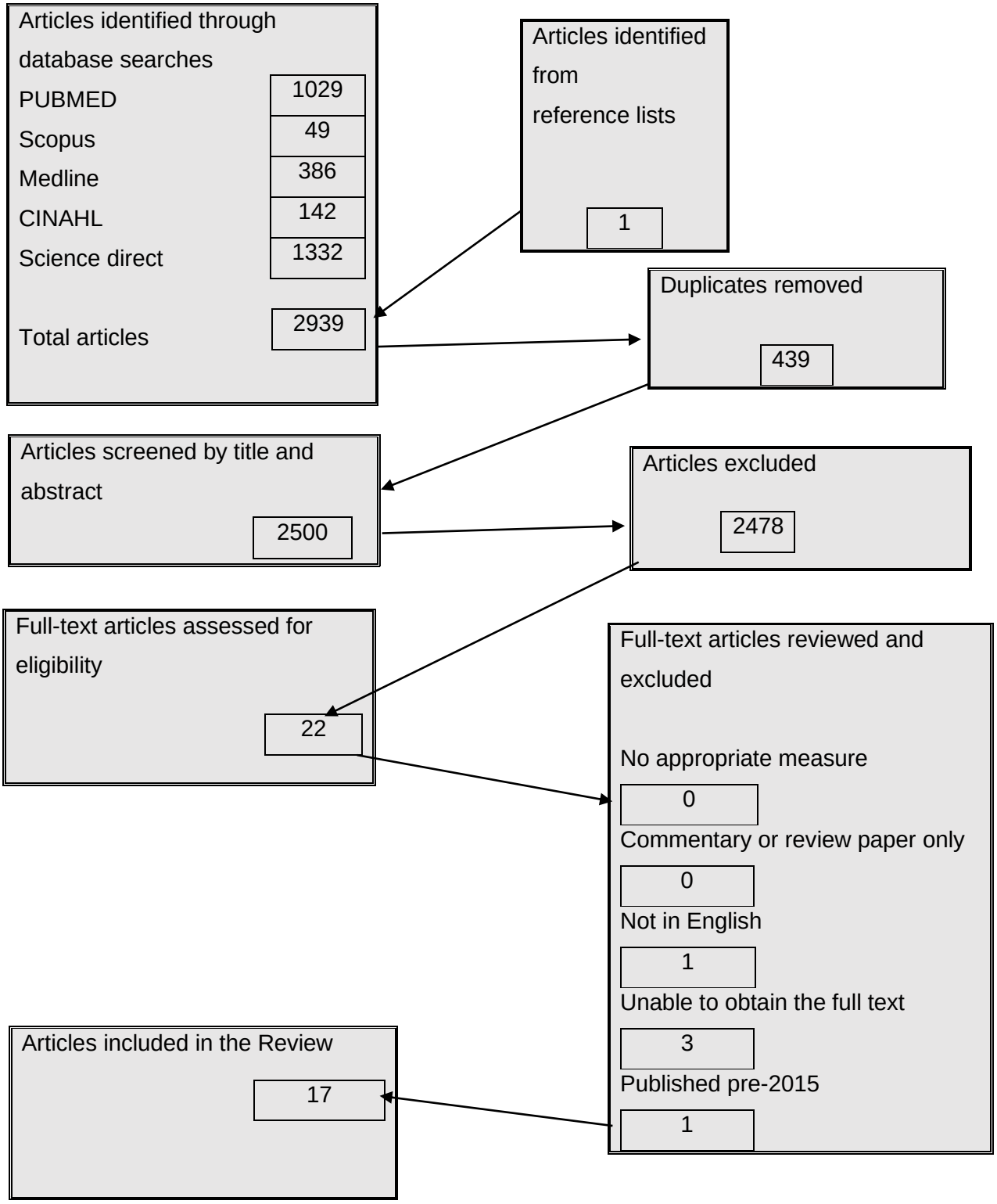
- Collaboration within nursing education AND between clinical facilitators and theoretical lecturers OR between nursing institutions of education and training OR between nursing colleges/schools/universities and hospitals,
- “Academic practice collaboration” AND “nursing education”
- “Academic practice partnership*” AND “nursing education”
- “Bridge academic practice gap” AND “nursing education”.

2.2.2 Literature collection

The researcher used a matrix to keep track of the data collection process. The matrix did have a list of search terminologies along the vertical axis and a list of databases along the horizontal axis. The number of search articles was recorded as each database was searched. An integrative literature review is a circular process and therefore repeated rounds of data collection were done.

In total, 2939 articles were collected; 439 duplicates were removed; the ones left were screened (first screening) by title and abstract and 2478 articles were excluded due to topics and articles that were not related to collaboration in nursing education (refer to Figure 2.1). During the secondary screening, 47 full-text articles were reviewed and 17 articles that met the criteria of collaboration between clinical facilitators and lecturers to ensure theory-practice integration, were identified. The next step was to read the full text of the identified articles and to gain an understanding of the content of the articles.

Figure 2.1: Process of review search



2.2.3 Outcome of the literature search

The literature search produced seventeen studies, which met the inclusion criteria. The publication dates of these studies ranged from January 2016 to January 2021. The majority (76%) of the studies were published from 2016 to 2019, and (28%) of the studies were published in 2020. The articles described research that was done in eight countries which included the United States of America (n=9), Iran (n=2), Singapore (n=1), Canada (n=1), Korea (n=1), Sweden (n=1), Malawi (n=1) and Palestine (n=1).

The methodology and participants used in the identified studies included qualitative designs (n=3) where the participants were academic lecturers, nursing managers, and clinical supervisors; and quantitative cross-sectional designs (n=2) where the participants were third and fourth-year nursing students from government hospitals. Other designs included essays (n=2); integrative reviews (n=5); discussion papers (n=2); and descriptive papers (n=3) on implementation of models.

Articles was analysed and discuss as a whole to support findings of the selected studies to contributed to the aim of the literature review regarding the formulation of guidelines to improve collaboration between the theoretical lecturers of the nursing education institution and clinical facilitators of the associated healthcare services to narrow the theory-practice gap during clinical training.

2.2.3.1 Methodological quality in the integrative review studies

From the five (5) integrative review studies, three (3) (Berndtsson, Dahlborg and Pennbrant, 2020:1; Bvumbwe, 2016:315; Sadeghnezhad, Heshmati Nabavi, Najafi, Kareshki and Esmaily, 2018:78) clearly stated research questions and sampling inclusion and exclusion criteria. The search strategies seemed to be adequate. In the other two (2) studies (Huston et al., 2018:27; Kleinpell, Faut-Callahan, Carlson, Llewellyn and Dreher, 2016:708) research questions and inclusion criteria were not clearly stated. Four of the integrative review studies (Sadeghnezhad et al., 2018; Huston et al., 2018; Kleinpell et al., 2016) referred to a team of researchers that have critically appraised the studies. (Bvumbwe, 2016) did not state the appraising criteria used.

2.2.3.2 Methodological quality in the quantitative studies

Two studies were quantitative cross-sectional design (Akram et al., 2018; Yi, Lee and Park, 2020). Both study's target populations were all the third- and fourth-year nursing students of government nursing schools and big sample sizes were achieved: 135/140 students, and 244 responses (Akram et al., 2018; Yi et al., 2020). Student responses that were not included in studies were indicated with reasons.

Data collection periods were stated in both studies. The data collection method, 5-point Likert scale questionnaires, was used to measure different variables within each study. In (Akram et al., 2018), the questionnaire instrument was developed after a literature review. In (Yi et al., 2020), the questionnaire instrument was revised from the original instrument to measure research outcomes. The content validity of the questionnaire instrument was only discussed by (Yi et al., 2020).

In both studies, data were analysed with Statistical Package for Social Sciences (SPSS) and ANOVA version was used (Akram et al., 2018; Yi et al., 2020) to measure students' perceptions. (Yi et al., 2020) also gave an in-depth description of statistics and data correlations among variables.

2.2.3.3 Methodological quality in the qualitative studies

Research approaches in qualitative research studies are descriptive explorative (n=1) (Dev et al., 2020), descriptive (n=2) (Gursoy, 2020; Shoghi et al., 2019). The research purpose and aim were described in all qualitative studies.

Purposive sampling was discussed in three studies (Dev et al., 2020; Gursoy, 2020; Shoghi et al., 2019). The participant method of selection and inclusion criteria is stated in (Dev et al., 2020; Shoghi et al., 2019); and just inclusion criteria for participants are stated by (Gursoy, 2020). Data collection was done via interviews using open-ended questions (Gursoy, 2020); interviews only (Dev et al., 2020); and interviews and focus group discussions (Shoghi et al., 2019).

For data analysis, all interviews were recorded (Shoghi et al., 2019; Gursoy, 2020; Dev et al., 2020), data were coded for thematical analysis (Gursoy, 2020; Dev et al., 2020) and in (Shoghi et al., 2019) content analysed for open coding was used.. Participants in three studies were described and associated with the research topic in question. Data analysis was discussed in

detail by (Shoghi et al., 2019); within (Dev et al., 2020) themes were analysed with the six-step procedure by two researchers; and within (Gursoy, 2020) data analysis was briefly mentioned. Rigour was only discussed in the study by (Dev et al., 2020).

Rigour in data analysis was discussed by (Dev et al., 2020; Shoghi et al., 2019), but (Gursoy, 2020) did not discuss the rigour of the data analysis of the study. Trustworthiness was based on credibility, dependability and confirmability in two studies (Dev et al., 2020; Shoghi et al., 2019), and transferability was also accomplished in (Dev et al., 2020).

Limitations were only discussed by (Dev et al., 2020), and in (Shoghi et al., 2019) limitations on data analysis was mentioned. Limitations were not discussed in (Gursoy, 2020).

Ethical approval was given for studies (Dev et al., 2020; Gursoy, 2020; Shoghi et al., 2019) by the universities where research was conducted, and consent from the participants was obtained.

2.2.3.4 Methodological quality in the implementation of models

(n=2) Two models describe a collaborative approach (O'Neal, McClellan and Jarosinski, 2016; Bay and Tschannen, 2017) between health care service and nursing education institutions to improve clinical environment for learning. One (n=1) model describe team-based approach (Gierach, Knuppe, Winterboer and Randall, 2019) to reconceptualized clinical education.

The background of problems was discussed and descriptions of implementation actions were given by (Gierach et al., 2019; O'Neal et al., 2016). Structures, processes for change was describe in (Bay et al., 2017).

In (Bay et al., 2017) a formative evaluation of model was discuss; (Gierach et al., 2019) discuss the impact of the model in clinical education; (O'Neal et al., 2016) describe results and recommendation for future implementation of the model.

In (Gierach et al., 2019; O'Neal et al., 2016; Bay et al., 2017) researchers in these three studies were part of the implementation models.

2.2.3.5 Methodological quality of Essays

The purpose of both essays is stated; (Clevenger and Cellar, 2018) are a descriptive essay (n=1) with 2 authors; (Drayton-Brooks, Gray, Turner and Newland, 2017) are a explorative essay (n=1) with 4 authors.

2.2.3.6 Methodological quality of discussion papers

Both (n=2) articles have clear aim on the topic of discussion (Hussein and Osuji, 2017; Iseler, Wehrwein and Jensen, 2019). (Iseler et al., 2019) describe a innovative approach with clear objectives; (Hussein et al., 2017) discus the theory-practice gap using references from literature.

2.2.4 Analysis of the selected articles and the drafting of the collaboration guidelines

The researcher used a review matrix with the following headings: Authors / Title / Year / Country / Publication, Study Aims, Design and Methods, Setting & Participants, Key Findings, and Methods to Analyse the Findings (Table 3.1). The review matrix enabled the researcher to gain an overview of the content of the articles and to analyse the findings as suggested by (Kiger and Varpio, 2020:847) to draft guidelines to improve collaboration between the theoretical lecturers of the designated nursing education institution and the clinical facilitators of the associated healthcare services to narrow the theory-practice gap during the clinical training of students.

All 17 articles were analysed regarding good collaboration practices between theoretical lecturers and clinical facilitators to improve theory and practice integration during clinical training. The findings of each study were then grouped and synthesised thematically. Thematic content analysis was applied focusing on familiarisation of the content or data, searching for themes and review of themes. Guidelines were formulated from the findings of themes and data.

2.3 RESEARCH DESIGN OF PHASE TWO OF THE STUDY

A descriptive and explorative qualitative design was used to launch a thorough investigation (Polit et al., 2017:1040) regarding the refinement and contextualisation of the drafted

collaboration guidelines developed in phase one of the study to fit the unique circumstances of the designated nursing education institution and associated healthcare services where students do their clinical training. During focus group discussions, participants in collaboration with the researcher, refined and contextualised the draft collaboration guidelines.

According to Polit and Beck (2017:40), descriptive research methodologies provide new information about real-life situations and concepts. New information helps to create meaning in the situation and supports categorizing of information (Grove et al., 2013:692). This study was descriptive as it described the refinement and contextualisation of the draft collaboration guidelines to fit the unique circumstances of the designated nursing education institution and the associated healthcare services. This design assisted the researcher to obtain complete and accurate information concerning collaboration between nursing education institution and clinical facilitators on how to improve theory and practice integration during clinical training.

Explorative qualitative research is conducted to provide an understanding of a problem in need of a solution (Polit et al., 2017:40; Grove et al., 2013:694). In this study, the problem referred to the lack of collaboration between the theoretical lecturers of the designated nursing education institution and the clinical facilitators of the associated healthcare services. The researcher drafted collaboration guidelines from information obtained through a literature review that needed to be refined and contextualised by the theoretical lecturers and the clinical facilitators. The researcher explored the input from the participants (lecturers and facilitators) during focus group discussions. The participants cooperatively with the researcher refined and contextualised the collaboration guidelines. In the process, draft collaboration guidelines were turned into contextualised guidelines that fit the unique circumstances of the designated nursing education institution and the associated healthcare services.

2.3.1 Methodology of phase two

Focus group discussions can be used for instrument development and refinement (Gray, 2017:274), as it was done in phase two of the study. The methodology of the second phase of the study is described under the following headings:

2.3.1.1 Study population, sampling method and sample size

A study sample is a part of the study population that is selected to represent the whole population (Brink, Van der Walt and Van Rensburg, 2018:117). Whole population sampling

was used in this study. The theoretical lecturers and the clinical facilitators formed the study population. It consisted of ten (10) theoretical lecturers from the nursing education institution, and ten (10) clinical facilitators from four (4) associated hospitals involved in the diploma nursing program. Theoretical lecturers do the clinical facilitation of learning in the associated clinics. The clinical facilitators were responsible for the clinical training in the specific associated hospitals.

The researcher invited all the theoretical lecturers and clinical facilitators who were involved in the education and training of diploma nursing students registered with the designated nursing education institution, to take part in the research. Nine (9) theoretical lecturers and 10 clinical facilitators took part. The one (1) potential participant who did not want to take part was in no way discriminated against.

Two (2) lecturers had doctoral degrees, two (2) lecturers had master's degrees in nursing education, and five (5) lecturers had bachelor's degrees in nursing education. The lecturers' working experience in nursing education was between 1 year and 15 years.

One (1) clinical facilitator had a doctoral degree; eight (8) clinical facilitators had bachelor's degrees in nursing education and one (1) had a diploma in nursing science and nursing education. Clinical facilitators' working experience in nursing education was between 8 months and 17 years.

The potential participants were invited via email and received sufficient information about the study prior to data collection to make informed decisions to take part in the study on selected days. They were given the chance to choose the time slots of the focus group discussions to indicate when it suited them best. They were not expected to take part in all the discussions, as it was too difficult to find a time that suited all of them simultaneously. Some participants took part in more than one of the focus group discussions. Participant information leaflets were distributed and discussed with them, and consent for participation was sign prior to focus group discussion.

Four (4) focus group discussions were done; within two focus groups all the guideline was discuss and refined. Two more focus groups were done to discuss and ensure understanding of refined guidelines.

2.3.1.2 Data collection and organisation

The researcher drafted collaboration guidelines from 17 articles obtained through an integrative literature review discussed in phase one of the study (Refer to Table 3.2). The guidelines were refined and contextualised during four (4) focus group discussions in a venue suitable for interviews at the designated nursing education institution. The discussions were done to refine and contextualise the guidelines to suit the unique circumstances of the designated nursing education institution and the associated healthcare services.

Two days before the scheduled focus group discussions, follow-up emails were sent to remind the potential participants of the time and place, purpose, and importance of the planned discussion. A set of collaboration guidelines was sent to the participants to familiarize themselves with the content. A lecture room on the nursing education institution campus was chosen for the focus group discussions. The room was prepared for participants to sit in a circle shape to enable eye contact among participants and to allow group interaction. The equipment set up included two audio recorders which were used to ensure that all data/ information was recorded. COVID-19 regulations were followed according to the regulations of the designated nursing education institution.

The focus group discussions were done in a non-threatening setting to enable open discussions. At the beginning of each focus group discussion, the participants were welcomed by the researcher and invited to introduce themselves. She thereafter thanked them for being willing to take part in the discussions and asked them not to discuss the input of the participants with other people. She asked them to respect the privacy of the participants and to keep the information that is shared by the participants confidential.

The researcher discussed the draft guidelines and focussed on 1) how the integrative literature review was done; 2) how the guidelines were drafted from the research evidence; 3) the draft guidelines, and 4) the table with draft guidelines in column 1 and information about the research that was done and reported in the articles that substantiate each draft guideline in column 2 (Refer to Table 3.2).

The participants were encouraged to discuss the draft guidelines one by one, to delete the guidelines that they felt were not applicable, and to refine and contextualise the ones that they wanted to be included in the final set of guidelines. Once the group had agreed on their response regarding the content and context of the first guideline, the following one was

discussed and so forth. Four (4) focus group discussions were done to obtain data saturation. The discussions lasted on average two (2) hours each.

The group dynamics of focus groups help people to express their opinions as they experience a sense of safety in numbers (Grove and Gray, 2018:110). Nineteen of the 20 potential participants did take part in the focus group discussions. The ideal number of participants in a focus group discussion should be, according to Grove and Gray (2018:110), enough to ensure that the discussion is not inadequate due to too few inputs. Seven to 12 participants participated in each focus groups discussion.

Table 2.1 Focus group information

Number of focus group participants	Duration of focus group
Focus group 1 = 7	1:39:20
Focus group 2 = 7	1:08:59
Focus group 3 =12	1:54:05
Focus group 4 = 12	2:00:03

It is important that the members of a focus group discussion should all be interested in the topic of the discussion. They should also be alike in some characteristics (Grove et al., 2018:110). The participants in this study were all professional nurses who were involved in the education and training of the same nursing students and had therefore much in common.

The participants were asked to make notes relating to the guideline content, refinement, and contextualisation on their copies of the guidelines that were collected at the end of the discussions. The researcher used the notes in addition to her own field notes as sources of data. The discussions were audio-record with the permission of the participants. The researcher transcribed the audio-records verbatim and typed the notes of the participants and her own field notes.

2.3.1.3 Data analysis

Data analysis is the systematic organization and synthesis of data to answer a research question (Polit et al., 2017:751). In this study, the researcher tried to answer the question **"**What context-specific collaboration guidelines are required to ensure that the theory that is taught in classrooms gets integrated into practice during clinical training in the associated healthcare services of the designated nursing education institution?"

The notes (comments regarding the guidelines) and audio records of the discussions were thematically analysed to identify recurrent and important concepts regarding the refinement and contextualisation of the collaboration guidelines. The researcher read the notes and listened to the audio records several times to gain an overview and understanding of the input of the participants.

In-vivo coding of the transcripts and field notes was done to identify relevant information from the data. Codes with similar content were identified and grouped under higher-order sub-categories through inductive analysis. Related sub-categories were grouped to form categories.

The categories and sub-categories were described and substantiated with excerpts from the transcripts and thereafter discussed with literature. The draft set of collaboration guidelines was refined and contextualised with the input of the participants. A final set of context-specific guidelines to improve the collaboration between the theoretical lecturers of the designated nursing education institution and the clinical facilitators of the associated healthcare services to narrow the theory-practise gap during the clinical training of nursing students, was described.

2.3.1.4 Rigour of the findings

Trustworthiness in qualitative research encourages confidence in the way the data was collected and analysed (Polit et al., 2017:768). Trustworthiness in qualitative research uses the criteria of credibility, dependability, confirmability, transferability and authenticity.

The credibility of findings is defined as the confidence that the researcher has in the truth and value of the findings (Polit et al., 2017:267). Data collection was sufficient, and the correct method of data analysis were used to ensure the believability of the findings. The researcher involved the whole study population of theoretical lecturers and clinical facilitators in the focus group discussions and conducted four focus group discussions to ensure that the findings on the collaboration guidelines are credible.

