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The Impact of Nursing Preceptorship Program on Teaching Competencies and Effectiveness among Palestinian Clinical Preceptors: A Quasi-experimental Study

By

Samah AbduLateif Mousa Buzieh

Supervisor

Prof. Dr. Mahmoud ALkalaldeh

Co-Supervisor

Prof. Dr. Mohammad Rajab Abdel-Qader Asia

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Dissertation Approval

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This dissertation was defended successfully on January 25, 2025, and approved by:

Committee members	Signature
1. Prof. Dr. Mahmoud ALkalaldeh: Supervisor	
2. Prof. Dr. Mohammad Asia: Co-Supervisor	
3. Dr. Imad Fashafsheh: Internal Examiner	
4. Prof. Latefa Dardas: External Examiner	
5. Dr. Salam Alkhatib: External Examiner	

Declaration

I certify that this thesis submitted for the PhD Degree is the result of my research, except where otherwise acknowledged, and that this thesis or any part of the same material has not been submitted for a higher degree to any other university or institution.

Student Name: Samah AbduLateif Mousa Buzieh

Student ID: 202012536

Signature: *Samah Buzieh*

Date: 24.4.2025

Dedication

﴿وَلَسَوْفَ يُعْطِيكَ رَبُّكَ فَتَرْضَىٰ﴾

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I dedicate the fruits of this research, which Allah has guided me to complete and bring to light: To the souls of my beloved parents. "May Allah have mercy upon them", who were light that illuminated my path in life. And to those who stood with me and supported me until God enabled me to bring this work to light and supported me in accomplishing it: my brothers and sisters and their honorable families. To the souls of the martyrs of Gaza in particular, and Palestine, in general, who sacrificed their lives for our beloved homeland. To my esteemed professor and teacher, Professor Dr. Muhammad Asia, who never skimped in supporting, guiding me, and raising the level of the nursing profession. To all nurses in Palestine who tirelessly serve their patients and their nation with dedication. And to the steadfast Palestinian people. With all my love and gratitude.

Samah AbduLateif Mousa Buzieh

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﴿وَإِذْ تَأَذَّنَ رَبُّكُمْ لَئِن شَكَرْتُمْ لَأَزِيدَنَّكُمْ﴾

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Abstract

Background: Clinical education is essential for imparting knowledge and skills to nursing students. Effective and competent nurse preceptors are crucial in preparing students with these skills and knowledge to deliver quality patient care. Through clinical education, students gain experience in diverse patient care settings, receive proper guidance and monitoring, and develop clinical competence in nursing. Clinical nurse preceptors play a vital role by teaching essential clinical skills, significantly impacting students' learning and development. However, this role in meeting educational standards requires further exploration. This study aims to examine the impact of the Nursing Preceptorship Program on Teaching Competencies and Effectiveness among Palestinian Clinical Preceptors.

Design and method: A single-group quasi-experimental evaluative approach and a pretest-posttest design were used in this study. A single group of 62 preceptors was recruited for the pretest and post-test of the preceptorship program, which was conducted in workshops in four governmental hospitals in the West Bank for three days in each hospital. Furthermore, 150 participants from nursing students divided into two cohorts (67 control group & 83 intervention group), assessed the preceptors. This study used the Clinical Teaching Competence Inventory and the Nursing Clinical Teacher Effectiveness Inventory as measurement tools. In addition, the researcher evaluated the preceptors by using the Nursing Clinical Teacher Effectiveness Inventory.

Findings and Results: The data indicated that 35.5% of the preceptors were aged 31-35 years, while 17.7% were aged 40 and above.

Nearly all have experience ranging from five to ten years, constituting 90%. The name of the course they were training was the medical and surgical 36 (58%), and 26 (42%) the training course was advanced nursing. The data analysis indicates all the mean values of overall domains in the Clinical Teaching Competence Inventory in the posttests are higher than the corresponding means in the pretests (F = 8.19, P = 0.00). The Student Evaluation domain in the posttest (Mean=4.59) was significantly higher than in the pretest (Mean=3.92). The Nursing Clinical Teacher Effectiveness Inventory scores of the researcher observation's preceptors showed that all means were above the midpoints. The nursing students' perception of preceptor characteristics before and after implementing the preceptorship program revealed no statistical significance between the control and experimental groups of the Nursing Clinical Teacher Effectiveness Inventory. At the same time, the mean score in the experimental group (Mean = 6.18) was higher than in the control group (Mean = 5.93). This explores the significance of implementing the preceptorship program.

Conclusion

The preceptorship training program enhances and improves preceptor competency and effectiveness, as indicated by post-test results and student evaluation. It assists preceptors in employing diverse teaching strategies to equip and cultivate proficient nursing students.

Keywords: Preceptorship program, Preceptor, Clinical Instructor, Nursing Student, Competencies.

Table of Contents

List of Tables

List of Figures

Appendices

List of Definitions of Abbreviations

Abbreviations	Meaning
AWCLS	Attitudes Toward Web-based Continuing Learning Survey
COREQ	The consolidated criteria for reporting qualitative research
CPR	Commitment to the Preceptor Role Scale
CTCI	Clinical Teaching Competence Inventory
DV	Dependent Variables
HTIs	Health teaching institutions
IMSOC	The Involvement, Motivation, Satisfaction, Obstacles, and Commitment questionnaire
IV	Independent Variables
MOH	Ministry of Health
MOHE	Ministry of Higher Education
NCS	Nursing Competence Scale
NCTEI	Nursing Clinical Teacher Effectiveness Inventory
PCCM	Purnell's Cultural Competence Model
PP	program's pedagogical project
PPBR	Preceptor's perception of benefits and rewards scale
PRIQ	Preceptor Rewards and Incentives Questionnaire
PRISMA	The Preferred Reporting Items for Systematic Reviews and Meta-Analyses
PPS	Preceptors' Perception of the Support Scale
PSEQ	Preceptor Self-efficacy Assessment Instrument
PTP	Preceptorship training program
SBN	Strengths-Based Nursing
WCP	The web-based clinical pedagogy program

Chapter One

1.1 Introduction

Around 27 million men and women work as nurses and midwives worldwide, representing roughly 50% of the worldwide health workforce. Even though the current scarcity of health workers affects more than half of the population (WHO, 2024). Due to a lack of clinical faculty and rising demand, nurse preceptors are increasingly being asked to serve as clinical instructors.

According to the Health Annual Report Palestine 2021 by the State of Palestine Ministry of Health (PMoH), the total number and distribution of Medical Human Resources in the West Bank is 10.557 nurses and 937 midwives (MOH, 2022). The number of nurses per 10,000 population in Palestine is 27.9, while 33.8 per 10,000 population in West Bank. Moreover, the number of MoH nurses per 10,000 is 11.0 in Palestine, while 8.5 per 10,000 in West Bank. These facts revealed that there is a shortage of Medical Human Resources especially in the nursing staff (MOH, 2021; Zyoud, 2023).

This shortage of nurses coincides with the severe shortage of nursing educators and nursing preceptors in hospitals, as it increased the utter need for preceptors and clinical instructors in the training place, which increased the size of the problem. However, this is contributing to the scarcity of preceptors who have competency in training students and will prepare them to cover this shortage. Furthermore, this affects the impact on the quality of patient care and the culture of patient safety (Hessels et al., 2019). Even so, there is a shortage of clinical educators and teachers, and increasing demands for nurse preceptors to

act as clinical instructors who are well-prepared for these duties and responsibilities need more concern.

Nurse preceptors must put more effort into learning continuously to improve their professional competencies. To ensure high-quality care in clinical practice, nurses are expected to possess knowledge, skills, and professional competence (Liang et al., 2021). These competencies are needed to be effective preceptors and to equip a competent student nurse.

Further, preceptors are experienced licensed nurses who supervise nursing students during their clinical training (El-Naby et al., 2024). The effective nursing preceptor must possess exceptional interpersonal and conflict-resolution skills to promote collaboration and satisfaction, while simultaneously instructing and motivating clinical reasoning, clinical thinking, and problem-solving abilities (Çamveren et al., 2022; Chipwanya et al., 2024; El-Naby et al., 2024). In order to keep their position and fulfill their responsibilities, preceptors should demonstrate the attitudes, values, and abilities that are considered to be role model (El-Naby et al., 2024).

A registered nurse preceptor who is in charge of providing clinical direction is assigned to a nursing student in a preceptorship program (Wu et al., 2020). Nursing students' clinical knowledge, abilities, and professional attitudes are fostered by preceptors through guidance, modeling, and facilitation of professional development (Li & Su, 2014; Wu et al., 2020).

Preceptors place a high priority on understanding how to mentor preceptees in a manner that fosters learning in general (Chan et al., 2019). Additionally, priority, teaching

strategies, conflict management, teamwork, and critical thinking abilities were chosen as the top five subjects for preceptor training (Chan et al., 2019).

A preceptorship program is necessary to ensure a foundation of information regarding education and instruction, which is necessary to effectively train others and enhance their skills and abilities (Nobles, 2022) which is needed in this dissertation. Knowledge of various learning styles, teaching methods, educational philosophy, such as adult learning theory, and generational disparities in communication and learning are examples of common preceptor competencies (Chan et al., 2019).

However, preceptors need to receive a program on how to train, supervise, and monitor nursing students.

In other words, preceptors help students plan, implement, and evaluate patient care by creatively creating clinical learning experiences for them (Hewitt-Thompson et al., 2016). One of the terms used to describe nurses who teach clinical education is clinical instructor or preceptor. Since the 18th century, preceptors have been an integral part of nursing education (Hewitt-Thompson et al., 2016). Therefore, preceptors are responsible for helping students improve their decision-making, critical thinking, clinical reasoning, and interpersonal skills and relationships. As a result, preceptors must employ efficient teaching methodologies, and strategies and be equipped with the necessary skills to deliver the role to the nursing students (Alamri, 2020).

The preceptorship program provides nurses with knowledge and skills to support effective student supervision in clinical settings and equip students with competency demands.

To address this urgent need, the preceptorship program offers in collaboration with policymakers, stakeholders, universities, and clinical agencies to enhance nurses with the knowledge, and skills that promote effective student supervision in clinical settings and equip students with the competency demands.

A developed preceptorship program for preceptors as clinical instructors will empower them to be competent and qualified for training novice and other nursing students, and it is essential to keep pace with the amazing progress and development in knowledge and skill and to deliver information in the right way.

1.2 Background

According to World Health Organization (WHO), (2022) estimates, by 2030, the world would need an additional 9 million nurses and midwives. Therefore, the need for competent and qualified graduated nurses becomes a crucial need for providing high-quality and patient safety care to match the endless need in nursing demand.

Currently, numerous factors, including the shortage of skilled clinical teachers in the nursing area, which is a common phenomenon in hospitals and educational institutions, have an impact on the quality of nursing education (Jetha et al., 2016; Mosete et al., 2024). To satisfy this demand, university nursing programs frequently employ nurses with little to no prior teaching experience. As a result, there is a well-known shortage of nurses around the world, especially nursing educators (Bard & Baker, 2012; Bell-Scriber & Morton, 2009; Berland et al., 2020).

Clinical experience requires competent preceptors and clinical instructors who have effective characteristics and cover the standards to match these demands to prepare students

for real nursing work situations and beyond (Buzieh, 2024a; Hababeh & Lalithabai, 2020; Ismail et al., 2016; Jacobson, 2024; Mogan & Knox, 1987; Peranginangin, 2019).

The clinical environment plays a pivotal role in preparing nursing and midwifery students to gain competencies in skills and knowledge to equip them to fulfill the scarcity and to be ready for marketing and decision-making in the clinical fields. The clinical setting is essential for impacting nursing and midwifery students' learning, which has been shown in numerous studies to present significant hurdles (AlMekkawi et al., 2020; Bugarski, 2018; E. A. Bukhari, 2012; Collins, 2021; D'Costa & Swarnadas, 2016; Enyan et al., 2022; Ghrayeb, 2017; Guthier et al., 2022; Hababeh & Lalithabai, 2020; Holman, 2018; Keinänen et al., 2023). One of these issues was the significant disconnect between theory and practice (AlMekkawi et al., 2020; Boru, 2018a; D'Costa & Swarnadas, 2016; Peranginangin, 2019). Ultimately, clinical educators, preceptors, and clinical instructors are responsible for imparting critical skills and knowledge to nursing and midwifery students or any students in clinical fields under their supervision.

To clarify, the clinical environment is a big aspect in the development and improvement of the student's ability, skill, confidence, competence, and fulfillment of their expected learning outcomes (Martínez-Linares et al., 2019; Panda et al., 2021). So, to reach high quality in the clinical environment, effective and competent clinical preceptors assist in equipping nursing students with adapting to learning outcomes to be ready for the market and achieve professional goals, nursing students need well prepared to graduate with high-quality competencies in their nursing profession, so clinical preceptors, clinical instructors, and clinical teachers play a significant role in clinical teaching and covered this concern.

Clinical training is the core of teaching and learning. Clinical training, which is at the heart of nursing education, is a critical component in the formation of professional nurses (Mashayekh et al., 2024). You cannot become a nurse without first taking part in clinical as a student, because clinical experience is a major component of your nursing teaching and education (Lindfors et al., 2022; Mashayekh et al., 2024; Pandelaki & Rochmawati, 2022). However, clinical training is fateful for nursing students that equips them with the skills, they need to manage actual patients while enhancing the knowledge they learn in the classroom and lab (Keinänen et al., 2023; Lima & Alzyood, 2024; Mashayekh et al., 2024; Pandelaki & Rochmawati, 2022).

Clinical teaching and clinical training have the goal of transforming novice nursing students into practicing nurses. The teaching-learning interaction is complicated, and its efficacy is determined by the preceptor's and student's teaching and learning styles (Bifftu et al., 2018). Clinical practice is a crucial part of education, and in many countries, the duties of nurses and other healthcare workers include teaching as one of their obligations (Carlson & Bengtsson, 2015).

A study by Polifroni et al., (1995) has shown that only 25% of a student's time during the clinical period was spent interacting with the preceptors or another registered nurse (RN), with the other 75% of the student's time being spent unsupervised. During that, nurses play a crucial role in patient care and handling in a variety of healthcare work environments. Nurses also had a significant role as clinical preceptors and instructors in teaching and learning novice nursing students until becoming competent in real healthcare systems and settings (Polifroni et al., 1995).

Furthermore, how could clinical preceptors and clinical instructors prepare competent nursing students if they are not competent? This is congruent with what was earned from the literature, which indicates the biggest challenge in clinical training incompetence of preceptors and clinical instructors. However, newly graduating nurses who are not sufficiently qualified or equipped to practice represent a risk to public safety and may cause patients injury, sometimes fatally (Batory, 2014; Collins, 2021).

The preceptorship program teaches the preceptors and clinical instructors to be qualified for equipping the student nurse with high competency in clinical practice (Ibrahim et al., 2024; Löfmark et al., 2012). The preceptorship program strongly supports preparing supervision of nurse students and enhances preceptor role models (Ibrahim et al., 2024; Löfmark et al., 2012). Through practical nursing education, students have the opportunity to gain knowledge in a variety of patient care settings, get pointed in the proper guidance, and foster the development of clinical competence and professionalism (Wu et al., 2020).

Additionally, preceptorship requires physicians, nurses, preceptors, and trainers to foster a welcoming environment for learning and work where students or newcomers are given the chance to advance their professional competency (Carlson & Bengtsson, 2015).

Regardless of certain studies advocating for the use of preceptorship models, the literature indicates that preceptorship models and the role of preceptors as clinical instructors in the clinical field remain inadequately supported. There is limited clarity on how preceptorship is utilized to educate nursing students as a group during clinical training, and its overall impact remains poorly understood.

To develop skilled clinical preceptors and instructors, implementing a structured preceptorship training program is essential. This program enhances their competence, equipping them to effectively prepare nursing students for professional practice

Furthermore, there were many challenges as evidenced by Ghrayeb (2017) indicated that 83.3% were unable to put the theoretical knowledge they had learned into practice, 72.7% of clinical preceptors were required to perform duties other than providing for their immediate patients on the ward, and 74.5% nursing students said the teaching staff was unable to forge a working relationship with hospital staff (Ghrayeb, 2017).

In Palestine, the students in many programs are trained through groups that consist of 5-7 students with each clinical preceptor for the nursing program, and 3-4 students with each clinical preceptor for the midwifery program or according to course training. This highlighted understanding the issues according to this training by preceptors who were on the job and in clinical environment.

Accordingly, the shortage and lack of competency among preceptors, clinical instructors, and nurse educators, increase the demand for conducting preceptorship teaching programs that will increase the number of preceptors who are trained to become effective and efficient instructors, this needs to highlight the consideration.

A registered nurse preceptor guides nursing students in a preceptorship program by fostering their clinical knowledge, skills, and professional attitudes through mentorship and modeling (Helaly, 2020; Li & Su, 2014; Wu et al., 2020). This program provides essential education and training, requiring knowledge of learning styles, teaching methods, and adult learning theories (Chan et al., 2019; Noble & Heale, 2019). Preceptors' training prioritizes mentorship strategies, conflict management, teamwork, and critical thinking (Chan et al.,

2019). Clinical instructors, and preceptors, play a key role in planning, implementing, and evaluating patient care while enhancing students' decision-making, clinical reasoning, and interpersonal skills (Chan et al., 2019; Hewitt-Thompson et al., 2016). Effective teaching methodologies and strong instructional skills are crucial for preceptors to fulfill their roles successfully (Alamri, 2020).

Hong & Yoon, (2021) defined clinical preceptors as educators who directly supervise and evaluate novice nurses and nursing students in clinical courses during practical training, in addition who having frequent interactions with experienced students. While clinical education can be considered the connection between theory and practice, teaching in accredited programs, the faculty is comfortable with the program's curriculum, course content, and student outcomes because they teach in programs that use QSEN competencies (Holman, 2018).

Clinical preceptors must have the qualities and characteristics necessary to improve nursing students' knowledge, abilities, and attitudes while also promoting nursing education at the highest level possible in order to develop high-quality nursing students by bridging the gap between theory and practice (Alamri, 2020).

Overall, the level of competence of preceptors affects students' learning experiences and clinical competencies (Wu et al., 2020). To that end, preceptorship programs enhance and promote the degree of preceptors' competencies. Preceptors' lack of training may hinder their capacity to mentor nurses' students and may harm the way these nurses' students interact with one another in the clinical setting. In order to instruct newly graduated nurses, preceptor training must be reviewed, and the impact and effect of the preceptorship program and the completion of training must be considered (Hong & Yoon,

2021). So, a preceptor is "an educator who gives on-the-job training to novice nurses and nursing students" (Hong & Yoon, 2021).

Preceptorship programs will help students learn and practice new skills through a more engaged learning method by educating the clinical preceptors. As a result, clinical preceptors and trainers will be aware of their roles and the program objectives, while students will be better aware of learning objectives, the program's expectations, and successful outcomes. Offering preceptorship programs can have benefits and positive effects on the nurse preceptor role (Gholizadeh et al., 2022; Wu et al., 2020).

To compensate for this inadequacy in preparation and help nursing education with it, the preceptorship teaching program will adopt it to empower preceptors and clinical instructors to meet the demand in preparing qualified, competent, and knowledgeable students, so in this dissertation study, it is imperative to highlight and explore the impact of preceptorship program on preceptors of clinical training in governmental hospitals. Successful preceptorship training programs create professionals with the expertise and abilities to assist in training and monitoring student and newly graduated nurses (Munnings, 2019). The project is anticipated to benefit the students, newly graduated nurses, preceptors, patients, and the organization (Munnings, 2019).

The teaching modality put a strain on preceptors and nursing educators and degraded the quality of students' clinical supervision and learning. The demand for preceptorship programs became clear and unavoidable as student enrollment in Health Training Institutions (HTIs) and universities (Dube & Rakhudu, 2021). So, in this study, it will be measured the effectiveness of implementing the preceptorship program on clinical

preceptors by using multifaceted sources of evaluation followed by the study program, this means multiple sources of data by triangulation.

Holman, (2018) in his study used multiple sources of data by triangulation strategies through an exploratory qualitative multiple case study approach and collected data from participant interviews and clinical course documents besides, two instructors. This increases and enhances the validity of the research by replication and reliability of the study and creating a study database. Replication is a form of triangulation, which means triangulation is the use of multiple sources or referents or multiple means of data collection to conclude what constitutes the truth that involves the attempt to grasp the overall complexity of a poorly understood phenomenon (Polit & & Beck, 2004; Polit, 2021). In order to use a triangulation method, multiple sources of data are adopted to enhance the validity and reliability of findings (Guthier et al., 2022) in this dissertation study.

However, the participation of all parties involved, including stakeholders, leaders, and the organization's unshakable commitment, is necessary for a preceptorship training program to be successful. For nurses to advance, a good program offers a safe learning atmosphere and clearly defines preceptor roles and responsibilities, which increases competency among preceptors and nurse students and graduates qualified nurses for the future and improves patient care quality and safety (Guthier et al., 2022).

1.3 Significance of the problem

The nursing preceptorship program is essential for developing competent clinical preceptors who are key in training skilled nursing students and ensuring patient safety. Despite its importance, research on preceptorship models and their impact on new nurses, preceptors, and healthcare organizations remains limited, particularly in Qatar and the

wider Gulf region (Arbabi et al., 2018). The shortage of qualified clinical preceptors, inconsistencies in student evaluations, and lack of oversight highlight the need for a structured preceptorship education program. There is a dearth of evidence to support preceptors because research on preceptorship experiences frequently focuses on nursing students rather than practicing nurses as preceptors or instructors. Implementing such a program will bridge the gap between theoretical learning and clinical practice, improving nursing education outcomes and healthcare quality. Thus, this study may well be the first in Palestine.

The literature acknowledged the importance of developing strategies and frameworks that enhance the efficacy and competencies of preceptors who will improve the student's skills and competency. Since 1981 these problems associated with trainers, and clinical instruction have been documented (Meleca et al., 1981; Won & Wong, 1987) until now (Al Harbi, 2023; AlMekkawi et al., 2020; Alsolami et al., 2022; Asirifi et al., 2024a; El-Naby et al., 2024).

The nursing preceptorship program will prepare clinical preceptors for their roles which back learning outcomes of student nurses by (a) preventing student nurses from feeling overwhelmed and acclimating them to their professional roles, (b) assisting student nurses in integrating knowledge and skills into clinical practice, and (c) enabling a more seamless transition for student nurses into clinical practice. Furthermore, structured preceptorship education programs could also help well-trained student nurses get ready for their professional roles (Arbabi et al., 2018) in the future to become a preceptor.

Moreover, during my experience as a clinical instructor and clinical coordinator, this interest becomes a need for more search for a study. Reality shock develops when

clinical preceptors, clinical instructors, and students become irresponsible and diminish the important role of fulfilling responsibilities in teaching roles. This happens through an increased number of students and shortages in the selection of effective clinical preceptors and instructors to meet the big role of equipping competent and qualified students to cover the market. Clinical preceptors and clinical instructors become not committed to their role and give students high marks to be more satisfied by the students, then take their salaries when finish training during the burden and double costs of life. Besides, the students were not equipped enough to cover these marks or deserved the role needed to graduate the best competent students with high quality for improving care and preserving safety for the patient and covering the market in Palestine.

So, the main goal of the Preceptorship program is to provide nurses who will be preceptors or already instructors with the education, skills, and training necessary to supervise and precept nursing students in a clinical context. It is intended for nurses who are interested in becoming clinical preceptors as well as those who have already taken on the position of a clinical preceptor but still wish to improve their clinical mentorship abilities and knowledge. Dube & Rakhudu (2021) affirm that in clinical nursing education, the preceptor plays a crucial role in student socialization; nevertheless, preceptors sometimes lack the necessary expertise or preparedness (Dube & Rakhudu, 2021).

