RESEARCH ARTICLE:

Experiences of Nurse Educators in Research Supervision of Undergraduate Students

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Abstract

Undergraduate research is an essential experience for student nurses that can enhance the nurse graduate attitude towards evidence-based practice. Research is important and has a positive contribution on career development within the healthcare sector. Nurse educators play a crucial role in undergraduate research by providing research supervision to the undergraduate nursing students. The study's primary purpose was to determine the nurse educators' experiences in research supervision of undergraduate students. The study used a qualitative, phenomenological exploratory-descriptive research design. The non-probability purposive sampling was adopted to select participants from the nursing institutions in the two provinces, four in Province 1 and two in Province 2. The focus group discussions were conducted using a focus group discussion guide to collect data from 27 participants who were part of the four focus groups. The themes that emerged from the findings included roles and engagement in research, orientation on research supervision, mentorship concerning research supervision, and facilitation skills of nurse educators. Therefore, the author recommended that the institutions should ensure guidance to the research supervisors by providing mentorship. The programme on research supervision should be designed to inform the research supervisors about the correct way of supervising undergraduates.

Keywords: *experiences; nurse educators; undergraduate students; research supervision*

Introduction

All professional nurses in the twenty-first century are required to think critically, analyse problems, and draw conclusions when confronted with complex information. This awareness has led higher education institutions to consider research inquiry an essential part of student development (Brew and Mantai, 2017; Pierszalowski *et al*., 2021). Therefore, research in nursing has been made a significant priority, and the evidence generated from research is constantly changing practice and influencing health policies. It is essential to develop and refine knowledge that nurses can initiate to improve clinical practice and promote quality outcomes (Grove and Gray, 2018). Nurses are expected to deliver cost-effective and high-quality care, and to provide this care, nurse researchers are needed to evaluate research effective healthcare models and interventions (Ayoola *et al*., 2017; Corbett *et al*., 2023). In nursing, it has been noted that research has a practical impact on patient outcomes, and lack of research has harmful effects (Mpofu and Madlela, 2024). Undergraduate research in nursing, forms an integral and essential part of higher education, with the research project signifying a vital component of the nursing qualification (Al-Doubi, Fawzi and Walters, 2019). Therefore, when nurses join the workforce, they must be trained in inter-professional research, evidence-based research practice (EBP), and quality improvement (Dessie, 2020). Similarly, Cleary, Sayers and Watson (2016) state that nursing research is fundamental to driving evidence-based practice and achieving safe outcomes for patients. Research is vital in providing quality learning experiences for nursing students (Grove and Gray, 2018).

Therefore, nurse educators are crucial in strengthening and improving evidence-based practice among nursing workforces. Nurse Educators are the role models and offer the appropriate leadership required to implement EBP.

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To do this, nurse educators should also possess appropriate skills for teaching research methodology and supervising students who conduct research projects (Dhladhla, 2019). Since higher education institutions are expected to render quality nursing education and sustain their credibility, research capacity has become a critical priority in health sciences education. For these reasons, nurse educators, irrespective of work situation, are considered nursing scholars involved in knowledge distribution and the development of new knowledge, either through their role as researchers or by inspiring students to become researchers through teaching (Oprescu *et al*., 2017; Harerimana *et al*., 2022). In their teachings, nurse educators must integrate research and professional development (Dhladhla, 2019). In addition, Duma (2014) stated that the scholarly role of the nurse educator is to design, collaborate, and use research in nursing education and nursing practice to pursue opportunities for interdisciplinary research. This scholarly role assists the nurse educator to be well-informed of current knowledge and, in turn, allows the nurse educator to incorporate research and scholarly findings into the best nursing education practices.