The dependability of the findings can be described as the reliability of data over time and conditions (Polit et al., 2017:585). The researcher documented all the phases of the research process to ensure that the reader of the report understands and finds the process acceptable. The researcher documented the process and thereby compiled an audit trail.

Confirmability of the findings refer to objectivity and that the findings and recommendations are represented in the data (Polit et al., 2017:788) . The findings reflect the participants' view with transcribing of data, and not that of the researcher. The researcher used excerpts from the transcribed discussions to substantiate the description of the sub-categories. A thorough description of the research methodology enables an audit process to confirm that the findings reflect the view of the participants.

Transferability can be described as the extent to which the findings of the study are useful in their own or other similar settings (Polit et al., 2017:108). In the study, the population, context, and research method were comprehensively described by the researcher to allow other researchers to evaluate the transferability of the findings in similar settings.

The authenticity of findings can be described as the extent to which the researcher fairly and fully expresses the participants' views in the description of the findings of the study (Polit et al., 2017:585). The focus group participants were allowed to freely voice their views without judgment so that original and true data could be collected for the refinement and contextualisation of the guidelines.

2.3.1.5 Ethical considerations

In this study, the ethical principles articulated in the Belmont Report served as standards of ethical conduct namely: beneficence, respect for human dignity, and justice as explained in Polit and Beck (2017:210)

Beneficence: Polit and Beck (2017:211) define beneficence as a fundamental ethical principle that seeks to maximize benefits and minimize harm. The benefit of the study was to contribute to the refinement and contextualisation of guidelines to improve collaboration between the theoretical lecturers of a designated nursing education institution and the clinical facilitators of the associated healthcare services to narrow the theory-practice gap during clinical training of nursing students. Harm could arise if the focus group discussions were not done within an acceptable time frame, and the participants might also feel exploited by the researcher. The researcher therefore ensured that the interviews were completed within a reasonable time and that all participants participated voluntarily and did not feel exploited.

Respect for **human dignity** includes the right to self-determination and respect for other people (Polit et al., 2017:212). The researcher got approval for the planned research from the Faculty of Health Sciences Research Ethics Committee of the University of Pretoria and

permission from the private healthcare group and all the associated healthcare services to conduct the study. Detailed information about the study was given to participants to enable them to give informed consent to take part in the research. The researcher was one of the clinical facilitators and was therefore very careful not to coerce a potential participant to take part.

Furthermore, informed consent was obtained from all participants. Participants' wishes were respected. They had the right to be protected from emotional harm. The researcher treated the participants with respect and kept all information that they shared with her confidential. The participants were asked to also keep the information that had been shared during the focus group discussions confidential.

Justice in research refers to the fair treatment of participants and respect for their privacy (Polit et al., 2017:214). Fairness was ensured to allow the participants to participate in the study. During the study, all participants' views and beliefs were respected during the focus group discussions to protect them from discomfort and harm. To maintain the privacy of participants, confidentiality was maintained during and after the research process by codenaming their records and keeping them safe. Publications will not contain participants' identification information.

2.4 SUMMARY OF THE CHAPTER

Chapter 2 described the research design and methods. In the first phase, an integrative literature review was done to collect research evidence to compile draft guidelines. In the second phase, the draft guidelines were refined and contextualised during focus group discussions.

CHAPTER 3

FINDINGS OF PHASE ONE OF THE STUDY

3.1 INTRODUCTION

A lack of collaboration between nursing education institutions and healthcare services, weakens the theory and practice integration of nursing students. The study aimed to develop context-specific guidelines to improve collaboration between the theoretical lecturers of the designated nursing education institution and their counterparts, the clinical facilitators in the associated healthcare services to narrow the theory-practice gap during the clinical training of nursing students.

In this chapter, the researcher described the outcome of the integrative literature review that enabled her to draft the guidelines. In the following chapter, the contextualisation of the guidelines to fit the unique circumstances of the nursing education institution and the associated healthcare service is described.

3.2 OUTCOME OF THE LITERATURE REVIEW

The articles are summarised in Table 3.1 according to the Authors, Title, Year of Publication, Country in which the research was done, Study Aims, Design and Methods Setting & Participants, Key Findings of the study. In the last column, the researcher listed the guidelines that she drafted from the applicable publication.

Table 3.1: Summary of the articles

Authors/ Title/ Year/ Country/ Publication	Study aim	Design & Methods	Setting & participants	Key findings of the study	Guidelines drafted from the publication
Akram, AS, Akram, S, Mohamad, A The role of clinical instructors in bridging the gap between theory and practice in nursing education. 2019 Palestine *International Journal of Caring Sciences,* 11(2), 876-82.	The study aimed to assess the presented role of clinical nurse instructors in bridging the gap between theory and practice from the perspective of student nurses	A descriptive quantitative cross-sectional design A questionnaire using the Likert scale	4 main government hospitals in the Gaza strip 135 nursing students in 3rd and 4th year	Instructors are present in the nursing units to help bridge the theory-practice gap. Clinical instructors need to have good communication skills, use time effectively, and use case study approaches to help bridge the theory-practice gap. Clinical instructors plan training activities in the hospital to improve student skills and knowledge. Clinical instructors in hospitals are not familiar with the theoretical content that is taught in nursing intuitions and use the clinical theory approach in hospitals.	Consolidate clinical teaching and learning strategies and provide effective supervision and feedback to foster students' confidence and professional development. Create a structured academic and clinical operational plan to support theory-practice integration with knowledge and skills development. Include clinical facilitators during theoretical classes to help link clinical scenarios with the teaching of theory during lectures. Create a communication system to ensure adequate and timely communication between the clinical team and academic lecturers for weekly theoretical outcomes to connect/link to the theory that is done at the nursing campus.
Bay, EH, Tschannen, DJ An academic-service partnership: A system-wide approach and case report. 2017 Michigan; USA *Journal of Nursing Education,* 56(6), 373-377.	This study aimed to report an overview of the first year of full implementation, and survey results from nurse leaders and faculty on the academic service partnership	Case report	Nursing leaders, faculty and mentors	Academic and service leadership should support the implementation of clinical teams in units. Leadership needs to focus on faculty and clinical mentor development and evaluation. *Structure:* Collaborative clinical teams consisting of a registered nurse as a clinical mentor, clinical faculty and nursing students in a clinical unit. The clinical team focus on patient care and educational outcomes. *Process:* Students need to have "goals for the day/week" (assignments). The clinical mentor needs to support students with the assignment while caring for the patient. Case studies were given for self-directed learning encouragement.	Developing clinical mentors is crucial to support students during clinical practical sessions. Providing patient care and achieving students' outcomes should be integrated and the focus of a clinical team. Provide information to clinical teams on students' academic outcomes and the process of achieving the outcomes. Implement a communication system to ensure adequate and timely communication between: Clinical facilitators and lecturers for weekly discussions of clinical outcomes and to link theory and clinical training; and clinical teams

Authors/ Title/ Year/ Country/ Publication	Study aim	Design & Methods	Setting & participants	Key findings of the study	Guidelines drafted from the publication
				Outcomes: Goals connect the theory within the workplace and have a positive effect on learning outcomes. Faculty members need to determine if learning goals were achieved and can expand learning opportunities.	and students for feedback regarding progress.
Berndtsson, I, Dahlborg, E, Pennbrant, S Work-integrated learning as a pedagogical tool to integrate theory and practice in nursing education - An integrative literature review. 2020 Sweden *Nurse Education in Practice,* 42, 1-8.	This integrative literature review aimed to identify models for the integration of theory and practice during clinical placements in nursing education by using work-integrated learning.	Integrative literature review	University West Sweden 16 articles	Students need 5 key elements in forming their identity: Positive role models, belongingness, peer support, critical thinking abilities and confidence. The preceptor and clinical facilitator model of supervision are promoting critical thinking and creates meaning for students. Clinical facilitators need to use reflection as a pedagogical tool to identify students' needs, change learning methods or implementation of learning goals. During problem-solving preceptors/clinical facilitators can share their knowledge with students, to help relate the academic subject to actual practice. Clinical supervisors need to be digitally literate to enhance communication and sharing of knowledge and improve student placement experience. A clinical reasoning cycle needs to be used to develop clinical reasoning and understand actions that are needed. For a better connection between research and practice and preparedness for practice, more practical learning should be included in theory knowledge, and more theory knowledge in clinical learning. Reflection and discussion of own nurses' findings with lecturers, supervisors and students improve critical thinking in a collaborative environment.	Develop a structured orientation program for lecturers and clinical facilitators that include: Pedagogical teaching practices e.g., reflection and clinical reasoning cycle and problem-solving skills; the use of digital resources during clinical learning to integrate theory in practice; giving feedback to students to enhance learning. Encourage clinical facilitators to use reflection, problem-solving and clinical reasoning cycles in clinical practices. Provide opportunities for students to present case studies to clinical facilitators and lecturers. Involve clinical facilitators during theoretical classes to help link clinical scenarios of the hospital with theory in class. Involve lecturers during clinical facilitation to help link theory to clinical cases in the hospital.

Authors/ Title/ Year/ Country/ Publication	Study aim	Design & Methods	Setting & participants	Key findings of the study	Guidelines drafted from the publication
Bvumbwe, T Enhancing nursing Education via an academic-clinical partnership: Integrative review. 2016 Malawi *International Journal of Nursing Sciences,* 3(3), 314-322.	Describe the role of academic-clinical partnerships in strengthening nursing education**.**	Integrative review	Mzuzu University, Malawi 33 articles	Academic and practice colleagues need to work together for a common goal. They need to have a mutual understanding of specific responsibilities for every category of staff, and shared goals to ensure positive outcomes for all**.** A learning culture will be enhanced when theory and practice are equally important and evidence-based practice is enhanced. Staff mentorship development is critical to improving student learning outcomes. Academic-practice partnerships need to have set values and priorities and clear strategies for the implementation of collaboration.	Create an academic practice partnership with a common goal of: Development of mentor programs for capacity building of clinical facilitators and lecturers; creating of learning culture and environment; sharing of responsibilities between two systems. Facilitate collaboration between clinical facilitators and lecturers with planed regular meetings to discuss problems and strategies to improve the partnership.
Clevenger, CK, Cellar, J Creating new models of care through an academic-clinical partnership 2018 Atlanta, Georgia *New Administration Quarterly,* 42(4), 30-31.	To describe an exemplar of academic clinical partnership in which a new model of care is co-designed and coproduced with positive results for patients, care partners and the health system.	Essay	Nell Hodgson Woodruff school of Nursing; Emory University School of Medicine department. Primary advance healthcare clinic	The Integrated Memory Care Model was developed around clinical practices for: Comprehensive primary care, Written individualized care plans; Aggressive symptom assessment; Thoughtful utilization of healthcare and community-based services; Clinical teamwork from a group of high-functioning health professionals. Care models with practice guidelines will ensure better health outcomes for patients. Faculty practice care models should address students' and health system needs.	Utilized new/different clinical care models and clinical practice guidelines to improve student knowledge application, professional development and employability.
Dev, MDB, Rusli, KDB, McKenna, L, Lau, ST, Liaw, SY Academic-practice collaboration in clinical education: A qualitative study of academic educator and clinical preceptor views.	To study the perceptions of academic educators and preceptors on their collaboration in the transition to practice program	Qualitative explorative study Interviews done	The National University of Singapore and 3 academic hospitals 12 Preceptors and 13 academic educators	The hierarchical communication line between preceptors, clinical instructors and academic educators is unclear. Preceptors/clinical facilitators are uncertain about the learning objectives that are required from the education program. Structured learning and practice guidelines are essential for preceptors to guide and support students.	Create a direct communication structure between academic lecturers and clinical facilitators to communicate student objectives, and feedback on identified learning needs and concerns. Implement an orientation program for newly appointed clinical facilitators regarding the learning program/curriculum, practice

Authors/ Title/ Year/ Country/ Publication	Study aim	Design & Methods	Setting & participants	Key findings of the study	Guidelines drafted from the publication
2020 Singapore *Nursing and Health Sciences.* 22(4), 1131-1138.				Preceptors and academic educators have different expectations of the level of competence. Preceptors and educators are not familiar with each other practices and requirements.	guidelines of the hospital, and required level of competence during clinical assessment. Joined clinical assessments between clinical facilitators and lecturers, to ensure the quality of assessments and consistence in teaching and learning. Employ alumni staff from nursing intuition to support students in a clinical setting as preceptors.
Drayton-Brooks, SM, Gray, PA, Turner, NP Newland, JA. Building clinical education training capacity in nurse practitioner programs. 2017 USA *Journal of Professional Nursing,* 33(6), 422-428.	To explore new clinical education training models for nurse practitioners	Essay	PENN Medicine GNE Partnership; Philadelphia; United States	Traditional models- Indirect faculty supervision-1:6 students; faculty need to coordinate clinical experience, interact with preceptors and evaluate students. Simulation- test clinical readiness and document achievement of competencies. Geriatric and long-term care untapped resource for clinical student assignments and knowledge. Inter-professional education and collaboration nurses need to work as a team together, different student year groups of training can be together for effective collaboration. Faculties need to find common ground and goals on values/ethics; teams and teamwork; communication practices and roles and responsibilities. Convenience care delivered in pharmacies should be used as clinical learning opportunities. Use the distance immersion model to service rural communities with underserved populations. Correctional nursing prison adult and mental health and disaster management as well as workplace wellness centres should be used as clinical learning facilities. Maximising academic faculty practice partnership school of nursing through the development of academic practise clinics and providing students with intensive and	Promote student placement in different care settings for comprehensive understanding and application of nursing knowledge and skills (e.g., Geriatrics, long-term care facilities, weekend support in community clinics, convenience care clinics). Intensify clinical training with a focus on speciality training and assessment in specialize areas (e.g., medication administration and handling, infection control, mother and baby wellness, theatre safety). Plan and collaborate with other health professionals to integrate curriculums to expand students' learning experiences, promote teamwork and communication, and understand each role and responsibility. Build clinical training capacity within services to improve stakeholder relationships through preceptor development, simplify the student evaluation process and assurance of student readiness for practice.

Authors/ Title/ Year/ Country/ Publication	Study aim	Design & Methods	Setting & participants	Key findings of the study	Guidelines drafted from the publication
				well-coordinated clinical experiences in evidence-based practice. Streamline long evaluation and documentation processes. Use electronic portal resources for communication.	
Hussein, MTEL, Osuji, J Bridging the theory-practice dichotomy in nursing: The role of nurse educators. 2017 Canada *Journal of Nursing Education and Practice,* 7(3), 20-25.	Opinion/discussion paper to shed light on the roots of theory practice dichotomy and suggest some strategies that may bridge this gap.	Discussion paper		Students prefer to learn from professional nurses than from textbooks or electronic resources. Lines of communication between professional nurses and nurse educators need to be established for sharing of nursing information in clinical settings. Nurses' reflective skills, critical thinking and reflective practice capacity need to be developed to help close the theory knowledge and practical skills gap.	Incorporate with-in the partnership goals: Capacity building nursing programs to enrich professional nurses' knowledge in hospital settings, Open communication channels for sharing of nursing knowledge between nursing education and clinical settings; Teaching of reflective thinking skills to nurses.
Gierach, M, Knuppe, M, Winterboer, V, Randall, R Creating a culture of caring: A collaborative academic ‐ practice approach to clinical education. 2019 South Dakota *Nursing Forum,* 54(3), 386-391.	Describe the implementation of the clinical education model of Culture of Caring (COC)	Implementation of a clinical model Team-based approach and collaboration between academic and clinical staff.	3 large academic institutions Academic practise leaders, clinical instructors, staff nurses and students	Clinical instructors help students to integrate theory into practice. They adequately prepare for the facilitation of learning and need support and mentoring from lecturers on how to integrate theory into practice. Academic-clinical partnerships need to have a shared curriculum to guide the clinical experience. Lecturers and clinical facilitators decide on clinical assignments for the students. Students then pared with clinical instructors. Teamwork improves the relationship between nurses where knowledge can be shared in and safe environment. Students are also orientated to their role in clinical practise. Weekly topics are being given that students need to apply, and instructors need to focus on, e.g. communication; quality and safety.	Creation of structured clinical education models between clinical facilitators, lecturers, preceptors and students, to create a positive learning environment, teamwork and communication and support theory-practice integration. Provide orientation to preceptors and students regarding roles and responsibilities, expectations and requirements with in units. Support preceptors in the unit through relationship building, mentoring in a clinical setting and regular meetings. A shared curriculum within the academic-clinical partnership needs to guide and support the integration of academic curricula.

Authors/ Title/ Year/ Country/ Publication	Study aim	Design & Methods	Setting & participants	Key findings of the study	Guidelines drafted from the publication
				Lecturers visit the clinical facilitators for support and mentoring. Communication structures need to be in place to discuss student progress and issues. Regular meetings with students are needed, for the improvement of the learning environment. The COC model promotes a learning positive environment. Increase of staff nurses that want to help and be clinical instructors.	
Gursoy, E The partnership between academic nursing and clinical practice: A qualitative study. 2020 USA Pennsylvania *J Pak Med*, 70(4), 597-601.	To assess the impact of a partnership between a nursing school and a largescale urban hospital on health education, practice and research.	Qualitative study In-depth interviews using opened questions Qualitative content analysis	Urban hospital and nursing school in Pennsylvania, Philadelphia 16 faculty members 8 nurse clinicians/managers	Leadership is a key factor for a partnership to work. Mutual cooperation, communication and clearly define goals between academic and practice settings will enhance understanding of each system and improve the quality of teaching in a positive learning environment. Clinical educators play a dual role in the partnership. They need to be innovative with sharing of knowledge to both sides to enhance understanding of each other. They need to be research orientated to support staff to solve nursing problems and have positive patient outcomes.	Create a mutual partnership with a broad vision, clear goals and a good communication system to support staff, and benefit quality standards of both systems. Partitive collaborative research practice to enhance academic staff, skills and knowledge transferability in a clinical and academic setting.
Huston, CL, Phillips, B, Jeffries, P, Todero, C, Rich, J, Knecht, P, Sommer, S, Lewis, MP The academic-practice gap: Strategies for an enduring problem. 2017 USA *Nurse Forum,* 53(1), 27-34.	Explore contemporary practices bridging the academic practise gap	Review of literature		Education strategies: Simulation with appropriate guidelines and scenarios can be used to teach vital skills. Simulation ensures a safe environment for the student to practice and allows intentional feedback by faculty. Scenarios can be based on gaps identified in a clinical setting. Learner-centred approaches e.g., concept mapping journaling and flipped classroom will support students to identify the most relevant aspects of the situation and explain it with the theory. Competency base education promotes student engagement in the learning process, using cognitive, psychomotor	Incorporate different student-centred educational strategies to improve students' communication skills, nursing skills and knowledge to support theory practice integration (simulation learning, flipped classroom, concept mapping and journaling). Support students to integrate learned knowledge in the clinical setting. Integrate collaborative education and practice strategies to enhance student-centred learning for support of theory practice integration and stimulation of

Authors/ Title/ Year/ Country/ Publication	Study aim	Design & Methods	Setting & participants	Key findings of the study	Guidelines drafted from the publication
				and affective skills. Use evidence base practice, standards and competencies to evaluate students. Use dedicated education units and allocate students to professional nurses for the application of theory in practice. Lecturers collaborate with clinical staff to support clinical learning. Students feel part of clinical teams and it promotes theory-to-practice application. Partnerships between lecturers and clinical facilitators support the learning of students. Strong leadership in clinical and education are needed. Sharing of knowledge and human resources between nursing education institutions and healthcare services for teaching and learning of students will benefit both organizations.	professional growth and learning (preceptorship model, dedicated educational units within hospitals). Building a successful collaborative partnership between nursing education institutions and clinical facilitators in a hospital setting through strong leadership, clear structures and processes, an open communication system and mutual commitment to improving trust relationships.
Iseler, J, Wehrwein, T, Jensen, C A Model of Academic and Service Partnership Focused on the Clinical Nurse Specialist. 2019 USA *Journal of Nursing Administration,* 49(6), 294-296.	This article describes an innovative approach to building a partnership through the joint appointment of a full-time faculty member in a contracted clinical nurse specialist position in a community hospital	Discussion paper	College of Nursing & McLaren Greater, 389 Bed teaching hospital, Over 2 campuses Clinical nurse specialists	The college allocated lecturers, hospitals and clinics to assist students. Their goal was to integrate nursing science into practice and to improve health outcomes. Thought the partnership lecturers with PhDs were appointed in clinical settings to improve direct care, support students and nurses, and improve systems.	The collaboration of lecturers and clinical facilitators need to be planned with clear goals and expectations, resource allocation and building of trusting relationships. Implementation of evidence-based projects to improve quality care in the hospital setting should be encouraged and supported by lecturers.
Kleinpell, RM, Faut-Callahan, M, Carlson, E, Llewellyn, J, Dreher, M	To review the development of the practitioner-teacher role and its use in	Exploratory literature review		The establishment of an organizational structure is the cornerstone for collaboration between a nursing education institution and a clinical setting.	Involve lecturers and clinical facilitators in research projects to address problems in the clinical setting and to implement evidence-based practice. It might lead to an

Authors/ Title/ Year/ Country/ Publication	Study aim	Design & Methods	Setting & participants	Key findings of the study	Guidelines drafted from the publication
Evolving the practitioner-teacher role to enhance practice-academic partnerships: A literature review. 2015 USA; Chicago *Journal of Clinical Nursing,* 25(5-6), 708-718.	advancing clinical nursing	Descriptive review on the role of practitioner-teacher role as a faculty member and preceptor/teacher in clinical areas		The practitioner-teacher model consists of unit-based lecturers with academic responsibilities (25%) and clinical duties (75%). They report to clinical and academic leaders. Due to the complexity of the healthcare system, escalating faculty requirements, and increasing clinical and administrative responsibilities the practitioner-teacher role changed. The administrative and clinical responsibilities were separated and defined. The main focus remains on the integration of theory and practice. The practitioners-lecturer model supports the research process and research participants in hospitals. Quality projects are implemented in hospitals to improve service quality through evidence-based practice.	improved student learning environment, quality care of patients and research culture in hospitals. Promote working relationships between lecturers and clinical facilitators. Clinical facilitators and lecturers are co-responsible for the improvement of practice and the integration of theoretical knowledge in hospital settings.
O'Neal, Pamela V, McClellan, LC, Jarosinski, JM A new model in teaching undergraduate research: A collaborative approach and learning cooperatives. 2016 University of Alabama USA *Nurse Education in Practice*, 18, 80-84.	This study aimed to apply the Collaborative Approach and Learning Cooperatives (CALC) Model in an undergraduate nursing research course	Descriptive pilot quality improvement project Collaborative Approach and Learning Cooperatives (CALC) Model	University and 1 acute care hospital 75 Junior level students did 17 posters during integrative review research	Hospital managers and faculty designed a research project for undergraduate nursing students. The students were allocated to small teams for co-operative learning. They had to do PICOT searches and compiled posters with the review information. Chosen posters were displayed in the hospitals for nurses to implement best practices based on the evidence discovered. The project promoted new working relationships between service partners, nurses and students. It also collaborated with and facilitated best practise guidelines. Lesson learned: Nursing managers need to visit students at the beginning of the semester, to share information on the clinical problems. Nursing managers as part of the evaluation team will motivate students to place more effort into the	Collaboration of healthcare services and nursing education institutions should encourage staff and nursing students to solve clinical problems through research applications. Using the research process to improve practice should be encouraged as nursing education institutions, healthcare services, and students benefit. It provides opportunities for students to develop research skills and improve practice.