1.4 The Purpose of the Study

The purpose of this study is to address the Impact of the Nursing Preceptorship Program on Teaching Competencies and Effectiveness among Palestinian Clinical Preceptors. Moreover, the findings from this dissertation recommend to policymakers the importance of using this preceptorship program as a strategy to equip clinical preceptors for

training students with competent skills in a clinical environment, in addition, this is anticipated to add to the body of knowledge on preceptorship and improve nursing practice. Furthermore, to determine if there is a relationship between nursing a preceptorship program and the years of clinical experience, gender, age, level of student nurses, setting, and other variables that could predict the competence of clinical preceptors in hospitals when answering research questions.

1.5 The Aim of the Study

The study aims to examine the impact of the nursing preceptorship program on teaching competencies and effectiveness among Palestinian clinical preceptors.

1.5.1 The objectives of the study:

- To determine the impact of the nursing preceptorship program on clinical preceptors' competency and effectiveness.
- To measure the nursing preceptorship program on teaching competencies and effectiveness among Palestinian clinical preceptors.
- To assess the efficiency of the nursing preceptorship programs through preceptors' self-evaluation by using the Clinical Teaching Competence Inventory (CTCI).
- To assess the efficiency of the nursing preceptorship program through the researcher evaluation by using the Nursing Clinical Teacher Effectiveness Inventory (NCTEI).
- To assess the efficiency of the nursing preceptorship programs through the students' evaluation by using NCTEI.

- To compare the competencies of the clinical preceptor's pre-test-posttest of the preceptorship program by using CTCI.

- To assess the difference in the demographic variables: age, gender, level of education, years of education, years of clinical experience, course training, setting of work, department of work, etc.., and with the competence of preceptors after the Nursing Preceptorship Program.

1.6 Research Questions and Hypotheses

1.6.1 Research Questions

Overall, in this dissertation study, the quantitative study answers research question one: What is the Impact of the Nursing Preceptorship Program on Teaching Competencies and Effectiveness among Palestinian Clinical Preceptors? To answer the research question, some of these sub-questions or hypotheses help the researcher attain goals and answers.

- What is the impact of a preceptorship program on preceptors' competency?

- What is the efficiency of the preceptorship teaching programs through preceptors' self-evaluation?

- What is the efficiency of the preceptorship teaching programs through the researcher evaluation?

- What is the efficiency of the preceptorship teaching programs through the students' evaluation?

- What is the difference in the competencies of the preceptor's pre-test-posttest of the preceptorship program based on using the Clinical Teaching Competence Inventory CTCI?

- What is the difference in the competencies of the preceptor's pre-test-posttest of the preceptorship program based on using the Nursing Clinical Teacher Effectiveness Inventory (NCTEI) by control group and post-test?

- Which demographic variable: age, gender, level of education, years of experience, knowledge of specialty of the department, course training, setting of work, or department of work, etc.., predicts the effect on the competence of clinical preceptors after the Nursing Preceptorship Program?

1.6.2 Research Hypotheses

H_1 There is a positive impact of a Preceptorship Program on Clinical Preceptors' Competencies in Palestinian Governmental Hospitals.

H_2 There is a statistically significant difference (at $P < 0.05$) in the efficiency of the preceptorship teaching program through preceptors' self-evaluation.

H_3 There is a positive efficiency of the preceptorship teaching program through the researcher evaluation.

H_4 There is a positive efficiency of the preceptorship teaching program through the students' evaluation

H_5 There is a difference in the competencies of the preceptor's pre-test-posttest of the preceptorship program based on using the Clinical Teaching Competence Inventory CTCI.

H_6 There are significant differences between the demographic variables: age, gender, level of education, years of education, years of clinical experience, course training, setting of work, department of work, etc.., and with the competence of preceptors after the Nursing Preceptorship Program.

1.7 Study Variables

In this research, variables are any characteristics that can take on different values, and in scientific research, variables have studied the effect of one variable on another one (Thomas & Kellgren, 2017). The independent variable is the cause and factor associated with the dependent. Its value is independent of other variables in the study. In this study, there were no dependent and independent variables explicitly clearly but the independent variables were preceptorship, preceptorship program, preceptor, clinical instructor, clinical educator, nurse student, and trainee, whilst the dependent variables were competency, competency of trainers, competency of student nurse, clinical training, and the effect of preceptorship program. Independent variables (IV) included in the first step were demographic variables such as age, gender, the clinical experience of clinical preceptors, the academic year of students, and years of experience in clinical training, and course training in addition to factors associated with effective clinical preceptors and teaching strategies.

1.8 Definition of some terms

1.8.1 Conceptual definitions:

Preceptorship Program: A program that involves an experienced RN guiding, instructing, and supporting a graduate student nurse in order to advance the graduate's professional growth (Happell, 2009). A preceptorship is a practicing health professional who has a formal agreement with a graduate or student (the preceptee). The preceptor guides, supports, and encourages the preceptee's socialization and growth of the preceptee into a qualified professional fit for employment in a therapeutically relevant setting (Bartlett et al., 2020).

A clinical Trainer or preceptor is defined as a registered nurse, a skilled clinician who can direct and guide students, role model, have an authentic experience provide feedback for students, and can facilitate students' teaching, learning, and professional socialization. Moreover, Preceptors are selected or employed by the MOH, clinical setting, and teachers by the university or university college (Löfmark et al., 2012).

Preceptor: a skilled, resourceful nurse who fosters the independence and sociability of newly hired nurses, assesses learning, aids in the development of critical thinking abilities, and fosters nursing skills (Kennedy, 2019).

Clinical Training or Clinical Teaching: Clinical teaching is carefully planning a setting where students can develop mutual respect and support for one another while working toward a specific learning objective. To foster clinical reasoning and a sense of collegiality among students and clinical preceptors and instructors, the faculty is an essential link (Billings & Halstead, 2015).

1.8.2 Operational Definitions:

Clinical nursing education is described as nursing education that takes place outside of a classroom, such as a hospital or clinic. Nursing instructors, preceptors, and/or staff nurses instruct and assess students. Students acquire and hone the abilities required to provide patients with secure and efficient treatment (Holman, 2018).

Preceptorship Program: is a structured educational approach in which an experienced and competent nurse (clinical preceptor) provides guidance, supervision, and support to a novice nurse, student nurse, or less experienced nurse in a clinical setting. The program aims to enhance the preceptor's competency and performance to be a clinical preceptor for a group of nursing students and perform as a role model, mentorship, and

hands-on experience. So, proper preparation of preceptors results in effective preceptorship programs and enhanced clinical experiences for those preceptors (Al Harbi, 2023; Alhassan et al., 2022; AlMekkawi et al., 2020; Arbabi et al., 2018).

A clinical Trainer or preceptor: is an experienced practitioner who oversees clinical practice and helps students and staff learners bridge the gap between theory and practical application (Alhassan et al., 2022; Batory, 2014; Choi & Yu, 2022).

Preceptor: refers to a nurse employed within a health care institution who mentors, supervises, educates, teaches, monitors, provides feedback, and evaluates undergraduate nursing students in the clinical field (Alhassan et al., 2022; Batory, 2014; Choi & Yu, 2022).

Clinical Training or Clinical Teaching: is a process of clinical nursing practice that provides patient-centered care through training nursing students to achieve certain objectives. teaching in clinical settings presents nurse educators with challenges that are different from those encountered in the classroom. Clinical teaching gives strategies in nursing concepts to provide a comprehensive framework for planning, guiding, and evaluating learning activities for undergraduate nursing students in a clinical setting (Chipwanya et al., 2024; Gaberson & Oermann, 2010; Hababeh & Lalithabai, 2020).

1.9 Preceptorship Program

The preceptorship program was formulated based on insights from the literature analysis, input from existing preceptors, trainers, department directors, and staff educators, as well as the strategic vision for the preceptorship program articulated by policymakers. Moreover, the preceptorship training program was adopted by the Jordanian Nursing Council after giving permission and previous literature. This dissertation project ideally

involved the adoption and modification of a preceptorship program that encompassed meticulous preceptor selection, nursing students in clinical fields, purposeful selection of clinical preceptors, hospitals, strategic preceptors, recognition and incentives, a structured orientation timeline, and evaluation tools for assessing both preceptor and student competencies. The new preceptorship program was implemented in February 2024, involving a pretest and posttest for the preceptorship teaching program or workshop.

1.10 The Conceptual Framework for the development of preceptors in the Research Study

Introduction to Conceptual Frameworks

Nursing education is not effective without training. Training needs to be done by hand. The study done by Mahasneh, et al., (2021) reveals that coping with difficult circumstances and successful learning through hands-on experience were both necessary during the shift from practicing on mannequins to actual patients in the clinical domains. Clinical instructors must satisfy the practical learning demands of their students by placing them in the shoes of "real patients" (Mahasneh et al., 2021).

The study by Harefa, et al., (2023) shows a favorable correlation between learning outcomes in science and learning interest. This indicates that as students' interest in learning grows, so will their learning outcomes, and vice versa. Learning outcomes typically decline when learning interest is low. Lack of interest and ignorance about the purpose of learning makes students less likely to desire to study and participate in the learning process. Because of this, it is challenging for the students to comprehend the teacher's vector material (Harefa et al., 2023).

To be effective and competent in using hands-on training, students need to have the desire to learn. So, nursing students need to do it by hand to learn: Knowledge is available to learn. Students also are available. Learning is available when the desired accessible. A preceptor is available to train students to learn by hand; but are the clinical preceptors competent to equip the student nurse? The desire to learn is needed. Responsibility is objective. The clinical environment at hand is accessible. The competence of clinical preceptors is not guaranteed.

To reach competent nurses, we need to train students to graduate with competence and effectiveness in knowledge, skills, and attitudes. And to get there, we need a clinical preceptor who can achieve this goal. Here is the crux of the matter. Therefore, to obtain clinical preceptors who are competent in knowledge, practical skill, handling, and behavior, we need to do training for the clinical preceptors to be able to train nursing students and bring them to the market at the required level.

Briefly, this needs to bring clinical preceptors with a competency that may allow them to train students. In order to obtain competent and distinguished clinical preceptors, we need to train the clinical preceptors and instructors to become competent and skillful which will enable them to transfer competence to the students in order to graduate them with the required competence. This is what will be applied to a preceptorship training program for clinical preceptors in this study.

The preceptorship training program will facilitate the more interactive learning process that clinical instructors/preceptors need to learn and perform learned skills and then transfer them to students. Therefore, clinical instructors/preceptors were made aware of the role that they play and the expectations of the program objectives while the student was

informed of the program's expectations and objectives for learning and successful results (Daniels, 2016).

However, this study will use four theories to apply the theoretical framework: Benner's Novice to Expert theory, Purnell's Cultural Competence Model (PCCM), Social learning theory, and the Modeling and Role-Modeling Theory. The theoretical framework for the study chosen is compatible with the research problem and congruent with the researcher's values and beliefs. Below is a description of them.

1.10.1 Principles of Adult Learning

The researcher will adopt models used by Collins, (2021) in his study. The student nurse is an adult learner, so nursing students are centered on the learning process. However, the Principles of Adult Learning need attention. Adults need to be active in the design and evaluation of their instruction, according to Knowles (1984). Adults are interested in learning topics that are immediately relevant to their lives, and their experience serves as the foundation for their problem-centered learning (Collins, 2021). One of the most influential learning theories in the 1970s and 1980s was Knowles' theory of adult learning, which is still relevant today. This theory is based on six guiding principles: self-awareness, self-direction, presence of a variety of life experiences, readiness to learn, task-centered orientation to learning, and motivation to learn (Knowles, 1984; Twaddell, 2019).

1.10.2 Benner's Novice to Expert Nursing Theory

The Dreyfus Model of Skill Acquisition is the basis for Dr. Patricia Benner's 1982 Novice to Expert Model, which effectively describes how someone acquires new skills and information from the novice stage to the expert stage (Ozdemir, 2019). Benner employed Dreyfus' model to comprehend how skills are learned and implemented in clinical nursing

practice (Al Harbi, 2023). Learning is the process by which experience is transformed into new knowledge. Then, through contemplation, the experience is transformed into concepts that serve as a roadmap for active experimenting with new experiences (Sackey, 2022). Five levels of experience were defined by Benner's (1984) nursing theory: novice, advanced beginning, competent, proficient, and expert.

In the first level, clinical preceptors who are nurses are novices in nursing practice who were acquired after his/her graduated from university. They could not transfer new knowledge and skills to the students (Ozdemir, 2019) without having experience or dealing with or when confronted with unusual circumstances. During the first to second years, nurses become in the second level of Benner's theory which is advanced beginning to be assistance of experienced nurses for patient care (Al Harbi, 2023; Ozdemir, 2019; Sackey, 2022). This means nurses still could not consider them as a clinical instructor. While in the next level, competent and proficient, who have two to three years of practice as a professional in a hospital, nurses become confident and efficient, so nurses create innovative methods and expand their clinical knowledge that enhances their decision-making but still may lack flexibility and speed. So, you could not be a clinical instructor or preceptor to train student nurses. Because this experience is not enough for them to be competent as preceptors. The last level according to Benner's level is expert. The experienced nurse is capable of making comprehensive decisions in every scenario, exhibits clinical reasoning, foresees unforeseen events, and has a wealth of experience and broad knowledge. In addition, greater adaptability—these are crucial qualities of a nurse to be a clinical preceptor and instructor (Al Harbi, 2023; Ozdemir, 2019; Sackey, 2022). By becoming a preceptor and taking a preceptorship training program, the expert nurse can

develop their clinical and professional practice experience (Sackey, 2022) to be competent as a preceptor or clinical instructor.

Although the fifth degree of expert has received criticism, Benner's theory has been widely applied in nursing practice (Al Harbi, 2023). To this end, the preceptorship training program that has been developed will handle any criticism, that will teach them what works, and be able to learn them what they need to progress and improve their performance.

To clarify the matter further, the researcher Collins, (2021) adopts in his study Benner's novice to expert nursing theory, which consists of five levels of experience: novice, advanced beginner, competent, proficient, and expert. These five levels will assist the preceptors to become competent and proficient in training students' nurses after the preceptorship program.

Novice student nurses: need the preceptor to recognize the instructions to understand what to accomplish, which duties to complete, and in what order (Collins, 2021).

Advanced beginner: According to Smith (2013), the advanced beginner includes new nurses who are 6–12 months out of training and have some clinical experience as well as mediocre performance. These nurses are more concerned with finishing tasks than managing patients specifically (Smith, 2013). The experienced beginning applies previously learned rules using expertise, intuition based on prior experiences, and checklists as a guide (Smith, 2013; Thomas & Kellgren, 2017).

Competent: When making decisions, a skilled nurse with two to five years of clinical experience uses more analytical and abstract thought than checklists or regulations

(Thomas & Kellgren, 2017). Based on earlier experiences, nurses can plan more effectively, set priorities, and separate essential information from irrelevant information when they are competent (Collins, 2021). Further, a combination of information, skills, abilities, or traits makes up competencies. And competencies that have been articulated in the literature are good communication techniques and serving as a role model (Bartlett et al., 2020).

Proficient: Nurses who have reached the proficient stage (4-5 years) may view events holistically rather than in terms of individual components. The skilled nurse treats patients holistically and spends less time planning since they are aware of situations' shifting significance and are aware of the appropriate course of action (Thomas & Kellgren, 2017).

Expert: The expert nurse has been working on practice experience for 5-7 years (Smith, 2013). Because of their significant nursing experience, they tend to make more holistic decisions and rely less on analytical thought or deliberate thought. Instead, they are able to anticipate the unexpected and understand the issue intuitively (Smith, 2013; Thomas & Kellgren, 2017). Expert nurses use discretion and critical thinking to provide treatment that is appropriate for each patient's unique condition (Thomas & Kellgren, 2017). The experienced nurse can assist less experienced nurses by acting as a resource.

Lastly, because it is based on levels of knowledge and experience, Benner's model of skill acquisition is significant because it can be used to develop learning activities for nurses at different stages of practice experience (Smith, 2013).

1.10.3 Purnell's Cultural Competence Model (PCCM).

Al Harbi, (2023) informed in her study that Purnell created the PCCM in 1990 as a paradigm to guide and aid in the organization of cultural competency. When Purnell was a professor of undergraduate students, he realized that both staff and students needed a framework to understand their own requirements as well as the cultural needs of patients and their families. However, he built the model as a result. The concept promotes the use of inquiry and questions to better comprehend other cultures and disciplines from a holistic standpoint.

Purnell emphasized the need for healthcare providers to respect, understand, and collaborate with patients. She also stressed the importance of having cultural sensitivity and understanding.

Purnell indicated in her book (2016) that the individual progresses from "unconscious incompetence (not being aware that one is lacking knowledge about another culture), to conscious incompetence (being aware that one is lacking knowledge about another culture), to conscious competence (learning about the client's culture, verifying generalizations about the client's culture, and providing cultural specific interventions), and finally, to unconscious competence (automatically providing culturally congruent care to clients of diverse cultures)". This study assumes that culture has a similarly strong impact on education and a preceptor's capacity to effectively support novice nurses (Al Harbi, 2023).

Clinical preceptors and instructors will move through these four stages of cultural competence from 'unconscious incompetence' to unconscious competence to understand the cultural diversity between nursing students.

1.10.4 Social learning theory

Bukhari, (2012) employed Social learning theory in his study. This theory is the behaviorist theory that James first proposed in 1890 where the concept of social learning first emerged. Thus, social learning theorists stress that people pick up knowledge by seeing what others do, which is then reinforced by seeing what happens when those activities interact with the environment (Bukhari, 2012). Theorists of social learning also acknowledged the importance of motivational factors, which include internal elements intended to persuade people to emulate the behavior observed in similar circumstances in the future. As a result, cognitive-behavioral techniques were the focus of social learning theorists, who looked at how thoughts and behaviors interact (Braungart et al., 2008; E. A. Bukhari, 2012). So, in essence, behaviorism and cognitive psychology—which emphasizes the three key ideas of role modeling, reinforcement, and cognitions—are combined in social learning theory (Braungart et al., 2008) that will be highlighted in this study.

1.10.5 Modeling and Role-Modeling Theory

Middle-range theories address a portion of a discipline's concerns regarding certain areas and are more focused than grand theories. A middle-range hypothesis is easier to apply and test in research initiatives due to its more limited scope and specificity (Alligood, 2017). The modeling and role-modeling theories of nursing are mostly the work of Erickson. Her work from the 1980s, which she co-authored with Evelyn Tomlin and Mary Ann Swain, was inspired by her experience working as a clinical psychologist. For that reason, a retroductive method was used to establish the theory and paradigm of modeling and role modeling. Erickson's clinical and life experiences served as the basis for the

original model, which was derived inductively (Alligood, 2017). However, in this study, the clinical experiences of preceptors who will be role models for students should be highlighted during the preceptorship program.

Furthermore, the theory incorporates ideas from various sources. These are some of the sources: Maslow's Theory of Needs Hierarchy which adopts the student's need to learn, Erikson's Theory of Psychosocial Stages adopted when training novice students or dealing with critical care cases, Piaget's Theory of Cognitive Development which is the demand of learning for improvement, and Selye and Lazarus's General Adaptation Syndrome that will student preserve from learning and teaching in clinical teaching environment to become a proficiency nurse in nursing profession (Erickson, 2014).

In the preceptorship program, the preceptors will understand how will be role models for his/her students, good communicators, patient, passionate, build trust, good control, health direct goals. This is the core role of clinical preceptors and instructors with nursing students. The modeling and role-modeling theory has been used in numerous hospitals around the nation due to its applicability and interest in guiding a holistic nursing practice (For example, nurses on surgical units at the University of Michigan Medical Center use an assessment tool based on the modeling and role-modeling theory) (Alligood, 2017; Erickson et al., 1983). Assessment of the competency of clinical preceptors and instructors and the outcomes of the preceptorship program was considered in this study.

The Theoretical Model of the Research Study

Benner's (1984) Nursing Theory:

- Novice,
- Advanced beginning,
- Competent and Proficient,
- Expert

Purnell's Cultural Competence Model (PCCM).

- Unconscious incompetence
- Conscious incompetence
- Conscious competence
- Unconscious competence

Social Learning Theory

- Role modelling
- Reinforcement process
- Cognition

Modeling and Role-Modeling Theory

Preceptorship Program

Clinical Instructor Competent

Outcome: Student Nurse Competent

Figure 1: The Theoretical Model of the Research Study

Theoretical Framework

Principles of Adult Learning

Modeling and Role-Modeling
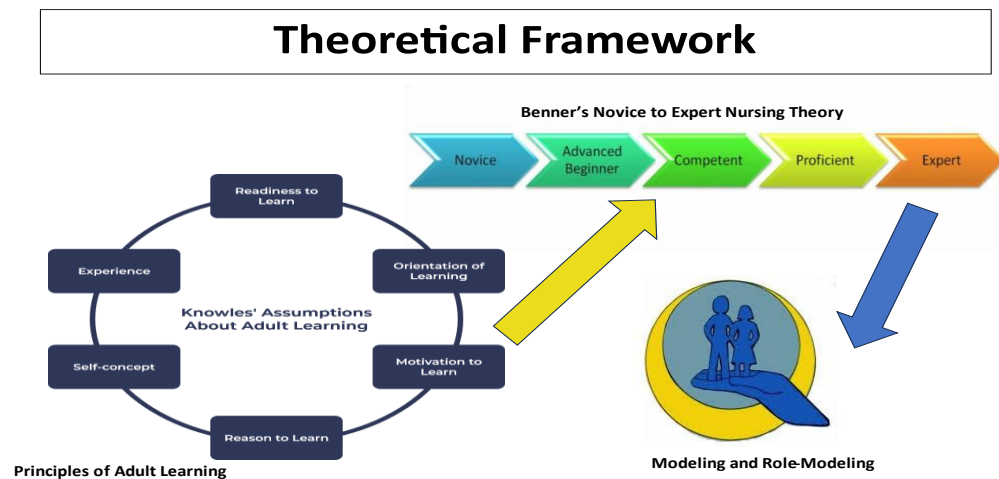
1.11 Thesis structure and organization

The researcher described in this section a brief structure of the thesis and the organized research process. This section encompassed an overview of the thesis chapters, including the introduction and research questions, literature reviews and PRISMA flow chart, methodology and research design, findings, and research results, and the last chapter discussion of the findings and recommendations.

1.11.1 Chapter One

This chapter consists of an introduction, research background, the significance of the study, the purpose and aims of the study, research questions, and hypothesis.

1.11.2 Chapter Two

This chapter includes an overview of the systematic literature review, the variables and terms that are included in the search, the PRISMA flow chart, the inclusion and exclusion criteria, the discussion, and the conclusion with a summary of the literature review.

1.11.3 Chapter Three

This chapter describes the methods used in this study. including, research design, measures, procedure, sample design, setting, subjects- entry criteria and recruitment, inclusion and exclusion criteria, data collection, ethical consideration, and intervention utilized.

1.11.4 Chapter Four

This is the research findings and results chapter. This chapter introduces how the researcher organized these findings. Start with demographical characteristics, then results related to the CTCI scale utilized in pre- and post-phases, and researcher evaluation of preceptors' performance using NCTEI. Comparison of students' NCTEI scores between the control and experimental groups, Testing the internal consistency of the CTCI & NCTEI scales, and the variation of preceptors' CTCI scores across different demographic characteristics. In addition, the differences in the pre-post changes should be discussed.

1.11.5 Chapter Five

The last one is the chapter discussion. In this chapter, the study identified the overview of a brief introduction with a summary and conclusion, then started to discuss and interpret the findings by comparing them with previous studies for each instrument employed in this study pre-and post-test. Then discuss the measures to ensure accuracy, validity, reliability, and credibility of findings, conclusion, limitation of the study, and recommendations.