Hoon *et al*. (2019) stated that quality research supervision promotes interest towards nursing research during training. During research supervision, supervisors provide advice and guidance to assist students in planning their research projects and to develop appropriate research practices. The feedback the supervisors give the students helps them develop their research skills, keeps them on track to improve and advance their knowledge in a specific area of research, and equips them with the skills needed to become independent researchers. In addition, Eriksson (2019) stated that research supervision in nursing is a prerequisite for quality research because it includes contextualizing and elements of evaluation and recommendation. Research supervision is also an essential component of the overall effectiveness of research in nursing and midwifery. During supervision, feedback is offered through advice and assessment associated with the supervisory style and student needs. The World Health Organization [WHO] (2016) has stipulated nine competencies for nurses, one of which is conducting research and developing nursing knowledge. Nurses are expected to have good research skills to provide quality health care to patients (WHO, 2016). Despite the competencies outlined by the WHO in Pakistan, the educators teaching at nursing institutions find it hard to meet the WHO competencies and run into challenges to sufficiently prepare students for practice and research at national and international levels (Sheikh *et al*., 2017). However, in many education institutions globally, there are many challenges associated with research education and implementation, namely a shortage of master's and doctoral-prepared educators; in other institutions, there is poor infrastructure in teaching environments and inadequate teaching-learning environments (Awalkhan and Ghani, 2018; Abbas *et al*., 2024).

The last three decades have highlighted a vast rise in attempts to emphasise and promote undergraduate research worldwide. It has been reported that this development is more noticeable in the United States (US) due to the work of the Council on Undergraduate Research, which was founded in 1978. Essential improvements in research projects are emphasised globally through programmes that help introduce and support undergraduate research experiences, not just in final-year dissertations, as in the United Kingdom (UK) (Pierszalowski *et al*., 2021). Similarly, in Namibia, undergraduate students must conduct research projects to fulfill their undergraduate degree requirements. However, students generally reported that supervisors would portray a lack of knowledge in supervision (Ashipala and Livingi, 2021). In Zimbabwe, it is reported that one of the significant challenges that affect the way students conduct research projects is associated with supervisors. Most supervisors need more research experience, relevant research skills, and knowledge (Simuforosa *et al*., 2022). The greatest need for a mentoring programme for research supervisors has been highly noted, as the study conducted by Ndayambaje (2018) in Rwanda on effect of supervision revealed that most supervisors fail to portray research expertise as observed in inability to give guidance to novice researchers. Most of the participants reported that supervisors cannot even identify the supervisees' weak points and bring them on track. Similarly, Pangket (2023) reported that in Zambia, students did not receive enough help from lecturers at times they are not available for consultation. Ndayambaje (2018) concurs with Pangket (2023) in that some supervisors were seen giving the supervisees' work less attention and sometimes end up giving irrelevant feedback and information, thus making it hard for student researchers to do research with success. In addition, Ndayambaje (2018) alluded that some of challenges that were reported by participants were lack of information and guidelines for research supervision, and which drives supervision out of the academic framework.

As in other countries, professional nurses' roles in South Africa (SA) are fourfold: clinical care, unit management, teaching, and research. Therefore, nurse educators must have adequate research knowledge to produce a

professional nurse capable of undertaking and utilising research findings at the end of training. Nurse educators must be research-savvy (Hadi and Muhammad, 2017; Hoon *et al*., 2019). Therefore, research supervision is an essential competency for nurse educators' as stipulated by the South African Nursing Council (2014). Nurse educators are role models and provide the leadership to initiate evidence-based practice (EBP). To be successful in this effort, nurse educators should not only be role models as researchers, but they must also possess skills to supervise research proposals for student nurses. However, Harerimana (2022) reported that despite research exposure, some nurse educators need more confidence in undertaking all research steps. This trend is supported by a study conducted by Squires *et al*. (2017), which discovered that nurse educators lacked research skills, particularly in research proposal development, statistical analysis, and knowledge distribution. In that sense, a lack of competency to supervise or teach research methodology poses a threat to nurse educators. Therefore, it is recommended that the institutions provide specific training on research supervision to enhance nurse educators' competency (Dhladhla, 2019; Roets and Bhembe, 2016). Understanding nurse educators' research-capacity needs is mainly required for developing strategies for or applying interventions in nursing colleges as these colleges plan to transition to higher education (Harerimana *et al*., 2022; Oprescu et al., 2017). The absence of written guidelines to regulate the conduct of research and supervision of research projects may lead to students moving from one educator to another, seeking research supervision assistance. Students may seek assistance from educators they consider more knowledgeable than others. Therefore, this could lead to a conflict between supervisors who may lack supervision techniques, given that there is no standard guide for regulating research projects. The participants emphasised an urgent need to develop guidelines to ensure quality research supervision (Dhladhla, 2019).