Authors/ Title/ Year/ Country/ Publication	Study aim	Design & Methods	Setting & participants	Key findings of the study	Guidelines drafted from the publication
				learning activity and support them in feeling part of a hospital team.	
Sadeghnezhad, M, Nabavi, FH, Najafi, F, Kareshki, H, Esmaily, H Mutual benefits in academic-service partnership: An integrative review. 2018 Iran *Nurse Education Today*, 68, 78-85.	Identify the mutual benefits of academic service partnership	Integrative review	Iran University 28 publications selected	Synergy in training and empowerment of human resources imply: Educational capacity development (mutual benefit for both with regard to staff and resources), better transition from student role to professional role (partnerships support the transition from student to professional nurse with key competencies such as management, reasoning skills); staff development (continued education to improve knowledge and skills to ensure quality care and safe nursing care); education improvement (access to supportive learning environment such as improved interactions between staff and students to enhance learning); curriculum improvement (improve curriculum according to students' practical needs to ensure that graduates are employable); access to shared resources (access to mutual human resources for faculty and hospital setting as well as access to mutual financial sources); production and application of beneficial knowledge into practice (beneficial knowledge development with the focus on clinical problems); research conditions improvement (develop mutual relationship for research capabilities to bridge the gap between theory and practice); development of practical and useful interactions between nursing education institution and healthcare service (solve practice problems with research projects, development of evidence-based practices, and applicable modification of the academic courses).	The establishment of an effective academic-service partnership will lead to: Capacity building of academic and service staff; Curriculum improvement to support the services and student's needs; Graduate students that have the required capabilities and skills; and sharing of financial and human resources. The development of collaborative relationships can be responsible for mutual research projects to help solve hospital service clinical problems and applying of research knowledge.
Shoghi, M, Sajadi, M, Oskuie, F, Dehnad, A & Borimnejad, L	To explore the perspective of both nursing	Qualitative study	Universities in Teheran	Work with culture-based content in curricula.	Design a culturally conducive curriculum to support students in understanding and clarification of

Authors/ Title/ Year/ Country/ Publication	Study aim	Design & Methods	Setting & participants	Key findings of the study	Guidelines drafted from the publication
Strategies for bridging the theory-practice gap from the perspective of nursing experts. 2019 Iran *Heliyon Science Direct,* 5 (9),1-6.	experts in education and clinical setting about strategies for coordinating education and clinical performance in nursing to help bridge this gap	Semi-structured individual interviews and focus group interviews	Lecturers with minimum qualification with PhD degree and five years as an educator, nursing managers and educational supervisors	The curriculum needs to portray caring theory and models. What is taught in class should correspond with what happens in practice. Nursing disciplines have evolved due to changing needs of people, thus stronger theories and models need to be developed. What is taught in class does not happen in practice. Curriculum content needs to simulate practice and change the clinical environment. Clinical theories need to be more understandable so that nurses can evaluate their own effectiveness. Create positive attitudes with joint discussion sessions and workshops with lecturers and clinical nursing staff. The discussion will support the empowerment of lecturers and clinical staff. The staff of both settings have specialized knowledge. Lecturers need to discuss aspects of practical experience during theoretical classes to help bridge the theory-practice gap. Lecturers should teach clinical staff research and clinical staff should teach lecturers clinical nursing techniques. Clinical guidelines need to be designed to fit the local situation and support theory-practice integration. Clinical facilitators and lecturers should work with the same guidelines that suit the clinical environment.	their values and belief systems to better integrate theory and practice. Include innovative teaching strategies e.g., action research projects and flipped classrooms, and adapt theory content to what is happening in hospital services to enhance theory-practice integration. Creating an appropriate and clear clinical framework to support the use of scientific evidence. Promote sharing of knowledge and re-orientation of staff from both systems with discussion sessions and workshops, where academic and clinical speakers have equal opportunities to share their knowledge and skills. Implementing clinical guidelines in all healthcare services to standardized nursing care.
Yi, YJ, Lee, H, Park, K The role of academic-practice partnerships from perspectives of nursing students: A cross-sectional study.	To identify the role of academic-practice partnerships from the perspective of nursing students.	Cross-sectional research study Questionnaire was used	Nursing college in Korea 242 fourth-year nursing students	All lecturers and clinical facilitators should share the same educational philosophy. Nursing students need to be aware of the partnership between lecturers and clinical facilitators to develop their professional self-image and practice.	Create a partnership with a shared educational philosophy, clear goals and practical content to ensure teamwork. The development of lecturers and clinical facilitators is vital as they support students to develop as evidence-based practitioners.

Authors/ Title/ Year/ Country/ Publication	Study aim	Design & Methods	Setting & participants	Key findings of the study	Guidelines drafted from the publication
2020 *Korea* *Nursing Education Today,* 89, 1-8.				The students need to be encouraged to interact with the lecturers and clinical facilitators to develop their skills. Clinical facilitators need to be trained to facilitate the development of students. Clinical facilitators should give positive enabling feedback to students.	Establish standards for clinical facilitation.

3.3 ANALYSIS OF THE LITERATURE

During the review process, articles were searched and critically read. The number of articles was reduced to ensure that only relevant articles were used. The researcher used a review matrix to identify significant findings of each study on collaboration between staff of nursing education institution and clinical facilitators. The findings of the articles were studied, and guidelines were identified and grouped according to similarity. The researcher drafted collaboration guidelines for a designated nursing education institution and associated healthcare services according to the findings that emerged from the integrative literature review. New knowledge was created (Gregory and Denniss, 2018:896; Torraco, 2016:420).

3.4 THEMES AND DRAFT GUIDELINES

The following themes were developed, and the listed guidelines were drafted:

Theme 1: Maintain a healthcare service and nursing education institution partnership

Eight of the studies referred to the importance of a collaborative partnership between the designated nursing education institution and the associated healthcare service as a vital requirement for theory-practice integration in nursing education(Bvumbwe, 2016:321; Drayton-Brooks et al., 2017:426; Gierach et al., 2019:387; Gursoy, 2020:599; Huston et al., 2018:32; Kleinpell et al., 2016:712; Sadeghnezhad et al., 2018:83; Bay et al., 2017:374). Building a successful collaborative partnership between the nursing education institution (to support the theoretical lecturers) and the healthcare services (to support the clinical facilitators) requires strong leadership, clear structures and processes, and mutual commitment from all partners (Bvumbwe, 2016:213; Sadeghnezhad et al., 2018:84; Huston et al., 2018:33). These partnerships dictate the common goals required to develop competent staff, improve healthcare outcomes and support quality education (Bvumbwe, 2016:319).

The partnership should support strategies regarding the ongoing skills development of the theoretical lecturers and clinical facilitators through mentorship programs (Bvumbwe, 2016:320; Huston et al., 2018:32) to enhance theory-practice integration in nursing education and evidence-based nursing practice (Huston et al., 2018:32). It should also support the transfer of skills to

nursing students to develop critical thinking and reasoning abilities (Huston et al., 2018:27) and enable them to use theoretical models in nursing practice (Gierach et al., 2019; Bay et al., 2017).

A basic requirement of effective healthcare service and nursing education institution partnerships is a shared vision for cooperation, clear goals to improve nursing education and patient care and efficient communication structures to enable cooperation between all the stake holders (Gursoy, 2020:598). The benefits of an effective healthcare service and nursing education institution partnership are many and refer to the delivery of nursing graduates with competencies to render quality patient care, the enablement of theoretical lecturers and clinical facilitators to provide quality nursing education, the improvement of nursing curricula that focus on patients' healthcare needs, the sharing of human and financial resources, and the generation of practice-based nursing knowledge (Sadeghnezhad et al., 2018:79-83).

The main aim of the healthcare service and nursing education institution partnership is to create a positive learning environment for nursing students (Gursoy, 2020:598; Bvumbwe, 2016:319; Sadeghnezhad et al., 2018:83) where they can interact with staff and can participate in learning opportunities to support theory-practice integration. Academic and staff interaction/involvement promotes students' critical thinking, decision making and research skills, which improve again student confidence (Gursoy, 2020:599).

In healthcare service and nursing education institution partnerships, theoretical lecturers and clinical facilitators take part in joint research that enhances their relationships (Sadeghnezhad et al., 2018:84) and offers students ample opportunities to learn the connection between the generation and the use of knowledge to the benefit of patients. Clinical problems get solved through the use of nursing research findings and students learn how to do theory-practice integration (Sadeghnezhad et al., 2018:83; Bvumbwe, 2016:320; Gursoy, 2020:598).

Theoretical lecturers and clinical facilitators should be collaborative partners in quality patient care and nursing education (Huston et al., 2018:32; Kleinpell et al., 2016:713) with open lines of communication between them and within a relationship of trust (Gursoy, 2020:598).

The researcher drafted the following guidelines to maintain a healthcare service and nursing education institution partnership**:**

Manage a healthcare service and nursing education institution partnership regarding:

- Capacity building of lecturers and clinical facilitators through mentorship skills programs, internal and external opportunities to gain clinical and educational knowledge and skills.
- Curriculum improvement substantiated by a sound educational philosophy aimed at patients' and students' needs.
- Encourage structures and processes to facilitate regular interaction between the health service and nursing educational institutions.
- Explore novice ways to share financial and human resources by involved institutions to ensure optimal theory and practice integration by lecturers, clinical facilitators.
- Build/develop a trusting relationship, an open communication system, and mutual commitment to improving the standards of the institutions involved.
- Clarify the understanding of roles and responsibilities of lecturers and clinical facilitators to enhance optimal teamwork.

Theme 2: Maintain bilateral communication

Communication systems are bridges that connect organisational processes and systems and without that, partnerships are not feasible (Gursoy, 2020:600).

Clinical facilitators need to be familiar with the theoretical content that is taught at the nursing education institution (Bay et al., 2017:375; Hussein et al., 2017:23; Akram et al., 2018:881) to support students with theory-practice integration (Hussein et al., 2017:23; Akram et al., 2018:881). It is, therefore, important to maintain communication between theoretical lecturers and clinical facilitators through systems that the healthcare services and the nursing education institution create.

Clinical facilitators must know what clinical learning outcomes and program objectives are (Dev et al., 2020:1133-4; Bay et al., 2017:375-6) as they are expected to enable the students to reach them (Bay et al., 2017:376). On the other hand, theoretical lecturers need to be informed should the objectives be unrealistic and also, when students experience obstacles to meeting the criteria to pass clinical modules. Regular feedback regarding learning that took place, and learning strategies that were used enable the theoretical lecturers to make necessary changes to programme objectives (Berndtsson et al., 2020:3).

The researcher drafted the following guidelines to maintain bilateral communication:
Manage an open communication structure for 2 weekly, expected, transparent and specific information sharing between lecturers and clinical facilitators to:

- Link theory that is covered during lectures at the nursing campus to objectives for theory-practice integration in the health service;
- Clarify information on the students' progress in theoretical tests, clinical practical work and theory-practice integration.

Manage a communication structure for weekly thorough, honest and open communication between clinical facilitators and students to:

- Discuss objectives, progress and outcome of theory-practice integration,
- Manage honest open communication between theoretical lecturers and clinical facilitators,
- Integrate theory that is covered by lecturers at the nursing campus to objectives for theory-practice integration in the healthcare service,
- Share information on the students' progress in theoretical tests, clinical practical work and theory-practice integration; and
- Include feedback to students relating progress and outcome of theory-practice integration.

Theme 3: Maintain cooperation of theoretical lecturers and clinical facilitators in evidence-based practice

Participative action research collaboratively done by theoretical lecturers and clinical facilitators to solve patient care problems is an effective way to support theory-practice integration. Practice problems stimulate research and findings are used to improve practice (Gursoy, 2020:598; Sadeghnezhad et al., 2018:83; O'Neal et al., 2016:81; Kleinpell et al., 2016:711).

Collaborative research projects improve the learning environment of students (Shoghi et al., 2019:4), show them how to improve patient care (Gursoy, 2020:598) and create opportunities for theoretical lecturers to become involved in practice improvement. It may also lead to curriculum changes to support theory integration in healthcare service (Sadeghnezhad et al., 2018:83). It also necessitates the involvement of hospital management as they are legally obliged to endorse research that is done at their institutions (O'Neal et al., 2016:82), and may therefore be open for changes in practice as a result of the outcomes of the research. Their support of clinical facilitators who want to take part in the collaborative research with the theoretical lecturers may be valuable

(Huston et al., 2018:32) and could serve as motivation for clinical facilitators to become involved in the generation of knowledge (theory) and its integration with practice. It may also lead to an improved clinical learning environment for nursing students (Gursoy, 2020:599).

Nursing students should be involved in collaborative projects managed by clinical facilitators and theoretical lecturers to implement evidence-based initiatives to improve the quality of patient safety and care (O'Neal et al., 2016:81; Berndtsson et al., 2020:6). Their collaboration may set an example for students to follow when they translate theory to practice (Iseler et al., 2019:295; Akram et al., 2018:881).

The implementation of evidence-based practice requires students to develop clinical reasoning skills (Berndtsson et al., 2020:6) and the theoretical lecturers and clinical facilitators should be role models to help them to develop the skills. Clinical reasoning is required for critical thinking and problem-solving when theory is used to improve practice (Berndtsson et al., 2020:6).

The researcher drafted the following guidelines to maintain the cooperation of theoretical lecturers and clinical facilitators in evidence-based practice:

Maintain a collaborative relationship between lecturers and clinical facilitators in teaching, facilitation of student learning, research, and the execution of evidence-based projects to help solve clinical problems, and the application of clinical research findings through:

- Shared leadership by lecturers, clinical facilitators and hospital staff in the planning and execution of evidence-based projects in clinical practice and facilitation of student learning and skills development;
- Involvement of students in the planning and participation of evidence-based clinical projects within their scope of practice;
- Collaborative participation by lecturers, clinical facilitators and hospital staff in the planning and execution of small attainable research projects to fill the knowledge and skills gaps in clinical practice and the facilitation of theory-practice integration;
- Development of areas of excellence by the lecturers, clinical facilitators, and hospital staff to support the learning environment;
- Strive to create innovative means that will motivate knowledge sharing by clinical facilitators and hospital staff.

Theme 4: Maintain innovation in teaching, learning and assessment

Nursing education is the sum of theoretical and clinical teaching and learning and therefore theoretical lecturers and clinical facilitators share the responsibility to enable students to integrate theory into practice. It, unfortunately often happens that the two groups are not familiar with their shared responsibility to the detriment of students as theory does not get integrated into practice (Dev et al., 2020:1135; Berndtsson et al., 2020:6; Akram et al., 2018:881). In such cases, clinical facilitators do not know the curriculum requirements and learning objectives and theoretical lecturers are unsure about healthcare service practices and the challenges that students experience to implement the theory in practice (Dev et al., 2020:1135). The innovative involvement of theoretical lecturers in practice and clinical facilitators in theoretical teaching may contribute to students' ability to do theory-practice integration by students (Shoghi et al., 2019:4; Akram et al., 2018:879).

The use of innovative teaching strategies such as concept mapping, journaling, flipped classroom, action research and reflection (Shoghi et al., 2019:3; Berndtsson et al., 2020:21; Hussein et al., 2017:3; Huston et al., 2018:30) are needed to bring the practice to the class room and to take theory to the clinical environment.

Clinical facilitators are invaluable to teach students to integrate theoretical knowledge and clinical skills in patient care. It can only happen when they are involved in theoretical lecturers(Akram et al., 2018:881) , and in the planning and implementation of theoretical teaching activities and strategies (Berndtsson et al., 2020:6; Akram et al., 2018:879) such as reflection exercises, case studies discussions(Akram et al., 2018:879) . On the other hand, theoretical lecturers should be involved in the clinical teaching of students to understand the challenges that are experienced to integrate theory into practice (Dev et al., 2020:1136).

Nursing students need to become skilled professional nurses able to meet the needs of employers and patients (Clevenger et al., 2018:309). To achieve it, they need to do practical training in a variety of clinical settings (Drayton-Brooks et al., 2017:423) to prepare them to work in chronic and acute healthcare settings (Huston et al., 2018:31). It is also important to create learning opportunities to teach students the cultural diversity of patients. South Africa is a multi-cultural country and the population is diverse regarding cultures, traditions and religions. Nursing curricula

should therefore include learning objectives to help students to prepare themselves to nurse patients from diverse backgrounds (Shoghi et al., 2019:3).

The assessment of students' clinical competency is often hampered by a lack of knowledge of grading criteria and the management of biases (Dev et al., 2020:1135). At times the assessment instruments are very complicated and take time to complete (Drayton-Brooks et al., 2017:427). A possible solution is to encourage joint assessment involving theoretical lecturers and clinical facilitators to minimize biases and support consistency in assessment (Dev et al., 2020:1135).

The researcher drafted the following guidelines to maintain innovation in teaching, learning and assessment:

Formulate, implement and execute the operational plan for structured theoretical and clinical teaching and learning to support theory-practice integration and execute a plan by the following:

- Share information on the implementation of innovative (teaching strategies/actions) in executing the operational plan to support student clinical practice and skills to enhance theory practice integration;
- Collaborate with clinical experts with teaching specialized area theory to improve practice integration and skills development;
- Collaborative student placement according to student outcomes as specified by the curriculum and according to the operational plan;
- Create opportunities for academic staff to develop common goals on values/ ethics, teamwork and communication practices, roles, and responsibilities;
- Teams of clinical facilitators and lecturers collaboratively work together in simulation and theoretical and clinical assessments; and
- Create time /a platform for designing and evaluating the assessment process and instruments.

Theme 5: Maintain a clinical learning environment conducive to theory-practice integration

Theoretical lecturers and clinical facilitators are responsible to teach the implementation of best practice guidelines in practice and to do research to generate new knowledge for evidence-based practice (Hussein et al., 2017:23) They should involve students to work with them to identify practice problems and to select applicable best practice guidelines to improve the practice (O'Neal

et al., 2016:81); (Bay et al., 2017:374) and to narrow the theory-practice gap (Hussein et al., 2017:23).