1.11.6 Chapter Six

This chapter contains the references included in this study.

Chapter Two

Review of the Literature

2.1 Introduction

This literature review allows the researcher to identify the literature that is relevant to the study and a concept that matches what the author searches for and indicates new methods to interpret and shed light on any gaps in previous research if presented (Creswell & Poth, 2018). At the same time, this kind of literature highlights the benefits and implications for the future.

Clinical training education is an essential component of nursing professional training. The preceptorship program is an educational strategy where clinical nurses (preceptors) educate nursing students and novice nurses. Orientation training for novice nurses is crucial in equipping them for the obstacles encountered in clinical practice. Diverse nations have implemented distinct program elements and durations in organizing these initiatives (Ernawaty et al., 2024).

One of the techniques of the educational approach involves the creation of a preceptorship program, where experienced clinical nurses take on the responsibility of guiding and educating nursing students (Mashayekh et al., 2024). The preceptorship program is designed to enhance the skills and competencies of novice nurses and preceptors (Pandelaki & Rochmawati, 2022). This review seeks to assess the effectiveness of the preceptorship program for preceptors and examine its impact based on existing literature.

Clinical preceptors and instructors play a vital role in healthcare education by bridging academic knowledge with actual practice. Efficient clinical teaching and training

are crucial for equipping healthcare students to operate in intricate and evolving clinical environments (Gaber et al., 2019). However, numerous studies have highlighted the challenges encountered by clinical preceptors and instructors, such as inadequate preparation for their teaching role, excessive workloads, and insufficient support networks (Dias et al., 2024; Maalouf & El Zaatari, 2024; Panda et al., 2021). Preceptorship programs have emerged as a systematic intervention to enhance the teaching competencies of clinical preceptors and clinical instructors in response to these problems.

Many studies focus on hospital-based preceptorships, with less attention on preceptorship programs in healthcare settings, mental health, or specialized nursing fields. This limits understanding of the preceptorship's effectiveness across diverse settings (Hong & Yoon, 2021; Varghese et al., 2023). The absence of training for preceptors may hinder their capacity to instruct and mentor nursing students or newly graduated nurses, thus impairing these nurses' social integration within the clinical setting (Hong & Yoon, 2021).

Preceptorship is characterized as a structured, supportive interaction between an experienced clinician (preceptor) and a novice learner, wherein the preceptor facilitates learning, assesses performance, and promotes the learner's professional growth (Hamarash et al., 2023; Lau et al., 2024; Mashayekh et al., 2024; Ogdoc & Superable, 2021). Multiple studies have investigated the advantages of preceptorship programs, highlighting enhancements in instructional abilities, student contentment, and the general quality of clinical education (Panda et al., 2021; Pandelaki & Rochmawati, 2022).

Preceptorship programs enhance student learning and foster the professional development of preceptors. Preceptors indicate improved pedagogical abilities, more confidence in their responsibilities, and heightened job satisfaction (Hansen & Zuma,

2024; Hardie et al., 2022). Research by Ogdoc and Superable (2021) similarly showed that preceptorship programs enhance clinical teaching effectiveness since preceptors experience increased empowerment and support in their instructional duties (Arnaert et al., 2023; Ogdoc & Superable, 2021).

Effective clinical instruction necessitates a foundation of essential teaching qualities, encompassing proficient communication, evaluation of student performance, provision of constructive feedback, and the promotion of critical thinking (Alhassan et al., 2022; Araújo et al., 2023; Arnaert et al., 2023; Çamveren et al., 2022; Chipwanya et al., 2024; Choi & Yu, 2022; Ogdoc & Superable, 2021). Research has consistently demonstrated that preceptorship programs substantially improve these competencies.

In a study by Mashayekh et al., (2024), clinical preceptors engaged in a structured preceptorship program exhibited significant enhancement in their capacity to evaluate students' clinical performance and deliver constructive criticism. A study by Araújo et al., (2023) revealed that preceptors who received training demonstrated enhanced competence in mentoring students and incorporating evidence-based practices into clinical instruction.

Preceptorship programs have been extensively implemented in healthcare education internationally (Al Harbi, 2023). In Canada, preceptorship has been incorporated into nursing education as a requisite element for clinical teachers, resulting in favorable effects on instructional efficacy and student performance (Bugarski, 2018). In these researches the preceptorship programs markedly enhanced the teaching skills of clinical instructors, fostering a more supportive educational atmosphere for students and newly qualified nurses (Al Harbi, 2023; Bugarski, 2018).

Although considerable evidence indicates the beneficial impact of preceptorship on teaching competencies, most research has been undertaken in high-income nations (Ebu Enyan et al., 2021). There is a deficiency of research examining the efficacy of preceptorship programs in low- and middle-income countries (LMICs), especially within the Middle East and North Africa (MENA) region (Arnaert et al., 2023; Asirifi et al., 2024a; Ebu Enyan et al., 2021; Enyan et al., 2022). Considering the distinct socio-cultural and educational constraints encountered by healthcare educators in Palestine, additional study is required to evaluate the potential of preceptorship programs to enhance teaching competencies in these settings.

The literature underscores the significant impact of preceptorship programs on enhancing the teaching competencies of clinical instructors (Arnaert et al., 2023; Asirifi et al., 2024a; Ebu Enyan et al., 2021). However, there remains a gap in understanding the effectiveness of these programs in low-middle-income countries such as Palestine.

Identifying gaps in the literature on preceptorship programs during the training of nursing students can help enhance these programs' effectiveness and contribute to better learning outcomes (Ernawaty et al., 2024). However, this question arises how to develop effective preceptorship training programs that cater to both experienced and novice preceptors?

To fill this gap, the present study aimed to determine the effect of a preceptorship program on Clinical Instructors' teaching competencies in Palestinian Governmental Hospitals.

2.2 Aim

This literature review was conducted to understand how the preceptorship program could be used in previous evidence as a pretest-posttest and to investigate its impact on Clinical preceptors' teaching competencies in Palestinian Governmental Hospitals.

2.3 Methods Section

2.3.1 Databases

Based on the presumption " The Impact of Nursing Preceptorship Program on Teaching Competencies and Effectiveness among Palestinian Clinical Preceptors" 74 research articles were selected from the published literature through a search conducted between June 2024 and July 2024.

An exhaustive review of multidisciplinary literature on electronic databases was performed using three online databases: PubMed, EBSCOhost (CINAHL), and Science Direct. Additionally, searches for key article references were conducted. The key wards were used in searching "preceptorship" AND "clinical instructor" OR "clinical educator" AND "preceptor" OR "preceptor."

2.3.2 Design

A systematic search includes many articles identified from 2021 to 2024 that directly or indirectly examine the concept.

2.3.2.1 Inclusion and Exclusion Criteria

This study included criteria such as quantitative, qualitative, or mixed methods research approaches; studies involving nurses as participants; English-language articles; and focusing on preceptorship programs, clinical preceptors, clinical instructors, or preceptors, and nursing students. The researcher identified the preceptorship program from

various nations and was conducted in the hospital sites which involved increasing

competencies among novice nurses and experienced nurses as preceptors.

Exclusion criteria encompassed letters, editorials, opinions, essays, case studies,

narrative reviews, and systematic reviews; journals lacking full-text availability or

abstracts; publications in languages other than English, such as Arabic, Chinese, Brazil,

Portuguese, and Spanish; articles not involving nurse participants or focusing on diploma

nursing students; and those not pertinent to clinical settings or lacking accessibility.

2.4 Methodology of the review

2.4.1 Literature Search and Evaluation

Only publications that offered advice and guidance on how to conduct a literature

review were taken into account during the search process. These publications can include

quantitative, qualitative, or mixed methodologies approaches in addition to quasi-

experimental research. However, this research did not incorporate systematic literature

reviews on a single topic. The study plan encompassed interdisciplinary studies from the

fields of medicine, health science, information systems, and education, with a specific

emphasis on nursing-related issues. Moreover, all preceptors are nurses in clinical

environments or nursing fields.

For each manuscript, the principal relevance to the title was delineated. Upon

determining that the content elucidates the methodologies of the literature review process as

indicated by the title and is pertinent to the study, the researcher retrieved the complete

reference and downloaded the publication, which encompassed the author, year, title, and

abstract, for further evaluation. Due to advancements in technology that have altered the

procedures for data retrieval and archiving methods, the search identified around 74 papers published within the last three years.

Initially, the researcher conducted searches on PubMed, followed by CINHAL through EBSCOhost, and ultimately on Science Direct. The research methodology employed broad keywords such as "how to conduct a literature review" and "review technique methods." Upon scanning the initial twenty pages of search results, the searcher identified 213 potentially relevant articles from PubMed, 60 from CINHAL via EBSCOhost, one from Scopus, and 252 from ScienceDirect. The searcher optimized the keywords. This search yields 626 results from a total of three identified study databases.

Duplicate papers and literature review papers were removed, and studies were evaluated against the inclusion and exclusion criteria for eligibility, based on the abstract and title. All articles lacking full-text access were excluded; titles and content deemed irrelevant to the study, as well as studies not conducted in the English language, were also omitted. Furthermore, studies that did not focus on nurses in educational institutions were excluded. Adding to that studied were diploma nursing students, midwifery students, physical therapy students, and medical students. Finally, the literature review employed 19 articles that met the eligibility criteria and inclusion to review as shown in the PRISMA chart (Fig. 2).

Identification of studies via databases and registers

Identification

Records identified from*:
(2022-2024) = 625
Databases (n =3)
Total (n =562)
PubMed, MeSH (n = 213)
EBSCO, CINAHL (n = 60)
Science Direct (n = 352)
Scopus (n = 1)

Records removed *before screening*:
Duplicate records in the same database
Records marked as ineligible (Literature reviews) removed
Records removed for other reasons
PubMed, MeSH (n = 81)
EBSCO, CINAHL (n = 44)
Science Direct (n = 252)

Screening

Records screened
(**n =74**)
PubMed, MeSH (n = 18)
EBSCO, CINAHL (n = 22)
Science Direct (n = 34)

Records excluded** *(Manual)*
(n = 26)
- Language other than English (n= 5)
- Tital does not match (n = 21)

Reports sought for retrieval
Articles screened related to abstract/title
(n = 48)

Reports not retrieved
(n = 18)
The sample is not a nursing student

Reports assessed for eligibility
(n = 30)

Reports excluded: (n=6)
Reason 1 (n = 2) Review study
Reason 2 (n = 4) Not specific
Reason 3 (n = 0)

Eligibility

Studies included in review
(n = 24) eligibility

Reports excluded: (n =5)
The population does not match

Included

Studies included in studies
(n = 19)

Figure 2: PRISMA flow diagram

2.5 Search Strategy

To reach that number, the research process included using the Boolean operator, terms were searched in MeSH and the search techniques and findings were recorded by the relevant parts of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) (Moher et al., 2009) (Fig.2).

In conclusion, the researcher initiates the process by examining the titles of the publications. Subsequently, after eliminating duplicate articles and those lacking an abstract, the abstracts of the remaining papers were separately analyzed for each database. After examining these texts, 19 journal articles were selected for inclusion in the final evaluation, meeting the eligibility requirements for the study, and organized on a matrix table.

2.6 Ethical consideration

In this literature review, ethical approval was not required, as identified data from previous evidence from three databases.

2.7 Search outcomes

This study allows us to download specific references from my searches for import into reference handling systems (Endnote), where database and host expertise is required for successful import into my reference databases. Thus, the final sample of articles included in this review study was 19. Apart from Medline, PubMed hosts several databases, including Science Direct. These evidence were (Alhassan et al., 2022; Amaral & Figueiredo, 2023; Araújo et al., 2023; Arnaert et al., 2023; Çamveren et al., 2022; Chipwanya et al., 2024; Choi & Yu, 2022; Enyan et al., 2022; Gholizadeh et al., 2022;

Hamarash et al., 2023; Hansen & Zuma, 2024; Hardie et al., 2022; Lau et al., 2024; Lindfors et al., 2022; Mashayekh et al., 2024; Pere et al., 2022; Regaira-Martínez et al., 2023; Varghese et al., 2023; Wu et al., 2022).

2.8 Data extraction

The data were extracted by documenting the key and critical information, including the author's name, country, year of research, research design, objectives, sample, and findings and results. The researcher was the reviewer's comments. The measured variables are visible in the matrix table—five of the research were quantitative studies, eight were qualitative studies, one was mixed methods, and five were quasi-experimental studies (see table matrix). These were different from diverse countries, two studies from Iran, Ghana, Canada, South Africa, and Singapore, and one from Qatar, Portugal, Finland, Brazil, Iraq, Ireland, Turkey, Korea, and Spain.

2.9 Results

2.9.1 Search results

Through extensive research the researcher got 625 pieces of evidence were identified and investigated through databases to extract 19 papers matching the current study research. After removing duplicate articles and those irrelevant to the eligibility and inclusion criteria for abstract and title. Further, the researcher excluded 551 after records during screening, resulting in 74 remaining papers. Then other languages than English, the sample was not nurses or nursing students, or could not obtain the full text were removed. Of the 19 papers five from EBSCO, (Amaral & Figueiredo, 2023; Enyan et al., 2022; Lindfors et al., 2022; Mashayekh et al., 2024; Varghese et al., 2023), six from PubMed,

(Araújo et al., 2023; Arnaert et al., 2023; Gholizadeh et al., 2022; Hamarash et al., 2023; Hansen & Zuma, 2024; Hardie et al., 2022), and eight from Science Direct, (Alhassan et al., 2022; Çamveren et al., 2022; Chipwanya et al., 2024; Choi & Yu, 2022; Lau et al., 2024; Pere et al., 2022; Regaira-Martínez et al., 2023; Wu et al., 2022) (See table 1).

The final dataset for this literature study comprised 19 papers as mentioned before, consisting of eight qualitative studies, 10 quantitative studies, and one mixed-method study. The majority of the studies originate from Iran (n = 2), Ghana (n = 2), Canada (n = 2), South Africa (n = 2), and Singapore (n = 2), followed by one each from Ireland, Finland, Portugal, Turkey, Brazil, Korea, Spain, Iraq, and Qatar.

Despite the diversity of cultures among populations, the sample selection exhibited certain similarities, hence the sample sizes varied significantly across each study.

On the other hand, the majority of these papers were qualitative studies, using semi-structured interviews, the sample size was six to 26 nurses. Sampling methods in the qualitative studies were purposive sampling. The purpose was clear, the preceptorship was varied in different aims employed in qualitative studies as one considered it a credit for nurse preceptors as using online educational programs for nurse preceptors, while the other used preceptorship for new nurses when employed in the hospital. All qualitative studies emerge and analyze themes that focus on teaching strategies, challenges faced by the preceptors, resources, and support preceptors, Strengths-Based Nursing (SBN) principles, interpersonal and communications skills, the clinical environment, evaluation, competence, balancing the act of nursing and teaching, acknowledging expectations to teach, discovering self through the preceptorship experience, preceptor-student relationship, barriers and challenges to successful preceptorship, and outcomes of successful

preceptorship (Amaral & Figueiredo, 2023; Araújo et al., 2023; Arnaert et al., 2023; Hansen & Zuma, 2024; Hardie et al., 2022; Lau et al., 2024; Pere et al., 2022; Varghese et al., 2023).

From almost of this qualitative evidence, its main aims were to capture the experiences of nurse preceptors in training new nurses or student nurses and to comprehend the impact of this preceptorship on the development of preceptors and contribute to the development of clinical management skills among them (Araújo et al., 2023; Arnaert et al., 2023; Hansen & Zuma, 2024; Hardie et al., 2022; Lau et al., 2024; Pere et al., 2022; Varghese et al., 2023). While the research conducted by the scientists Amaral and Figueiredo, (2023) identified the criteria and the key characteristics that are considered for selecting a clinical nurse preceptor. However, this evidence highlights the importance of preceptorship in nursing education and practice.

Furthermore, there were ten quantitative investigations, five of which were quasi-experimental. The total number of samples ranged from 45 to 307 participants. Sampling methods were convenient sampling except in two studies, which were chosen randomly (Lindfors et al., 2022; Mashayekh et al., 2024). The main aim of these quantitative studies was to determine the effectiveness of a preceptorship training program for clinical nurse preceptors who teach nursing students and to examine the impact of the preceptorship program on the organizational outcome of novice and nursing students. Moreover, to assess the experienced professional nurses' self-efficacy in clinical practice and whether their perceived competence and role model (Alhassan et al., 2022; Çamveren et al., 2022; Chipwanya et al., 2024; Choi & Yu, 2022; Gholizadeh et al., 2022; Hamarash et al., 2023;

Lindfors et al., 2022; Mashayekh et al., 2024; Regaira-Martínez et al., 2023; Wu et al.,

2022).

Even though the quasi-experimental studies had some similarities with the study

design, while varied in research methods, one employed two groups, an experimental and a

control group (Lindfors et al., 2022; Mashayekh et al., 2024; Wu et al., 2022), while

another utilized a single group to serve as both the experimental or a control group

(Çamveren et al., 2022; Chipwanya et al., 2024).

The last paper the researcher evaluated was a mixed-method study (Enyan et al.,

2022) Forty-five nurse preceptors engaged in pre- and post-training interventions, and

seven were intentionally selected for qualitative interviews.

2.9.2 Critical Appraisal

The author assessed the 19 studies with the Joanna Briggs Institute checklist for

quasi-experimental studies (Critical Appraisal Tools checklist), which comprised nine items

with responses categorized as Yes, No, Unclear, or Not/Applicable (Institute, 2020); the

rating scores for the articles ranged from 9 to 3. Three studies received a score of 9, three

studies received a score of 7, one study received a score of 5, seven studies received a score

of 4, and the final four studies received a score of 3. The inadequate appraisal scores were

affected by a lack of information and the studies were not quasi-experimental (see Table

matrix).

The major themes extracted from these reviews were the competence of

the coaches, commitment, and clinical education1, preceptor preparation, and teaching

techniques, teaching strategies, and progressive skill development in a preceptorship,

characteristics of preceptors, communication and interpersonal relationship, and preceptorship program.

2.9.2.1 Commitment and Clinical Education

Mashayekh, et al., (2024) pointed out in their study that findings revealed the beneficial influence of a training program on the conduct of nurses in clinical education. There is a significant improvement in the dimension of commitment and clinical education.

Varghese et al., (2023) indicated in their findings that preceptors feel valued and recognized for their significant contribution to the training of novice nurses. This engenders a sense of accomplishment from witnessing the growth and progress of their preceptees. This, in turn, positively impacts their job satisfaction and commitment. So, the preceptors indicated that insufficient assistance and resources from the healthcare organization contributed to their feelings of fatigue. This confirms the requirements of precepting affect the job satisfaction and well-being of preceptors, as well as the quality of training that will be offered to novice nurses. To address these challenges, healthcare organizations should prioritize the creation of a comprehensive preceptorship program (Mashayekh et al., 2024; Varghese et al., 2023).

Nurses have numerous responsibilities toward students, and those considering this role should be well-acquainted with the expectations and duties it entails (Mashayekh et al., 2024).

Commitment to the institutions and professions is a high significant in preceptorship program that leads to the satisfaction of preceptors (Alhassan et al., 2022; Çamveren et al., 2022; Choi & Yu, 2022; Regaira-Martínez et al., 2023).

2.9.2.2 Teaching Strategies and Progressive Skill Development in Preceptorship

Varghese et al., (2023) employed various methods to enhance the education and growth of newly recruited nurses from diverse backgrounds with unique learning needs. Through the utilization of diverse teaching strategies, preceptors can aid novice nurses in honing their critical thinking abilities, augmenting their capacity to prioritize patient care, and enhancing their decision-making skills in complex scenarios. Moreover, theoretical knowledge and professional experience in one's clinical domain are acknowledged as essential for preceptorship in technical-scientific skills (Amaral & Figueiredo, 2023; Chan et al., 2019).

2.9.2.3 Characteristics of Preceptors

Personal attributes also affect the enhancement of the preceptor's competencies (Amaral & Figueiredo, 2023). Amaral & Figueiredo, (2023) explained in their research that the effective administration of a preceptorship necessitates pertinent quality measures, which are affected by the nurses' resources and their ability to integrate these resources and translate their skills into practice. The identified categories (skills and individual qualities) align with the personal resources intrinsic to each preceptor.

Moreover, the previous studies explored that there was no significant association between the preceptors' role commitment and the various demographic characteristics such as gender, age, work experience, and level of education (Alhassan et al., 2022; Amaral & Figueiredo, 2023). Otherwise, Choi and Yu, (2022) study indicated that there was a significant difference between the self-efficacy of new nurses according to preceptors' work experience, marital status, and position, adding that commitment and self-efficacy were significantly associated.

The nurse preceptor serves as a facilitator in acquiring and enhancing nursing students' skills; therefore, it is imperative to perform professionally to ensure the success of the preceptorship. Consequently, the nurses recognized a collection of personal resources that they might utilize and convey to function effectively as nurse preceptors, which should be considered when selecting the nurse preceptor (Amaral & Figueiredo, 2023).

In the field of scientific-technical competencies, it is acknowledged that both theoretical knowledge and professional experience in one's clinical domain are critical for effectively precepting' nursing students (Amaral & Figueiredo, 2023).

2.9.2.4 Communication and interpersonal relationship

Effective communication enhances learning, cultivates relationships, and empowers the pupils to regulate emotions. Communication between the nursing preceptor and the student must be assertive, transparent, consistent, and ongoing. The preceptor must assess the student's learning requirements and provide consistent feedback on the student's progress (Amaral & Figueiredo, 2023).

Communication is the prime for building a productive relationship between preceptor and students. It improves effective feedback, monitoring, teaching, and evaluation of the student's performance (Amaral & Figueiredo, 2023; Hardie et al., 2022; Regaira-Martínez et al., 2023).

2.9.2.5 Preceptorship Training Program

Preceptorship training has proven to be successful in raising nurses' clinical expertise, according to studies (Mashayekh et al., 2024). Further, Understanding and supporting the responsibility of nurse preceptors is essential. This study supports keeping

and improving current preceptorship programs, building support systems, and empowering these experts (Varghese et al., 2023).

A preceptorship involves responsibilities for both the educational institution and the student during the learning process (Amaral & Figueiredo, 2023). Preceptorship should provide nurses the opportunity to assume a preferred role (Amaral & Figueiredo, 2023) and be appropriate for training and caring for students.

However, the prior studies showed the utilized preceptorship as a strategy to enhance the preceptors' behavior to be effective and competent as role models for supporting the quality of education and training nursing students to develop nursing students with competence in knowledge, skills, communication, confidence, and trust in improving patient care outcomes that fostering professional growth and development (Amaral & Figueiredo, 2023; Ebu Enyan et al., 2021; Lindfors et al., 2022; Mashayekh et al., 2024; Varghese et al., 2023).

Notably, the previous studies indicated varied educational programs (Araújo et al., 2023; Arnaert et al., 2023; Gholizadeh et al., 2022; Hamarash et al., 2023; Hansen & Zuma, 2024; Hardie et al., 2022). These programs addressed the importance of preceptors' role in understanding how to develop nursing students and new graduate nurses in professional clinical practice, how to learn them, how to manage and communicate effectively in clinical situations, and how to employ different teaching techniques like case scenarios and enhanced critical thinking, clinical reasoning, feedback and assessment, evaluation nursing students, adding how to support preceptors to become commitment, competence, safe, and confidence in their clinical practice and role (Araújo et al., 2023; Arnaert et al., 2023; Gholizadeh et al., 2022; Hamarash et al., 2023; Hansen & Zuma, 2024; Hardie et al., 2022).