Vereijken *et al*. (2018) concurred that such imposition creates poor relationships between research supervisors and students. One of the study's recommendations is that the research directorate or those responsible for managing research at institutions should improve the research proficiency among research supervisors by providing specific training. Similarly, in their findings, Wood and Louw (2018) stated that most participants needed to prepare to supervise research projects. They mentioned that most of them were incapacitated up to the level of a master's degree and had never supervised research projects before. However, they were expected to supervise without proper guidance and mentorship. One of the study's recommendations was that if institutions want to produce quality nurse researchers, nurse educators should be listened to when they have issues concerning teaching and supervising research projects for nursing. In addition, Chen *et al*. (2019) reported that the nurse educators voiced that their research skills and knowledge required improvement. This results in nurse educators failing to meet research expectations due to needing more skills and knowledge. Therefore, provincial nursing institutions must address the identified research-capacity needs if they expect nurse educators to be productive in research.

Statement of the Research Problem

The researcher, who is also a nurse educator, has observed that, nurse educators engaged in research supervision, utilised their experience due to a lack of programmes guiding them on research supervision. The researcher's observation is confirmed by a research study by Seekoe (2015) in South Africa. The study revealed that all 11 nursing institutions understudy indicated that they needed mentoring programmes on research supervision, resulting in the lack of sound research supervision. This subsequently creates conflict between nurse educators who may be utilising different systems in regulating research projects, resulting in staff attrition due to lack of performance. Nurse educators must have adequate research knowledge to teach trainee professional nurses to undertake and utilise research findings before they graduate (Al-Doubi *et al*., 2019). However, nurse educators are also expected to teach and supervise research without institutional guidance. Despite identifying a problem with research supervision due to a lack of guidance, the researcher noted that there were no known studies on the experiences of nurse educators in this area. Hence, the study's primary purpose was to determine the nurse educators' experiences on research supervision of undergraduate students within two provinces in South Africa. The objectives of the study were to investigate the roles and responsibilities of nurse educators in supervising undergraduate students' research projects, and to identify the challenges that nurse educators face while supervising research projects.

Methodology

A qualitative, non-experimental, exploratory-descriptive research design was used in the study to explore and describe nurse educators' experiences on research supervision of undergraduate students. The researchers collected data from four nursing institutions situated in the two South African provinces, namely KwaZulu-Natal (Province 1) and Eastern Cape (Province 2). The two provinces were selected because they had a unified educational system, where each college is considered the head office of the PNC within each province and its campuses are spread all over the province where it is situated. Six nursing institutions in Provinces 1 and 2 (four in Province 1 and two in Province 2) were purposively selected to participate in the study based on the fact that in such institutions, research was conducted as a project. The selected institutions were coded A – D in Province 1 and E-F in Province 1. Code A was given to the first selected institution and F to the last selected institution respectively. The study's target population comprised approximately 138 nurse educators currently working at the selected nursing institutions. The researcher used non-probability purposive sampling to select participants actively involved in research supervision. The inclusion criteria considered during sampling included: nurse educators working at the selected nursing institutions two years and more and were also involved in students' research supervision. Nurse educators with less than two years working experience were excluded from the study sample as they might not have been fully exposed to research supervision. Determination of the sample size was not done in advance and was determined by data saturation. Data was collected through focus group discussions using the focus group discussion (FGD) guide that was developed utilising the study's objectives. A digital recorder was also used for recording discussions. The FGD guide was designed and used during discussions to ensure uniformity.