The use of student-centred teaching and learning strategies such as concept mapping, journaling, reflection exercises(Huston et al., 2018:30) and opportunities to implement knowledge in practice contribute to the creation of clinical learning environments conducive to theory-practice integration (Berndtsson et al., 2020:6). It enables students to apply knowledge and develop problem-solving and clinical thinking skills, to improve patient outcomes (Huston et al., 2018:30). Students who take part in discussing case studies improve their critical thinking abilities and also their communication skills (Berndtsson et al., 2020:6; Gierach et al., 2019:388; Akram et al., 2018:879).

A clinical learning environment conducive to theory-practice integration is maintained when students receive empowering feedback on their endeavours to implement in practice what they have learned in theoretical lectures. They should be supported to reflect on their own progress in gaining knowledge and implementing it in practice. It encourages them to also find meaning in learning experiences (Berndtsson et al., 2020:6; Yi et al., 2020:5). Student feedback should be goal-directed and focus on achievements and not too often on how to correct mistakes. Feedback should focus on reinforcing positive outcomes (Dev et al., 2020:1135; Huston et al., 2018:30). Theoretical lecturers and clinical facilitators must develop skills in managing feedback to students (Dev et al., 2020:1136; Yi et al., 2020:5). Ongoing training of existing staff and the orientation of newly appointed theoretical lecturers and clinical facilitators are necessary (Gierach et al., 2019:388; Berndtsson et al., 2020:7) to ensure that they share the same perspectives regarding curriculum development, implementation of theory in practice and the creation of learning conducive environments (Shoghi et al., 2019:7). Theory-practice integration improves when clinical facilitators take part in curriculum development and revision (Akram et al., 2018:881).

The researcher drafted the following guidelines to maintain a clinical learning environment conducive to theory-practice integration:

Strengthening lecturers' and clinical facilitators' skills in teaching and learning through:

- Enhancing collaboration by developing best-practice standards in clinical teaching and facilitating learning in theory-practice integration;
- Developing and strengthening skills for staff and newly appointed staff to gain knowledge and skills in facilitating learning in theory-practice integration;

- Using a mentorship program for lecturers and clinical facilitators to develop and gain skills in theory-practice integration.

3.5 DRAFT GUIDELINES AND LITERATURE THAT SUBSTANTIATE THE GUIDELINES

The draft guidelines and literature that substantiate it were compiled to be used during the focus group discussions (Refer to Table 3.2).

Table 3.2 Draft guidelines and literature that substantiates it

Draft guidelines	Literature used in the drafting of the guidelines
Guideline 1 Manage a healthcare service and nursing education institution partnership regarding: Capacity building of lecturers and clinical facilitators through mentorship skills programs, and internal and external opportunities to gain clinical and educational knowledge and skills. Curriculum improvement is substantiated by a sound educational philosophy aimed at patients' and students' needs. Encourage structures and processes to facilitate regular interaction between the health service and nursing educational institutions. Explore novice ways to share financial and human resources by involved institutions to ensure optimal theory and practice integration by lecturers, and clinical facilitators. Build/develop a trusting relationship, an open communication system, and mutual commitment to improving the standards of the institutions involved. Clarify the understanding of roles and responsibilities of lecturers and clinical facilitators to enhance optimal teamwork.	**Bay, E.H., Tschannen, D.J. 2017. An academic-service partnership: A system-wide approach and case report. The Journal of nursing education. 56(6):373-7.** *Excerpt: Developing clinical models through the academic-service partnership.* **Bvumbwe, T. 2016. Enhancing nursing education via academic–clinical partnership: An integrative review. International journal of nursing sciences. 3(3):314-22.** *Excerpt: Academic and practice colleagues need to work together for a common goal. They need to have a mutual understanding of specific responsibilities for every category of staff, and shared goals to ensure positive outcomes for all. A learning culture will be enhanced when theory and practice are equally important and evidence-based practice is enhanced. Academic-practice partnerships need to have set values and priorities and clear strategies for the implementation of collaboration.* **Drayton-Brooks, S.M., Gray, P.A., Turner, N.P., Newland, J.A. 2017. Building clinical education training capacity in nurse practitioner programs. Journal of Professional Nursing. 33(6):422-8.** *Excerpt: Faculties need to find common ground and goals on values/ethics; teams and teamwork; communication practices and roles and responsibilities.* **Gierach, M., Knuppe, M., Winterboer, V., Randall, R. 2019. Creating a culture of caring: A collaborative academic-practice approach to clinical education. Nursing Forum. 54(3):386-91.** *Excerpt: Academic-clinical partnerships need to have a shared curriculum to guide the clinical experience.* **Gursoy, E. 2020. The partnership between academic nursing and clinical practice: A qualitative study. J Pak Med Assoc. 70(4):597-601.** *Excerpt: Leadership is a key factor for the partnership to work. Mutual cooperation, communication and clearly define goals between academic and practice settings will enhance understanding of each system and improve the quality of*

	teaching in a positive learning environment. Clinical educators play a dual role in the partnership. They need to be innovative with sharing of knowledge to both sides to enhance understanding of each other. They need to be research orientated to support staff to solve nursing problems and have positive patient outcomes. **Huston, C.L., Phillips, B., Jeffries, P., Todero, C., Rich, J., Knecht, P., et al. 2018. The academic-practice gap: Strategies for an enduring problem. Nurs Forum. 53(1):27-34.** *Excerpt: Partnerships between lecturers and clinical facilitators support the learning of students. Strong leadership in clinical and education are needed. Sharing of knowledge and human resources between nursing education institutions and healthcare services for teaching and learning of students will benefit both organizations.* **Kleinpell, R.M., Faut-Callahan, M., Carlson, E., Llewellyn, J., Dreher, M. 2016. Evolving the practitioner-teacher role to enhance practice-academic partnerships: A literature review. J Clin Nurs. 25(5-6):708-14.** *Excerpt: The establishment of an organizational structure is the cornerstone for collaboration between a nursing education institution and a clinical setting.* **Sadeghnezhad, M., Heshmati Nabavi, F., Najafi, F., Kareshki, H., Esmaily, H. 2018. Mutual benefits in academic-service partnership: An integrative review. Nurse Education Today. 6878-85.** *Excerpt: Synergy in training and empowerment of human resources imply: Educational capacity development (mutual benefit for both with regard to staff and resources), a better transition from a student role to a professional role (partnerships support the transition from student to professional nurse with key competencies such as management, reasoning skills); staff development (continued education to improve knowledge and skills to ensure quality care and safe nursing care); education improvement (access to supportive learning environments such as improved interactions between staff and students to enhance learning)*
<u>Guideline 2</u> Manage an open communication structure for 2 weekly, expected, transparent and specific information sharing between lecturers and clinical facilitators to: Link theory that is covered during lecturers at the nursing campus to objectives for theory-practice integration in the health service.	**Akram, A.S.P., Mohamad, A.P., Akram, S.M. 2018. The role of a clinical instructor in bridging the gap between theory and practice in nursing education. International Journal of Caring Sciences. 11(2):876-82.** *Excerpt: Clinical instructors in hospitals are not familiar with the theoretical content that is taught in the nursing intuitions and use the clinical theory approach in hospitals.* **Bay, E.H., Tschannen, D.J. 2017. An academic-service partnership: A system-wide approach and case report. The Journal of nursing education. 56(6):373-7.** *Excerpt: Goals connect the theory with in the workplace and have a positive effect on learning outcomes. Faculty*

Clarify information on the students' progress in theoretical tests, clinical practical work and theory-practice integration. Manage a communication structure for weekly thorough, honest and open communication between clinical facilitators and students to: Discuss objectives, progress and outcome of theory-practice integration.	*members need to determine if learning goals were achieved and can expand learning opportunities.* **Berndtsson, I., Dahlborg, E., Pennbrant, S. 2020. Work-integrated learning as a pedagogical tool to integrate theory and practice in nursing education – an integrative literature review. Nurse Education in Practice. 42102685**. *Excerpt: Reflection and discussion of own nurses' findings with lecturers, supervisors and students improve critical thinking in a collaborative environment.* **Dev, M.D.B., Rusli, K.D.B., Mckenna, L., Lau, S.T., Liaw, S.Y. 2020. Academic-practice collaboration in clinical education: A qualitative study of academic educator and clinical preceptor views. Nursing and Health Sciences. 22(4):1131-8**. *Excerpt: Hierarchical communication line between preceptors, clinical instructors and academic educators is unclear. Preceptors are uncertain about the learning objectives that are required from the education program.* **Hussein, M.T., Osuji, J. 2016. Bridging the theory-practice dichotomy in nursing: The role of nurse educators. Journal of Nursing Education and Practice. 7(3).** *Excerpt: Lines of communication between professional nurses and nurse educators need to be established for sharing of nursing information in clinical settings.* **Gierach, M., Knuppe, M., Winterboer, V., Randall, R. 2019. Creating a culture of caring: A collaborative academic-practice approach to clinical education. Nursing Forum. 54(3):386-91**. *Excerpt: Weekly topics are being given that students need to apply and instructors need to focus on, e.g. communication; quality and safety. Communication structures need to be in place to discuss student progress and issues. Regular meetings with students are needed, for the improvement of the learning environment.* **Gursoy, E. 2020. Partnership between academic nursing and clinical practice: A qualitative study. J Pak Med Assoc. 70(4):597-601.** *Excerpt: Mutual cooperation, communication and clearly define goals between academic and practice settings will enhance understanding of each system and improve the quality of teaching in a positive learning environment.*
Guideline 3 Maintain a collaborative relationship between lecturers and clinical facilitators in teaching, facilitation of student learning, research, and the execution of evidence-based projects to help solve clinical problems; and the	**Akram, A.S.P., Mohamad, A.P., Akram, S.M. 2018. The role of clinical instructor in bridging the gap between theory and practice in nursing education. International Journal of Caring Sciences. 11(2):876-82.** *Excerpt: Instructors are present in the nursing units to help bridge the theory-practice gap.*

application of clinical research findings through: Share leadership amongst lecturers, clinical facilitators and hospital staff in the planning and execution of evidence-based projects in clinical practice and facilitation of student learning and skills development. Involve students in the planning and participation of evidence-based clinical projects within their scope of practice. Collaborative participation by lecturers, clinical facilitators and hospital staff in the planning and execution of small attainable research projects to fill the knowledge and skills gaps in clinical practice and the facilitation of theory-practice integration. Develop areas of excellence of the lecturers, clinical facilitators, and hospital staff to support the learning environment. Strive to create innovative means that will motivate knowledge sharing by clinical facilitators, lecturers and hospital staff.	**Berndtsson, I., Dahlborg, E., Pennbrant, S. 2020. Work-integrated learning as a pedagogical tool to integrate theory and practice in nursing education – an integrative literature review. Nurse Education in Practice. 42102685.** *Excerpt: Clinical reasoning cycle needs to be used to develop clinical reasoning and understand actions that are needed. For better connection between research and practice and preparedness for practice, more practical learning should be included in theory knowledge; and more theory knowledge in clinical learning.* **Gursoy, E. 2020. Partnership between academic nursing and clinical practice: A qualitative study. J Pak Med Assoc. 70(4):597-601.** *Excerpt: Clinical educators play a dual role in the partnership. They need to be innovative with sharing of knowledge to both sides to enhance understanding of each other. They need to be research orientated to support staff to solve nursing problems and have positive patient outcomes.* **Iseler, J., Wehrwein, T., Jensen, C. 2019. A model of academic and service partnership focused on the clinical nurse specialist. Journal of Nursing Administration. 49(6):294-6**. *Excerpt: The college allocated lecturers hospitals and clinics to assist students. Their goal was to integrate nursing science into practice and to improve health outcomes.* **Kleinpell, R.M., Faut-Callahan, M., Carlson, E., Llewellyn, J., Dreher, M. 2016. Evolving the practitioner-teacher role to enhance practice-academic partnerships: A literature review. J Clin Nurs. 25(5-6):708-14.** *Excerpt: The practitioners-lecturer model supports the research process and research participants in hospitals. Quality projects are implemented in hospitals to improve service quality through evidence-based practice.* **O'Neal, P.V., Mcclellan, L.C., Jarosinski, J.M. 2016. A new model in teaching undergraduate research: A collaborative approach and learning cooperatives. Nurse Education in Practice. 1880-4**. *Excerpt: Hospital managers and faculty designed a research project for undergraduate nursing students. The students were allocated to small teams for cooperative learning. Nursing managers need to visit students at the beginning of the semester, to share information on the clinical problems. Nursing managers as part of the evaluation team will motivate students to place more effort into the learning activity and support them in feeling part of a hospital team.* **Sadeghnezhad, M., Heshmati Nabavi, F., Najafi, F., Kareshki, H., Esmaily, H. 2018. Mutual benefits in academic-service partnership: An integrative review. Nurse Education Today. 6878-85**. *Excerpt: Synergy in training and empowerment of human resources imply: the production and application of beneficial*

	knowledge into practice (beneficial knowledge development with a focus on clinical problems); research conditions improvement (develop a mutual relationship for research capabilities to bridge the gap between theory and practice); development of practical and useful interactions between nursing education institution and healthcare service (solve practice problems with research projects, development of evidence-based practices, and applicable modification of the academic courses). **Shoghi, M., Sajadi, M., Oskuie, F., Dehnad, A., Borimnejad, L. 2019. Strategies for bridging the theory-practice gap from the perspective of nursing experts. Heliyon. 5(9):e02503**. *Excerpt: Curriculum content needs to simulate practice and change the clinical environment. Lecturers need to discuss aspects of practical experience during theoretical classes to help bridge the theory-practice gap.* *Lecturers should teach clinical staff research and clinical staff should teach lecturers clinical nursing techniques.*
Guideline 4 Formulate, implement and execute the operational plan for structured theoretical and clinical teaching and learning to support theory-practice integration and execute a plan by: Share information on the implementation of innovative (teaching strategies/actions) in executing the operational plan to support student clinical practice and skills to enhance theory-practice integration. Collaborate with clinical experts with teaching specialized area theory to improve practice integration and skills development. Collaborate about student placement according to student outcomes as specified by the curriculum and according to the operational plan. Create opportunities for academic staff to develop common goals on values/ ethics, teamwork and communication practices, roles, and responsibilities. Teams of clinical facilitators and lecturers collaboratively work together in simulation and theoretical and clinical assessments.	**Akram, A.S.P., Mohamad, A.P., Akram, S.M. 2018. The role of clinical instructor in bridging the gap between theory and practice in nursing education. International Journal of Caring Sciences. 11(2):876-82.** *Excerpt: Clinical instructors in hospitals are not familiar with the theoretical content that is taught in the nursing intuitions and use the clinical theory approach in hospitals. Clinical instructors plan training activities in a hospital to improve student skills and knowledge*. **Berndtsson, I., Dahlborg, E., Pennbrant, S. 2020. Work-integrated learning as a pedagogical tool to integrate theory and practice in nursing education – an integrative literature review. Nurse Education in Practice. 42102685**. *Excerpt: The preceptor and clinical facilitator model of supervision are promoting critical thinking and creating meaning for students. Clinical facilitators need to use reflection as a pedagogical tool to identify students' needs, change learning methods or implementation of learning goals. During problem-solving clinical facilitators can share their knowledge with students, to help relate the academic subject to actual practice. A clinical reasoning cycle needs to be used to develop clinical reasoning and understand actions that are needed.* **Clevenger, C.K., Cellar, J. 2018. Creating new models of care through academic-clinical partnerships. Nursing Administration Quarterly. 42(4):305-10**. *Excerpt: Care models with practice guidelines will ensure better health outcomes for patients. Faculty practice care models should address students' and health system needs.* **Dev, M.D.B., Rusli, K.D.B., Mckenna, L., Lau, S.T., Liaw, S.Y. 2020. Academic-practice collaboration in clinical education: A qualitative study of academic educator and**

Create time /a platform for designing and evaluating the assessment process and instruments.	**clinical preceptor views. Nursing and Health Sciences. 22(4):1131-8.** *Excerpt: Preceptors/Clinical facilitators are uncertain about the learning objectives that are required from the education program. Preceptors and academic educators have different expectations of the level of competence. Preceptors and educators are not familiar with each other practices and requirements.* **Drayton-Brooks, S.M., Gray, P.A., Turner, N.P., Newland, J.A. 2017. Building clinical education training capacity in nurse practitioner programs. Journal of Professional Nursing. 33(6):422-8**. *Excerpts: Geriatric and long-term care untapped resource for clinical student assignments and knowledge. Faculties need to find common ground and goals on values/ethics; teams and teamwork; communication practices and roles and responsibilities.* *Convenience care delivered in pharmacies should be used as clinical learning opportunities.* **Hussein, M.T., Osuji, J. 2016. Bridging the theory-practice dichotomy in nursing: The role of nurse educators. Journal of Nursing Education and Practice. 7(3).** *Excerpt: Nurses' reflective skills, critical thinking and reflective practice capacity need to be developed to help close the theory knowledge and practical skills gap.* **Huston, C.L., Phillips, B., Jeffries, P., Todero, C., Rich, J., Knecht, P., et al. 2018. The academic-practice gap: Strategies for an enduring problem. Nurs Forum. 53(1):27-34**. *Excerpt: Learner-centred approach e.g. concept mapping journaling and flipped classroom will support students to identify the most relevant aspects of the situation and explain it with the theory.* **Shoghi, M., Sajadi, M., Oskuie, F., Dehnad, A., Borimnejad, L. 2019. Strategies for bridging the theory-practice gap from the perspective of nursing experts. Heliyon. 5(9):e02503**. *Excerpt: Work with culture-based content in curricula. The curriculum needs to portray caring theory and models. What is taught in class should correspond with what happens in practice. Clinical guidelines need to be designed to fit the local situation and support theory-practice integration.*
<u>Guideline 5</u> Create a positive learning environment by strengthening, lecturers and clinical facilitators, skills by sharing evidence-based teaching and learning practices to support students in theory and practice integration.	**Akram, A.S.P., Mohamad, A.P., Akram, S.M. 2018. The role of clinical instructor in bridging the gap between theory and practice in nursing education. International Journal of Caring Sciences. 11(2):876-82.** *Excerpt: Clinical instructors need to have good communication skills, use time effectively, and use case study approaches to help bridge the theory-practice gap. Clinical instructors in hospitals are not familiar with the*

Strengthen lecturers' and clinical facilitators' skills in teaching and learning through: Enhance collaboration by developing best-practice standards in clinical teaching and facilitating learning in theory-practice integration. Develop and strengthen skills for staff and newly appointed staff to gain knowledge and skills in facilitating learning in theory-practice integration. Use a mentorship program for lecturers and clinical facilitators to develop and gain skills in theory-practice integration.	*theoretical content that is taught in nursing intuitions and use the clinical theory approach in hospitals*. **Bay, E.H., Tschannen, D.J. 2017. An academic-service partnership: A system-wide approach and case report. The Journal of nursing education. 56(6):373-7**. *Excerpt: Goals connect the theory within the workplace and have a positive effect on learning outcomes.* **Berndtsson, I., Dahlborg, E., Pennbrant, S. 2020. Work-integrated learning as a pedagogical tool to integrate theory and practice in nursing education – an integrative literature review. Nurse Education in Practice. 42102685**. *Excerpt: The preceptor and clinical facilitator model of supervision are promoting critical thinking and creating meaning for students. Clinical facilitators need to use reflection as a pedagogical tool to identify students' needs, change learning methods or implementation of learning goals. During problem-solving preceptors/ clinical facilitators can share their knowledge with students, to help relate the academic subject to actual practice. Clinical supervisors need to be digitally literate to enhance communication, and sharing of knowledge and improve student placement experience. A clinical reasoning cycle needs to be used to develop clinical reasoning and understand actions that are needed. For better connection between research and practice and preparedness for practice, more practical learning should be included in theory knowledge; and more theory knowledge in clinical learning. Reflection and discussion of own nurses' findings with lecturers, supervisors and students improve critical thinking in a collaborative environment.* **Bvumbwe, T. 2016. Enhancing nursing education via academic–clinical partnership: An integrative review. International journal of nursing sciences. 3(3):314-22**. *Excerpt: A learning culture will be enhanced when theory and practice are equally important and evidence-based practice is enhanced. Academic-practice partnerships need to have set values and priorities and clear strategies for the implementation of collaboration.* **Dev, M.D.B., Rusli, K.D.B., Mckenna, L., Lau, S.T., Liaw, S.Y. 2020. Academic-practice collaboration in clinical education: A qualitative study of academic educator and clinical preceptor views. Nursing and Health Sciences. 22(4):1131-8.** *Excerpt: Hierarchical communication line between preceptors, clinical instructors and academic educators is unclear. Structured learning and practice guidelines are essential for preceptors to guide and support students*. **Hussein, M.T., Osuji, J. 2016. Bridging the theory-practice dichotomy in nursing: The role of nurse educators. Journal of Nursing Education and Practice. 7(3).**

	Excerpt: Nurses' reflective skills, critical thinking and reflective practice capacity need to be developed to help close the theory knowledge and practical skills gap. **Gierach, M., Knuppe, M., Winterboer, V., Randall, R. 2019. Creating a culture of caring: A collaborative academic-practice approach to clinical education. Nursing Forum. 54(3):386-91**. *Excerpt: Clinical instructors help students to integrate theory into practice. They adequately prepare for the facilitation of learning and need support and mentoring from lecturers on how to integrate theory into practice. Weekly topics are being given that students need to apply and instructors need to focus on, e.g. communication; quality and safety. Lecturers visit the clinical facilitators for support and mentoring.* **Huston, C.L., Phillips, B., Jeffries, P., Todero, C., Rich, J., Knecht, P., et al. 2018. The academic-practice gap: Strategies for an enduring problem. Nurs Forum. 53(1):27-34**. *Excerpt: Scenarios can be based on gaps identified in a clinical setting. Learner-centred approaches e.g. concept mapping journaling and flipped classroom will support students to identify the most relevant aspects of the situation and explain it with the theory. Competency-based education promotes student engagement in the learning process, using cognitive, psychomotor and affective skills.* **O'Neal, P.V., Mcclellan, L.C., Jarosinski, J.M. 2016. A new model in teaching undergraduate research: A collaborative approach and learning cooperatives. Nurse Education in Practice. 1880-4**. *Excerpt: They had to do PICOT searches and compiled posters with the review information. Chosen posters were displayed in the hospitals for nurses to implement best practices based on the evidence discovered.* **Shoghi, M., Sajadi, M., Oskuie, F., Dehnad, A., Borimnejad, L. 2019. Strategies for bridging the theory-practice gap from the perspective of nursing experts. Heliyon. 5(9):e02503**. *Excerpt: Clinical guidelines need to be designed to fit the local situation and support theory-practice integration. Clinical facilitators and lecturers should work with the same guidelines that suit the clinical environment.* **Yi, Y.J., Lee, H., Park, K. 2020. The role of academic-practice partnerships from perspectives of nursing students: A cross-sectional study. Nurse Education Today. 89**. *Excerpt: Nursing students need to be aware of the partnership between lecturers and clinical facilitators to develop their professional self-image and practice. Clinical facilitators should give positive enabling feedback to students.*

3.6 SUMMARY OF THE CHAPTER

Chapter 3 presents the outcome of the integrative literature review, and the themes derived from the analysis of the outcome of the review. It also presents the drafted guidelines. The next chapter discusses the findings of the second phase of the study.