Further, a study by Arnaert et al., (2023) developed five Strength-Based Learning Online Course Modules for clinical teaching and learning objectives. The five modules consist of Module One, Strength-based Learning, Module Two, Strengths-based Teaching and Learning, Module Three, Clinical Learning Environment, Module Four, Clinical Reasoning, and Module Five, Feedback and Assessment. Each one needs one hour to accomplish to move to another after a complete understanding of each concept. While the study by Regaira-Martínez, et al., (2023)   explored the perception of nurses preceptors of clinical training for nursing students who were assessed using the Involvement, Motivation, Satisfaction, Obstacles and Commitment (IMSOC) questionnaire

In an across-sectional study done by Alhassan, et al., (2022) a four-part questionnaire was employed to gather data for this study, consisting of a demographic information section, the Preceptors' Perception of Support Scale (PPS), the Preceptor Rewards and Incentives Questionnaire (PRIQ), and the Commitment to the Preceptor Role Scale (CPR). The findings in this research concentrate on the fact that a proportion of preceptors do not feel support, so preceptor support should focus more on the professional advancement of preceptors.

Hence a quasi-experimental pretest-posttest as the current study design, done by Çamveren, et al., (2022). A single-group quasi-experimental design was utilized, and the preceptorship program was developed as a guidance to improve preceptors' skills for training new nurses and students. The preceptorship program was carried out in accordance with the organizational socialization model's phases as follows: phase one involves planning the preceptorship program to meet the requirements of nurse preceptors and

novice nurses; phase two: consists of carrying out the action plans, and phase three: evaluating the novice nurses' commitment, job satisfaction, and desire to leave.

Choi, & Yu, (2022) highlighted in a cross-sectional study that the preceptorship training program significantly increased organizational commitment ($\beta = 0.13$, $p < 0.05$). Novice nurses' perceptions of preceptors' mentoring role impacted their self-efficacy and organizational commitment. This research indicated that novice nurses' self-efficacy varied based on their preceptors' work experience and role. Self-efficacy was highest among preceptors with 5-10 years of experience, followed by those with over 10 years of experience. The lowest occurred when preceptors had 1-3 years of work experience.

Pere, et al., (2022) point out in their study that a robust relationship facilitates a deeper comprehension of the requirements of both students and preceptors, fostering enhanced collaboration, trust growth, and ultimately, a safer nursing practice. However, the preceptor competency within a one-to-one preceptor model in a nursing program was significance (Pere et al., 2022) to improve the student-preceptor relationship and enhance effective training. The experiences of the preceptors need to empower their teaching and learning to enacted the preceptors in their role to support the transition of nursing students into practice (Panda et al., 2021; Pere et al., 2022; Varghese et al., 2023). Consequently, a preceptorship program for preceptors will be established to equip preceptors with the necessary competency.

The preceptorship program enhanced competence, communication, professional relationships, and self-confidence among preceptors and improved nursing students' competency and commitment which is crucial to improving the quality of nursing care

service (Lau et al., 2024; Mashayekh et al., 2024; Pere et al., 2022; Varghese et al., 2023; Wu et al., 2022).

2.9.3 Tools in the Reviewed Literature

Mashayekh, et al., (2024) utilized the IMSOC questionnaire, International Maritime Staff Operators Course, developed by Cevera-Gasch to assess the level of participation of preceptors in the education and training of nursing students. The questionnaire has 31 items for five dimensions (implementation, motivation, satisfaction, obstacle, and commitment). In this questionnaire, a five-point Likert scale was utilized (Mashayekh et al., 2024). Varghese et al., (2023) used the consolidated criteria for reporting qualitative research (COREQ) 32-item checklist.

Amaral and Figueiredo, (2023) employed fourteen semi-structured interviews conducted with nurses at various stages of Benner's Professional Development Model, each offering distinct perspectives on nursing preceptorship. Further, in another study, the researcher used an instrument consisting of two assessment scales. The Nursing Competence Scale (NCS) was utilized in several countries, different practice environments, and nursing samples to examine competence levels and associated factors and to assess the impact of education interventions (Lindfors et al., 2022). This instrument comprises seven competence categories: helping role, teaching coaching, diagnostic functions, managing situations, therapeutic intervention, ensuring quality, and work role.

Ebu Enyan, et al., (2022) modified the technology acceptance model questionnaire, which was developed by Davis in 1989, in their study utilizing a seven-point Likert scale, ranging from strongly agree to disagree strongly. On the other hand, Arnaert, et al., (2023)

used Strengths-Based Nursing (SBN) principles. SBN, conceptualized by Dr. Laurie

Gottlieb, is a philosophy and value-oriented framework that enhances in-person and family-

centered care, empowerment, relational care, and inherent capabilities. This investigated the

experiences of nurse preceptors utilizing an SBN strategy for clinical teaching of nursing

students after completing an online SBN clinical teaching course, which consists of five

modules. Araújo, et al., (2023) indicated in their study that using the program's pedagogical

project (PP) by document analysis to identify nurses' and preceptors' clinical and

managerial competencies. This program emphasized the preparation of preceptors that

promote the cultivation of clinical and managerial competencies (Araújo et al., 2023) that

support training nursing students.

Gholizadeh, et al., (2022) employed the Preceptor's perception of benefits and

rewards (PPBR) scale created by Dibert and Goldenberg in 1995, which consisted of 38

items. This tool assesses preceptors' perception of the benefits and rewards related to

preceptor function, perceived support, and dedication to the task. The effectiveness of a

preceptorship program is heavily reliant on the commitment of preceptors to fulfilling their

responsibilities (Gholizadeh et al., 2022).

To that end, Alhassan, et al., (2022) used three questionnaires: the preceptors'

perception of support scale (PPS), the preceptor rewards and incentives questionnaire

(PRIQ), and the commitment to the preceptor role scale (CPR) in addition to a section of

demographical data. This study showed the majority of preceptors indicated a substantial

level of felt support in the preceptorship role (Alhassan et al., 2022). However, insufficient

training for the role may cause a rise in the preceptors' trust in their clinical competence

and their eagerness to instruct, which could be misinterpreted as necessary abilities for effective preceptorship (Alhassan et al., 2022).

Hamarash, et al., (2023) revealed that the instrument employed had four open-ended questions designed based on prior literature. The gender distribution among preceptors indicated that females had a greater prevalence than males. The majority of preceptors were aged between 35-44 years. Preceptors within this age group may have extensive clinical experience and knowledge that can significantly enhance their capacity to mentor and guide nursing students effectively. However, when designing a preceptorship program, it is crucial to account for any generational disparities in pedagogical methods and learning preferences (Hamarash et al., 2023). Furthermore, the researchers pointed to study findings that revealed preceptors are confident in their capacity to teach and effectively integrate critical thinking skills to graduate nursing students during preceptorship experience. This highlights the importance of the preceptor's attribute to cultivating critical thinking skills as a fundamental part of nursing education (Hamarash et al., 2023). This is explicit in governmental nursing colleges in Iraq that employ different methods including case studies, simulation, and problem-based learning to promote critical thinking skills in nursing students (Hamarash et al., 2023).

While Hansen & Zuma, (2024) used a semi-structured interview with 25 participants 11 newly qualified nurses, seven preceptors, and seven managers. Briefly, the preceptorship program trained preceptors to equip qualified nursing students that enhance valuable insight in both clinical practice and nursing education. Thus, the findings of Hansen & Zuma, (2024) study can significantly empower the preceptors and nursing

students through imparting a body of knowledge of the nursing profession and nursing education.

Hardie, et al., (2022) used the principles and the iterative process of Experienced Based Co-Design (EBCD) by a narrative interview using open-ended questions. The findings emphasized the incorporation of practical interpersonal and communication skills that should be integrated into preceptors' training program to promote person-centered communication in nursing education.

Çamveren, et al., (2022) also used four scales in their study. The first consisted of demographical characteristics; the second asked the respondents questions that were answered according to the Likert scale; the third was an organizational commitment scale on a seven-point scale ranging from one (strongly disagree) to seven (strongly agree). The last scale assessed job satisfaction using a single-item question, with responses ranging from one (very dissatisfied) to four (very satisfied). This study applied the organizational socialization model to improve the work environment and relationships for both nursing students and preceptors.

On the other hand, Wu, et al., (2022) used three tools, the Clinical Teaching Competence Inventory (CTCI), Preceptor Self-efficacy Assessment Instrument (PSEQ), and Attitudes Toward Web-based Continuing Learning Survey (AWCLS). The participants in this study reported improved clinical teaching competency and self-efficacy immediately following the face-to-face preceptorship program. Conversely, the face-to-face program training necessitated additional contact hours, but the WCP program permitted nurses to peruse the learning materials at their convenience (Wu et al., 2022). Nonetheless, technology should not entirely replace face-to-face training, even for preceptors. In-person

interactions are essential for fostering meaningful relationships between preceptors and enhancing peer support. Effective preceptorship training program had an impact on nursing students' learning, quality, and safety of patient care (Mashayekh et al., 2024; Wu et al., 2022). Notably, the CTCI subdomains, student evaluation, goal setting, and individual learning demonstrated markedly superior outcomes in the experimental group compared to the control group (Wu et al., 2022). However, early formal preparation of preceptors by preceptorship training program could build up the confidence and competence of preceptors in clinical teaching and training nursing students.

Pere, et al., (2022) developed a semi-structured interview with nine preceptors. The study discussed these themes: recognizing pedagogical expectations, addressing preceptor requirements, balancing nursing and teaching responsibilities, and exploring personal development through the preceptorship experience.

Choi, & Yu, (2022) used measurement scales that consisted of demographical characteristics and the mentoring function measurement tool with three categories: career development function (eight items), role modeling (four items), and psychosocial function (11 items). The response for each item rated five points on the Likert scale. Other tools utilized were self-efficacy and organizational commitment (Choi & Yu, 2022). The main findings showed the mentoring role of preceptors with a tight rapport with student nurses is crucial. Therefore, it is imperative to provide mentoring enhancement educational program for preceptors who train and educate student nurses (Choi & Yu, 2022).

The Involvement, Motivation, Satisfaction, Obstacles, and Commitment (IMSOC) questionnaire was used in the study by Regaira-Martínez, et al., (2023). This questionnaire constituted 33 items utilizing a five-point Likert scale. The results presented that age was

recognized as a factor influencing nurses' perceptions, with enhanced involvement, motivation, satisfaction, and commitment among younger nurses. Specifically, nurses under the age of 30 exhibited higher in these four areas (Regaira-Martínez et al., 2023). Further, the study revealed that nurses' professional experience, clinical setting, and contract type significantly influenced their motivation, satisfaction, and commitment to mentoring students. Notably, nurses with 1-5 years of experience and on interim contracts scored higher in these dimensions (Regaira-Martínez et al., 2023)

Lau, et al., (2024) also developed in their study semi-structured individual interviews, utilizing four domains: role and experience, relationship with preceptee, the expected performance of preceptee, and support from institution, management, and education faculty. In the study, Lau et al. (2024) reported that successful preceptorship outcomes include increased nursing competency, attainment of learning outcomes, and the preceptor's sense of fulfillment and satisfaction. The preceptors should act as facilitators for nursing students, supporting them with orientation, procedures, and processes. Moreover, the preceptors should be available and present when preceptees need them, the preceptors develop critical thinking and clinical reasoning among nursing students (Lau et al., 2024).

Ultimately, the study conducted by Chipwanya, et al., (2024) employed an adapted self-efficacy in clinical practice (SECP) and a questionnaire based on a Likert scale. The first section included 12 items addressing respondents' background and general professional information. The second section focused on self-efficacy in clinical performance and comprised 37 items rated on a four-point Likert scale. The findings in this research indicated that the preceptorship program was an effective orientation approach,

with post-test scores showing a significant improvement compared to pre-test results (Chipwanya et al., 2024).

2.10 Conclusion

The review of selected studies highlights the critical role of the preceptorship training program in enhancing the competency of clinical nurse preceptors and improving nursing education outcomes. Through an extensive search on PubMed, CINHAL via EBSCOhost and Science Direct, 19 relevant journal articles were identified and analyzed. These studies consistently demonstrate that an effective preceptorship program not only strengthens the teaching competencies and self-efficacy of experienced nurses but also positively impacts novice nurses, nursing students, and overall organizational outcomes. In addition, it determines the timing of implementation, the procedures executed, and the quality of feedback provided. Identifying the factors outlined in this study for selecting nurse preceptors, enables informed decision-making to improve preceptorship efficacy and nursing education quality. The use of the Clinical Teaching Competence Inventory (CTCI) as a measurement tool underscores the significance of assessing clinical teaching competency and self-efficacy. Ultimately, a well-structured preceptorship program enhances nursing students' learning experiences, improves patient care quality, and promotes a safer healthcare environment.

In the next chapter, the methods used in the research process will be discussed in detail, and data collecting and implementation of the program will be discussed.

2.11 Summary of Literature (Matrix table) (Appendix 1)

Chapter Three

Methodology

In this chapter, the researcher explains the methods, study design, study setting, sampling frame, and sampling method. Subject-entry criteria and recruitment, and procedures used in this study to investigate and answer the research problem. In addition, the data collection method, procedures and data collection measures, then ethical considerations, data analysis plan, and survey instrument are also discussed. Moreover, this section illustrates the validity and reliability of the instrument used for data collection in this study. The chapter ends with the limitations of the study.

3.1 Study Design

In this study, the researcher employed a quasi-experimental evaluative approach, pretest-posttest design. In this quantitative research, the researcher used this design to investigate the problems and research questions that are not clearly defined and have not been studied in-depth previously (Polit & Beck, 2021). A study design where data is gathered at one point in time is occasionally used to infer change over time when data are received from distinct age or developmental groups (Polit & Beck, 2021). Thus, a research design is a procedure for collecting, assessing, analyzing, interpreting, and reporting data in research studies (Creswell & Clark, 2017). It is the big-picture strategy for connecting conceptual research concerns to relevant (and doable) empirical research (Boru, 2018). In other words, the study design dictates the methods for collecting and analyzing the necessary data, as well as how these processes were utilized to address the research question (Grove et al., 2017).

This quantitative study explored the impact of the preceptorship program on preceptors (clinical instructors). It was assessed the competence of the clinical preceptors once they had completed the program. The quasi-experimental one-group pretest-posttest design enables the exploration of the correlation between demographic data and the domains of the CTCI questionnaire (see figure 3.1, 3.2).
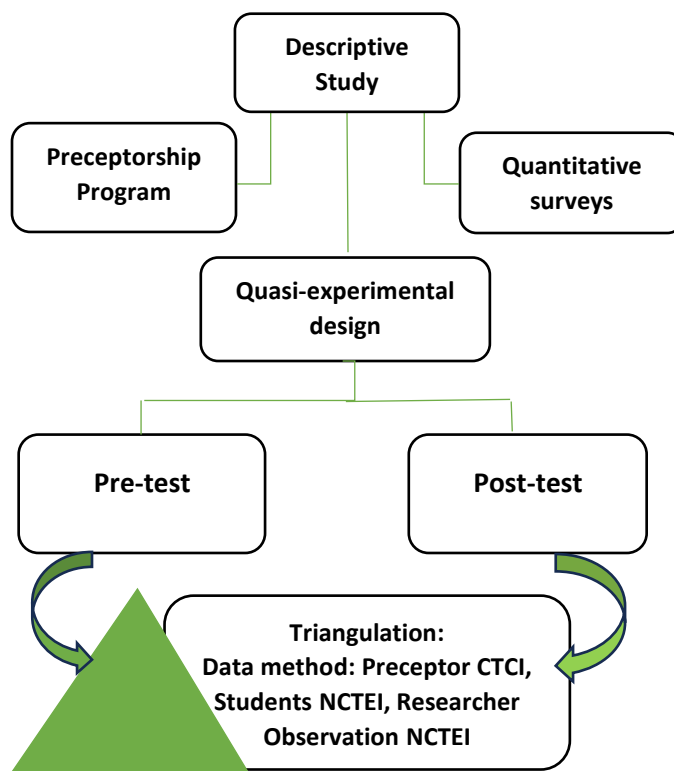
Figure 3.1: Flow of Research Methodology
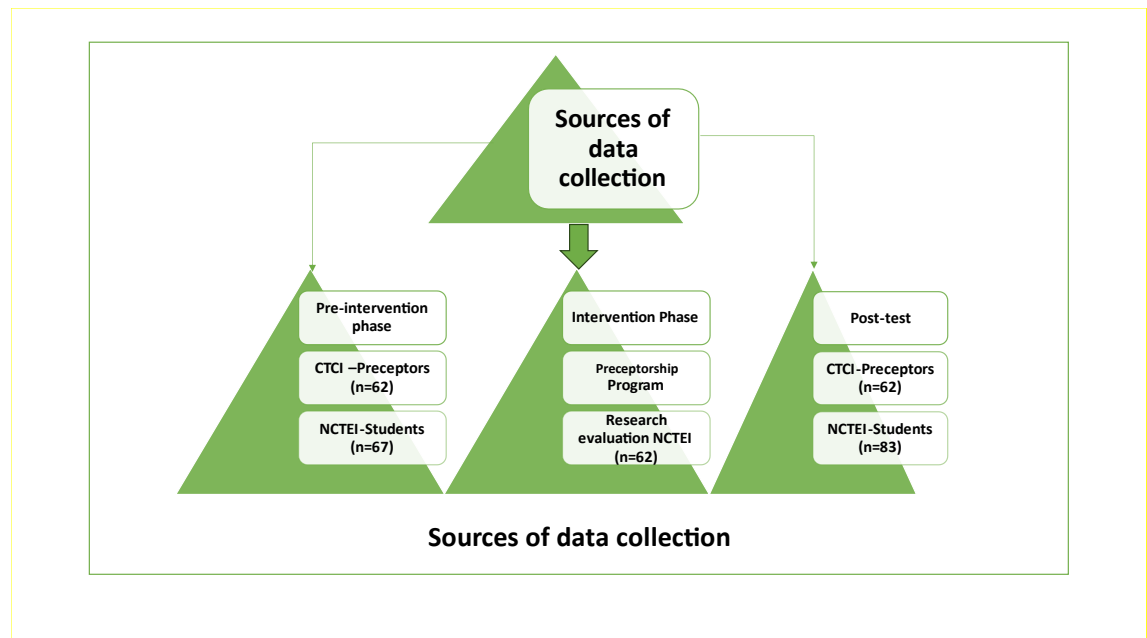
Figure 3.2: Research Methodology for the Preceptorship Program

3.2 Study Setting

This research was conducted in four governmental hospitals namely Thabet Thabet Tulkarem Governmental Hospital, Rafidia Governmental Hospital, Darwish Nazzal Qalqilya Hospital, and Jenin Governmental Hospital. The researcher selected the study sites through a discussion with the preceptors' participants and MOH, these selected the study sites based on the participants' training students. The research selected four settings to implement the preceptorship program. However, four hospitals were selected from among the names of all hospitals in the governorate, which are from the northern region, thereby determining the experimental group.

The preceptors selected for this study were those responsible for training nursing students in the first and second semesters of the 2023/2024 academic year. The Palestinian Ministry of Health employs numerous clinical preceptors who have previously served as

instructors at various universities but are currently training nursing students at governmental hospitals.

Moreover, the total number of them at the Faculty of Nursing and Midwifery at An-Najah National University in the West Bank in Palestine is 240 clinical preceptors, while the Faculty of Nursing at AAUP has 250 clinical preceptors. In contrast, the Faculty of Ibn Sina for Health Sciences at Nablus University for Vocational and Technical Education has only 30 clinical instructors, and Birzeit University has approximately 28. All of these universities are located in the northern West Bank. Each of these nursing colleges offers a bachelor's degree in nursing, with students gaining practical experience in either private or government hospitals, clinics, or centers. These institutions have been graduating nursing students for more than two years.

The undergraduate nursing students from level two to level four, meaning second-year to fourth-year students, participated in this study. This followed the selection of both the clinical preceptors and the study settings.

The undergraduate nursing program is taught in English language and comprises 138 credit hours in some nursing colleges and 152 in others. This curriculum encompassed four academic levels for pupils. The second-year student was enrolled in the second course for clinical practice, such as Adult Health Nursing or Medical and Surgical. On the other hand, third-year students complete three clinical courses and begin enrolling in two courses during the first semester, followed by the remaining two courses in the second semester. The fourth-year students also completed six clinical courses and took two courses in the first semester, then undertook an internship in the second and last semesters, which is consistent across various nursing programs.

In total, the nursing program includes 10 or more courses focused on clinical education. Clinical education is structured as clinical placements as hospitals and students attend full-time clinical placements. These placements cover a wide range of courses, from the foundation and basic to the core and advanced areas of nursing practice. The nursing program was taught in the English language, as previously stated, and the institution admitted both males and females.

The campus provides students with convenient and cost-free to participate. The classroom guarantees confidentiality and a controlled research setting. A quiet environment characterized by minimal auditory noise as possible is perfect. Moreover, students were accessible through their regularly scheduled class sessions. Hence, given the challenging circumstances in the West Bank and restrictions on movement imposed by the occupying army, a hyperlink was established and shared with the relevant students to simplify the process of completing the questionnaire.

The preceptors who trained the students and fulfilled the criteria were recruited to participate in the preceptorship program. The program was implemented across four hospital regions, enabling them to participate in the preceptorship program despite the challenging circumstances in Palestine and the conflict in Gaza. On the other hand, permission from the Ministry of Health and the nursing directors at the governmental hospitals were guaranteed to offer permission to carry out the preceptorship program and the distribution questionnaire (Appendix 9).

The researcher implemented the preceptorship program over three days for each group's various locations, utilizing lecture or conference halls in four hospital regions: Tulkarem, Nablus, Qalqilya, and Jenin.

3.3 Sampling

     In this study, convenience sampling was utilized. Convenience sampling is a method used to select the sample according to inclusion criteria, which means selectively choosing sample participants (Polit & & Beck, 2004; Taherdoost, 2016). For that reason, census sampling of all clinical preceptors and second, third, and fourth-year nursing students from the experimental group.

3.3.1 Sample Size Calculation

     The total number of clinical preceptors who are working or training at governmental hospitals in the first semester of 2023, is nearly 448 according to data obtained by the Palestinian Ministry of Health, the sample size was determined using an online sample size calculator by formula (http://www.raosoft.com/samplesize.html) with considered a 95% confidence interval (CI) and a maximum margin of error 5%. The required sample size for this study was deemed to be 208 clinical preceptors, who will fill out the questionnaire to determine the competence of clinical preceptors. The same result was obtained by Portney (2020), an online sample size calculation (https://www.calculator.net/sample-size-calculator.html?type=1&cl=95&ci=5&pp=50&ps=300&x=50&y=22), so the sample size after calculation was 208. Due to the difficulty of transportation and the obstacles of the Israeli occupation and the usurping war on Gaza, the researcher was unable to implement the program in the southern West Bank, so this study was conducted in the northern West Bank only. Therefore, the sample that met the eligible criteria and was taken from the targeted population and sites was 62 participants.

     Moreover, each clinical preceptor had one group of students consisting of five to six students, so the total number of students who also will fill out the questionnaire to

determine the competence of clinical preceptors would be 310-372 nursing students. Students in any clinical nursing course of medical-surgical or adult health nursing will be in the clinical area.

A pretest-posttest of the preceptorship program was conducted on 62 participants from preceptors (clinical instructors) in one group, by comparing them before and after the preceptorship program. Evaluations from students who were trained by those clinical preceptors were conducted and compared them.