Since data was collected during the COVID-19 pandemic, the researcher adhered to all the COVID-19 protocols put in place under alert level 2. The focus groups comprised 7 participants except for the fourth, which comprised six participants. During data collection, participants were seated in a circular setting, leaving 1.5 m space between them to prevent the spread of infection. The windows were kept open for ventilation. The participants were given codes, which were used to identify them during the discussion to maintain anonymity. Codes were allocated to participants to prevent linking of the findings to individual participants. For institution A, participant 1 was identified as AP1, participant 2 as AP2 (Table 1). Each focus group discussion was digitally recorded with the participants' permission. The FGDs lasted from 50 minutes to 75 minutes. After each discussion, the researcher listened to the recordings while still within the settings to check if they were audible. Two participants in each institution who were present during discussions were asked to remain back to do member checking. They assisted the researcher by listening to the recordings to check whether the data was accurate. Data was collected in the nursing institutions until data saturation was reached. Data saturation was reached in the fourth FGD in province 2, hence the researcher terminated data collection. Therefore, after data saturation, the nursing institutions included in the study comprised institutions A, B, C, and E. The overall sample size after data saturation comprised 27 nurse educators. Data collection was conducted over two months. Data analysis began immediately after the first focus group discussion. Therefore, data analysis was done concurrently with the collection and write-up. The researcher applied thematic analysis and followed Creswell and Creswell's (2018) six steps of data analysis: (1) organising and preparing the data; (2) reading through all the transcriptions (3) identifying topics and themes; (4) formulating topics; (5) finding descriptive wording and final abbreviations; (6) assembling coded data and conducting preliminary analysis. Raw and transcribed data is saved in a USB which is password protected for a period of five years and will be destroyed thereafter.

The ethical clearance to conduct the study was obtained from the Health Studies Research and Ethics Committee (HSREC) of the University of South Africa (Rec-240816-052) and The National Health Research Database Board (Ref. No. KZ_202101_013) of South Africa. Ethical principles relating to participants and data collection were adhered to accordingly. Informed consent was obtained from the participants prior to the study, privacy was provided during data collection as the researcher used the private quiet rooms and the participants were addressed by codes instead of their names for anonymity purposes. The researcher utilised participants' data for study purposes, therefore personal data was not shared to maintain confidentiality. Lincoln *et al*. (2011) trustworthiness strategies of credibility, dependability, confirmability and transferability were adopted to ensure the findings' trustworthiness. Credibility was ensured by collecting data using individual interviews and recording field notes during each interview. To ensure dependability, the researcher regularly engaged with the participants throughout the study. The study's confirmability was ensured through the independent coding of data and keeping an audit trail, which was carried out by having field notes and raw data in the form of audio-recorded interviews, which were

transcribed verbatim. Transferability was ensured by providing a thick description of the study's context and the research methods adopted to conduct the study.

Results

Participants' demographic information

The participants were coded as AP1-AP7 for Institution A, BP1-BP7 for Institution B, CP1-CP6 for Institution C, and EP1-EP7 for Institution E. The first alphabet in each code stands for the institution codes, "P" stands for the participant, and the number stands for the number allocated to each participant during group discussions (Table 1)

Table 1: Participants' demographic data

Provinces	Campuses	Participants' codes	Gender	Race	Highest nursing qualification	Years of experience
Province 1	**Campus A**	AP1	Female	African	BCUR Nursing Education, Administration and Community Health	22 years
	Focus group 1	AP2	Female	African	BCUR Nursing Education, and Administration	12 years
		AP3	Female	African	MCUR Nursing Science (Public Health)	15 years
		AP4	Female	Indian	BCUR Nursing Education	8 years
		AP5	Female	African	MCUR Nursing Science (Nursing Education)	8 years
		AP6	Female	African	MCUR Community Health Nursing Science	15 years
		AP7	Female	African	BCUR Nursing Education	11 years
	Campus B	BP1	Female	Indian	MCUR Nursing Science (Nursing Education)	7 years
	Focus group 2	BP2	Female	African	BCUR Nursing Education, Administration and Community Health	22 years
		BP3	Female	African	BCUR Nursing Education, and Administration	16 years
		BP4	Female	African	MTEC Nursing Administration	26 years
		BP5	Female	African	MCUR Community Health Nursing Science	19 years
		BP6	Female	African	BCUR Nursing Education	23 years
		BP7	Female	African	Diploma in Nursing Education	7 years
	Campus C	CP1	Female	African	BCUR Nursing Education, and Administration	37 years
	Focus group 3	CP2	Female	African	BCUR Nursing Education, and Administration	14 years
		CP3	Female	Indian	MTECH Nursing (Primary Health)	13 years
		CP4	Female	Indian	BCUR Nursing Education	13 years
		CP5	Female	African	MCUR Nursing (Public Health)	15 years
		CP6	Female	African	MCUR Nursing (Nursing Education)	17 years
Province 2	**Campus E**	EP1	Female	African	BCUR Nursing Education, Administration and Community Health	7 years
	Focus group 4	EP2	Female	African	BCUR Nursing Education	14 years
		EP3	Male	African	Diploma in Nursing Education	7 years
		EP4	Female	African	BCUR Nursing Education, and Administration	2 years
		EP5	Female	African	MCUR Nursing (Public Health)	14 years
		EP6	Male	African	MCUR Nursing Science (Community Health)	7 years
		EP7	Male	African	MCUR Nursing Science (Nursing Education)	2 years