CHAPTER 4

FINDINGS OF PHASE TWO OF THE STUDY

4.1 INTRODUCTION

Nursing students often struggle to integrate the nursing theory into practice (Günay et al., 2018:85), and a theory-practice gap often occurs (Huston et al., 2018:32).

This study aimed to develop context-specific guidelines to improve collaboration between the staff of the nursing education institution and their counterparts in the associated healthcare services, to narrow the theory-practice gap during clinical training. The objectives of the study were to 1) compile draft collaboration guidelines from research evidence to narrow the theory-practice gap during clinical training of general nurses, and 2) refine and contextualise the collaboration guidelines to fit the unique circumstance of the designated nursing education institution and associated healthcare services where students do their clinical training.

The researcher drafted context-specific guidelines based on the best available evidence regarding collaboration between nursing education institution and their counterparts in the associated healthcare services (Refer to Table 3.2). Thereafter four focus group discussions with lecturers and clinical facilitators were done, to refine and contextualise the draft guidelines.

4.2 DESCRIPTION OF THE DEMOGRAPHIC INFORMATION OF THE PARTICIPANTS

Nine theoretical lecturers and 10 clinical facilitators took part in the focus group discussions. One (1) clinical facilitator had a doctoral degree; eight (8) clinical facilitators had bachelor's degrees in nursing education and one (1) had a diploma in nursing education. Their working experience in nursing education was between 8 months and 17 years.

Two (2) lecturers had doctoral degrees in nursing science, two (2) lecturers had master's degrees in nursing education, and five (5) lecturers had bachelor's degrees in nursing education. Their working experience in nursing education was between 1 year and 15 years.

Some participants took part in all four focus group discussions, but the majority could due to work responsibilities taking part in just three, two, or one discussion. Refer to Table 4.1 for the demographic information of the participants.

Table 4.1 Participants' demographic data and qualifications status

Participants*	Nursing qualification	Years in the nursing profession	Years in nursing education
TLP 1	Postgraduate Diploma in Nursing Education	13	9
TLP 2	B Cur and BA of Social Science	14	6
TLP 3	B Cur	10	7
TLP 4	M Cur, PhD	40	2
TLP 5	B Cur	11	5
TLP 6	D Litt et Phil	43	11
TLP 7	M CUR	34	7
TLP 8	M CUR	33	15
TLP 9	B Cur	10	1
CFP 1	B Cur	45	15
CFP2	Diploma in Nursing Education, Management	25	17
CFP 3	B Cur Iet A; OHS	13	1
CFP 4	B Cur Honours PHC	20	6
CFP 5	B Cur	35	6
CFP 6	B Cur	17	4
CFP 7	B Cur	15	8
CFP 8	PhD	28	15
CFP 9	B Cur Iet A, Adv ICU diploma	13	1
CFP 10	B Cur	21	6

TLP = Theoretical lecturer participant; CFP = Clinical facilitator participant

4.3 DESCRIPTION AND DISCUSSION OF THE CATEGORIES AND SUB-CATEGORIES

The categories and sub-categories are described and substantiated with excerpts from the transcripts and thereafter discussed with literature. The categories are similar to the guidelines (Refer to the previous chapter for a description of the guidelines) and the sub-categories are the

product of a thematic analysis of the transcriptions. Refer to Table 4.2 for a presentation of the categories and sub-categories.

Table 4.2 Categories and Sub-categories

Categories	Subcategories
Maintain a healthcare service and nursing education institution partnership	Managerial support of the partnership An integrated unit for clinical teaching Fusion of roles in theoretical and clinical teaching
Maintain bilateral communication	Maintain an open communication structure between clinical facilitators and theoretical lecturers
Maintain cooperation between theoretical lecturers and clinical facilitators in evidence-based practice	Evidence-based projects for clinical problems Knowledge sharing for theory-practice integration
Intensify innovation in teaching, learning, and assessment processes	Cooperating with the implementation and execution of teaching and learning within an operational plan Sharing of innovative teaching strategies Participation in assessment design and processes
Build an environment conducive to theory-practice integration	Support of newly appointed theoretical lecturers and clinical facilitators through mentorship Empowerment of theoretical lecturers and clinical facilitators

4.3.1 Category: Maintain a healthcare service and nursing education institution partnership

A partnership between the nursing education institution and the associated healthcare services resulting in close collaboration between the theoretical lecturers and the clinical facilitators is vital to ensure optimal theory-practice integration in nursing education. Collaborative relationships within the partnership are needed to clarify nursing education goals, ensure synergy in resource sharing, empower staff, align curricula, and create an environment for practice-based research.

4.3.1.1 Sub-category: Managerial support of the partnership

The managerial support of the partnership is vital for theoretical lecturer and clinical facilitator teamwork. All members should know what is expected of them and how they can contribute to the effectiveness of the team:

> "*Management and support need to be enhanced teamwork. New staff need support and mentorship, to know what is expected of them, for them to be confident and become better team players*." (CFP1)

Similar values and goals are associated with partnerships and teamwork. In the case of collaboration between the healthcare services and the designated nursing education institution, the theoretical lecturers and clinical facilitators should share the same values to improve teamwork between the healthcare service and nursing education institution:

> "*Teamwork should include academic staff and hospital management staff. They should know what values and ethics we strive for so that there is better integration between hospital management staff and us.*" (TLP4)

Communication between the nursing education institution and healthcare service management needs to clarify their responsibilities in the creation of an environment conducive to student learning and skills development:

> *"Healthcare services need to know what are the responsibilities and expectations of clinical facilitators and what the outcomes of the students are*." (CFP5)

> "*Communication between healthcare services and nursing education institutions is vital for positive student outcomes.*" (CFP4)

Collaborative leadership and teamwork between the nursing education institution and associative healthcare services are needed to enhance the implementation of evidence-based practice in hospitals. Such a joint effort may enhance cooperation to manage the gap between theory and practice in the education of students:

"*The gap in clinical does not necessarily mean a gap in theory. Collation and leadership are needed in clinical, academic or theory to fill the gap in theory and clinical*." (TLP2)

The necessity of the appointment of a person to coordinate the interaction between clinical facilitators and theoretical lecturers regarding the placement of students in the associated healthcare services was mentioned:

"*Head of department for clinical is needed, a person to coordinate, participate, motivate, direct and support clinical*." (TLP7)

"*The person of authority will know the students' outcomes, and objectives and will communicate them effectively to hospitals. That person understands our drive to have the best future nurses, and dissolve conflict between too many bosses*." (TLP9)

"*A person with authority that can tell the nurse manager and everybody in hospitals what to do*." (TLP4)

Leadership in the partnership is vital to support the collaboration between the staff of the designated organizations. Strategies to enhance theory and practice integration by the students should be developed and implemented.

DISCUSSION

From the evidence described in Chapter 3, it is deduced that the partnership between the nursing education institution and healthcare services management is vital for effective collaboration to improve theory-practice integration in student teaching and learning. Academic-practice partnerships should be formal partnerships to enable nursing students to apply theoretical knowledge in the development of clinical skills (McClure et al., 2021:413). Each partner needs to be responsible for specific processes in the support of the students and all processes should be coordinated by designated persons (Gilliss, Poe, Hogan, Intinarelli and Harper, 2021:4). A framework is required to provide synergy for the creation, translation, and execution of knowledge to improve student learning and eventually patient care (Gilliss et al., 2021:5). Both institutions

are co-responsible for the creation of an environment conducive for students' development (Sadeghnezhad et al., 2018:32). The appointment of clinical coordinators in the institutions may contribute to the cooperation between the theoretical lecturers and clinical facilitators to the benefit of the students' skills development (Munangatire and McInerney, 2022:2). They may improve the communication between the partners (Gursoy, 2020:599; Sebastian, Breslin, Trautman, Cary, Rosseter and Vlahov, 2018:112) and thereby contribute to quality clinical education and learning (Sadeghnezhad et al., 2018:83; Bay et al., 2017:374; Salifu et al., 2019:81).

4.3.1.2 Sub-category: An integrated unit for clinical teaching

Relationships between clinical facilitators and theoretical lecturers are needed to share responsibility, and commitment and stay connected within the partnership. The relationship is essential for the development of a team and the expansion of teamwork:

> *"The relationship is the core of the whole system."* (TLP2)

> "*Relationship is the most important thing we are having*". (CFP4)

A relationship builds on trust, requires clinical facilitators and theoretical lecturers to take responsibility for their role, and respect requires the belief that action will be taken. Trust and respect improve collaboration, improve communication, and create an environment of understanding each other viewpoints:

> "*Development of mutual relationship of respect and trust towards clinical facilitators and lecturers."* (CFP3)

> *"Strengthen and develop academic collaboration through mutual respect and trust to improve clinical and theory outcomes*." (CFP2)

Clinical facilitators and theoretical lecturers have different understandings/ideas of their roles and responsibilities within the academic team, and teaching and learning processes. Clarification of role expectations between clinical facilitators and theoretical lecturers will improve team effectiveness and collaboration in theory-practice integration:

"*Clarify understanding of the roles and responsibilities to enhance teaching in teamwork*." (CFP1)

"*Role clarification is important for clinical facilitators as we have a lot of roles in the hospital, so we need to accept that you will not know everything in theory*." (CFP10)

"*Clinical facilitators and lecturers need be not to be separated but should have clearly set out role and responsibilities to prevent setback*." (TLP3)

Shared leadership and planning will enhance understanding of each group's responsibility, and sharing of goals will support expectations that are required between clinical facilitators and theoretical lecturers. Shared leadership supports building a culture of trust and collaboration:

"To improve collaboration there need to be goals and plans." (TLP6)

"Collaborative participation by academic staff in planning and shared leadership in execution because we need to plan together and share the leadership with execution. It is both our responsibilities." (TLP2)

Mutual ownership is the sharing of equal accountability and quality of their functioning in teamwork. Mutual ownership encourages sharing of resources in the support of team members and increases innovation and growth with sharing of information to ensure that theory and practice are aligned and its integration enhanced:

"*With collaboration, both sides need to take ownership, its mutual ownership, theory must not take superiority."* (CFP6)

Clinical facilitators and theoretical lecturers can work more effectively together if they work in teams with specific roles, responsibilities, and goals. Participants stated a need to be one group, to be viewed as a collective of two parts, to support collaboration, teamwork, and theory-practice integration:

"*We need to be seen as one poll, rather than two separates. If we focus on only our roles, we will not achieve what we want for our students. Very important for theory and practice to collaborate so that we are seen as one poll and can speak with one voice*." (CFP10)

"*Two groups of people are separated; all should be academics. Roles are separated, we have created the gap*." (TLP5)

The purpose of teamwork is active participation in projects and committees. This combination of human resources leads to better theory-practice integration and student success. Theoretical lecturers and clinical facilitators need to actively participate in structures and processes to support the development of teaching for better theory-practice integration:

"*Platforms for collaboration are present in our current committees where both academic groups or roles need to be actively involved*." (TLP7)

"*Clinical facilitators involve in committees to develop theory-practice integration with simulation. Clinical facilitators need to integrate knowledge at hospital*." (TLP8)

"*Simulation learning should be collaboratively planned, executed by clinical facilitators*." (CFP6)

In this sub-category, theoretical lecturers and clinical facilitators described the importance of their relationship within the partnership. Cooperation and participation between clinical facilitators and theoretical lecturers are needed to support their development and help with the alignment of theory-practice integration. Clinical facilitators and theoretical lecturers need to clarify their roles and take ownership of their responsibilities to ensure better integration of theory in practice.

DISCUSSION

From the evidence obtained from Chapter 3, the necessity to have a good collaborative relationship between clinical facilitators and theoretical lecturers, to improve communication and understanding of both systems is important to help build shared values, goals, and dialogue (Gursoy, 2020:598; Bvumbwe, 2016:320).

Theoretical lecturers and clinical facilitators need to move from sole ownership, in their speciality area, to a partnership (Huston et al., 2018:32) that will create a commitment, clarifies roles and responsibilities, and structure the theory-practice integration in the hospital setting. Improved understanding of roles and responsibilities within the nursing education process, ensure better coordination between clinical facilitators and theoretical lecturers that may improve team outcomes and theory-practice integration (Munangatire et al., 2022:2). Integration between clinical facilitators and theoretical lecturers needs intention and commitment to ensure adequate collaboration for focus on the partnership to improve teamwork and achieving of goals of both organizations (Gilliss et al., 2021:7).

The participants recognized that the relationship is central to this collaboration process and, with better relationships, teamwork can improve. The leadership of nursing education institution needs to enhance the academic relationships and teamwork, between theoretical lecturers and clinical facilitators with collaborative practices to ensure sharing of knowledge and that their contributions are valued (Masimula, Van der Wath and Coetzee, 2022:19505).

4.3.1.3 Sub-category: Fusion of roles in theory and clinical teaching

There is a disconnect between the theory taught on campus and what theory is taught in hospitals and how theory is applied in the hospital environment. Clinical facilitators need to know the theory content of what was taught to support and align theory-practice integration in hospitals:

> "*Clinical facilitators should know the textbook content; should know the theoretical questions to facilitate better at hospital*." (TLP6)

> "*Clinical facilitators should know the theoretical content to improve theory-practice integration*." (CFP6)

The regular sharing of theory content creates a routine of joint teaching between theoretical lecturers and clinical facilitators, that supports theory-practice integration. It also ensures that clinical facilitators stay knowledgeable about theory development:

> "*Information sharing is important because if I do not know what they are teaching in theory, I will not know what to teach students and theory practice correlation will not be."* (CFP7)

"*We need to give you the theory so you can integrate it. The students know more theory than the clinical facilitators*." (TLP4)

Different views were described on how to overcome the sharing of theory knowledge by participants:

"*The lesson is uploaded, on the platform, before it occurs, and also some presentations. You have access to the lesson and the platform, and you will see everything that we are teaching."* (CPF10)

"*Lecturers can ask for assistance, from clinical facilitators from clinical area to help in teaching, that will help to breach the gaps*." (CFP3)

"*We need to be educators' teams that are modular, specific e.g., pharmacology, that need to bring in change*." (TLP7)

With data from this category, it is evident that there is a need for the clinical facilitators to know the theory content that was taught in class, to support clinical facilitators in preparation for clinical-practice days and guide them in theory-practice integration. Communication regarding theory content needs to be shared between theoretical lecturers and clinical facilitators.

DISCUSSION

The clinical facilitator's role is that of a consolidator and applicator of theoretical knowledge on the clinical practice days with the students. Theoretical class content should be shared with clinical facilitators, to support cooperative teaching in the hospital (Ryan and McAllister, 2020a:2; Bay et al., 2017:375) to support theory-practice integration. Students experience frustration when clinical facilitators are not familiar with theoretical content (Hoffman and Daniels, 2020:8) to support theory-practice integration. Clinical facilitators use different learning approaches in clinical teaching, therefore need to plan for activities (Akram et al., 2018:879), but need to know the theory content or guidelines, to ensure that the theory is correctly applied and practised (Akram et al., 2018:881). Collaboration between clinical facilitators and theoretical lecturers must be of high

quality to enhance student theory-practice integration in the hospital environment (Tang and Chan, 2019:7).

4.3.2 Category: Maintain bilateral communication

Collaborative communication is essential for the partnership between theoretical lecturers and clinical facilitators. Mutual communication between theoretical lecturers and clinical facilitators is the glue that will support the relationship and is critical for team success. From the data, there is a need for regular and clear communication to maintain an open trusting relationship that will support theory-practice integration.

4.3.2.1 Sub-category: Maintain an open communication structure between clinical facilitators and theoretical lecturers

Open communication between clinical facilitators and theoretical lecturers must be planned and maintained to ensure that theory content and student information are regularly shared. This regular communication improves trust and better relationships between clinical facilitators and theoretical lecturers to enhance collaboration:

> "*Communication structures should be embedded in program or curriculum, and it needs to link to theory for them to implement to practice*." (CFP7)

> "*Communication needs to be managed and maintained with a set structure and people need to have assigned roles and responsibilities within meetings."* (TLP2)

A goal-driven communication plan that is organized, need to be shared with all clinical facilitator and theoretical lecturers to ensure that applicable information is shared on a regular basis to support collaboration and theory-practice integration:

> "*Clarity of expectations of communication is required from both clinical and theory*." (CFP2)

Participants acknowledge that communication needs to be about supporting students in theory practice integration:

"*Communication needs to be about how we can assist the student to gain more theoretical knowledge and integrate it, with understanding why practical skills are required. We need to focus on the important info*." (TLP2)

Regular meetings are held to share vital information and coordinate planning that is needed to improve the relationship. However, participants have also different views on the value of the two weekly meetings for the partnership:

"*We need to improve our contact sessions so that theory and clinical talk together to have a better student." (*CFP6)

"*We are collaborating, theory and clinical are becoming one. With our weekly meetings we are touching base and stating problems and student placement problems with discussions on solutions.*" (TLP7)

Improved communication is needed as it seems that there is a theory-practice implementation gap between theory and practice, that delays theory-practice integration at the hospital:

"Theory and clinical are being done months apart and the gap will exist. We need to speak to each other." (TLP5)

"Open communication that will enhance collaboration between clinical facilitators and lecturers to help with objectives." (CFP8)

In this sub-category, it became evident that honest and open lines of communication are needed for sharing theory-practice information. The quality of the information is important to improve expectations from theory and practice partners, and clarity on required shared information is needed, to support theory-practice integration.

DISCUSSION

It is evident that regular and open communication between theoretical lecturers and clinical facilitators is needed to ensure continuous successful implementation of the nursing program.

This open uncompetitive, trustful and supportive communication may improve teamwork and cooperation (Bvumbwe, 2016:320). With clinical facilitators and theoretical lecturers thinking and reasoning together the collaborative output is more visible (Askari, Asghri, Gordji, Asgari, Filipe and Azar, 2020:2) and relationships can be better sustained. Lack of communication between clinical facilitators and theoretical lecturers leads to decreased knowledge on the clinical facilitator's side about the content and expectations of the nursing education and training program, which interrupts theory-practice integration by clinical facilitators in hospitals (Dev et al., 2020:1132). Regular meetings are needed to discuss areas of improvement e.g. student issues or problems, students' objectives, and assessment processes (Dev et al., 2020:1133-5; Hoffman et al., 2020:10) and to plan and coordinate actions to support teamwork and collaboration (Gierach et al., 2019:388; AlMekkawi and El Khalil, 2020:314). Participants agreed that two weekly meetings are beneficial to their teaching practices, but it can be improved to give clinical facilitators better insight into what content is taught to support better theory-practice integration.