On the other hand, the researcher also evaluated the preceptorship program and self-administered questionnaire for the clinical preceptors to provide feedback from them according to the preceptorship program and answer some questions to enrich the preceptorship program to be effective and efficient in applying it as policy. Self-administered questionnaires, which can be disseminated in person, via mail, or online, this distribution were inexpensive and took less time (Creswell & Clark, 2017; Polit & Beck, 2004).
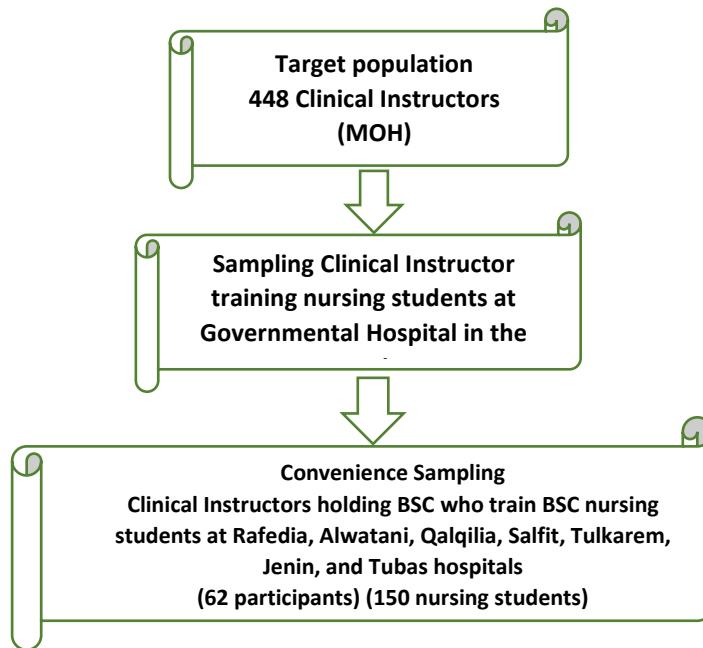
Figure 3.3 Sampling selection

3.3.2 Population

The target population was nurses who are clinical Preceptors of Bachelor of Nursing students recruited from any university who trained students in Northen Government Hospitals.

The total number of clinical preceptors working or training nursing students at Northen Government Hospitals in the first and second semesters of 2023/2024 is more than 100, according to data obtained by the Palestinian Ministry of Health, the sample size is determined according to previous evidence was 62 participants who eligible for the study. The participants filled out the questionnaire to determine the competence of clinical preceptors in the pre-test. Moreover, each preceptor (clinical instructor) had one group of students consisting of five to six students. Therefore, the total number of students who completed the questionnaire to assess the competence of clinical instructors was around

360. Students in the clinical nursing course of medical and surgical or adult health nursing course were in the clinical area who participated.

The participants are those willing to participate in the study and available during the time of the study who covered the inclusion criteria.

3.4 Sample recruitment

The total number of preceptors (clinical instructors) as mentioned before: at the Faculty of Nursing and Midwifery at An-Najah National University in the West Bank in Palestine 240 preceptors (clinical instructors), while AAUP has 250 preceptors (clinical instructors) at Faculty of nursing. Hence, the Faculty of Ibn Sina for Health Sciences at Nablus University for Vocational and Technical Education has 30 only. While the College of Nursing at Birzeit University has approximately 28 nursing preceptors (clinical instructors.

The target population for this study was picked up from second third- and fourth-year nursing students from the target universities that were selected as An-Najah National University, Arab American University (AAUP), and Ibn Sina, Birzeit University. The total number of nursing students who were enrolled in the clinical setting at hospitals during the First Semester was nearly 740 students at An Najah University, over 800 at AAUP, 180 at Ibn Sina, and 159 at Birzeit University. The target population consists of nursing students in their second, third, and fourth years who are currently enrolled in at least three or more clinical practice courses. Accordingly, to enhance the credibility of the study, it is important to include a wide range of participants in the sampling process. This should involve selecting preceptors and students with diverse educational backgrounds from various groups, settings, and sections.

The sampling was a convenience sampling from the clinical preceptors who took the preceptorship program in addition to second third- and fourth-year nursing students who were selected by a convenient sample. A convenient sample is a nonprobability sampling method where the researcher chooses study participants based on inclusion criteria of who will best represent or provide relevant insights and ease of access (Polit & & Beck, 2004) or is a strategy and purposeful method where specific places, individuals, or events are intentionally chosen to gather crucial information that cannot be gathered through alternative options (Creswell & Clark, 2017; Polit & Beck, 2004; Taherdoost, 2016).

Then calculate the sample size and the percentage of each participant (clinical preceptors and students). The sampling frame consisted of the combined names of all participants of preceptors of a population, in addition to the numbering of all clinical preceptors, which were numbered sequentially. Before that, the setting also was chosen according to the accessibility by preceptors. The participants were selected for the inclusion criteria of the study. Participation was voluntary and all respondents were given written consent before participating in a study. The time and location of the study were from January 2024 to August 2024.

Following the specification of the sample design, the following stage is to recruit prospective study participants under the plan (after obtaining any necessary institutional permits) and solicit their involvement. Recruiting subjects to participate in a study involves two major tasks: identifying eligible candidates and persuading them to participate. It may be essential to create a screening instrument, which is a quick interview or questionnaire that allows the researcher to see if a potential subject fits all of the study's eligibility requirements. The next task involves gaining the cooperation of people who have been

deemed eligible for the study (Polit & Beck, 2004). Recruitment methods should be described, including an explanation of the accessible population and setting.

Maybe, it has been discovered that gifts and monetary incentives enhance participation rates. Research benefits. Individual and societal benefits of participation should be carefully communicated, without exaggeration or false information. In addition, by sharing results.

The researcher obtained approval from the Ministry of Health to count and include two study days in the participants' schedules, with the third day being taken from their vacation time. This arrangement facilitated the participants' ability to attend the course and participation in the training session was important in achieving this outcome (Appendix 9).

Sometimes it is useful to provide people with tangible evidence of their contribution to the study by offering to send them a summary of the study results. These results improved the performance and competency of nursing students and enhanced the selection of effective and competent clinical preceptors who completed and finished the preceptorship program. Through good and effective communication with nursing students, they volunteer to participate. Hence, for each participant who shared in this study, the day of participation had been one of the clinical days. Moreover, to recruit the research participants, the researcher met with the nursing students, and clinical preceptors (instructors) and explained the study's purpose and aims in detail while addressing the risks and benefits of participating in the study. The study's objectives were discussed, and informed consent was completed and gained if the target population agreed to participate. Participants had the option to withdraw from the study at any time during the trial if they felt they were no longer interested.

This study, therefore, explores "The Impact of Nursing Preceptorship Program on Teaching Competencies and Effectiveness among Palestinian Clinical Preceptors". The findings of this study could help to put strategies for preceptorship programs for best practices in nursing education at the BScN level in nursing programs.

3.4.1 Inclusion criteria for nursing students

The nursing student enrolled in the BScN program was enrolled in a course of clinical in the first-semester second-third and fourth-year students. This course is a medical and surgical course as the third course in clinical, with at least three full semesters of clinical experience. The students have passed at least and enrolled in three clinical courses, also, the students trained by the selected preceptors, and the participants who consent to participate in the study, have been eighteen years of age or older (as Bridging students).

3.4.2 Inclusion criteria for preceptors (Clinical preceptors)

The other participants were preceptors or clinical instructors. The participants were those willing to participate in the study and available during the time of the study. 1) Nurses who served as preceptors for at least one year this means who have at least one year of experience as clinical preceptors regarding clinical teaching (Nurses who served as preceptors for at least one semester). 2) Nurses who hold Bachler degrees and have more than two years of experience and more in a clinical setting. 3) All nurses (RN) employed by the facility who are either active preceptors or potential preceptors meet the inclusion requirements and have active licenses. 4) Preceptors monitoring, directing, and evaluating level three nursing student learning activities in the clinical context while they are employed in any of the chosen clinical settings (hospital, clinic, health post, or centers). 5) Work at any hospitals governed by MoH or nongovernment in the North of West Bank, just

in the north because of the current situation due to the war on Gaza and the barriers and obstacles due to the brutal occupation.6) Preceptors who are willing to engage in the study and participate in the preceptorship program, as well as 7) nurses who are functioning as preceptors, and. 8) Clinical educators from the nursing colleges. Meaning, furthermore, the inclusion criteria for nurse educators are: 1) Nurse Educators from all health teaching institutions (HTIs) following up and facilitating for preceptors and students for a minimum of two semesters 3) holding a bachelor's degree, and 2) Nurses educators willing to participate in the study. 4) who are training students in any governmental hospital in the northern West Bank.

The requirement for preceptorships became obvious and unavoidable as a result of the rise in student enrollment at this (Dube & Rakhudu, 2021).

3.4.3 Exclusion criteria for nursing students

Midwifery students, first-year students, and students who were exposed only to skill lab teaching and never exposed to clinical settings. Students who refuse to participate in the study. In addition, a student who has failed a clinical course. Nursing faculties that are not from targeted settings or are granted diploma degrees.

Recruitment of participants at the university continued until at least 80 percent of the targeted states were represented. By: hyperlinks, Emails, Postal mail, Internet, Social Media, Direct contact, and Follow-up mailings.

3.4.4. Exclusion criteria for preceptors (Clinical preceptors)

Nurses who are ineligible to serve as preceptors, either currently or in the future, would constitute an exclusion. The study did not include any preceptors or nurse educators who did not match the inclusion criteria. All preceptors who refuse to participate in the

study, or who train diploma, or midwifery students. This includes exclusion criteria: 1) A registered nurses who have a diploma degree (two years) or less, 2) who have below two years experience in a clinical setting, 3) who had first-time experience as a clinical preceptor regarding clinical teaching, 4) who have not active license, and 5) who train students in private hospitals. 6) Nursing faculties that are not from targeted settings or are granted diploma degrees. 7) midwife preceptors. This exclusion was made because, according to Benner, competency could only be attained after two to three years of employment in a given position. It was crucial to respect the viewpoints of this researcher because this study was based in part on the theoretical framework of Benner's novice-to-expert model (Smoker, 2018). In essence, the researcher was able to focus on preceptors who were experienced nurses with certain qualities, helping to provide rich data to address the research topic (Polit & Beck, 2004). Moreover, the results of research conducted by Dube & Rakhudu, (2021) support previous studies that show Preceptors and nurse educators' have lacked the necessary training for their positions, especially when it comes to instructing and assessing students.

3.5 Data Collection

Data collection commenced after obtaining approval from both Institutional Review Boards (IRBs) – one from an Arab American University where the researcher is pursuing a doctoral degree and the other from the MOH where participants were recruited. Additionally, obtaining permission from the nursing director at the Ministry of Health, who holds the authority to engage nursing preceptors for participation, has also provided input.

The study was conducted with preceptors (clinical instructors) of nursing at universities that impart bachelor's degrees in nursing. Additionally, the setting was

guaranteed after granting permission from the nursing director of the Ministry of Health who has authority over governorate hospitals where nursing students are trained. Four areas of setting were selected in their employment or training students if it is suitable for the preceptors and comfortable to attend the preceptorship program. As previously indicated, this research was conducted in several governmental hospitals namely Thabet Thabet Tulkarem Governmental Hospital, Rafidia Governmental Hospital, Darwish Nazzal Qalqilya Hospital, and Jenin Governmental Hospital.

Data collection is conducted through a three-phase process utilizing two reliable questionnaires. In the initial pre-intervention phase, the researcher invited the participants (preceptors) to the hospital to attend the preceptorship program. Prior to the session, the participants were asked to complete a CTCI questionnaire. Following the completion of the three sessions on the third day, the participant was instructed to fill out a CTCI questionnaire again as a post-test or post-intervention assessment. This period commences on June 5, 2024, and concludes on August 3, 2024. Throughout the preceptorship program implementation and distribution of discussion scenarios, the researcher assessed participants by watching their level of cooperation during conversations and scenario discussions. The researcher conducted this evaluation through careful study and assessment using the second tool NCTEI. Furthermore, the researcher designed this tool NCTEI through a link and sent it to the nursing students trained at the governmental hospital by these preceptors to fill out it on June 2, 2024, and concluded on August 27, 2024.

Lastly, the research questions are the specific queries researchers want to answer in handling the research problem (Polit & Beck, 2004) through this study moreover, the last piece of evidence in research.

3.5.1 Study Procedure

There were three distinct phases of this study. Phase one consists of a survey of the Clinical Teaching Competence Inventory CTCI, 62 preceptors (clinical instructors) who were convenience sampling selected according to participants and setting, filled out the questionnaire to determine the competence of preceptors (clinical instructors). In phase two from the results of a survey, the researcher extracts the competencies and clinical teaching methods and skills that will enrich the design of the preceptorship training program. In addition to taking into account local training requirements and preceptorship preparation criteria, pertinent material from the evidence was also integrated (Museene, 2018). Furthermore, the researcher explained to the 62 participants selected for the intervention group. This means that there is one group in this study. The pre-test and post-test design was applied to the group, to use a quasi-experimental study. The third phase included a three-day training session to implement the preceptorship training for preceptors (clinical instructors). The preceptorship training's program impact was assessed using a pre-and post-test intervention design. See Figure IV for the Study Procedure. This is illustrated in the following.
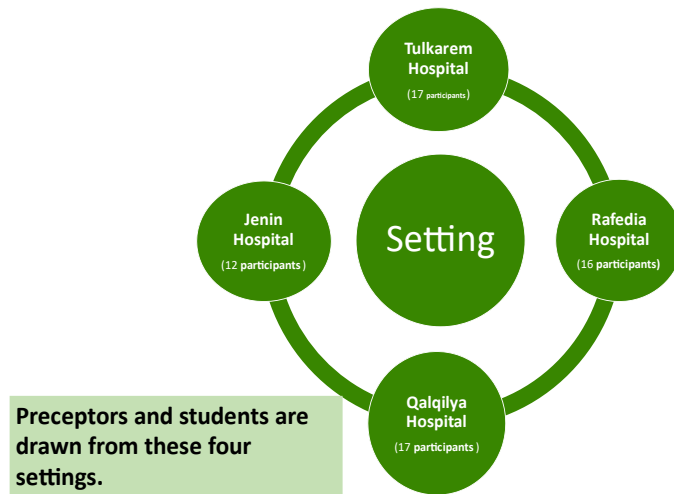
Figure 4: Preceptors and students are drawn from these four settings
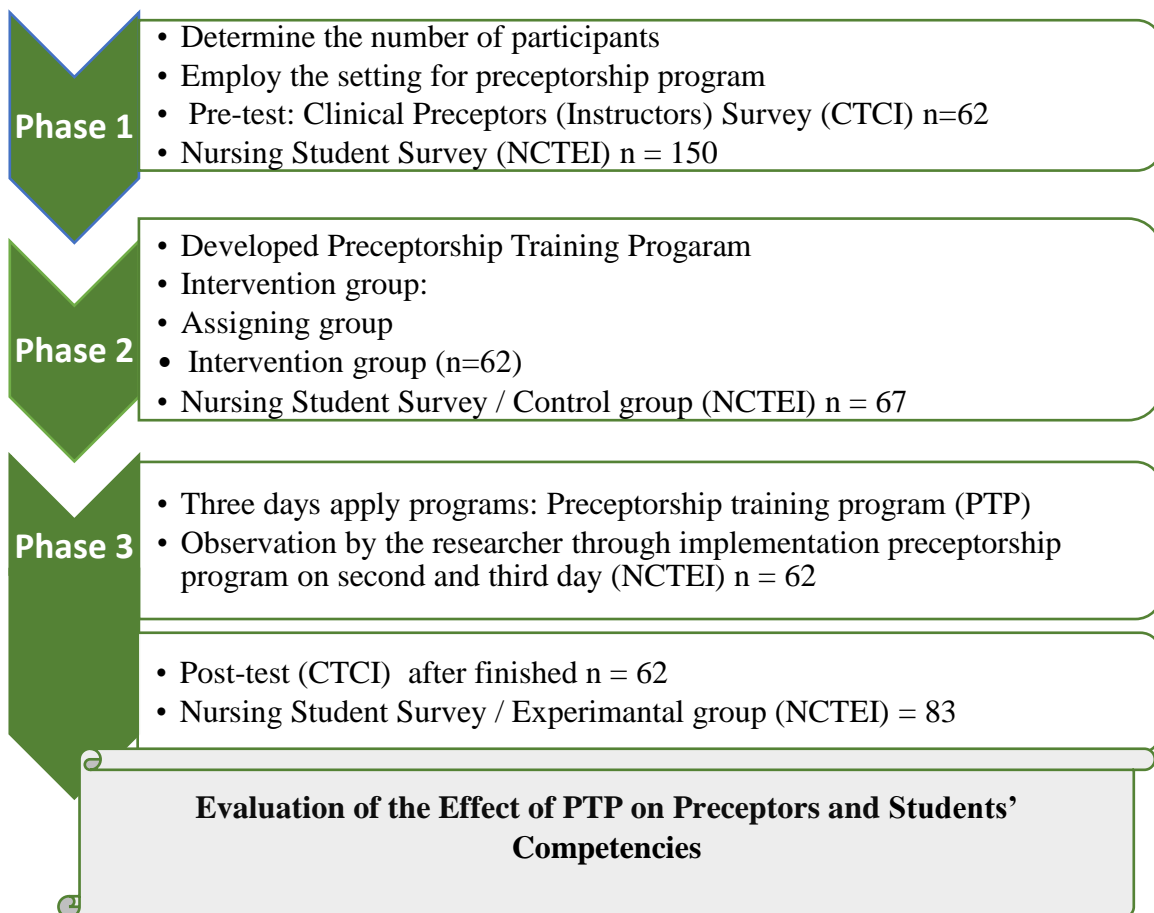
Figure 5: Study Procedure

3.6 Protection of Human Participants and Ethical Considerations

Official permission was granted from the Dean of the Faculty of Graduate Studies at Arab American University, along with approval from the Institutional Review Board (IRB) at the AAUP's Ramallah Campus (Appendix 1). The study complied with the Declaration of Helsinki's ethical standards for conducting medical research on humans. Permission was also obtained from both the universities and hospitals involved. Consequently, all clinical instructors who met the eligibility criteria were invited to take part in the preceptorship program and were asked to fill out the questionnaire. Written Consent forms were obtained from the Clinical instructors, preceptors, and nursing students before participation, and also, permission from the dean of the faculty of nursing and midwifery departments from the universities as An-Najah National University, AAUP, Al-Zytona, Ibin Sina, and Arawda University, to permit the distribution of the questionnaire (tool) and take a survey. Also, permission from the nursing director at MoH was obtained. All participants were given both written information and a verbal explanation about the aim and objectives of the study before considering participation in the study which were voluntary to choose to participate. Fully written informed consent was conducted to participants who were involved in communicating the following information as a guideline to participants: participant status, study goals, procedures, nature of the commitment, sponsorship, participant selection, potential risks, potential benefits, alternatives, compensation, confidentiality pledge, voluntary consent, right to withdraw and withhold information, signature, and the last contact information (Appendix 10). Furthermore, nursing students from the second, third, and fourth academic levels were invited to participate in the present study voluntarily.

Moreover, in the second semester of the academic year 2023-2024, data was collected through a retrospective study. This involved interviewing nursing students and clinical instructors who completed the clinical period in the first semester and are beginning a new clinical period in the second semester. The purpose of the study was explained during these interviews. Each participant required approximately 10-15 minutes to complete the questionnaire.

Likewise, all information and investigations were treated as confidential and anonymous or fake names, and protect privacy. All of the procedures as a guide for ethical concerns were safeguarding research participants' interests. The study ensures the participants are protected from any potential risk or harm by adhering to the principles of respect for autonomy, beneficence, and justice. All the data collected, data analysis, and consent forms were securely stored and locked in a special cabinet in the researcher's house. Furthermore, by employing pseudonyms, fake names, and codes, the researcher ensured that participants' identities were concealed, adding a layer of anonymity. This helps in protecting the participant's privacy and confidentiality. The data storage and retention followed the specific guidelines, policies, and recommendations provided by the Institutional Review Board (IRB) of the Research Center and Arab American University's committee. These IRB policies typically dictate how the long data should be kept, and how should be stored (e.g., securely encrypted). Ultimately, the data will exclusively be available to the researcher and the thesis supervisor. This ensures who has the right to access it, ensuring both ethical conduct and legal compliance. By meticulously adhering to ethical standards, the study would strengthen the participants' trust and guarantee the prioritization of their rights and well-being.

3.7 Validity and Reliability

Furthermore, all or some of the interventions are employed in small-scale feasibility research and can be either randomized or nonrandomized to evaluate the viability of carrying out a larger-scale study at a later time as elaborated by Portney (2020). The measurement of Cronbach's alpha was conducted which is accepted (more than 0.8). Therefore, reliability refers to the accuracy and consistency of information obtained in a study. Validity is a more complicated term that refers to the study's evidence's soundness—that is if the findings were cogent, convincing, and well-grounded (Polit & Beck, 2017, p.266). Five experts validated the questions in the CTCI and NCTEI tools, and necessary modifications were made to ensure their relevance and acceptance within our cultural context. Data Collection was identified and the time was mentioned and clarified. Briefly, experts have guaranteed the validity and reliability of the tools and preceptorship program, and modification has been taken into consideration.

3.8 Instruments

3.8.1 Clinical Teaching Competence Inventory (CTCI)

Quantitative design is the traditional, positivist "scientific method" which refers to a systematic and rigorous approach to gathering information through formal (Polit & Beck, 2004). To achieve this a quasi-experimental, pretest-posttest design study, one group was utilized. The Clinical Teaching Competence Inventory (CTCI) for nursing preceptors (clinical instructors) was used as an instrument for measuring the competency of preceptors (clinical instructors) during conducting the preceptorship program this was after the researcher obtained permission from the author (see Appendix 5 & 6). This tool was translated from English to Arabic and then back to the English language by experts to

ensure that the content of items in the tool was relevant in the same meaning for the new culture (Polit, & Beck, 2004).

The researcher used the Clinical Teaching Competence Inventory for Clinical Nursing Preceptors (CTCI) was created in Taiwan based on Sonthisombat's model (2008). It contained 47 items and was primarily intended to look into discrepancies between clinical nursing preceptors' assessments of themselves and those made by their students concerning four different aspects of their teaching performance: communication skills, clinical teaching skills, giving feedback to students, and methods for evaluating student performance (Hsu et al., 2014). These components were congruent with what was discussed by Bukhari, (2012) in his study that a preceptorship program should include teaching and learning strategies, educational theories, such as the principles of adult education, communication skills, values and role clarification, conflict resolution, the assessment of individual learning needs, and performance evaluation.

In the study conducted by Hsu et al. (2014), thirteen items were added to the preliminary scale as a result, making the total number of items 60, then decreased to 53, expert and after the final promax rotation the items decreased to 31items with four components (domains) were identified: factor one is student evaluation, factor two is goal-setting and individual instruction, factor three is teaching methodologies and factor four is exhibiting ordered knowledge. Every factor has objects. The four components' Cronbach's values varied from 0.82-0.87, which is adequate and showed reliability and content validity in the instrument (Hsu et al., 2014).

This is confirmed by a study conducted by Wu, et al., (2020) the CTCI was created in Taiwan. It has 31 elements divided into 4 domains of teaching and evaluation

competencies. The four categories are instructional techniques, goal-setting and personalized instruction, student evaluation (assessment), and organized knowledge demonstration. After undergoing psychometric testing, the CTCI was shown to have sufficient internal consistency of reliability (Cronbach alpha =.88) and content validity (scale content validity index = 0.75), making it suitable for evaluating clinical teaching and assessment behavior in practice settings.

In the same two previous studies, for clinical nursing preceptors to evaluate and assess their clinical teaching competencies, the instrument suggested in these studies was shown to have appropriate construct validity and internal consistency of reliability (Hsu et al., 2014; Wu et al., 2020). Furthermore, in the current study, a committee of research experts validated CTCI. Moreover, the pilot was conducted to be sure of the reliability of this questionnaire.

According to Wu, X. V., et al., (2020) and Hsu et al., (2014) reported in their study the sociodemographic data included gender, age, race, educational level, job title, clinical department, area of specialization, years of working experience as a registered nurse, and years of experience in clinical teaching, were obtained using structured questionnaires. This tool was employed during the pre-and-posttest of the preceptorship program.