Source: Author

Table 1 indicates that majority of the participants (24) were females, and only three were males. Eighty-five percent (85%) of the participants were Africans, and the remainder were Indians. Forty-eight percent (48%) had bachelor's degrees in nursing 96 Science, specialising in different fields of nursing. Five had bachelor's degrees in nursing education and administration, five had bachelor's degrees in nursing education alone, and three had bachelor's

degrees in nursing education, Administration, and Community Health. Of the participants, thirty-eight percent (38%) had a master's in nursing, four specialising in Nursing Education, three specialising in Public Health, and three in Community Health. A total of seven percent (7%) had a Master of Technology in Nursing, one of those specialising in Nursing Administration and one in Primary Health Care. Seven percent (7%) of participants had Diplomas in Nursing Education. The large number of participants had more than 10 years of experience as nurse educators. Comparatively equivalent numbers had more than five (5) years of experience as nurse educators and only two of all the participants had minimum two years of experience.

Emergent Themes from the Findings

The themes that emerged from the findings included roles and engagement in research; orientation on research supervision, mentorship with regards to research supervision, and facilitation skills of nurse educators have been identified as the main concerns (Table 2):

Table 2: Themes and sub-themes that emerged from findings

Themes	Sub-themes
Roles and engagement	Early involvement
Orientation on research supervision	Guidelines on research supervision
Mentorship in research supervision	No responsible person
Research facilitation skills of nurse educators	Lack of research knowledge and skills Lack of experience

Theme 1: Roles and engagement

Understanding these roles and forms of engagement helped to ensure that all aspects of a research project were managed effectively and that each nurse educator contributed according to their expertise and responsibilities.

Some of the participants alluded that the roles and engagement in research require early involvement. Most participants stated that the early involvement process made it easy for nurse educators to ensure that progress was constantly monitored and remained on track, though some deviations may be unavoidable.

Therefore, it was suggested that developing the research plan at an early stage would work as a tool to make sure that all deadlines are met at the end timeously, as mentioned by some participants below:

> *"Research should be introduced early If I started early to work with my students as a research supervisor, I had to follow the students through to make sure that they met deadlines on time." (AP5)*

> *"I concur with participant 5, if the research process would be introduced early, students would learn basic principles at their lower levels, and this would assist when they conduct the project later. Therefore, we as nurse educators would supervise research smoothly to people with better understanding." (AP2)*

Some participants alluded that starting research in level three did not give them as nurse educators enough time to teach and supervise research accordingly. It was evident in the following verbatim quote:

> *"It is important that students should start their research early, at least in their second year level because starting research in 3rd year complicates things for us as we would need to work under pressure to complete everything within a short period of time." (CP1)*

Theme 2: Orientation on research supervision roles and engagement

Generally, refers to a structured introduction or training process designed to familiarize individuals with the principles, practices, and responsibilities involved in supervising research. The sub-theme that emerged from theme 2 was guidelines on research supervision. Most of the participants expressed that nurse educators should be properly oriented on research supervision by implementing specific guidelines. They stated that guidelines for nurse educators on research supervision would motivate them to engage in supervision with an open mind and the requisite knowledge at an early stage of their supervisory role. It was evident in the following verbatim quotes:

> *"We're asking ourselves, what are we supposed to do? And that led to us supervising research in very different ways. I think the lack of guidelines also poses a challenge for us because we were all afraid of what we should do when we started." (BP3)*

> *"If there were written guidelines for supervisors on how to handle research supervision, you wouldn't worry as much about issues in supervision, similar to how having a set of guidelines can help you manage challenges." (EP6)*

> *"I never understood the whole entire research process, hence had to get assistance from someone else to assist with supervision in order to get students complete their research proposals. I do not have research background but I am expected to supervise. We need guidelines to give us direction." (BP7)*