4.3.3 Category: Maintain cooperation between theoretical lecturers and clinical facilitators in evidence-based practice

From the data, there was a need to co-operatively participate in evidence-based practice within healthcare services. This evidence-based practice needs to support the solving of hospital clinical problems to support the learning environment of students and improve nursing staff knowledge. Cooperation between lecturers and clinical facilitators as experts is vital for knowledge development.

4.3.3.1 Sub-category: Evidence-based projects for clinical problems

The purpose of evidence-based practice is to integrate available information from research reports and apply it in the hospital setting to improve nursing care and patient outcomes. Clinical facilitators and theoretical lecturers need to collaboratively gain a better understanding of the theory-practice gap between hospitals and nursing education institution and support students in the implementation of evidence-based practice:

> "*We should be more engaged in EBP [evidence-based practice], and need to consult each other more when doing it. It is a valuable guideline*." (TLP2)

"*Research projects will help develop critical skills and soft skills that are needed in nursing*." (TLP5)

Collaborative leadership and teamwork between clinical facilitators and theoretical lecturers are needed with the implementation of evidence-based practice to enhance academic staff skills and to support the transfer of knowledge between hospitals and nursing education institution. This joint effort to understand the theory-practice gap will support the development of evidence-based practice and enhance a learning conducive culture:

"*Collaboration and shared leadership that clinical facilitators and lecturers should identify the need in the clinical field for an assignment/clinical project in the research, to fill the gap."* (TLP2)

Teamwork and communication are vital to improving the implementation of evidence-based practice between clinical facilitators and theoretical lecturers. Teamwork and communication are needed to improve quality care in hospitals and support students in their learning environment:

"*Collaboratively engaged in developing evidence-based teaching and learning practices to improve teamwork.*" (TLP8)

Lack of time in hospitals, heavy workloads, and evidence-based practice not being valued by staff members do not support the implementation of evidence-based practice. Staff member's knowledge needs to be improved and mentor support for clinical facilitators will be needed to teach evidence-based practice in hospitals:

"*Staff in hospital not aware of evidence-based practices or why should it be implemented. Staff does not make the link that it is evidence-based practices*." (CFP5)

"*Some staff is trained in old age homes where they only learn how to do blood pressure and write it down. People still practise using their old way of thinking and doing. We need to start developing those areas and utilized people e.g., specialists, educators and clinical facilitators. We need to teach so that the practice became evidence-based*." (CFP10)

"*Role and responsibilities clarification for hospital staff and clinical facilitators is needed to know what is expected in EBP projects."* (CFP2)

Collaboration between clinical facilitators and nursing staff is needed to create areas of excellence within healthcare services to support students' clinical application of theory, and also the development of nursing staff within the nursing unit. The implementation of evidence-based practice enhances the student learning environment and supports student critical thinking and the development of decision-making skills as well as their research capabilities. Participants stated that students need to be part of evidence-based practice projects as it will promote their understanding of evidence-based practice and support their professional development:

"*Profession is evidence-based and dynamic; thus, students need to be part of everything that is happening and take responsibility to verify this evidence, but they need to be informed on how*." (TLP9)

"*Hospital staff is not theoretically orientated, but campus, lecturers, and facilitators should involve the hospital management, unit managers and nursing staff in teaching and learning, because they create the learning environment in hospital, as they are also involved in teaching and learning the students*." (TPL4)

Students were being taught basic evidence-based practice at the nursing education institution, but conflicting viewpoints and concerns were raised about the level of student participation with the implementation of evidence-based practice in the academic program:

"*Involving students in the planning of evidence-based practice will turn to chaos because their understanding is based on theoretical understanding of the textbook*." (CFP9)

"*Students should take leadership in projects of research for evidence-based care*." (TLP5)

Integration of evidence-based practice as part of assignments in portfolios of evidence was suggested as it will eliminate rote learning and improve student knowledge application:

"*Change some assignments…to clinical project to enhance student knowledge to close the gap."* (TLP7)

In the sub-category, it is evident that evidence-based practices within the hospital environment can help solve clinical problems, and will add value to the skills development of clinical facilitators and theoretical lecturers, and also support teamwork. Leadership guidance, clinical facilitators and theoretical lecturers' teamwork are vital to support the implementation of evidence-based practice. Concerns were raised about the roles and responsibilities of clinical facilitators, students, and hospital staff within these projects.

DISCUSSION

The implementation of evidence-based practice has a positive effect on the skills development of staff and students and improve the quality of patient care. Healthcare service leadership understand the complexity and needs of the health service environment, and needs to be the key role-players in evidence-based practice (Robinson, Bailey, Morris, Burns, Melder, Croft et al., 2020:12; Olive, Maxton, Bell, Bench, Tinkler, Jones et al., 2022:325). It is important to develop and teach hospital staff, clinical facilitators and theoretical lecturers' skills on how to use and apply research evidence (Robinson et al., 2020:12; Olive et al., 2022:326) to translate theory to practice. Clinical facilitators need to be able to show students how to search, used and apply researched knowledge in the healthcare service (Ramis, Chang, Conway, Lim, Munday and Nissen, 2019:10). Clinical facilitators play a vital role in the implementation of evidence-based practice (Ryan et al., 2020a:4) to support theory-practice integration.

4.3.3.2 Knowledge sharing for theory-practice Integration

Sharing of evidence-based practice processes and knowledge generated in hospitals will encourage and motivate staff and students to improve their clinical practice and advance their knowledge. The use of evidence-based practice will enhance the students' learning environment and improve theory-practice integration:

> "*Nursing is dynamic and we cannot progress unless we share information. Sharing should continue to build ourselves and students to be excellent*." (TPL9)

"*Manage a positive working environment by strengthening the lecturers and clinical facilitator's skills in teaching and learning through sharing of evidence-based practices*." (TLP8)

Clinical facilitators and theoretical lecturers need to collaborate in the implementation of evidence-based practice to improve theory-practice integration. Sharing of evidence-based knowledge can build relationships and improve the capacity of the clinical facilitators and theoretical lecturers to better support the students' learning and skills development:

"*When students struggle with teaching we* [academics] *need to improve teaching with e.g., journal club, journaling".* (TPL7)

"*Development of academic staff with participating and developing of evidence-based practices and sharing information in the quality forum*." (TPL8)

In the sub-category, it is evident that sharing evidence-based practices and their outcomes can improve the knowledge of clinical facilitators and theoretical lecturers and improve their teaching and learning practices. Co-operating and sharing these processes improve the clinical facilitators' and theoretical lecturers' relationship and improve the teaching and learning environment of the students.

DISCUSSION

Evidence-based practices are needed for helping solve patient care problems in hospitals, creating new knowledge, and enhancing students' learning environment (Ramis et al., 2019:11). The implementation of evidence-based practice also encourages theoretical lecturers and clinical facilitators to develop their clinical skills (Huston et al., 2018:32; Ryan et al., 2020a:4). One of the focus areas of the nursing education institution and healthcare service partnership should be the integration of evidence-based practice in routine patient care to improve patient outcomes (Kleinpell et al., 2016:709). Data from the participants show concerns about the roles and responsibilities of clinical facilitators and theoretical lecturers in the implementation of evidence-based practice. Therefore nursing management (Robinson et al., 2020:13), unit managers, professional nurses and students need to be included in the implementation of evidence-based practice (Kleinpell et al., 2016:712; O'Neal et al., 2016:80; Huston et al., 2018:32) to bridge the

theory-practice gap that applies to students' clinical training. According to (Kleinpell et al., 2016:711) the responsibilities of clinical facilitators and theoretical lecturers, are nursing education, quality improvement of patient care through the implementation of evidence-based practice and the execution of research projects. This joint effort will help develop constructive interactions to solve clinical care challenges and support curriculum improvements to the benefit of students' learning and skills development (Sadeghnezhad et al., 2018:83). Newly qualified professional nurses often lack evidence-based practice and teamwork skills (Huston et al., 2018) and therefore it is critical to involve them in applying evidence-based practice principles (Ramis et al., 2019:13; Horntvedt, Nordsteien, Fermann and Severinsson, 2018:8).

4.3.4 Category: Intensify innovation in teaching, learning and assessment processes

From the data, it was evident that processes to support teaching and learning are set up and used by theoretical lecturers and clinical facilitators. Active participation is required between clinical facilitators and theoretical lecturers in the implementation, use of, and alignment of the assessment design, to support theory-practice integration. The sharing of teaching and learning methods by clinical facilitators and theoretical lecturers may improve theory-practice integration and the quality of nursing education.

4.3.4.1 Sub-category: Cooperating with the implementation and execution of teaching and learning within an operational plan

An operational plan has been implemented by nursing education institution management to support the integration and alignment of theory and practice between theoretical lecturers and clinical facilitators. This plan is valuable for structuring theoretical and clinical teaching in such a way the cooperation between clinical facilitators and theoretical lecturers can be enhanced:

> "*Operational plan is shared with clinical, so you should know what is happening in clinical. The shared plan shows what theory is doing, where we are and where we going*. "(TLP8)

> *"Operational plan has a structured clinical for learning program for the day*." (CFP6)

> *"Academic staff is responsible for planning, implementation and execution of operational program*." (TLP 7)

The plan guides theoretical lecturers and clinical facilitators on theory and clinical teaching content, for alignment of theory-practice integration and the appropriate placement of students in hospitals and clinics. This process enhances theory-practice integration and supports clinical facilitators with the planning of learning activities:

> "*According to the regulation of this program, all students should learn the same time the same content, even in different hospitals, if we follow the allocated structured plan. If students learn about the cardiovascular system, they should be in the unit (ward) to learn it, according to the allocated structured plan*." (TLP5)

The application of plans assists theory-practice integration by aligning theory teaching with student placements in clinical facilities.

DISCUSSION

The operational plan is vital in the teaching and learning process at campus and in the hospitals, as it guides student placements to support the alignment of theory teaching and practical training. The plan and its implementation need to encourage clinical skills acquisition with theory integration to minimise the theory-practice gap and support student professional development (Ngozika Ugwu, Ogbonnaya, Chijioke and Esievo, 2023:11). Clinical planning of activities or strategies in support of the operational plan, are vital to support theory-practice integration for students (Hoda Ahmari, Gaeeni, Rezaei, Khoramirad and Ahmad, 2021:265). Clinical facilitators and theoretical lecturers need to implement the plan to ensure theory-practice integration according to the nursing education institutions work-integrated learning strategy. This strategy focuses on learning in context with planning, implementing, and evaluation of patient care, with a clinical facilitator as supervisor (Berndtsson et al., 2020:2). Clinical facilitators act as guides during clinical training, promoting the development of critical thinking and reasoning that improves student professional identity (Berndtsson et al., 2020:3).

4.3.4.2 Sub-category: Sharing of innovative strategies

Innovative and creative teaching and learning methods are needed that are student-centred to suit all types of nursing students in the classroom and in the hospital setting. Clinical facilitators

and theoretical lecturers need to be innovative with teaching and learning methods to stimulate critical thinking, clinical judgment and reflective thinking, to meet the learning needs of the students:

> "*We need to find ways to improve our teaching, like, seminars, journal clubs on teaching to develop us or enhance our skill in teaching*." (TLP5)

> "*We need to be equipped for the types of students with different learning styles, we need to be able to accommodate them in the teaching and learning environment*." (CFP10)

Knowledge sharing between clinical facilitators and theoretical lecturers is needed to create innovative methods of teaching and learning. Participants acknowledged that close collaboration between theoretical lecturers and clinical facilitators is needed as major changes have been implemented at the nursing education institution with the incorporation of the new diploma program in nursing science:

> "*Training programs is not the same as in previous years, and clinical things did change. It is very important for a clinical facilitator and lecturers to come together and share knowledge, as it will help students with integration*." (TLP3)

Sharing teaching strategies ensures that they can be used by all clinical facilitators and theoretical lecturers. Strategies can be improved and reshared to enhance the quality of teaching and learning:

> "*We need to share how we are going to use innovative strategy, and then you can confirm if it improves the practice. That improves the collaboration*." (CFP2)

Regular meetings to share innovative ideas with theoretical lecturers and clinical facilitators are needed to encourage ongoing quality improvement:

> "*There needs to be a structured plan to share and how to share. There is no structure on how to get the information.*" (TLP4)

In this sub-category, both theoretical lecturers and clinical facilitators agreed that they should be actively involved in designing teaching and learning strategies for theory-practice integration. Sharing of teaching and learning practices may support collaboration between clinical facilitators and theoretical lecturers. The sharing of teaching strategies may enhance the development of the lecturers' and clinical facilitators' skills to improve students' abilities regarding theory-practice integration.

DISCUSSION

The participants agreed that sharing teaching and learning strategies can improve their capacity regarding teaching and learning. Sharing of student-centred teaching strategies, such as the use of concept mapping and problem-solving should be encouraged (Huston et al., 2018:30; Seshan, Matua, Raghavan, Arulappan, Al Hashmi, Roach et al., 2021:2; van Wyngaarden, Leech and Coetzee, 2019:2). When a variety of learning strategies is used, students are encouraged to participate in learning and improve their critical thinking and problem-solving skills (Huston et al., 2018:30; Seshan et al., 2021:7), as well as their communication and teamwork skills (Seshan et al., 2021:7-8).

Sharing of ideas within workshops or discussion sessions can cultivate positive attitudes towards innovative teaching methodologies and empower clinical facilitators and theoretical lecturers to enhance their students' theory-practice integration skills (Shoghi et al., 2019:4; Hoffman et al., 2020:11).

4.3.4.3 Sub-category: Participation in assessment design and processes

Clinical facilitators are viewed as specialists in clinical areas, but they often need support to become experts in teaching and learning processes. Involvement of clinical facilitators is needed in designing clinical evaluation instruments to ensure that theory and practice are integrated:

> "*Clinical facilitators should be involved with adjusting the assessment instrument and discuss it on our platform, to reach outcomes*." (CFP6)

> "*Make time as a group to design assessment instruments to minimise feedback time*." (TLP6)

Participation is the core value to team success and achieving team outcomes. To reach the outcomes of competent nursing students, clinical facilitators need to actively participate in clinical assessment designs. Participants acknowledged that a platform is available for procedures and assessment design, but lack of participation was a problem:

> "*We have the platforms, and we make time, but then do we utilize it effectively? We are discussing things, but we not implementing and see things through until the end*." (CFP10)

> *"I agree with the participant, we need to be involved or participate in designing and evaluating. It's about participation*." (TLP4)

Joint assessment processes between clinical facilitators and theoretical lecturers provide opportunities to learn from each other. The need stated by clinical facilitators for theoretical lecturers to be part of the clinical assessments; and for them to be part of theoretical assessments to support their learning practices was evident:

> "*Previously theoretical lecturers and clinical facilitator's assessment team help with collaboration. Now only CF [clinical facilitators] between each other is doing the assessments*." (CFP7)

> "*We can help with marking, give us the memorandum and some scripts to mark. I am also learning, so when a student came with theoretical questions, I can guide and assist the student*." (CFP3)

Pre- and post-assessment meetings between theoretical lecturers and clinical facilitators ensure consistency between assessors and minimized problems with assessment instruments or processes during the assessment process. The participants agreed strongly about the value of pre- and post-assessment and moderators' meetings to clarify guidelines and identify problem areas of assessments, and the need to reimplement them:

> "*With OSCE [objective structured clinical examination] we had a pre-assessment meeting, and then agrees on what must be done and what must be out. We did come together and discuss the process for that time*." (TLP3).

"Problems need to be solved at post moderators meeting." (TLP7)

DISCUSSION

The nursing environment is dynamic and nursing education assessment processes need to be adapted to support students' learning and the application of theory in practice. To ensure that students are ready for the dynamic and complex nursing environment, students' critical thinking and problem-solving reasoning need to be assessed. Better innovative assessment types need to be created (van Wyngaarden et al., 2019:4) by theoretical lecturers and clinical facilitators. Joint assessment practices between clinical facilitators and theoretical lecturers will be a good guideline (Dev et al., 2020:1132) to standardize expectations and understand each practice, and with collaborative decision-making, may prevent inconsistencies (Dev et al., 2020:1135). To ensure learning, feedback skills of clinical facilitators to students after assessment need to be developed (Dev et al., 2020:1136). Effective feedback after assessment can improve student self-reflection skills and help minimize the theory-practice gap (AlMekkawi et al., 2020:314). Feedback and communication between clinical facilitators and students improve student communication skills and develop their professional self-concept and socialization in the nursing profession (Yi et al., 2020:5; Löfmark, Mårtensson, Karen Johanne Ugland and Engström, 2019:5)

4.3.5 Category: Build an environment conducive to theory-practice integration

Conducive academic environments for teaching and learning are important. These environments need to be set up and maintained to ensure good relations, teamwork, and quality teaching practices. Within nursing education, new theoretical lecturers and clinical facilitators entering an academic environment need to be mentored and socialized into their new positions.

4.3.5.1 Sub-category: Support of newly appointed theoretical lecturers and clinical facilitators through mentorship

Newly appointed clinical facilitators and theoretical lecturers often enter the academic environment with little or insufficient knowledge of the academic environment and the role and responsibilities that are required. They need to socialise in the academic environment to ensure that needed skills and knowledge are obtained and professional values and goals are internalized.

From the data it was evident that support for the newly appointed academic staff is needed to support them in socializing in their new role as stated by a clinical facilitator and theoretical lecturer:

> "*I have got years of experience and theory information and knowledge that I have gained. I am appointed as a clinical facilitator, but for teaching, I need accompaniment for development so that I can be useful in the clinical area."* (CFP3)

> "*My first year in education was a constant conflict, I miss the patients, and it took time for me to change my role and my need. My main priority is my students, but that was a process*." (TLP7)

Mentoring will ensure professional socialization in their new professional academic role, and enhance attaining academic skills, knowledge and values. It will ensure that teaching skills will be transferred and that new staff is supported within the teaching and learning environment:

> "*With newly appointed staff I would suggest that we have mentoring or mentorship, so that they gain knowledge and skills of teaching on how we trained in nursing education. Mentorship is needed for new staff coming into the practice to stand with the ones that are currently in practice*." (CFP10)

Mentorship programs increase the sense of belonging in a group, which will support theory-practice integration. It will also improve the motivation of the theoretical lecturers and clinical facilitators to take part in innovative teaching practices. Mentorship skills are needed for mentors; thus, clinical facilitators and theoretical lecturers need to have mentorship training to ensure that new staff is supported, and relationships can be developed to enhance collaboration:

> "*Mentoring is a skill, need to be knowledgeable on what mentoring is about. Mentoring is a connection, relationship and time*." (TLP4)

Mentorship training of theoretical lecturers and clinical facilitators will enable them to mentor others, including their students:

"Mentorship is protecting the facilitator and academic staff because we develop and enhance our knowledge. We should be role models in mentorship so that we role model professionalism. It will go down to students." (TLP4)

In this sub-category mentoring new staff to supporting and developing them is important. Mentoring as a skill is needed to enable others to perform their duties. It also enables them to mentor their students.

DISCUSSION

There is a need for mentorship to improve and share teaching practices and skills, standards, and goals for improved collaboration within the academic team (Glover, Hitt, Zills, Darby, Hall and Kirkman, 2021:1272; Olorunfemi Olaolorunpo and BNSC, 2019:143). Mentoring will support clinical facilitators and theoretical lecturers in socializing into their roles to become excellent educators (Huston et al., 2018:32; Glover et al., 2021:1272). Clinical facilitators and theoretical lecturers need to be prepared and educated for their roles and responsibilities, program expectations, and content (Gierach et al., 2019:388). Formalised mentorship programs will enhance collaboration, improve communication and ensure that values and goals are shared (Bvumbwe, 2016:320). Development of mentorship skills for clinical facilitators and theoretical lecturers is needed to stimulate students' ability to integrate theory in practice (Saukkoriipi, Tuomikoski, Sivonen, Kärsämänoja, Laitinen, Tähtinen et al., 2020:2343) and to develop constructive feedback and assessment skills to assist student learning and skills development (Saukkoriipi et al., 2020:2338).