3.8.2 Nursing Clinical Teacher Effectiveness Inventory (NCTEI)

Furthermore, the researcher employed the Nursing Clinical Teacher Effectiveness Inventory (NCTEI) as an additional instrument to evaluate the proficiency of the preceptor (clinical instructor) while implementing and training the preceptorship program. This evaluation was conducted through researcher observation, using the NCTEI as a checklist. Additionally, this tool also assessed the proficiency of the preceptors by nursing students

during clinical training at any government hospital provided through a link to conveniently allow students to complete it at any time due to the challenging circumstances, including the ongoing invasion by the occupation army until the researcher concluded the preceptorship training program and finalized the data collection process, the total number of nursing students who completed this questionnaire was 150 participants until August 27, 2024, it divided in two cohort 67 as control group before intervention, and 83 was as experimental group after preceptorship program.

The Nursing Clinical Teacher Effectiveness Inventory (NCTEI) survey tool was developed by Knox and Mogan (1985). This tool included 7–54 items, all to assess the characteristics of clinical instructors (Knox & Mogan, 1985). The Nursing Clinical Teacher Effectiveness Inventory (NCTEI) was used in the previous study by Ismail, Aboushady, and Eswi (2016) at Cairo University. It was in Arabic language. The permission was guaranteed. The key components of domain scores in the NCTEI survey tool that assess the attributes of clinical preceptors are teaching ability, nursing competence, evaluation, interpersonal relationships, and personality traits. Each domain has specific items that measure these attributes (Buzieh, 2024b; Knox & Mogan, 1985).

The researcher investigated evidence of literature to design a preceptorship program to examine the Impact of the Nursing Preceptorship Program on Teaching Competencies and Effectiveness among Palestinian Clinical Preceptors. One of the most crucial components of an efficient and successful preceptorship program is the formal training of preceptors, which is essential for ensuring they perform their duties well, competent, and function efficiently and effectively (Munnings, 2019).

3.9 Data Analysis

The data underwent a rigorous process of verification, coding, and loading before being analyzed using the Statistical Package of Social Sciences (IMB SPSS) version 25. A combination of descriptive and inferential statistical methods was employed to ensure a comprehensive analysis of the study variables. This study used descriptive statistics to summarize and interpret the data distribution by calculating percentages and means to describe central tendencies, variance, and standard deviation to assess data dispersion, and confidence intervals to estimate the precision of the results. Additionally, inferential statistics were utilized to examine the differences and correlations among study variables under investigation. Paired t-test was conducted to compare pretest-and post-test scores, two independent sample t-tests to analyze differences between two groups, a One-way ANOVA test to assess variations across multiple groups, and a proportion probability of error (p-value) was used to determine statistical significance. The internal consistency of the Clinical Teaching Competence Inventory (CTCI) and Nursing Clinical Teacher Effectiveness Inventory (NCTEI) scales was assessed using reliability tests, ensuring the tools were valid and culturally adapted for the study population. This comprehensive statistical approach provided robust insights into the effectiveness of the preceptorship program and its impact on nursing education and clinical practice.

3.10 Intervention

A quasi-experimental, one-group pretest-posttest design was adopted for this study to measure the clinical teaching competencies of preceptors (clinical instructors) after the Preceptorship Program.

The study program was implemented in four hospital areas to facilitate accessibility for participants, as the researcher indicated before. Each group needs three days to conduct

the program. The first area was at Thabet Thabet Tulkarem Governmental Hospital on June 4, 5, & 6, 2024 at Hall Meetings. The number of participants who attended the meeting was 17. The second area was at Rafidia Governmental Hospital in Nablus City on June 8, 9, & 10, 2024 at the Lecture hall. The number of participants who attended the meeting was 16. The third area was at Darwish Nazzal Qalqilya Hospital on June 27, & 29, 2024, and on July 6, 2024, at the Lecture hall. The number of participants who attended the meeting was 17. The fourth and last area was Jenin Governmental Hospital, where the program took place on July 30th, & 31st, 2024, as well as on August 3rd, 2024, in the Lecture Hall. The number of participants who attended the meeting was 12. This preceptorship program for this study was conducted in the period between May and August 2024.

3.10.1 Intervention of the Preceptorship Program

Charleston and Happell (2004) and Morton-Cooper and Palmer (1993) agreed to describe preceptorship as an educational partnership that gives students access to a capable, competent, encouraging role model. The preceptor inspires and supports the student nurse's growth and development and promotes role socialization into the profession during the partnership, which is often for a defined and brief period.

That means, a written policy that has been authorized governs the preceptorship program in the study setting and provides direction to all nursing staff involved in the program regarding their duties and responsibilities during the preceptorship time (Elham Ali Bukhari, 2012) this is what needs to be brought into light and implemented.

In this study, through preceptorship training program was adapted. This was conducted in three phases, which means a three-day preceptorship training program was implemented in each hospital as a comprehensive workshop.

In the first phase, on the first day, the pre-preceptorship training program consists of a face-to-face administered questionnaire. The pre-test measured the competence of preceptors (clinical instructors), and the competence of nursing students by measuring the questionnaire Clinical Teaching Competence Inventory for Nursing Preceptors: Instrument Development and Testing (CTCI) by Hsu et al., (2014) to measure the clinical teaching competencies of nursing preceptors. This was made on the first day of training in each hospital.

The results of this tool unequivocally aligned with the theoretical framework for this study and the preceptorship program. One of these theories was applied to Benner's novice-to-expert theory, which effectively outlines the process of acquiring new skills and information from the novice stage to the expert stage (Benner, 1984) in order to foster competent nursing students under the guidance of proficient preceptors (clinical instructors). This indicates to application second phase of the study, which is the developing preceptorship training program.

In the second phase, the course was designed and implemented to encompass all essential components for a successful preceptorship training program, with a focus on equipping preceptors (clinical instructors) with the competence and confidence to be effective in their roles. The schedule of the program was in process to cover all three days in each setting (Appendix 15). After completing the preceptorship training program, the competence of these preceptors (clinical instructors) was measured using CTCI and then compared with the pre-test that was conducted prior to the implementation of the preceptorship program. The researcher also observed the preceptors' behaviors and their performance was measured by the NCTEI tool as a checklist during their implementation

and discussion of the five scenarios and role plays through the preceptorship program, who possessed the characteristics of the preceptor. This is an observation checklist during the intervention part, through the second and third days.

As demonstrated by Wu, et al. (2022), their findings revealed a significant interaction impact between group and time on the total CTCI score, indicating the effectiveness of the preceptorship program. Participants who underwent the in-person preceptorship program reported an immediate increase in clinical teaching competence and self-efficacy.

Confirming Benner's theory, it was established that clinical preceptors with more than two years of experience reach the expert level as per Benner's theory. At this stage, experienced nurses demonstrate the ability to make comprehensive decisions in various scenarios, exhibit strong clinical reasoning, anticipate unexpected events, and possess extensive experience and broad knowledge. Furthermore, greater adaptability is also identified as a crucial quality for a preceptor transitioning to the role of a preceptor (clinical instructor) (Al Harbi, 2023; Ozdemir, 2019; Sackey, 2022). This expertise is enhanced by a preceptorship training program.

Hsu, et al., (2014) emphasized in their study that to effectively fulfill the role of a preceptor (clinical instructor), nurses must possess competent teaching skills. However, there is a scarcity of empirical research on teaching competency in this context.

In this second phase, one group underwent intervention. Following the selected hospitals as a setting for implementing the preceptorship program, the participants were involved in training students at these hospitals. This group, known as the intervention group, underwent a three-day preceptorship training program. Additionally, "The Nursing

Clinical Teacher Effectiveness Inventory (NCTEI)" was utilized to assess the performance of the preceptor (clinical instructor) during the implementation and training of the preceptorship program through researcher observation.

The intervention took place in the second semester in the first month of training students at governmental hospitals. This involved the implementation of a three-day preceptorship training program for preceptors (clinical instructors) who were set to commence training students in the second semester or summer semester of 2024.

After completion of the preceptorship training program, it measured the competency of these preceptors (clinical instructors) was by CTCI, as a posttest in the third phase, then compared with the pretest intervention before being subjected to interference who were measured in the pre-preceptorship training program.

Hence, phase three involved making a posttest following the completion of the preceptorship training program to assess its effectiveness in implementing the program for preceptors (clinical instructors). The impact of the preceptorship training program was evaluated using a pre-and post-test intervention design this is why the researcher employed a quasi-experimental design in the current research. Throughout these phases, the researcher distributed the hyperlink among 83 nursing students to fulfill the Nursing Clinical Teacher Effectiveness Inventory (NCTEI), which concluded on August 27, 2024.

The preceptorship training program was taken from the Jordanian Nursing Council after giving permission and previous literature. The Preceptor Training Program Training Manual was developed by an expert group and when the researcher revised this manual and asked the doctor who formulated it, this program was met and covered the research purpose and the research questions. Moreover, this Manual was revised by professors who

supervised this paper and by experts to confirm adaptation to implementation. The researcher adapted the preceptorship program from many modules, and the researcher prepared two modules. Module One covered the definition and foundation of a preceptor, preceptorship, principle of teaching, and Clinical Teaching (Socialization within the Clinical Environment), and Module Two provided the Evaluation Process.

Module one (1): Foundation of preceptor, preceptorship, principle of teaching, and Clinical Teaching (Socialization within the Clinical Environment).

The goal of this module is to introduce the clinical preceptor and instructor to strategies that facilitate the socialization of the preceptee in the work environment and foster their competence through different clinical teaching approaches. This congruent with what is the researcher found in the theory of Purnell's Cultural Competence Model (PCCM) (Al Harbi, 2023). Purnell indicated in her book (2016) that the individual progresses from "unconscious incompetence" to unconscious competence". Preceptors (Clinical instructors) moved through these four stages of cultural competence from 'unconscious incompetence' to unconscious competence to understand the cultural diversity among nursing students (Purnell, 2021).

In addition, Al Harbi, (2023) informed in his study that culture has a similar strong impact on education and a preceptor's capacity to effectively support novice nurses. Visibly, Weston, (2018) asserts in his study that teachers in the nursing field need to be aware of their personal feelings and how their actions affect their pupils. The teacher's emotions significantly impact student learning. However, preceptors (clinical instructors) who had experience while participating in the Clinical Instructor Program (CIP), promptly used teaching techniques right away (Weston, 2018).

Module Two (2): Evaluation Process

The goal of this module is to provide preceptors (clinical instructors) with the necessary (knowledge, skills, and attitudes) related to the student evaluation process (*see* Preceptorship Training Program Map). The evaluation process is important in the clinical training of nursing students. While, essential knowledge, skills, and attitudes should be the main focus of clinical teaching and learning (Weston, 2018). According to the three domains of Bloom Taxinomy, the different outcomes will be reinforced by clinical teachers and educators to achieve learning and teaching outcomes for their nursing students. Because learning activities are meant to be more creative and varied, incorporating Bloom's Taxonomy Revision into the teaching and learning process has a significant impact on enhancing students' knowledge, particularly procedural knowledge (Adijaya et al., 2023).

Thus, social learning theorists stress that people pick up knowledge by seeing what others do, which is then reinforced by seeing what happens when those activities interact with the environment (Elham Ali Bukhari, 2012). Theorists of social learning also acknowledged the importance of motivational factors, which include internal elements intended to persuade people to emulate the behavior observed in similar circumstances in the future.

In the preceptorship program, the preceptors (clinical instructors) understand how will be role models for his/her students, good communicators, patient, passionate, build trust, good control, health direct goals. This is the core role of preceptors with nursing students. The modeling and role-modeling theory has been used in numerous hospitals around the nation due to its applicability and interest in guiding a holistic nursing practice (For example, nurses on surgical units at the University of Michigan Medical Center use an

assessment tool based on the modeling and role-modeling theory) (Alligood, 2017;

Erickson et al., 1983). Assessment of the competency of preceptors (clinical instructors)

and the outcomes of the preceptorship program will be considered in this study.

      The researcher presented the preceptorship training program following the selection

of the program venue. The participants who met the inclusion criteria were invited to attend

the comprehensive three-day preceptorship training program. The first day's program took

over seven hours, the second day's program took six hours, and the last day's program took

seven hours. Following the completion of the preceptorship training program, the

researcher used the Clinical Teaching Competence Inventory for Nursing Preceptors

(CTCI) to assess the clinical instructors' competency and compared the outcomes to the

pretest scores. The participants also presented the posttest following this schedule. After

completion of this program, the preceptor (clinical instructor) transfers what he/she taught

to the clinical area through training nursing students.

Post-intervention survey:

      The researcher analyzed the results and evaluated the competency by CTCI then

compared these results to reach the last outcomes and provide recommendations, in the next

section.
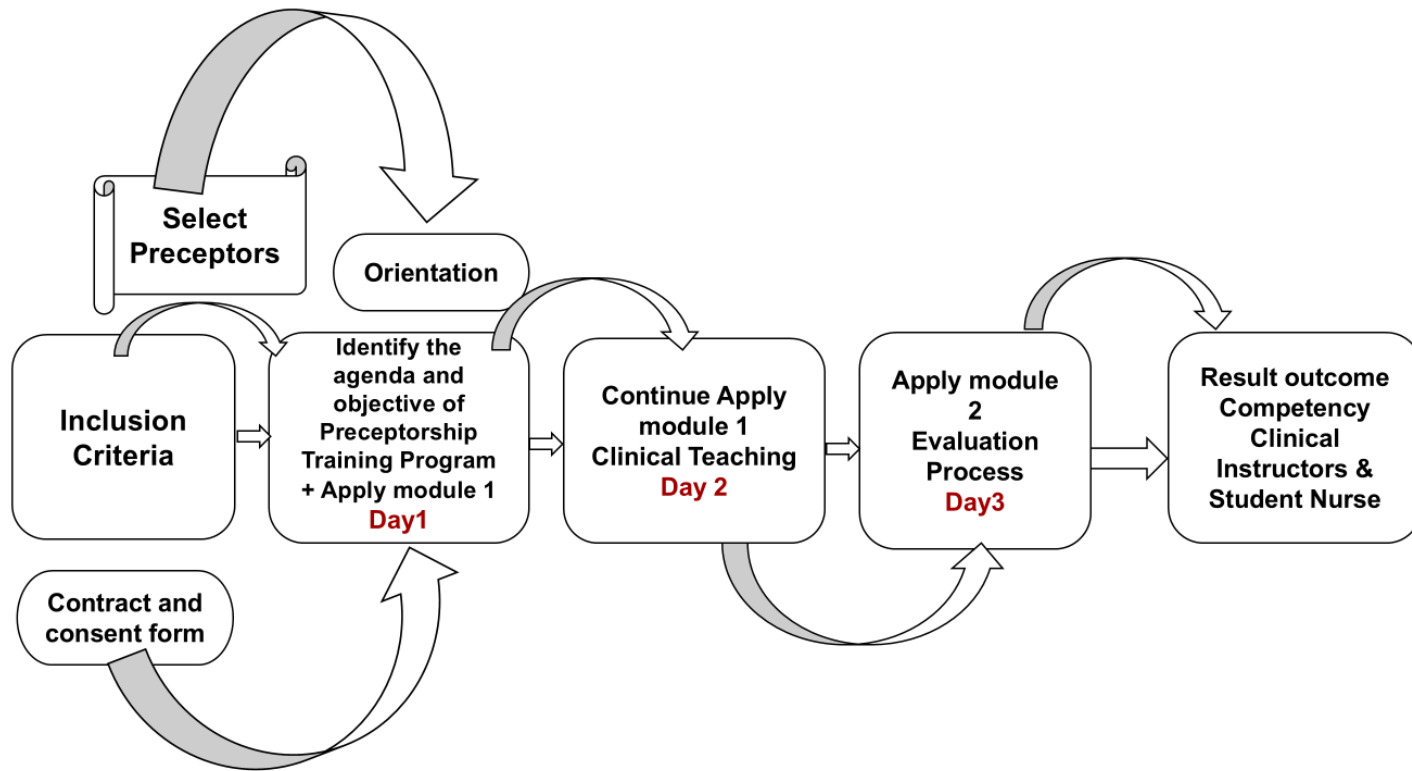
Figure 6: Preceptorship Training Program Map

Figure 6: Preceptorship Training Program Map

Layout of a quasi-experimental explanatory sequential design

Phase	PHASE 1	PHASE 2	PHASE 3
Description	1. A quasi-experimental explanatory design will be utilized as pretest. The (CTCI) will be used as an instrument for measuring the competency of clinical instructors. 2. Developing a preceptorship-training programme	The developed preceptorship-training programme	Realist evaluation of the programme implemented
Paradigm	Pragmatism	Positivism	Realism
Design	Quantitative	Quantitative A quasi-experimental explanatory	Quantitative A quasi-experimental explanatory
Technique	From the review much of the evidence and literature	Experimental Intervention Study Reflective field notes	Realist evaluation Reflective field notes
Population	Experts in the field of training students in clinical areas: - Clinical instructors - Preceptorship training program	Clinical instructors and student nurses, training at governmental hospitals, participating in the intervention study meet inclusion criteria.	Clinical instructors and student nurses, who train at governmental hospitals, participated in the intervention study.
Sample/sampling /sample criteria	Convenience sampling of experts in the field of training students in clinical area: governmental hospital.	Convenience sampling of all clinical instructors and second-, third-, and fourth-year nursing students from the experimental group.	Census sampling of all clinical instructors and second, third, and fourth-year nursing students from the experimental group.

Chapter Four

Results and Findings

This chapter discusses the findings through descriptive and statistical analysis using IBM SPSS Statistics version 25. It presents and explains the demographic characteristics, the comparison of CTCI scores between pre- and post-preceptorship program, paired samples T-test, independent sample T-test, and Comparing NCTEI scores between students and researcher. It also Tests the internal consistency of the CTCI and NCTEI scales and discusses the correlations, relationships, summary, and conclusion.

This study did not need to look for a fully powered analysis along with a section analysis for the study. I am not fully powered signified and not ultimate goal was to get the p-value. In this study, the researcher sought to determine to what extent this program is visible, acceptable, and adaptable.

4.1 Demographic characteristics of the preceptors

All participants answered demographic questions on the pre-survey (N= 62). The participants were preceptors who responded accurately to complete the section regarding their years of experience. The data indicated that 35.5% were age range 31-35 years old, 32.3% were age range 25-30 years old, 17.7% were range 40 and above, and 14.5% were range 36-40 (see table 1). The years of experience as a clinical instructor were 45.16% from one to five years, 45.16% from six to ten years, and 11.7% from eleven and above. The majority was male 48 (77.4%), while 14 (22.6%) were female. There were 38 respondents from the ICU and 24 from the medical and surgical ward. The majority were training the second clinical level of nursing students by the clinical instructor 46.8% and the lowest were 16.1% who trained the fourth level.

The last was the name of the course they were training, which was the medical and surgical 36 (58%) where 26 (42%) the training course was advanced nursing (see Table 1).

Table1. Descriptive Statistics for Demographic characteristics of the preceptors (N=62).

Variables	Frequency	Percentage
Preceptors Age		
25-30 years	20	32.3%
31-35 years	22	35.5 %
36-40 years	9	14.5 %
41 and above	11	17.7 %
Gender		
Male	48	77.4 %
Female	14	22.6 %
Clinical Unit		
Medical & Surgical	24	38.7 %
ICU	38	61.3 %
Work experience		
One year- 5 years	29	46.8 %
6 years-10 years	25	40.3 %
11years and above	8	12.9 %
Clinical level of nursing students		
Second year	29	46.8 %
Third year	23	37.1%
Fourth-year	10	16.1%
Training Courses		
Medical & Surgical	36	58.0 %
Advanced Nursing	26	42.0 %
Total	**62**	**100.0 %**

4.2 Comparing preceptors' self-reported CTCI scores in pre and post-tests phases (N=62)

The results of the paired samples T-test of differences between pre- and post-preceptorship training program for preceptors show that the differences are statistically significant at 0.05 significance level, and all the mean values in the posttests are higher than the corresponding means in the pretests. The results showed that the mean of the Student Evaluation domain in the posttest (Mean=4.59) is significantly higher than in the pretest (Mean=3.92). Regarding the Goal setting and Individual teaching domain, the results show that the mean in the posttest (Mean=4.51) is significantly higher than in the pretest (Mean=3.8). Regarding the Teaching strategies domain, the

results show that the mean in the posttest (Mean=4.58) is significantly higher than in the pretest (Mean=4.00). Regarding the organized Knowledge domain, the results also show that the mean in the posttest (Mean=4.62) is significantly higher than in the pretest (Mean=4.19). Finally, the results show that the mean in the total CTCI posttest (Mean=4.57) is significantly higher than the corresponding pretest (Mean=3.94) (see Table 2).