Theme 3: Mentorship in research supervision

Mentorship in research supervision involves supporting nurse educators through various stages of research supervision to ensure successful research supervision. The participants in this study indicated that there were no mentors responsible for, or dedicated to, research supervision support. Most participants alluded that research supervision would be conducted efficiently if there was a responsible person to mentor nurse educators. This was noted from the participants saying:

> *"The other thing that is making things worse is the fact that there's no dedicated person to lead research. So, there's no time aside for specifically this research supervision." (EP5)*

> *"For me, initially when I first started research, I just completed my research and then I was supposed to supervise. And, as much as you complete the research, but you're not mentored into supervision, one person is needed to guide everyone new."* (BP1)

> *"I'm happy that we are going to higher education because FUNDISA, is responsible and they have research meetings yearly, depending on where they choose to go. This will assist us to choose a mentor who will be dedicated to mentoring us in research supervision."* (CP2)

Theme 4: Research facilitation skills of nurse educators

Research facilitation skills are crucial for nurse educators who play a key role in guiding, supporting, and promoting research within nursing education and practice. These skills enable nurse educators to effectively assist students in conducting meaningful research. However, sub-themes that emerged from them were lack of research knowledge and skills, and lack of experience.

The majority of nurse educators were viewed inexperienced and lacking some knowledge and skills due to having no mentors to guide them through. Some participants highlighted that they were expected to supervise research projects without research knowledge and skills. The following verbatim quotes support this:

> *"Lack of experience in supervision, as a person who was supervising research, I would find myself learning together with students because I have no research skills."* (BP7)

> *"Not everybody has that knowledge of research that is why it was difficult to supervise. Therefore, nurse educators need to be empowered, and they also need to develop research skills in order to supervise."* (AP4)

> *"When you supervise research students, most of them that we have, have never had experience of doing research. So, other than just guiding, you've got to have knowledge of the research process, and it is sad that, most of us do not have sound knowledge of." (EP4)*

Some participants stated that the need for more experience among educators is an ongoing problem. The lack of experience resulted in some students moving to other supervisors before making corrections by the supervisors assigned earlier. This has been cited from the participants' verbatim quotes:

> *"Since we do not meet at the same time, and you find that you have made the comments, and the student has not made the corrections and moved on to the other research supervisor. So now it feels that we are essentially not doing the right thing." (AP6)*

The supervisors are believed to be more experienced and should possess adequate skills to be able to guide students accordingly. However, some participants alluded that:

> *"We just supervise students without any concrete experience. Maybe something like, which would make us uniform."* (EP1)

> *"I concur with EP1 because so, it's difficult to supervise in a uniform way, because we have different knowledge. So, I will supervise in my own way".* (EP2)

Discussion

It emerged from the findings that research supervision was affected by the fact that research is introduced at a later stage of training. Research participants alluded that research process should be introduced in the nursing programme very early, as this would reinforce better understanding thus easing research supervision. Engaging research processes at an early stage was reported to positively influence research supervision, as nurse educators would be supervising smoothly to students who have better understanding of basic principles of the research processes. The findings revealed that, to facilitate research supervision, it is essential to introduce research-related activities early on, such as online literature searches and referencing. This approach would help to develop an understanding of data search and the effective utilization of search engines and referencing tools as early as possible. Similarly, Parekh (2019) reported that institutions should introduce research methodology in the first year of undergraduate studies. Introducing it early would instil a research culture within the institution. In addition, Mugabo *et al*. (2021) stated that the early involvement of students in research processes is an essential step in professional development and can increase the academic output of the institution. Furthermore, the findings revealed that engaging students in research activities utilising these methods will enhance students' devotion to research, thus enhancing research supervision.

The study's findings also revealed that absence of orientation posed a problem during research supervision. Most participants reported that having no guidelines in place on how supervision should be carried out was a major problem especially to the nurse educators with no research background. Similarly, Bager-Charleson and McBeath, (2022); Maistry (2017) concurred that supervising research projects remains a problem within South Africa due to poor guidance and supervisory knowledge. Orientation is the method of bringing workers up to speed on organisational approaches, job roles and obligations, and other organisational qualities and ideas that will assist them in moving efficiently into the position (Al-Dhaafri and Alosani, 2020). Some participants who do not have research backgrounds reported that they had to carry out research supervision without proper understanding of the research process. Therefore, guidelines on research supervision were seen as the greatest need. Roets and Bhembe (2016); Dhladhla (2019), concurred that guidelines are required for research supervision. Keeping these guidelines in place would orientate the research supervisors and in turn instil confidence as expressed in the study findings.