4.3.5.2 Empowerment of theoretical lecturers and clinical facilitators

Clinical teaching is where theory-practice integration is accomplished. The educational process between theory and practice differs, in the clinical environment students need to apply skills in the context of real-life situations, whereas in theoretical teaching and learning, students focus on understanding of nursing theory. Theoretical lecturers and clinical facilitators need continuously improve their teaching and learning skills to help students to gain skills in theory-practice integration in clinical environments:

"*Structures need to be put in place for clinical facilitators, that can advance clinical facilitation and support in the clinical area to improve theory integration.*" (CFP8)

Clinical facilitators act as liaisons between nursing theory and clinical application. They need to develop effective clinical facilitation skills to support theory-practice integration:

"*We have to do our assessors and moderators course, but we have never done a facilitators' course. The whole profession is transforming and the way we learned to facilitate is different, but where did you learn the skill to facilitate that.*" (CFP10)

The participants agreed that theoretical lecturers and clinical facilitators need to be experts in theory-practice integration and be able to support students to gain skills in using theory in clinical practice:

"*Clinical facilitators and lecturers need to become specialists in a discipline for teaching and skill."* (TLP4)

"We need to become experts within areas of our program - that is a realistic expectation for us." (TLP7)

Close cooperation between clinical facilitators and theoretical lecturers needs to be established to ensure that they can consult each other for support in teaching theory-practice application in theory classes and in clinical practice:

"*In nursing theoretical expertise and clinical expertise needs to work together*." (CFP8)

"*Specialist in the area will relate theory that is taught in class to help form a picture of the whole"* (CFP10)

Concern was raised about the high expectation that theoretical lecturers and clinical facilitators have for their academic roles and that they need to place more value and appreciation on their own skill and ability to improve collaboration within the team:

"*We do not value of our own knowledge and we think we need to know everything. We have high expectations for ourselves, program and hospitals*." (TLP7)

Developing and strengthening theoretical lecturers' and clinical facilitators' teaching and learning skills are vital for student development in theory-practice integration. Theoretical lecturers and clinical facilitators need to become experts in certain academic program modules to support their empowerment and enhance their control of that specific module. Close cooperation between them will improve teamwork.

DISCUSSION

It is evident that there is a need for theoretical lecturers and clinical facilitators to improve their teaching and learning skills and enhance the teaching and learning environments. They may require mentoring programs to help them to function optimally in the challenging healthcare environment. Student-centred skills like student feedback, mentoring of students, nursing staff and colleagues, understanding and the need to participate in research activities, and management diversity (Ryan et al., 2020a:5; Mallek and El-Hosany, 2020:379) are needed to enhance teamwork and the relationships. The role of clinical facilitators is challenging as they are seen as theory educators and clinical experts, and need to take responsibility for student learning and patient care. Professional development for the role of a clinical facilitator is needed (Ryan and McAllister, 2020b:6) to develop coaching, mentoring and feedback skills, and to improve their communication and teaching skills (Mallek et al., 2020:388; van Wyngaarden et al., 2019:2).

4.4 REFINED AND CONTEXTUALISED COLLABORATION GUIDELINES

The collaborative contextualisation of the guidelines took place during focus group discussions. The participants deleted the draft guidelines that they did not agree with, and refined and contextualised the guidelines that they approved. The discussions that took place provided the researcher with data that she analysed to identify categories and sub-categories. The refined and contextualised collaboration guidelines are the end product of the collaborative contextualisation of the draft guidelines as well as the data that is presented in categories and sub-categories and the literature used in the discussion of the findings. Please refer to Table 4.3 for a comparison between the draft guidelines and the refined contextualised guidelines.

Table 4.3 Comparison between the original and refined contextualised collaboration guidelines

Original guidelines (developed from literature review)	Refined contextualised guidelines (developed during focus group discussions)
Guideline 1: Manage a healthcare service and nursing education institution partnership regarding: Capacity building of lecturers and clinical facilitators through mentorship skills programs, internal and external opportunities to gain clinical and educational knowledge and skills; Curriculum improvement substantiated by a sound educational philosophy aimed at patients' and students' needs; Encourage structures and processes to facilitate regular interaction between the health service and nursing educational institutions; Explore novice ways to share financial and human resources by involved institutions to ensure optimal theory and practice integration by lecturers, clinical facilitators; Build/develop a trusting relationship, an open communication system, and mutual commitment to improving the standards of the institutions involved; and Clarify the understanding of roles and responsibilities of lecturers and clinical facilitators to enhance optimal teamwork.	**Guideline 1:** Manage a healthcare service and nursing education institution partnership: Strengthen the partnership through capacity building of theoretical lecturers and clinical facilitators using mentoring, and knowledge and skills improvement programs; Co-development, review, and implement an integrated unit for clinical teaching with a shared educational philosophy aimed at theory-practice integration in clinical training to benefit patient healthcare and student learning outcome; Co-create structures and encourage processes to enable fusion and sharing of responsibilities and roles of theoretical lecturers and clinical facilitators in teaching for and facilitating theory-practice integration; Co-design and manage innovative ways to share resources to benefit both institutions' staff empowerment and the development of the clinical learning environment; and Build a trusting relationship between theoretical lecturers and clinical facilitators of mutual commitment to the quality clinical training of nursing students.
Guideline 2: Strengthen bilateral communication: Manage an open communication structure for 2 weekly, expected, transparent and specific information sharing between lecturers and clinical facilitators to: Link theory that is covered during lectures at the nursing campus to objectives for theory-practice integration in the health service; Clarify information on the student's progress in theoretical tests, clinical practical work and theory-practice integration; Manage a communication structure for weekly thorough, honest and open communication between clinical facilitators and students to: Discuss objectives, progress and outcome of theory-practice integration.	**Guideline 2:** Maintain communication between the healthcare service and the nursing education institution: Manage structured meetings between representatives from both partners on pre-determined dates set by the beginning of the academic year to: Plan how to link theory that is covered during lectures on the nursing campus to objectives for theory-practice integration in the healthcare service; Allocate resources to theory-practice integration during clinical training; Monitor students' progress in theoretical tests, clinical assignments, and the development of skills in theory-practice integration; and Annually evaluate the success of the teaching and learning processes used to further theory-practice integration to:

	Gain compliance from theoretical lecturers and clinical facilitators to implementing clinical training according to plan; Monitor and record the implementation of theory-practice integration in the clinical training plan; Appropriately address problems encountered with the implementation of theory-practice integration; Manage ad hoc meetings between theoretical lecturers and clinical facilitators to facilitate interpersonal challenges and prevent or manage conflict; and Manage structured and ad hoc meetings with students to discuss their progress and/or challenges with theory-practice integration.
Guideline 3: Cooperation of lecturers and clinical facilitators in evidence-based practice Maintain a collaborative relationship between lecturers and clinical facilitators in teaching, facilitation of student learning, research, and the execution of evidence-based projects to help solve clinical problems; and the application of clinical research findings through: Shared leadership by lecturers, clinical facilitators and hospital staff in the planning and execution of evidence-based projects in clinical practice and facilitation of student learning and skills development; Involvement of students in the planning and participation of evidence-based clinical projects within their scope of practice; Collaborative participation by lecturers, clinical facilitators and hospital staff in the planning and execution of small attainable research projects to fill the knowledge and skills gaps in clinical practice and the facilitation of theory-practice integration; Development of areas of excellence by the lecturers, clinical facilitators, and hospital staff to support the learning environment; and Strive to create innovative means that will motivate knowledge sharing by clinical facilitators, lecturers and hospital staff.	**Guideline 3:** Clinical facilitators and theoretical lecturers involve students in research for and implementation of evidence-based practice: Strengthen the co-responsibility of theoretical lecturers and clinical facilitators in teaching and facilitation of student learning in the planning and execution of research to create and use knowledge to solve clinical problems; Encourage shared leadership of theoretical lecturers and clinical facilitators in the implementation of evidence-based care to help students to understand the need for research to maintain quality patient care; Co-create a clinical teaching and learning environment conducive to the use of theory in practice (evidence-based care) and the identification of practice problems that necessitate research to create evidence (practice-based research); and Knowledge sharing between theoretical lecturers and clinical facilitators to maintain quality clinical training of students.

Guideline 4: Formulate, implement and execute the operational plan for structured theoretical and clinical teaching and learning to support theory-practice integration and execute a plan by: Share information on the implementation of innovative (teaching strategies/actions) in executing the operational plan to support student clinical practice and skills to enhance theory practice integration; Collaborating with clinical experts with teaching specialized area theory to improve practice integration and skills development; Collaborative student placement according to student outcome as specified by the curriculum and according to the operational plan; Create opportunities for academic staff to develop common goals on values/ ethics, teamwork and communication practices, roles, and responsibilities; Teams of clinical facilitators and lecturers collaboratively work together in simulation and theoretical and clinical assessments; and Create time /a platform for designing and evaluating the assessment process and instruments.	**Guideline 4:** Theoretical lecturers and clinical facilitators co-design and collaboratively implement a structured operational nursing education plan to facilitate students' development for theory-practice integration required for evidence-based practice: Create and use opportunities for theoretical lecturers to become familiar with the clinical training of nursing students; Create and use opportunities for clinical facilitators to become familiar with the theoretical education of nursing students; Co-explore and collaboratively use clinical learning opportunities that fit the theoretical lectures to enhance theory-practice integration; Acknowledge the contribution of theoretical lecturers in clinical training and the contribution of clinical facilitators in theory lectures; Co-explore and share innovative teaching and learning approaches to enhance theory-practice integration; Co-create and collaboratively use simulated clinical learning opportunities for teaching and learning and assessment of student's knowledge and skills; and Share responsibilities regarding the development and use of assessment instruments.
Guideline 5: Create a positive learning environment by strengthening lecturers and clinical facilitators' skills by sharing evidence-based teaching and learning practices to support students in theory and practice integration. Strengthening lecturers' and clinical facilitators' skills in teaching and learning through: Enhance collaboration by developing best-practice standards in clinical teaching and facilitating learning in theory-practice integration; Developing and strengthening skills for staff and newly appointed staff to gain knowledge and skills in facilitating learning in theory-practice integration; and Using a mentorship program for lecturers and clinical facilitators to develop and gain skills in theory-practice integration.	**Guideline 5:** Building an environment conducive to theory-practice integration. Co-design and use continuous professional development programs; Optimally use memberships of professional organizations to update knowledge and skills in clinical teaching and supervision; Instil and support mentorship programs for newly appointed theoretical lecturers and clinical facilitators to develop skills in facilitating theory-practice integration; and Appreciate and use the clinical and nursing education expertise of theoretical lecturers and clinical facilitators to improve the knowledge and skills of the team.

4.5 SUMMARY

This chapter has provided insight into the discussion of the themes that the researcher together with the clinical facilitators and theoretical lecturers had about refining and contextualizing the draft collaboration guidelines to fit the unique circumstance of the designated nursing education institution and healthcare services. The next chapter will provide a discussion, recommendations, limitations and conclusion.

CHAPTER 5

DISCUSSION, RECOMMENDATIONS, LIMITATIONS, AND CONCLUSION

5.1 INTRODUCTION

This chapter presents the conclusions, and recommendations based on the data analysis of chapter four. Limitations and implications have been identified and described.

5.2 OVERVIEW AND AIM OF THE STUDY

The study aimed to develop context-specific guidelines to improve collaboration between the staff of the nursing education institution and their counterparts in the associated healthcare services to narrow the theory-practice gap during clinical training.

The first chapter described the background, rationale, and significance of the study, as well as the concepts and settings of this study. In the second chapter, the methodology of the integrative review process, the first phase, as well as the second phase was discussed. The chapter provided insight to gain a holistic understanding of collaboration problems between nursing education institution and its associated healthcare services for the formulation of draft guidelines to narrow the theory-practice gap of students during clinical training, as well as the refinement and contextualisation of the draft collaboration guidelines through focus group discussions. Chapter 3 described the outcome of the integrative review process that supports the formulation of the draft guidelines for collaboration. Chapter 4 described the findings from the focus group discussions to refine and contextualise collaboration guidelines that would fit the unique circumstances of the designated nursing education institution and associated healthcare services to narrow the theory-practice gap.

5.3 CONCLUSIONS

Several categories and sub-categories emerged during the study and were significant in the collaboration between the theoretical lecturers and the clinical facilitators to narrow the theory-practice gap. The findings revealed that theory-practice integration can be enhanced by maintaining the healthcare service and nursing education institution partnership, maintaining bilateral communication between clinical facilitators and theoretical lecturers, maintaining cooperation between theoretical lecturers and clinical facilitators in evidence-based practices, intensifying innovation in teaching, learning, and assessment processes, and building an environment conducive to theory-practice integration.

5.3.1 Category 1: Maintaining a healthcare service and nursing education institution partnership

Findings from the data emphasize that management support from the nursing education institution and the healthcare service is vital to support collaboration and teamwork between the clinical facilitators and the theoretical lecturers. The relationship between the nursing education institution management and the healthcare service management needs to be an official agreement focussed on supporting the collaboration and teamwork of the clinical facilitators and theoretical lecturers. It should ensure that the collaboration is maintained to enable students to do theory-practice integration during clinical training.

Theoretical and clinical environments are complex and dynamic, and the managerial relationship between the healthcare services and the nursing education institution needs to enhance regular communication and shared leadership to the benefit of both organizations and the students' training that they are co-responsible for. The need for the appointment of a clinical coordinator to manage communication between the healthcare service management, the management of the nursing education institution, the clinical facilitators and the theoretical lecturers to improve theory-practice integration, is supported.

The clinical facilitators and theoretical lecturers are obliged to share knowledge, skills, and expertise to enable students to integrate theory in practice. They should be team with a common purpose, although they often feel that the relationship between them is unequal regarding clear roles and responsibilities. They differ in the understanding of their roles and responsibilities

towards the students' learning and skills development. It needs to be clarified to ensure that each team members knows what is expected of him or her. Without a clear description of roles and responsibilities, the relationship between the role players may become strained. It is important that they should share the same values of trust and respect allowing them to take ownership of their roles.

A fusion of the roles of the theoretical lecturers and clinical facilitators could lead to better collaboration, enhanced teamwork, and the sharing of knowledge regarding teaching methodologies to enable students to be successful in theory-practice integration.

5.3.2 Category 2: Maintaining bilateral communication between clinical facilitators and theoretical lecturers

To enhance collaboration, between clinical facilitators and theoretical lecturers, the relationship needs to be open, honest, and with regular communication. Communication is the sharing of information to support theory-practice integration. It is an issue that is very contentious but very difficult to clarify within two different dynamic and complex environments such as that of the healthcare service and the nursing education institution.

Two weekly meetings are required to inform clinical facilitators and theoretical lecturers about students' progress and concerns regarding theory-practice integration. These meeting are beneficial to all because direct and faster remediation actions can be done to support students in the teaching and learning environments. The lack of sharing of theoretical content/objectives is a great concern for clinical facilitators, as they need to support the integration of theory in practice. Means are in place to enable the sharing of information regarding the content of the theoretical lecturers, but time constraints are an issue due to high workloads of both the clinical facilitators and the theoretical lecturers.

The environments of nursing education institution and hospital service are diverse, with constant changes. Academic meetings between clinical facilitators and theoretical lecturers are done to discuss academic issues, to support clinical facilitators and theoretical lecturers with the implementation of evidence-based practice, and to share best practices. The meetings need to have specific goals aimed at enhancing the collaboration between the theoretical lecturers and the clinical facilitators.

5.3.3 Category 3: Maintaining cooperation between theoretical lecturers and clinical facilitators in evidence-based practices

Evidence-based practice within the healthcare service environment needs collaborative leadership between healthcare services with clinical facilitators and nursing education institution with theoretical lecturers to help solve clinical problems and advance theory-practice integration. Lack of knowledge and skills regarding evidence-based practice processes and poor collaboration between clinical facilitators and theoretical lecturers cause poor implementation of evidence-based practice. Clinical facilitators and theoretical lecturers acknowledge the value that evidence-based practice has for improved patient care and the need that students should be prepared to deliver it to their patients. They are enthusiastic about their roles in helping students to master evidence-based practice skills. The appointment of a clinical coordinator may help clinical facilitators to gain access to knowledge and other relevant resources to help students to become evidence-based practice competent. More focus on the value of evidence-based practice is needed in the theoretical environment. Theoretical lecturers should teach nursing theory in a contextualised manner that relates to real life situations,

5.3.4 Category 4: Intensifying Innovation in Teaching, learning, and assessment processes

Quality nursing education depends on a well-designed operational plan for theory-practice integration; and sharing of innovative teaching and learning strategies that will improve theory-practice integration. The plan communicates to clinical facilitators and theoretical lecturers what teaching and learning should be done at a specific time. The plan also guides clinical facilitators with student placement in a hospital to support theory-practice integration.

Teaching strategies need to be student-centred, and with challenges in the teaching and learning environment, clinical facilitators and theoretical lecturers need to find innovative ways to enhance learning and application of nursing theory. Sharing and reflecting on these strategies create an open discussion that can enhance teamwork and collaboration between the clinical facilitators and the theoretical lecturers.

The theory is being taught on campus, and clinical skills and theory integration are taught at hospitals. To ensure that adequate teaching, learning, and skills integration did happen, a well-designed assessment process and instruments are needed. The nursing environment is dynamic and complex and student assessment instruments need to be context-specific to prevent misunderstanding between the lecturers, facilitators and the students. Participation between clinical facilitators and theoretical lecturers is needed in designing assessment instruments to ensure the goal of competent nursing students for nursing practice. The participation process will help inform clinical facilitators and theoretical lecturers of what theory-practice skills are expected of students.

Assessment processes must be fair and efficient and the students should know what is expected of them. Pre- and post-assessor meetings will standardize assessment practices and will support clinical facilitators and theoretical lecturers to do fair and accurate assessments. Post-moderation meetings will help identify problem areas in the teaching environment, for feedback to clinical facilitators and theoretical lecturers to improve teaching practices. During the formative assessment process, constructive feedback from clinical facilitators is essential for students' professional development.

5.3.5 Category 5: Building an environment conducive to theory-practice Integration

The role of clinical facilitators and theoretical lecturers can be challenging regarding time management, collegial and other organizational requirements, lack of resources, high workloads, poor interpersonal relationships, and lack of teaching and learning skills. Newly appointed and novice clinical facilitators and theoretical lecturers need support, guidance, and time to adapt to their new professional roles. Inadequate mentoring and support of newly appointed clinical facilitators and theoretical lecturers may lead to dissatisfaction and a high turnover of them.

A comprehensive orientation and mentorship program may enable clinical facilitators and theoretical lecturers to develop leadership, management, teaching, and supervision skills. It may also help them to become part of the team responsible for the theory-practice integration of students. It may ensure that newly appointed staff are socialized into their roles and it may contribute to better relationship between the theoretical lecturers and the clinical facilitators.

Quality nursing education and producing competent newly qualified professional nurses is the goal of the nursing education institution and the associated healthcare services. The continuous development of the clinical facilitators and theoretical lecturers is therefore needed to ensure a positive learning environment at the nursing education institution and the healthcare services for optimal theory-practice integration. Clinical facilitators and theoretical lecturers need to develop innovative teaching, learning, and supervision strategies and to continuously update their own theoretical and clinical knowledge.

The gaining of new skills and knowledge improves the confidence and identity of clinical facilitators and theoretical lecturers improving teamwork and theory-practice integration. Motivating clinical facilitators and theoretical lecturers to attend workshops for self-development is needed by the nursing education institution and the healthcare service management.

5.4 GUIDELINE FORMULATION

An integrative review of five databases was done for a comprehensive search of the literature concerning collaboration between nursing education institution and healthcare services. Seventeen articles were selected and analysed concerning good collaboration practices between nursing education and clinical facilitators for theory-practice integration during clinical training. Guidelines were formulated from every article, and it was added to a list of draft guidelines. The guidelines were grouped and synthesised into five categories.

Four focus group discussions were done to obtain the clinical facilitator's and theoretical lecturer's perception's on how to refine and contextualise the guidelines to fit the circumstances of the designated nursing education institution and associated healthcare services. All focus group discussions were transcribed, and a data analysis was done to identify similarities that were coded. The codes were grouped, and categories were constructed and described to support the development of the final set of guidelines. Refer to Table 5.1 for the refined and contextualised collaboration guidelines.