Table 2. Comparison of preceptors' CTCI scores in pre- and posttest phases (N=62)

Item #	Dimensions of CTCI	Pre-Intervention Mean (SD)	Post-Intervention Mean (SD)	*t*-test	*p-value	95% CI
Dimension 1: Student evaluation (9 items)						
1	Giving students grades that truly reflect their efforts and performance	3.77 (1.06)	4.59 (0.71)	5.19	0.000	0.51 to 1.14
2	Responding positively to students' comments and suggestions about teaching performance	4.09 (0.74)	4.69 (0.53)	6.21	0.000	0.4 to 0.79
2	Encouraging students to evaluate their performance	3.87 (0.98)	4.66 (0.57)	5.88	0.000	0.52 to 1.06
4	Giving students positive feedback for good work	4.16 (0.75)	4.64 (0.51)	4.41	0.000	0.26 to 0.7
5	Observing student performance in a proper manner	4.01 (0.77)	4.72 (0.48)	6.52	0.000	0.49 to 0.93
6	Evaluating students based on the objectives set at the beginning of the internship	3.85 (0.93)	4.53 (0.80)	5.23	0.000	0.42 to 0.94
7	Discussing with students the pros and cons and limitations of internship	3.91 (0.81)	4.54 (0.73)	5.67	0.000	0.41 to 0.85
8	Asking students to evaluate the teaching performance of clinical nurse trainer	3.58 (0.93)	4.37 (0.83)	6.26	0.000	0.54 to1.04
9	Evaluating student attitude, knowledge, and skills properly	3.98 (0.77)	4.54 (0.61)	5.05	0.000	0.34 to 0.79
Total Students evaluation		**3.92 (0.56)**	**4.59 (0.44)**	**7.90**	**0.000**	**0.5 to 0.84**
Dimension 2: Goal setting and individual teaching (9 items)						
1	Setting goals and objectives based on students'	3.45 (0.96)	4.25 (0.76)	5.24	0.000	0.5 to1.11

	expectations and levels of experience					
2	Addressing issues that students had not dealt with in previous internship experience	3.67 (1.05)	4.53 (0.59)	6.21	0.000	0.58 to1.13
3	Asking students to fulfill certain responsibilities in internship	4.06 (0.90)	4.59 (0.63)	4.11	0.000	0.27 to 0.79
4	Explaining the purpose and objectives of the internship	4.19 (0.84)	4.77 (0.49)	5.2	0.000	0.36 to 0.8
5	Expecting students to set their own goals for internship	3.61 (0.94)	4.54 (0.59)	6.99	0.000	0.67 to1.2
6	Setting performance standards for individual students and adjusting teaching practice where necessary	3.53 (1.05)	4.50 (0.56)	6.92	0.000	0.69 to1.25
7	Assigning students to a proper number of patients whose conditions can be reasonably handled by students	3.95 (0.83)	4.46 (0.56)	4.61	0.000	0.29 to 0.74
8	Planning the right kind of activities that would help students achieve their goals in internship	3.85 (0.84)	4.51 (0.59)	5.76	0.000	0.43 to 0.89
9	Inspiring students to do practical work	3.83 (0.96)	4.43 (0.76)	3.77	0.000	0.28 to 0.91
Total Goal setting and individual teaching		**3.80 (0.65)**	**4.51 (0.40)**	**7.93**	**0.000**	**0.54 to 0.9**

Dimension 3: Teaching strategies (9 items)

1	Having good relationships with patients	4.03 (0.84)	4.46 (0.67)	4.07	0.000	0.22 to 0.65
2	Showing enthusiasm in providing patient care	4.06 (0.82)	4.50 (0.67)	3.67	0.001	0.2 to 0.67
3	Providing good care to patients	4.12 (0.75)	4.64 (0.54)	5.18	0.000	0.32 to 0.72
4	Requiring students to respond to demo teaching	3.87 (0.85)	4.54 (0.56)	5.59	0.000	0.44 to 0.92
5	Discussing practical applications of knowledge and skills	3.98 (0.82)	4.51 (0.74)	4.48	0.000	0.29 to 0.77
6	Leading students to analyze, evaluate, and interpret issues	3.91 (0.89)	4.66 (0.57)	6.22	0.000	0.5 to 0.98
7	Using the most up-to-date knowledge and techniques to take care of patients in need of special care	3.79 (0.97)	4.59 (0.61)	5.94	0.000	0.54 to1.08
8	Remaining accessible to students in need of help	4.16 (0.75)	4.64 (0.57)	4.41	0.000	0.26 to 0.7

9	Helping students locate relevant information and website resources	4.01 (0.83)	4.66 (0.54)	5.39	0.000	0.41 to 0.88
Total Teaching strategies		**4.00 (0.62)**	**4.58 (0.43)**	**7.17**	**0.000**	**0.42 to 0.75**

Dimension 4: Demonstration of organized knowledge (4 items)

1	Explaining the basis of actions and decision-making in patient management	4.03 (0.78)	4.50 (0.64)	3.86	0.000	0.23 to 0.71
2	Presenting information and key points in an organized way	4.19 (0.76)	4.64 (0.54)	4.32	0.000	0.24 to 0.66
3	Answering questions clearly and accurately	4.30 (0.66)	4.67 (0.62)	3.89	0.000	0.18 to 0.56
4	Possessing coordination and conflict-solving abilities	4.24 (0.66)	4.66 (0.59)	4.35	0.000	0.23 to 0.61
Total Demonstration of organized knowledge		**4.19 (0.61)**	**4.62 (0.53)**	**4.75**	**0.000**	**0.25 to 0.61**
CTCI Total Score (n=31 items)		**3.94 (0.55)**	**4.57 (0.39)**	**8.19**	**0.000**	**0.48 to 0.78**

* The p values of paired samples T-test for the difference between pre and post-preceptorship training program for preceptors

4.3 Researcher evaluation of preceptors' performance using NCTEI

In this study, the researcher used the Nursing Clinical Teacher Effectiveness Inventory (NCTEI) during the participants' scenario discussions and attending the preceptorship workshop. In addition, this tool is used by nursing students to complete it to assess the perception of nursing students about the effect of the preceptorship program on the characteristics of clinical instructors.

Table three presents the researcher's observation of preceptors after the finished course of the preceptorship program.

The results of the Researcher's observations on the Nursing Clinical Teacher Effectiveness Inventory (NCTEI) show that overall, the means of NCTEI are above the midpoints. Notably, all the mean values of domains for the researcher observation are high and

strongly agree with items of the domains. The results showed that the mean of the interpersonal relations domain was the highest (Mean= 4.60), followed by the mean of the personality domain (Mean=4.47). The Evaluation domain (Mean = 4.4), the teaching ability domain (Mean= 4.37), and the lowest was the nursing competence domain (Mean = 4.2). Finally, the results show that the mean of the researcher's observations toward the NCTEI scale (Mean=4.39) is significantly high. Additionally, the findings of the researchers' observations of the NCTEI scale revealed that the items Encourage a climate of mutual respect, Is approachable, Is a good role model, Is self-critical, and Demonstrates communication skills received high levels of agreement with means of 4.87, 4.85, 4.83, 4.7, and 4.67, respectively (see Table 3).

Table 3. The researcher's evaluation of preceptors' performance using the NCTEI

Item #	Dimensions of Teaching Behaviour	Researcher Evaluation Mean (SD) (n = 62)
Dimension 1: Teaching ability (17 items)		
1	Explains clearly	4.53 (1.12)
2	Emphasizes what is important	4.45 (1.12)
3	Stimulates student interest in the subject	4.58 (1.08)
4	Remains accessible to students	4.27 (1.28)
5	Demonstrates clinical procedures and techniques	4.42 (1.13)
6	Guides students' development of clinical skills	4.40 (1.19)
7	Provides specific practice opportunity	4.48 (1.25)
8	Offers special help when difficulties arise	4.61 (1.07)
9	Is well prepared for teaching	4.16 (1.35)
10	Enjoys teaching	4.32 (1.25)
11	Encourages active participation in discussion	4.24 (1.23)
12	Gears instruction to student's level of readiness	4.48 (1.19)
13	Quickly grasps what students are asking or telling	4.25 (1.29)
14	Answers carefully and precisely questions raised by students	4.20 (1.32)
15	Question's students to elicit underlying reasoning	4.20 (1.29)
16	Helps students organize their thoughts about patient problems	4.22 (1.25)
17	Promotes student independence	4.33 (1.24)

Total Teaching ability		**4.37 (1.14)**

Dimension 2: Nursing Competence (9 items)

1	Demonstrates clinical skill and judgment	4.41 (1.18)
2	Demonstrates communication skills	4.67 (1.18)
3	Reveals broad reading in his/her area of interest	3.7 (1.28)
4	Discusses current development in his/her field	4.04 (1.31)
5	Directs students to use literature in nursing	3.40 (1.38)
6	Demonstrates a breadth of knowledge in nursing	4.08 (1.19)
7	Recognizes own limitations	4.50 (1.15)
8	Takes responsibility for own actions	4.30 (1.19)
9	Is a good role model	4.83 (1.20)

Total Nursing Competence		**4.22 (1.12)**

Dimension 3: Evaluation (8 items)

1	Makes specific suggestions for improvement	4.56 (1.16)
2	Provides frequent feedback on students' performance	4.40 (1.17)
3	Identifies students' strengths and limitations objectively	4.43 (1.19)
4	Observe students' performance frequently	4.27 (1.25)
5	Communicates expectations of students	4.14 (1.22)
6	It gives students positive reinforcement for good contributions, observations, or performance	4.37 (1.20)
7	Corrects students' mistakes without belittling them	4.54 (1.09)
8	Do not criticize students in front of others	4.45 (1.15)

Total Evaluation		**4.4 (1.12)**

Dimension 4: Interpersonal Relations (6 items)

1	Provides support and encouragement to students	4.54 (1.19)
2	Is approachable	4.85 (1.02)
3	Encourages a climate of mutual respect	4.87 (1.06)
4	Listens attentively	4.38 (1.26)
5	Shows a personal interest in students	4.56 (1.15)
6	Demonstrates empathy	4.54 (1.09)

Total Interpersonal Relations		**4.63 (1.07)**

Dimension 5: Personality (7 items)

1	Demonstrates enthusiasm	4.43 (1.20)
2	Is a dynamic and energetic person	4.35 (1.31)
3	Self -confidence	4.46 (1.21)

4	Is self-critical	4.74 (1.08)
5	Is open-minded and non-judgmental	4.53 (1.16)
6	Has a good sense of humor	4.64 (1.16)
7	Appears organized	4.09 (1.35)
Total Personality		**4.47 (1.14)**
Other's traits		**4.34 (1.22)**
1	It explains the student's tasks during clinical training, evaluation methods, and grade distribution	4.29 (1.31)
2	Students are encouraged to do their best to complete nursing tasks in a timely manner while correctly estimating the time needed	4.29 (1.29)
3	He is characterized by patience and self-control	4.54 (1.21)
4	He is characterized by fairness and objectivity during evaluation	4.30 (1.23)
	Overall Perception (with Other's traits)	**4.39 (1.10)**
	Overall Perception (without Other's traits)	**4.39 (1.09)**

* The p values of two independent samples T-test for difference between Researcher and Nursing Students.

4.4 Demographic Characteristics of the Participated Nursing Students

All nursing students who participated in the study completed the demographic survey (n =150). The bulk of participants were aged 20-24 (74.0%), whilst 5.3% were over 25 years old. The majority of participants were female, at 112 (74.7%), while male respondents accounted for 38 (25.3%). In terms of academic year, 56% were second-year students, 34.7% were third year, and 9.3% were in their fourth year. Additionally, 67.4% received training in medical and surgical courses and 32.6% in advanced nursing courses (see Table 4).

Table 4. Demographic characteristics of participating students (N=150).

Age	Frequency	Percent
20-24	111	74.0%
18-20	31	20.7%
>25	8	5.3%
Gender	**Frequency**	**Percent**
Male	38	25.3%
Female	112	74.7%
Level of Study	**Frequency**	**Percent**

Second Year	84	56.0%
Third Year	52	34.7%
Fourth Year	14	9.3%
The name of the course you are currently training	**Frequency**	**Percent**
Medical & Surgical	101	67.4%
Advanced Nursing	49	32.6%
Group	**Frequency**	**Percent**
Control group	67	44.7%
Experimental group	83	55.3%
Total	**150**	**100.0%**

4.4.1 Comparison of Students' NCTEI scores between control and experimental groups

Of the 150 nursing students who participated in the current study, 67 completed the NCTEI before the preceptorship program was implemented for preceptors, thus forming the control group, while 83 completed the instrument after the preceptorship program was implemented for preceptors, forming the experimental group.

The results of the two independent samples T-test of differences between the control and experimental groups of students' attitudes toward the Nursing Clinical Teacher Effectiveness Inventory (NCTEI) show that there are no significant differences at 0.05 level of significance, between the control (Mean=5.92) and the experimental (Mean=6.3) groups regarding the Teaching Ability domain, the p-value of the test is 0.052. Regarding the Nursing Competence domain, the results show that the mean of the control group (Mean=5.69) is significantly lower than the mean of the experimental group (Mean=6.14), and the p-value of the test is 0.041. Regarding the Evaluation domain, the results show that there is no significant difference between the control group of students (Mean=5.74) and the experimental group of students (Mean=6.12), the p-value of the test is 0.055. Regarding the Interpersonal Relations domain, the results also show no significant difference between the control group of students (Mean=5.76) and the experimental group of students (Mean=6.14), the p-value of the test is 0.101. Also, in the Personality domain,

the results show that there is no significant difference between the control group of students (Mean=5.76) and the experimental group of students (Mean=6.05), the p-value of the test is 0.158. In addition, the results show that there is no significant difference between the student's attitudes toward the other personality traits domain for the control group (Mean=5.93) and the experimental group (Mean=6.18), the p-value of the test is 0.196. Finally, the results show that there is no significant difference in the overall student attitudes toward the NCTEI scale between the control group (Mean=5.81) and the experimental group (Mean=6.18), and the p-value of the test is 0.059 (see Table 5).

On the other hand, the results indicate a significant difference in several items between the control group of students and the experimental group of students in six items within the Teaching Ability domain, as presented in Table 5, with p-values of 0.042, 0.046, 0.026, 0.032, 0.014, and 0.047. Alongside the Nursing Competence domain, there is a notable significance in four items: 0.48, 0.020, 0.049, and 0.028 as illustrated in Table 5. There are two significant items in the Evaluation domain, p-values of 0.011, and 0.047. While, in the Interpersonal Relations domain, one item has a difference significant p-value of 0.030 (refer to Table 5).

Table 5. Comparing students' NCTEI scores between the control and experimental groups

Item #	Dimensions of Teaching Behaviour	Control group Mean (SD) (n = 67)	Experimental group Mean (SD) (n = 83)	t-test	*p-value	95% CI
Dimension 1: Teaching ability (17 items)						
1	Explains clearly	6.31 (1.32)	6.6 (1.08)	-1.476	0.142	-0.68 to 0.1
2	Emphasizes what is important	6.18 (1.25)	6.45 (1.14)	-1.362	0.175	-0.65 to 0.12
3	Stimulates student interest in the subject	5.99 (1.41)	6.27 (1.26)	-1.283	0.201	-0.71 to 0.15
4	Remains accessible to students	6.01 (1.47)	6.28 (1.31)	-1.153	0.251	-0.71 to 0.19
5	Demonstrates clinical procedures and techniques	5.99 (1.34)	6.34 (1.05)	-1.803	0.073	-0.74 to 0.03
6	Guides students' development of clinical skills	5.85 (1.69)	6.27 (1.24)	-1.730	0.086	-0.89 to 0.06

7	Provides specific practice opportunity	5.97 (1.41)	6.39 (1.07)	-2.049	**0.042**	-0.82 to -0.01
8	Offers special help when difficulties arise	5.85 (1.62)	6.19 (1.2)	-1.484	0.140	-0.8 to 0.11
9	Is well prepared for teaching	5.81 (1.64)	6.29 (1.29)	-2.015	**0.046**	-0.96 to -0.01
10	Enjoys teaching	5.72 (1.67)	6.12 (1.48)	-1.568	0.119	-0.91 to 0.11
11	Encourages active participation in discussion	5.91 (1.44)	6.2 (1.38)	-1.274	0.205	-0.75 to 0.16
12	Gears instruction to student's level of readiness	5.84 (1.62)	6.35 (1.17)	-2.249	**0.026**	-0.96 to -0.06
13	Quickly grasps what students are asking or telling	5.81 (1.48)	6.28 (1.19)	-2.160	**0.032**	-0.9 to -0.04
14	Answers carefully and precisely questions raised by students	5.72 (1.66)	6.29 (1.16)	-2.480	**0.014**	-1.03 to -0.12
15	Question's students to elicit underlying reasoning	5.9 (1.28)	6.29 (1.12)	-2.006	**0.047**	-0.78 to -0.01
16	Helps students organize their thoughts about patient problems	5.9 (1.3)	6.11 (1.37)	-0.966	0.335	-0.65 to 0.22
17	Promotes student independence	5.9 (1.62)	6.34 (1.25)	-1.887	0.061	-0.9 to 0.02
Total Teaching ability		**5.92 (1.29)**	**6.3 (1.06)**	**-1.960**	**0.052**	**-0.76 to 0.0**

Dimension 2: Nursing Competence (9 items)

1	Demonstrates clinical skill and judgment	5.99 (1.3)	6.29 (1.22)	-1.479	0.141	-0.71 to 0.1
2	Demonstrates communication skills	5.81 (1.48)	6.18 (1.4)	-1.590	0.114	-0.84 to 0.09
3	Reveals broad reading in his/her area of interest	5.82 (1.59)	6.23 (1.26)	-1.749	0.082	-0.87 to 0.05
4	Discusses current development in his/her field	5.58 (1.81)	6.1 (1.35)	-1.993	**0.048**	-1.02 to 0.0
5	Directs students to use literature in nursing	5.72 (1.55)	6.02 (1.54)	-1.216	0.226	-0.81 to 0.19
6	Demonstrates a breadth of knowledge in nursing	5.81 (1.43)	6.23 (1.41)	-1.817	0.071	-0.88 to 0.04
7	Recognizes own limitations	5.18 (1.91)	5.86 (1.62)	-2.351	**0.020**	-1.24 to -0.11
8	Takes responsibility for own actions	5.7 (1.51)	6.18 (1.44)	-1.983	**0.049**	-0.96 to 0.0
9	Is a good role model	5.58 (1.99)	6.22 (1.51)	-2.225	**0.028**	-1.2 to -0.07
Total Nursing Competence		**5.69 (1.41)**	**6.14 (1.3)**	**-2.064**	**0.041**	**-0.9 to -0.02**

Dimension 3: Evaluation (8 items)

1	Makes specific suggestions for improvement	5.67 (1.59)	6.07 (1.5)	-1.581	0.116	-0.9 to 0.1
2	Provides frequent feedback on students' performance	5.81 (1.43)	6.16 (1.26)	-1.594	0.113	-0.79 to 0.08

3	Identifies students' strengths and limitations objectively	5.69 (1.62)	6.04 (1.45)	-1.393	0.166	-0.85 to 0.15
4	Observe students' performance frequently	5.96 (1.32)	6.28 (1.12)	-1.617	0.108	-0.72 to 0.07
5	Communicates expectations of students	6.06 (1.2)	6.22 (1.33)	-0.752	0.453	-0.57 to 0.26
6	It gives students positive reinforcement for good contributions, observations, or performance	5.66 (1.63)	6.29 (1.38)	-2.570	**0.011**	-1.12 to -0.15
7	Corrects students' mistakes without belittling them	5.58 (1.83)	6.12 (1.46)	-2.006	**0.047**	-1.07 to -0.01
8	Do not criticize students in front of others	5.48 (1.96)	5.81 (1.76)	-1.086	0.279	-0.93 to 0.27
Total Evaluation		**5.74 (1.23)**	**6.12 (1.2)**	**-1.931**	**0.055**	**-0.78 to 0.01**

Dimension 4: Interpersonal Relations (6 items)

1	Provides support and encouragement to students	5.67 (1.74)	6.22 (1.31)	-2.194	**0.030**	-1.04 to -0.05
2	Is approachable	5.91 (1.63)	6.24 (1.31)	-1.376	0.171	-0.81 to 0.14
3	Encourages a climate of mutual respect	5.96 (1.51)	6.34 (1.16)	-1.751	0.082	-0.81 to 0.05
4	Listens attentively	5.76 (1.67)	6.16 (1.36)	-1.600	0.112	-0.88 to 0.09
5	Shows a personal interest in students	5.66 (1.83)	5.96 (1.57)	-1.105	0.271	-0.86 to 0.24
6	Demonstrates empathy	5.58 (1.74)	5.9 (1.5)	-1.213	0.227	-0.85 to 0.2
Total Interpersonal Relations		**5.76 (1.54)**	**6.14 (1.29)**	**-1.648**	**0.101**	**-0.84 to 0.08**

Dimension 5: Personality (7 items)

1	Demonstrates enthusiasm	5.64 (1.7)	5.81 (1.63)	-0.606	0.545	-0.7 to 0.37
2	Is a dynamic and energetic person	5.54 (1.79)	5.84 (1.63)	-1.096	0.275	-0.86 to 0.25
3	Self -confidence	6.01 (1.53)	6.4 (1.08)	-1.790	0.076	-0.81 to 0.04
4	Is self-critical	5.48 (1.69)	5.88 (1.48)	-1.549	0.124	-0.91 to 0.11
5	Is open-minded and non-judgmental	5.9 (1.37)	6.16 (1.29)	-1.197	0.233	-0.69 to 0.17
6	Has a good sense of humor	5.66 (1.67)	6.02 (1.44)	-1.444	0.151	-0.87 to 0.14
7	Appears organized	6.07 (1.28)	6.27 (1.31)	-0.894	0.373	-0.61 to 0.23
Total Personality		**5.76 (1.32)**	**6.05 (1.24)**	**-1.418**	**0.158**	**-0.71 to 0.12**
Other's traits		**5.93 (1.26)**	**6.18 (1.17)**	**-1.299**	**0.196**	**-0.65 to 0.13**
1	It explains the student's tasks during clinical training, evaluation methods, and grade distribution	5.97 (1.46)	6.34 (1.25)	-1.660	0.099	-0.8 to 0.07

2	Students are encouraged to do their best to complete nursing tasks in a timely manner while correctly estimating the time needed	5.93 (1.57)	6.35 (1.22)	-1.859	0.065	-0.87 to 0.03
3	He is characterized by patience and self-control	5.93 (1.28)	6.02 (1.44)	-0.438	0.662	-0.54 to 0.35
4	He is characterized by fairness and objectivity during evaluation	5.88 (1.47)	6.02 (1.44)	-0.601	0.549	-0.62 to 0.33
	Overall Perception (with Other's traits)	5.81 (1.26)	6.18 (1.14)	-1.899	0.059	-0.76 to 0.02
	Overall Perception (without Other's traits)	5.8 (1.27)	6.18 (1.15)	-1.931	**0.055**	-0.77 to 0.01

* The p values of two independent samples T-test for difference between control and experimental groups of students.

4.5 Testing the internal consistency of the CTCI scales

The internal consistency of the CTCI scale as measured by Cronbach's Alpha is 0.949 in pre-intervention and 0.947 post-intervention. The results of reliability statistics show that the Cronbach's Alpha coefficients range from 82.2% to 89.2% for the subdomains and 94.9% for the total overall domains in the Pre-CTCI scale, and the Cronbach's Alpha coefficients range from 81.8% to 89.2% for the subdomains and 94.7% for the total overall domains in the Post-CTCI scale (see Table 6). Hence, the results of Reliability Statistics indicate a high degree of internal consistency of the respondents' answers toward the CTCI scale pre and post-intervention, since the lowest acceptable level of Cronbach's Alpha coefficient is 70% (García-García et al., 2024).

Table 6. Testing the internal consistency of the CTCI scales

Scales	N of Items	Cronbach's Alpha	
		Pre-CTCI (N=62)	Post-CTCI (N=62)
Student Evaluation	9	0.824	0.846
Goal setting and Individual teaching	9	0.862	0.818
Teaching strategies	9	0.892	0.873
Demonstration of organized Knowledge	4	0.862	0.892
Total	**31**		
All items Cronbach's Alpha	31	0.949	0.947

4.6 Testing the internal consistency of the NCTEI scale

The results of reliability statistics show that the Cronbach's Alpha coefficients range from 97.3% to 99.1% for the subdomains and 99.5% for the total overall domains in the NCTEI scale observed by the researcher, and the Cronbach's Alpha coefficients range from 92.7% to 98% for the subdomains and 99% for the total overall domains in the students' NCTEI scale (see Table 7). Hence, the results of Reliability Statistics indicate a very high degree of internal consistency of the observation and students' answers toward the NCTEI scale since the lowest acceptable level of Cronbach's Alpha coefficients is 70% (García-García et al., 2024).

Table 7. Testing NCTEI internal consistency across the students and the researcher's evaluation

Scales	N of Items	Cronbach's Alpha	
		Researcher (N=62)	Students (N=150)
Teaching Behaviors	17	0.991	0.980
Nursing Competence	9	0.973	0.968
Evaluation	8	0.982	0.927
Interpersonal Relations	6	0.975	0.965
Personality	7	0.975	0.937
Total			
All items Cronbach's Alpha	47	0.995	0.990

4.7 Variation of preceptors' CTCI scores across different demographic characteristics

The researcher used these tests to explore the correlations and relations with the demographic characteristics of preceptors.

4.7.1 Differences between the Pre-Post change of Student evaluation scores according to the demographic characteristics of the preceptors.

The researcher extracted the results of testing differences in the means of the Pre-Post change of Student evaluation scores according to the demographic characteristics of the preceptors. The results are shown in the next table. The p-values and test values shown in (table

7) are based on the independent samples T-test for gender, type of clinical unit, and the name of the course currently training. In contrast, the p-values and test values are based on the one-way ANOVA (F-test) for age, work experience as a clinical nursing instructor in years, and clinical nursing level of nursing students trained by the clinical instructor.

The results of the analysis of differences in the Pre-Post change of Student evaluation scores according to the demographic characteristics of the preceptors show that the differences are not statistically significant at 0.05 level of significance according to all the demographic characteristics of the preceptors (see Table 8).

Table 8. ANOVA and T-test results of analysis of differences in the Pre-Post change of Student evaluation scores according to the demographic characteristics of the preceptors (N=62).