Salminen *et al*. (2021) reported that most nurse educators need more confidence in undertaking all research steps. Orientation and mentorship in the context of research are interrelated. According to Mullen and Klamaitis (2021), mentorship is said to be a powerful weapon in pairing a senior and junior colleague (mentoring dyad) in a support-based intense relationship that guides mentees through career progression and psychosocial improvement. The research participants in Mullen and Klamaitis (2021) study stated that their negative experiences associated with research supervision were a lack of mentors, and the lack of support for nurse educators allocated for students' research supervision who are meant to act as their role models. According to Cronin (2020), a mentor is an experienced person who provides adequate assistance, support, advice and guidance to the inexperienced individual/s in a particular field. Most participants alluded that research supervision would be conducted efficiently if there was a responsible person in each institution to mentor nurse educators on how research supervision should be conducted. Furthermore, in the context of this study, the findings also revealed that most of the research participants were considered novice when it comes to research supervision hence, they alluded the importance of responsible persons to mentor them. The findings are supported by the study conducted by Roets and Bhembe

(2016); Dhladhla (2019), which revealed that lack of available mentorship resulted in each nurse educator supervising by utilising different facilitation methodologies based on their previous exposure when they were supervised as students in their own research projects.

The research participants also expressed that co-supervision was a good practice as it assisted those that were not well equipped with research supervision. Therefore, each nurse educator had to possess good supervisory skills which would assist in times of other supervisors' absentia. However, it emerged from data sources that, despite the expectations that are posed to nurse educators as research supervisors, lack of supervisory skills in research supervision was the greatest concern. It created problems during the supervision process as some nurse educators would need to learn how to guide students when individual groups of research students consulted them. Participants alluded that having research-based degrees did not automatically qualify them as good research supervisors hence, supervisory skills were required to be uplifted. The findings are supported by Wyllie *et al*. (2016), who stated that despite the exposure that some nurse educators had in research, they did not feel confident in undertaking all research steps. The majority of participants stipulated that they required their research skills and knowledge to be developed. These findings are fully supported by the findings in the study conducted by Chen *et al*. (2019), on building research capacity and productivity among advanced practice nurses, which revealed that the nurse educators expressed that their research skills and knowledge required improvement. Similarly, Squires *et al*. (2017) state that research skills, particularly in areas of research proposal development, statistical analysis, and knowledge distribution, were the aspects that nurse educators lacked. Some participants alluded that even though they had master's degrees, but they still required to be guided in order to enhance their knowledge and skills in research supervision. This was congruent with the study conducted by Wyllie *et al*. (2016) which reported that despite exposure to research some nurse educators did not feel confident in undertaking all research steps.

Conclusion

The results revealed that the nurse educators encountered problems associated with research supervision. The results further revealed the need for introducing the research process at least in the first level of study. The study also highlighted that the absence of guidelines on research supervision resulted in complicated research supervision in nursing institutions. In addition, the lack of guidance and mentorship were reported as the major concerns among nurse educators, resulting in research supervision being conducted without proper supervisory skills and knowledge. Finally, the study revealed that having a dedicated person responsible for nursing research within the institutions would be beneficial, as this would provide essential mentorship and guidance to those who need support with supervision. The study recommended that research champions should be appointed to support nurse educators in research supervision, enhancing their research capacity. It suggested that Nursing Education Institutions provide formal guidelines for research supervisors to foster effective supervision, improving the knowledge and skills of nurse educators in this area. Additionally, the study proposed developing a mentorship program where novice supervisors are paired with experienced mentors to strengthen their supervisory skills. Introducing the research process at an early stage in nurse training was also advised. The study recommended future research on undergraduate students' experiences with research projects and further investigations within higher learning institutions, such as universities and universities of technology, where undergraduate research is conducted. However, the study had limitations, as it was confined to only two provinces and most participants lacked at least a master's degree, meaning that the data collected did not fully represent the views of individuals with advanced research backgrounds.

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