Table 5.1 Refined and contextualised guidelines

Guideline 1: Manage a healthcare service and nursing education institution partnership: Strengthen the partnership through capacity building of theoretical lecturers and clinical facilitators using mentoring, and knowledge and skills improvement programs; Co-development, review, and implement an integrated unit for clinical teaching with a shared educational philosophy aimed at theory-practice integration in clinical training to benefit patient healthcare and student learning outcome; Co-create structures and encourage processes to enable fusion and sharing of responsibilities and roles of theoretical lecturers and clinical facilitators in teaching for and facilitating theory-practice integration; Co-design and manage innovative ways to share resources to benefit both institutions' staff empowerment and the development of the clinical learning environment; and Build a trusting relationship between theoretical lecturers and clinical facilitators of mutual commitment to the quality clinical training of nursing students.
Guideline 2: Maintain communication between the healthcare service and the nursing education institution: Manage structured meetings between representatives from both partners on pre-determined dates set by the beginning of the academic year to: Plan how to link theory that is covered during lectures on the nursing campus to objectives for theory-practice integration in the healthcare service; Allocate resources to theory-practice integration during clinical training; Monitor students' progress in theoretical tests, clinical assignments, and the development of skills in theory-practice integration; and Annually evaluate the success of the teaching and learning processes used to further theory-practice integration to: Gain compliance from theoretical lecturers and clinical facilitators to implementing clinical training according to plan; Monitor and record the implementation of theory-practice integration in the clinical training plan; Appropriately address problems encountered with the implementation of theory-practice integration; Manage ad hoc meetings between theoretical lecturers and clinical facilitators to facilitate interpersonal challenges and prevent or manage conflict; and Manage structured and ad hoc meetings with students to discuss their progress and/or challenges with theory-practice integration.
Guideline 3: Clinical facilitators and theoretical lecturers involve students in research for and implementation of evidence-based practice: Strengthen the co-responsibility of theoretical lecturers and clinical facilitators in teaching and facilitation of student learning in the planning and execution of research to create and use knowledge to solve clinical problems; Encourage shared leadership of theoretical lecturers and clinical facilitators in the implementation of evidence-based care to help students to understand the need for research to maintain quality patient care; Co-create a clinical teaching and learning environment conducive to the use of theory in practice (evidence-based care) and the identification of practice problems that necessitate research to create evidence (practice-based research); and Knowledge sharing between theoretical lecturers and clinical facilitators to maintain quality clinical training of students.
Guideline 4: Theoretical lecturers and clinical facilitators co-design and collaboratively implement a structured operational nursing education plan to facilitate students' development for theory-practice integration required for evidence-based practice:

Create and use opportunities for theoretical lecturers to become familiar with the clinical training of nursing students; Create and use opportunities for clinical facilitators to become familiar with the theoretical education of nursing students; Co-explore and collaboratively use clinical learning opportunities that fit the theoretical lectures to enhance theory-practice integration; Acknowledge the contribution of theoretical lecturers in clinical training and the contribution of clinical facilitators in theory lectures; Co-explore and share innovative teaching and learning approaches to enhance theory-practice integration; Co-create and collaboratively use simulated clinical learning opportunities for teaching and learning, assessment of student's knowledge and skills; and Share responsibilities regarding the development and use of assessment instruments.
Guideline 5: Build environment conducive to theory practice integration: Co-design and use continuous professional development programs; Optimally use memberships of professional organizations to update knowledge and skills in clinical teaching and supervision; Instil and support mentorship programs for newly appointed theoretical lecturers and clinical facilitators to develop skills in facilitating theory-practice integration; and Appreciate and use the clinical and nursing education expertise of theoretical lecturers and clinical facilitators to improve the knowledge and skills of the team.

5.5 LIMITATIONS OF THE STUDY

The study was conducted at one campus of a private nursing education institution and its associated healthcare services. Therefore, the findings could not be generalized to all private nursing education institutions and associated healthcare services.

All theoretical lecturers (N=10) of the nursing education institution and clinical facilitators (N=10) of the associated healthcare services were invited to participate in focus group discussions. Nine theoretical lecturers and 10 clinical facilitators did join the focus group discussions. Although it was the total population that was invited and only one person did not participate, it was still a small sample size, which further limited generalisation. The purpose of the study though was to contextualise the findings and not to generalise.

5.6 RECOMMENDATIONS

The following recommendations apply.

5.6.1 Recommendations for management of clinical nursing education

This study highlights the need for healthcare services and nursing education institution leadership to create a detailed, structured orientation and mentor program for newly appointed and novice clinical facilitators and theoretical lecturers to help them to socialize more efficiently in their roles.

To improve the relationship between the nursing education institution and the healthcare services the appointment of a clinical coordinator is needed. The clinical coordinator could act as an enabler of collaboration between theoretical lecturers and clinical facilitators to enhance theory-practice integration in the clinical training of nursing students.

5.6.2 Recommendations for healthcare service

Collaboration between health service leadership and nursing education leadership are vital to ensure that all work together to achieve the same shared goals, clarifies the roles of nursing management, clinical facilitator and the students to support theory-practice integration and improve and sustain the relationships within the partnership.
Nursing service managers play a vital role in creating and supporting the clinical learning environment for nursing students to support theory-practice integration; as well as supporting the clinical facilitators in their role, development and function at hospital.
Nursing service managers should be involved with the planning of curricula, students learning objectives to ensure the goals of health service and nursing education institution are meet.
Unit managers with clinical facilitators should create and sustainment of clinical learning environments conducive for students' endeavours to integrate theory in practice.

5.6.3 Recommendations for nursing education

Nursing education institutions should focus on student-centred teaching and learning, the enhancement of theoretical lecturers' and clinical facilitators' creativity to help students to improve their theory-practice integration skills.
It is crucial for students' professional development that theoretical lecturers and clinical facilitator collaborate to share theoretical content that was teach in class, and clinical skills and knowledge form clinical areas, to provide student with ample opportunities to do theory-practice integration.

5.6.4 Recommendations for research

Research is needed on methods/models that clinical facilitators and theoretical lecturers can used to enable students to improve their theory-practice integration in South African context. The healthcare environment in South Africa is diverse and challenging, thus nursing education need to find innovative ways to ensure theory-practice integration.

It is also necessary to research the responsibilities of clinical facilitators and theoretical lecturers regarding the support that students require to manage theory-practice integration in complex clinical environments.

Further quantitative and qualitative research on development of collaboration guidelines between nursing education and healthcare services can lead to the development of more specific collaboration guidelines to support nursing education and healthcare services. The research needs to be conducted in more private healthcare settings and nursing education institutions to clarify collaboration challenges and create better context-specific guidelines.

5.7 IMPLICATIONS OF THE STUDY

The guidelines can be adjusted to suit the specific context of the nursing education institution and the associated healthcare services and used to improve collaboration between theoretical lecturers and clinical facilitators to the benefit of students' skills to integrate theory in practice. Effective collaboration and relationships between clinical facilitators and theoretical lecturers can narrow the gap that often exists between the nursing education institutions and the associate healthcare services to advance optimal student support in theory-practice integration. By enhancing optimal theory-practice integration, the shared goals of healthcare service and nursing education institution can be achieved, nursing student will have clinical reasoning and judgement skills to improve patient nursing care outcomes.

5.8 CONCLUSION

The challenges that nursing students experience to apply nursing theory in clinical practice require evidence-based interventions. The researcher therefore drafted collaboration guidelines based on evidence that she sourced from literature. In order to ensure that the guidelines fit the context of the designated nursing education institution and its associated healthcare services, she involved the theoretical lecturers and clinical facilitators from the nursing education institution and

healthcare services to refine and contextualise the guidelines. The implementation of the guidelines may lead to the support of nursing students to apply nursing theory in practice.

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ANNEXURE A

ICD 4

PARTICIPANT'S INFORMATION AND INFORMED CONSENT DOCUMENT FOR A

FOCUS GROUP INTERVIEW RESEARCH STUDY

Study title: COLLABORATION GUIDELINES FOR A DESIGNATED NURSING EDUCATION INSTITUTION AND ASSOCIATED HEALTHCARE SERVICES

Principal Investigator: Estelle Bester

Supervisor: Prof Neltjie C van Wyk

Institution: University of Pretoria

DAYTIME AND AFTER-HOURS TELEPHONE NUMBER(S):

Daytime number/s: 0836463001

After-hours number: 0836463001

Date and time of informed consent discussion:

date	**month**	**year**

:
Time

Dear Prospective Participant

Dear Mr. / Mrs. .....

1) INTRODUCTION

You are invited to volunteer for a research study. I am doing this research for Master's purposes at the University of Pretoria. This document gives you the information in this document is provided to help you decide if you would like to participate. Before you agree to take part in this study you should fully understand what is involved. If you have any questions, which are not fully explained in this document, do not hesitate to ask the investigator. You should not agree to take part unless you are completely happy about what we will be discussing during the focus group discussion.

2) THE NATURE AND PURPOSE OF THIS STUDY

The aim of this study is to explore what collaboration guidelines can be developed for the designated nursing education institution and associated healthcare services.

Part of the study will be a focus group discussion. A focus group is where a few people – usually about 8 or 10 – get together with the researcher to discuss a specific topic. The discussion will be arranged at a time that is convenient to you and will take place in……..

3) EXPLANATION OF PROCEDURES AND WHAT WILL BE EXPECTED FROM PARTICIPANTS

If you agree to participate, you will be asked to participate in a focus group discussion which will take about 90 minutes. You and the other participants will be asked some questions about your opinion about……
……
…

We will not ask any questions about your personal experience. With your permission, the discussions will be recorded on a recording device to ensure that no information is missed.

4) RISKS AND DISCOMFORTS INVOLVED

We do not think that taking part in the study will cause any physical or emotional discomfort or risk. You do not have to share any knowledge you are not comfortable with.

During the focus group discussion, you may find that some questions are sensitive; for instance, questions
about……...
……..……..... …
If questions feel too personal or make you uncomfortable, you do not have to answer them.
If you need psychological support or counselling during or after the focus group discussion, I will be able to refer you to……..

5) POSSIBLE BENEFITS OF THIS STUDY

You will not benefit directly by being part of this study. But your participation is important for us to better understand …… The information you give may help the researcher improve……
……
…

6) COMPENSATION

You will not be paid to take part in the study. There are no costs involved for you to be part of the study.

7) VOLUNTARY PARTICIPATION

The decision to take part in the study is yours and yours alone. You do not have to take part if you do not want to. You can also stop at any time during the interview without giving a reason. If you refuse to take part in the study, this will not affect you in any way. You will still receive standard care and treatment for your illness.

8) ETHICAL APPROVAL

This study was submitted to the Research Ethics Committee of the Faculty of Health Sciences at the University of Pretoria, Medical Campus, Tswelopele Building, Level 4-59, telephone numbers 012 356 3084 / 012 356 3085 and written approval has been given by that committee. The study will follow the Declaration of Helsinki (last update: October 2013), which guides doctors on how

to do research on people. The researcher can give you a copy of the Declaration if you wish to read it.

9) INFORMATION ON WHO TO CONTACT

If you have any questions concerning this study, you should contact:
Estelle Bester 0836463001

10) CONFIDENTIALITY

We will not record your name anywhere and no one will be able to connect you to the answers you give. Your answers will be linked to a fictitious code number or a pseudonym (another name) and we will refer to you in this way in the data, any publication, report or other research output.
All records from this study will be regarded as confidential. Results will be published in medical journals or presented at conferences in such a way that it will not be possible for people to know that you were part of the study.

The records from your participation may be reviewed by people responsible for making sure that research is done properly, including members of the Research Ethics Committee. All of these people are required to keep their identity confidential. Otherwise, records that identify you will be available only to people working on the study, unless you give permission for other people to see the records.

All hard copy information will be kept in a locked facility at Nursing Department 8th Floor at the University of Pretoria, for a minimum of fifteen (15) years and only the research team will have access to this information.

Although all participants of the focus group discussion will be requested to keep the discussion confidential, the researcher cannot guarantee that they will do so. I, therefore, request that you do not disclose any information of a very personal or sensitive nature.

10) CONSENT TO PARTICIPATE IN THIS STUDY

- I confirm that I will adhere to the Covid 19 protocol as set out by the Nursing education institution.
- I confirm that the person requesting my consent to take part in this study has told me about the nature and process, any risks or discomforts, and the benefits of the study.

- I have also received, read and understood the above-written information about the study.
- I have had adequate time to ask questions and I have no objections to participating in this study.
- I am aware that the information obtained in the study, including personal details, will be anonymously processed and presented in the reporting of results.
- I understand that I will not be penalized in any way should I wish to discontinue the study and my withdrawal will not affect my treatment and care.
- If photos are taken they may only be used after I have seen it and agreed that it may be used.
- I am participating willingly.
- I have received a signed copy of this informed consent agreement.

_____	_____
Participant's name (Please print)	Date
_____	_____
Participant's signature	Date
_____	_____
Researcher's name (Please print)	Date
_____	_____
Researcher's signature	Date

I understand that the focus group discussion will be audiotaped. I give consent that it may be audio recorded.

YES

NO

ANNEXURE B

Permission to conduct research in the designated [redacted]

[redacted]

[redacted]

[redacted]

Gauteng

2196

I hereby request permission to conduct a study at the designated [redacted] Institutions. The study is for the purpose of fulfilling the requirements of the Master's degree in Nursing at the University of Pretoria.

The title of the study: **The development of context-specific collaboration guidelines for nursing education institutions and associated healthcare services**

The study will take place in a time frame from December 2020 to July 2021. The researcher will be doing a qualitative research design and focus group interviews with participants from the designated education institution and healthcare services. All the participants will be fully informed, and information will be provided prior to the interviews, informed consent will be obtained for voluntary participation. The participant's rights will be protected, through confidentiality, even in the focus group interviews to discuss and finalise and strategies derived from the interviews.

The results will be shared with all the participants and the stakeholders of the designated education institution and healthcare services.

I hope my request will be taken into consideration.

Mrs E Bester

ANNEXURE C

RESEARCH OPERATIONS COMMITTEE FINAL APPROVAL OF RESEARCH

Approval number: UNIV-2021-0006

Ms Estelle Bester

E mail: estelle.bester@netcare.co.za

Dear Ms Bester

RE: COLLABORATION GUIDELINES FOR A DESIGNATED NURSING EDUCATION INSTITUTION AND ASSOCIATED HEALTHCARE SERVICES

The above-mentioned research was reviewed by the Netcare Research Operations Committee's delegated members and it is with pleasure that we inform you that your application to conduct this research at Netcare Education Gauteng North East Campus & Netcare Unitas , Pretoria East, Clinton/Union, Linksfield, Linmed, Milpark, Mulbarton, Olivedale, Parklane, Sunninghill and Waterfall Hospitals, has been approved, subject to the following:

i) Research may now commence with this FINAL APPROVAL from the Netcare Research Operations Committee.

ii) All information regarding Netcare will be treated as legally privileged and confidential.

iii) Netcare's name will not be mentioned without written consent from the Netcare Research Operations Committee.

iv) All legal requirements with regards to participants' rights and confidentiality will be complied with.

v) All data extracted may only be used in an anonymised, aggregated format and for the purposes of this specific study as specified in the proposal. The data may under no circumstances be used for any other purpose whatsoever.

vi) Netcare must be furnished with a STATUS REPORT on the progress of the study at least annually on 30th September irrespective of the date of approval from the Netcare Research Operations Committee as well as a FINAL REPORT with reference to intention to publish and probable journals for publication, on completion of the study.

vii) A copy of the research report will be provided to the Netcare Research Operations Committee once it is finally approved by the relevant primary party or tertiary institution,

or once complete or if discontinued for any reason whatsoever prior to the expected completion date.

viii) Netcare has the right to implement any recommendations from the research.

ix) Netcare reserves the right to withdraw the approval for research at any time during the process, should the research prove to be detrimental to the subjects / Netcare or should the researcher not comply with the conditions of approval.

x) Please note that you are -

1. Specifically made aware that this approval is granted to you on the basis of you being a permanent employee in good standing of Netcare
2. Should you cease to be an employee of Netcare at any time for the duration of the research study this approval granted to you for access to, analysis and/or publication of Netcare data will be automatically revoked.
3. You are required to inform the Netcare Research Operations Committee of the change in your employment status at Netcare within 30 (thirty) days of you leaving Netcare's employment
4. You will be required to re-apply to the Netcare Research Operations Committee for approval to continue with your research

xi) APPROVAL IS VALID FOR A PERIOD OF 36 MONTHS FROM DATE OF THIS LETTER OR COMPLETION OR DISCONTINUATION OF THE STUDY, WHICHEVER IS THE FIRST.

We wish you success in your research.

Yours faithfully

21/04/2021

Prof Dion du Plessis
Full member: Netcare Research Operations Committee & Medical Practitioner evaluating research applications as per Management and Governance Policy

Shannon Nell
Chairperson: Netcare Research Operations Committee
Netcare Hospitals (Pty) Ltd
Date: 22/4/2021

ANNEXURE D

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Faculty of Health Sciences

Institution: The Research Ethics Committee, Faculty Health Sciences, University of Pretoria complies with ICH-GCP guidelines and has US Federal wide Assurance.

- FWA 00002567, Approved dd 18 March 2022 and Expires 18 March 2027.
- IORG #: IORG0001762 OMB No. 0990-0278 Approved for use through August 31, 2023.

Faculty of Health Sciences **Research Ethics Committee**

13 October 2022

Approval Certificate
Annual Renewal

Dear Mrs E Bester,

Ethics Reference No.: 670/2020 – Line 2
Title: COLLABORATION GUIDELINES FOR A DESIGNATED NURSING EDUCATION INSTITUTION AND ASSOCIATED HEALTHCARE SERVICES

The **Annual Renewal** as supported by documents received between 2022-09-14 and 2022-10-12 for your research, was approved by the Faculty of Health Sciences Research Ethics Committee on 2022-10-12 as resolved by its quorate meeting.

Please note the following about your ethics approval:

- Renewal of ethics approval is valid for 1 year, subsequent annual renewal will become due on 2023-10-13.
- Please remember to use your protocol number (670/2020) on any documents or correspondence with the Research Ethics Committee regarding your research.
- Please note that the Research Ethics Committee may ask further questions, seek additional information, require further modification, monitor the conduct of your research, or suspend or withdraw ethics approval.

Ethics approval is subject to the following:

- The ethics approval is conditional on the research being conducted as stipulated by the details of all documents submitted to the Committee. In the event that a further need arises to change who the investigators are, the methods or any other aspect, such changes must be submitted as an Amendment for approval by the Committee.

We wish you the best with your research.

Yours sincerely

On behalf of the FHS REC, Dr R Sommers
MBChB, MMed (Int), MPharmMed, PhD
***Deputy Chairperson** of the Faculty of Health Sciences Research Ethics Committee, University of Pretoria*

The Faculty of Health Sciences Research Ethics Committee complies with the SA National Act 61 of 2003 as it pertains to health research and the United States Code of Federal Regulations Title 45 and 46. This committee abides by the ethical norms and principles for research, established by the Declaration of Helsinki, the South African Medical Research Council Guidelines as well as the Guidelines for Ethical Research: Principles Structures and Processes, Second Edition 2016 (Department of Health)

Research Ethics Committee
Room 4-00, Level 4, Tswelopele Building
University of Pretoria, Private Bag x323
Gezina 0031, South Africa
Tel: +27 (0)12 356 3084
Email: deepika.behari@up.ac.za
www.up.ac.za

Fakulteit Gesondheidswetenskappe
Lefapha la Disaense tša Maphelo

ANNEXURE E

DECLARATION OF ORIGINALITY

UNIVERSITY OF PRETORIA

The Department of Health and Nursing Sciences places great emphasis upon integrity and ethical conduct in the preparation of all written work submitted for academic evaluation.

Academics teach you about referencing techniques and how to avoid plagiarism; it is your responsibility to act on this knowledge.

If you are at any stage uncertain as to what is required, you should speak to your lecturer before any written work is submitted.

You are guilty of plagiarism if you copy something from another author's work (e.g. a book, an article or a website) without acknowledging the source and pass it off as your own. In effect you are stealing something that belongs to someone else. This is not only the case when you copy work word-for-word (verbatim) but also when you submit someone else's work in a slightly altered form

(paraphrase) or use a line of argument without acknowledging it.

Students who commit plagiarism will not be given any credit for plagiarised work. The matter may also be referred to the Disciplinary Committee (Students) for a ruling. Plagiarism is regarded as a serious contravention of the University's rules and can lead to expulsion from the University.

The declaration which follows must accompany all written work submitted while you are a student of the Department of

of Health and Nursing Sciences No written work will be accepted unless the declaration has been completed and submitted.

Full names and surname of student: Estelle Bester

Student number: U2078446

Topic of work: THE DEVELOPMENT OF CONTEXT-SPECIFIC COLLABORATION GUIDELINES FOR NURSING EDUCATION INSTITUTIONS AND ASSOCIATED HEALTHCARE SERVICES

Declaration

1. I understand what plagiarism is and am aware of the University's policy in this regard.

2. I declare that this ……Dissertation… (e.g. essay, report, project, assignment, dissertation, thesis, etc) is my own original work. Where other people's work has been used (either from a printed source, Internet or any other source), this has been properly acknowledged and referenced in accordance with departmental requirements.

_____ 26 July 2023

SIGNATURE DATE