Independent Variable	Category	Dependent: Pre-Post change of Student evaluation			
		Number	Mean (SD)	test-value	p-value*
Age	25-30 years	20	0.74 (0.59)	0.528	0.665
	31-35 years	22	0.7 (0.7)		
	36-40 years	9	0.74 (0.59)		
	41 and above	11	0.44 (0.85)		
Gender	Male	48	0.74 (0.6)	1.362	0.178
	Female	14	0.46 (0.87)		
Type of Clinical Unit (The name of the department you work in)	Medical & Surgical	24	0.58 (0.76)	-0.885	0.380
	ICU	38	0.73 (0.61)		
Work experience as a clinical nursing instructor for years	1-5 years	29	0 (0)	0.468	0.629
	6-10 years	25	0.76 (0.65)		
	11 years and above	8	0.6 (0.79)		
Nursing Clinical-level nursing students trained by the clinical instructor	Second year	29	0.58 (0.29)	0.959	0.389
	Third year	23	0.56 (0.77)		
	Fourth-year	10	0.72 (0.57)		
The name of the course you are currently training	Medical & Surgical	36	0.89 (0.58)	-1.387	0.171
	Advanced Nursing	26	0.57 (0.74)		

* The p values of two independent samples T-test for the difference between control and experimental groups of students

4.7.2. Differences between the Pre-Post change of Goal setting and individual teaching according to the demographic characteristics of the preceptors

The researcher extracted the results of testing differences in the means of the Pre-Post change of Goal setting and individual teaching scores according to the demographic characteristics of the preceptors. The results are shown in the next table. The p-values and test values shown in the table are based on the independent samples T-test for gender, type of clinical unit, and the name of the course currently training. In contrast, the p-values and test values are based on the one-way ANOVA (F-test) for age, work experience as a clinical nursing instructor in years, and clinical nursing level of nursing students trained by the clinical instructor.

The results of the analysis of differences in the Pre-Post change of Goal setting and individual teaching scores according to the demographic characteristics of the preceptors show that the differences are statistically significant only according to the name of the course that currently training at 0.05 level of significance, and the results show that the mean of change for the Advanced Nursing course (Mean=0.94) is significantly higher than the mean of change for the Medical & Surgical course (Mean=0.56). On the other hand, the results show that there are no statistically significant differences at 0.05 level of significance in the Pre-Post change of Goal setting and individual teaching scores according to the other demographic characteristics of the preceptors (see Table 9).

Table 9. ANOVA and T-test results of analysis of differences in the Pre-Post change of Goal setting and individual teaching scores according to the demographic characteristics of the preceptors (N=62).

Independent Variable	Category	Dependent: Pre-Post change of Goal setting and individual teaching			
		Number	Mean (SD)	test-value	p-value*
Age	25-30 years	20	0.82 (0.73)	0.367	0.777
	31-35 years	22	0.74 (0.76)		
	36-40 years	9	0.54 (0.42)		

	41 and above	11	0.63 (0.82)		
Gender	Male	48	0.76 (0.66)	0.963	0.339
	Female	14	0.56 (0.87)		
Type of Clinical Unit (The name of the department you work in)	Medical & Surgical	24	0.67 (0.78)	-0.398	0.692
	ICU	38	0.75 (0.67)		
Work experience as a clinical nursing instructor for years	1-5 years	29	0.77 (0.71)	0.437	0.648
	6-10 years	25	0.73 (0.8)		
	11 years and above	8	0.5 (0.33)		
Nursing Clinical-level nursing students trained by the clinical instructor	Second year	29	0.6 (0.74)	2.576	0.085
	Third year	23	0.67 (0.64)		
	Fourth-year	10	1.17 (0.66)		
The name of the course you are currently training	Medical & Surgical	36	0.56 (0.7)	-2.117	0.038
	Advanced Nursing	26	0.94 (0.68)		

* The p values of two independent samples T-test for the difference between control and experimental groups of students

4.7.3 Differences between the Pre-Post Change of Teaching Strategies scores according to the demographic characteristics of the preceptors

The researcher extracted the results of testing differences in the means of the Pre-Post change of Teaching strategies scores according to the demographic characteristics of the preceptors. The results are shown in the next table. The p-values and test values shown in the table are based on the independent samples T-test for gender, type of clinical unit, and the name of the course currently being trained. In contrast, the p-values and test values are based on the one-way ANOVA (F-test) for age, work experience as a clinical nursing instructor in years, and clinical nursing level of nursing students trained by the clinical instructor.

The results of the analysis of differences in the Pre-Post change of Teaching strategies scores according to the demographic characteristics of the preceptors show that there are no statistically significant differences at 0.05 level of significance in the Pre-Post change of Teaching strategies scores according to all the demographic characteristics of the preceptors (see Table 10).

Table 10. ANOVA and T-test results of analysis of differences in the Pre-Post change of Teaching strategies scores according to the demographic characteristics of the preceptors (N=62).

Independent Variable	Category	Dependent: Pre-Post change of Teaching strategies			
		Number	Mean (SD)	test-value	p-value*
Age	25-30 years	20	0.68 (0.63)	0.478	0.699
	31-35 years	22	0.62 (0.68)		
	36-40 years	9	0.4 (0.61)		
	41 and above	11	0.51 (0.66)		
Gender	Male	48	0.64 (0.63)	1.148	0.255
	Female	14	0.41 (0.67)		
Type of Clinical Unit (The name of the department you work in)	Medical & Surgical	24	0.5 (0.61)	-0.880	0.382
	ICU	38	0.64 (0.67)		
Work experience as a clinical nursing instructor for years	1-5 years	29	0.63 (0.64)	0.869	0.425
	6-10 years	25	0.63 (0.7)		
	11 years and above	8	0.31 (0.46)		
Nursing Clinical-level of nursing students trained by the clinical instructor	Second year	29	0.43 (0.64)	1.981	0.147
	Third year	23	0.67 (0.66)		
	Fourth-year	10	0.86 (0.55)		
The name of the course you are currently training	Medical & Surgical	36	0.46 (0.65)	-1.852	0.069
	Advanced Nursing	26	0.76 (0.6)		

* The p values of two independent samples T-test for the difference between control and experimental groups of students

4.7.4 Differences between the Pre-Post Change of Demonstration of Organized Knowledge scores according to the demographic characteristics of the preceptors.

The researcher extracted the results of testing differences in the means of the Pre-Post change of Demonstration of organized knowledge scores according to the demographic characteristics of the preceptors. The results are shown in the next table. The p-values and test values shown in the table are based on the independent samples T-test for gender, type of clinical unit, and the name of the course currently being trained. In contrast, the p-values and test values are based on the one-way ANOVA (F-test) for age, work experience as a clinical nursing

instructor in years, and the clinical nursing level of nursing students trained by the clinical

instructor.

The results of the analysis of differences in the Pre-Post change of Demonstration of organized

knowledge scores according to the demographic characteristics of the preceptors show that there

are no statistically significant differences at 0.05 level of significance in the Pre-Post change of

Demonstration of the organized knowledge scores according to the all the demographic

characteristics of the preceptors (see Table 11).

Table 11. ANOVA and T-test results of analysis of differences in the Pre-Post change of
Demonstration of organized knowledge scores according to the demographic characteristics of
the preceptors (N=62).

| Independent Variable | Category | Dependent: Pre-Post change of Demonstration of organized knowledge | | | |
		Number	Mean (SD)	test-value	p-value*
Age	25-30 years	20	0.49 (0.64)	0.204	0.893
	31-35 years	22	0.47 (0.8)		
	36-40 years	9	0.31 (0.8)		
	41 and above	11	0.34 (0.64)		
Gender	Male	48	0.51 (0.69)	1.621	0.110
	Female	14	0.16 (0.74)		
Type of Clinical Unit (The name of the department you work in)	Medical & Surgical	24	0.3 (0.64)	-1.108	0.272
	ICU	38	0.51 (0.75)		
Work experience as a clinical nursing instructor in years	1-5 years	29	0.51 (0.65)	0.771	0.467
	6-10 years	25	0.42 (0.8)		
	11 years and above	8	0.16 (0.64)		
Nursing Clinical-level of nursing students trained by the clinical instructor	Second year	29	0.33 (0.74)	0.583	0.561
	Third year	23	0.49 (0.77)		
	Fourth-year	10	0.58 (0.46)		
The name of the course you are currently training	Medical & Surgical	36	0.31 (0.76)	-1.613	0.112
	Advanced Nursing	26	0.6 (0.61)		

* The p values of two independent samples T-test for the difference between control and experimental groups of students

4.7.5 Differences in the Pre-Post change of Total CTCI scores according to the demographic characteristics of the preceptors.

The researcher extracted the results of testing differences in the means of the Pre-Post change of Total CTCI scores according to the demographic characteristics of the preceptors. The results are shown in the next table. The p-values and test values shown in the table are based on the independent samples T-test for gender, type of clinical unit, and the name of the course currently training. In contrast, the p-values and test values are based on the one-way ANOVA (F-test) for age, work experience as a clinical nursing instructor in years, and clinical nursing level of nursing students trained by the clinical instructor.

The results of the analysis of differences in the Pre-Post change of Total CTCI scores according to the demographic characteristics of the preceptors show that the differences are statistically significant only according to the name of the course that currently training at 0.05 level of significance, and the results show that the mean of change for the Advanced Nursing course (Mean=0.81) is significantly higher than the mean of change for the Medical & Surgical course (Mean=0.5). On the other hand, the results show that there are no statistically significant differences at the 0.05 level of significance in the Pre-Post change of Total CTCI scores according to the other demographic characteristics of the preceptors (see Table 12).

Table 12. ANOVA and T-test results of analysis of differences in the Pre-Post change of Total CTCI scores according to the demographic characteristics of the preceptors (N=62).

Independent Variable	Category	Dependent: Pre-Post change of Total CTCI			
		Number	Mean (SD)	test-value	p-value*
Age	25-30 years	20	0.71 (0.56)	0.385	0.764
	31-35 years	22	0.66 (0.65)		
	36-40 years	9	0.53 (0.51)		
	41 and above	11	0.5 (0.71)		

Gender	Male	48	0.69 (0.57)	1.370	0.176
	Female	14	0.44 (0.71)		
Type of Clinical Unit (The name of the department you work in)	Medical & Surgical	24	0.55 (0.64)	-0.860	0.393
	ICU	38	0.68 (0.58)		
Work experience as a clinical nursing instructor in years	1-5 years	29	0.69 (0.58)	0.613	0.545
	6-10 years	25	0.62 (0.7)		
	11 years and above	8	0.42 (0.31)		
Nursing Clinical level of nursing students trained by the clinical instructor	Second year	29	0.5 (0.64)	1.854	0.166
	Third year	23	0.66 (0.57)		
	Fourth year	10	0.92 (0.53)		
The name of the course you currently training	Medical & Surgical	36	0.5 (0.63)	-1.996	0.050
	Advanced Nursing	26	0.81 (0.54)		

4.7.6 Effect size for a single group of Pretest-Posttest using the CTCI Tool

The effect size for the pretest-posttest was assessed using Cohen's test. The results of the analysis indicated that the scores of Cohen's d-test were estimated between 0.56 to 1.33 (see Appendix 17). Hence, the total score for all domains of CTCI was 1.32 (see Table 13). The results revealed that most items and three domains have strong effect sizes, while one domain exhibited a moderate effect. These results highlight the practical significance of the findings. Overall, the impact of the preceptorship program was strong.

Table 13. Effect size for a single group of Pretest-Posttest using the CTCI Tool

Domains of the CTCI instrument	Cohen's d	
Total Students evaluation	1.33	strong
Total Goal setting and individual teaching	1.32	strong
Total Teaching Strategies	1.09	strong
Total Demonstration of organized knowledge	0.75	moderate
CTCI Total Score (n=31 items)	**1.32**	**strong**

4.8 Variation of students' NCTEI scores across different demographic characteristics

The researcher used these tests to explore the correlations and relations with the demographic characteristics of preceptors.

4.8.1 Differences in the Post-Student evaluation scores according to the demographic characteristics of the preceptors

The researcher extracted the results of testing differences in the means of the Post Student evaluation scores according to the demographic characteristics of the preceptors. The results are shown in the next table. The p-values and test values shown in the table are based on the independent samples T-test for Gender, Type of Clinical Unit, and The name of the course currently training while the p-values and test values are based on the one-way ANOVA (F-test) for Age, Work experience as a clinical nursing instructor in years, and Nursing Clinical level of nursing students trained by the clinical instructor.

The results of the analysis of differences in the Post Student evaluation scores according to the demographic characteristics of the preceptors show that the differences are statistically significant only according to gender at 0.05 level of significance, and the results show that the mean of males (Mean=4.67) is significantly higher than the mean of females (Mean=4.33). On the other hand, the results show that there are no statistically significant differences at 0.05 level of significance in the post-student evaluation scores according to the other demographic characteristics of the preceptors (see Table 14).

Table 14. ANOVA and T-test results of analysis of differences in the post-student evaluation scores according to the demographic characteristics of the preceptors (N=62).

Independent Variable	Category	Dependent: Post Student evaluation			
		Number	Mean (SD)	test-value	p-value*
Age	25-30 years	20	4.6 (0.53)	0.352	0.788
	31-35 years	22	4.61 (0.28)		
	36-40 years	9	4.67 (0.42)		

	41 and above	11	4.47 (0.56)		
Gender	Male	48	4.67 (0.31)	2.702	**0.009**
	Female	14	4.33 (0.68)		
Type of Clinical Unit (The name of the department you work in)	Medical & Surgical	24	4.48 (0.45)	-1.583	0.119
	ICU	38	4.66 (0.42)		
Work experience as a clinical nursing instructor for years	1-5 years	29	4.58 (0.46)	0.416	0.662
	6-10 years	25	4.56 (0.45)		
	11 years and above	8	4.72 (0.36)		
Nursing Clinical-level nursing students trained by the clinical instructor	Second year	29	4.53 (0.55)	0.625	0.539
	Third year	23	4.67 (0.26)		
	Fourth-year	10	4.6 (0.44)		
The name of the course you are currently training in	Medical & Surgical	36	4.54 (0.51)	-1.148	0.255
	Advanced Nursing	26	4.67 (0.32)		

4.8.2. Differences in the Post-Goal setting and individual teaching according to the demographic characteristics of the preceptors.

The researcher extracted the results of testing differences in the means of Post Goal setting and individual teaching scores according to the demographic characteristics of the preceptors. The results are shown in the next table. The p-values and test values shown in the table are based on the independent samples T-test for Gender, Type of Clinical Unit, and The name of the course currently training. In contrast, the p-values and test values are based on the one-way ANOVA (F-test) for Age, Work experience as a clinical nursing instructor in years, and Nursing Clinical level of nursing students trained by the clinical instructor.

The results of the analysis of differences in the Post Goal setting and individual teaching scores according to the demographic characteristics of the preceptors show that there are no statistically significant differences at 0.05 level of significance in the Post Goal setting and individual teaching scores according to the demographic characteristics of the preceptors (see Table 15).

Table 15. ANOVA and T-test results of analysis of differences in the Post Goal setting and individual teaching scores according to the demographic characteristics of the preceptors (N=62).

Independent Variable	Category	Dependent: Post Goal setting and individual teaching scores			
		Number	Mean (SD)	test-value	p-value*
Age	25-30 years	20	4.55 (0.36)	0.296	0.828
	31-35 years	22	4.54 (0.32)		
	36-40 years	9	4.51 (0.39)		
	41 and above	11	4.41 (0.61)		
Gender	Male	48	4.56 (0.34)	1.525	0.133
	Female	14	4.37 (0.55)		
Type of Clinical Unit (The name of the department you work in)	Medical & Surgical	24	4.42 (0.46)	-1.475	0.145
	ICU	38	4.57 (0.35)		
Work experience as a clinical nursing instructor in years	1-5 years	29	4.54 (0.4)	0.193	0.825
	6-10 years	25	4.48 (0.42)		
	11 years and above	8	4.54 (0.36)		
Nursing Clinical level of nursing students trained by the clinical instructor	Second year	29	4.45 (0.45)	0.914	0.406
	Third year	23	4.55 (0.3)		
	Fourth year	10	4.63 (0.44)		
The name of the course you are currently training in	Medical & Surgical	36	4.44 (0.43)	-1.878	0.065
	Advanced Nursing	26	4.62 (0.33)		

4.8.3. Differences in the Post Teaching strategies scores according to the demographic characteristics of the preceptors.

The researcher extracted the results of testing differences in the means of the Post Teaching strategies scores according to the demographic characteristics of the preceptors. The results are shown in the next table. The p-values and test values shown in the table are based on the independent samples T-test for Gender, Type of Clinical Unit, and The name of the course currently training while the p-values and test values are based on the one-way ANOVA (F-test) for Age, Work experience as a clinical nursing instructor in years, and Nursing Clinical level of nursing students trained by the clinical instructor.

The results of the analysis of differences in the Post Teaching strategies scores according to the demographic characteristics of the preceptors show that there are no statistically significant differences at the 0.05 level of significance in the Post Teaching strategies scores according to the other demographic characteristics of the preceptors (see Table 16).

Table 16. ANOVA and T-test results of analysis of differences in the Post Teaching strategies scores according to the demographic characteristics of the preceptors (N=62).

Independent Variable	Category	Dependent: Post Teaching strategies scores			
		Number	Mean (SD)	test-value	p-value*
Age	25-30 years	20	4.61 (0.4)	0.144	0.933
	31-35 years	22	4.6 (0.35)		
	36-40 years	9	4.58 (0.49)		
	41 and above	11	4.51 (0.61)		
Gender	Male	48	4.63 (0.37)	1.530	0.131
	Female	14	4.43 (0.59)		
Type of Clinical Unit (The name of the department you work in)	Medical & Surgical	24	4.5 (0.51)	-1.267	0.210
	ICU	38	4.64 (0.37)		
Work experience as a clinical nursing instructor for years	1-5 years	29	4.61 (0.44)	0.236	0.790
	6-10 years	25	4.54 (0.45)		
	11 years and above	8	4.64 (0.41)		
Nursing Clinical-level of nursing students trained by the clinical instructor	Second year	29	4.5 (0.48)	1.242	0.296
	Third year	23	4.69 (0.27)		
	Fourth-year	10	4.57 (0.56)		
The name of the course you currently training	Medical & Surgical	36	4.51 (0.45)	-1.588	0.118
	Advanced Nursing	26	4.68 (0.39)		

4.8.4 Differences in the Post Demonstration of organized knowledge scores according to the demographic characteristics of the preceptors.

The researcher extracted the results of testing differences in the means of the Post Demonstration of organized knowledge scores according to the demographic characteristics of the preceptors. The results are shown in the next table. The p-values and test values shown in the table

are based on the independent samples T-test for Gender, Type of Clinical Unit, and The name of the course currently training while the p-values and test values are based on the one-way ANOVA (F-test) for Age, Work experience as a clinical nursing instructor in years, and Nursing Clinical level of nursing students trained by the clinical instructor.

The results of the analysis of differences in the Post Demonstration of organized knowledge scores according to the demographic characteristics of the preceptors show that the differences are statistically significant only according to gender at 0.05 level of significance, and the results show that the mean of males (Mean=4.7) is significantly higher than the mean of females (Mean=4.34). On the other hand, the results show that there are no statistically significant differences at 0.05 level of significance in the Post Demonstration of organized knowledge scores according to the other demographic characteristics of the preceptors (see Table 17).

Table 17. ANOVA and T-test results of analysis of differences in the Post Demonstration of organized knowledge scores according to the demographic characteristics of the preceptors (N=62).

Independent Variable	Category	Dependent: Post Demonstration of organized knowledge			
		Number	Mean (SD)	test-value	p-value*
Age	25-30 years	20	4.65 (0.57)	0.271	0.846
	31-35 years	22	4.67 (0.37)		
	36-40 years	9	4.5 (0.61)		
	41 and above	11	4.57 (0.67)		
Gender	Male	48	4.7 (0.41)	2.364	**0.021**
	Female	14	4.34 (0.76)		
Type of Clinical Unit (The name of the department you work in)	Medical & Surgical	24	4.51 (0.6)	-1.325	0.190
	ICU	38	4.69 (0.47)		
Work experience as a clinical nursing instructor for years	1-5 years	29	4.66 (0.53)	0.209	0.812
	6-10 years	25	4.57 (0.52)		
	11 years and above	8	4.63 (0.58)		
Nursing Clinical-level of nursing students trained by the clinical instructor	Second year	29	4.53 (0.63)	0.744	0.480
	Third year	23	4.71 (0.35)		
	Fourth-year	10	4.68 (0.53)		

The name of the course you currently training	Medical & Surgical	36	4.52 (0.59)	-1.798	0.077
	Advanced Nursing	26	4.76 (0.38)		

4.8.5 Differences in the Post Total CTCI scores according to the demographic characteristics of the preceptors.

The researcher extracted the results of testing differences in the means of the Post Total CTCI scores according to the demographic characteristics of the preceptors. The results are shown in the next table. The p-values and test values shown in the table are based on the independent samples T-test for Gender, Type of Clinical Unit, and the name of the course currently training while the p-values and test values are based on the one-way ANOVA (F-test) for Age, Work experience as a clinical nursing instructor in years, and Nursing Clinical level of nursing students trained by the clinical instructor.

The results of the analysis of differences in the Post Total CTCI scores according to the demographic characteristics of the preceptors show that the differences are statistically significant only according to gender at 0.05 level of significance, and the results show that the mean of males (Mean=4.63) is significantly higher than the mean of females (Mean=4.37). On the other hand, the results show that there are no statistically significant differences at 0.05 level of significance in the Post Total CTCI scores according to the other demographic characteristics of the preceptors (see Table 18).

Table 18. ANOVA and T-test results of analysis of differences in the Post Total CTCI scores according to the demographic characteristics of the preceptors (N=62).

Independent Variable	Category	Dependent: Post Total CTCI scores			
		Number	Mean (SD)	test-value	p-value*
Age	25-30 years	20	4.59 (0.4)	0.247	0.863
	31-35 years	22	4.59 (0.27)		
	36-40 years	9	4.57 (0.4)		

	41 and above	11	4.48 (0.58)		
Gender	Male	48	4.63 (0.3)	2.245	**0.028**
	Female	14	4.37 (0.57)		
Type of Clinical Unit (The name of the department you work in)	Medical & Surgical	24	4.47 (0.45)	-1.601	0.115
	ICU	38	4.63 (0.33)		
Work experience as a clinical nursing instructor in years	1-5 years	29	4.59 (0.4)	0.256	0.775
	6-10 years	25	4.53 (0.4)		
	11 years and above	8	4.63 (0.35)		
Nursing Clinical level of nursing students trained by the clinical instructor	Second year	29	4.5 (0.46)	0.952	0.392
	Third year	23	4.64 (0.24)		
	Fourth year	10	4.61 (0.46)		
The name of the course you currently training	Medical & Surgical	36	4.50 (0.43)	-1.763	0.083
	Advanced Nursing	26	4.67 (0.32)		

4.9 Measures to Ensure Accuracy, Validity, reliability and, Credibility of Findings

By triangulating data from three different perspectives through data collection from preceptors, nursing students, and researcher observations, this dissertation research project demonstrated validity ensuring accuracy and credibility. The process of triangulation entails checking results with multiple, independent sources of data. The most common way to do this is to compare the outcomes of various approaches (Portney, 2020). The triangulation of data not only validated the obtained information but also ensured the comprehensiveness of the evaluated data from a holistic mindset perspective (Portney, 2020). In this research project, the triangulation of data collected from three data sources (Noble & Heale, 2019; Portney, 2020), with two different tools will strengthen the effectiveness of the preceptorship program, and understand the consistency in these findings (Noble & Heale, 2019; Portney, 2020).

4.9.1 Testing the internal consistency of the CTCI scale

The Clinical Teaching Competence Inventory for Nursing Preceptors (CTCI) is the development instrument and testing that evaluates clinical teaching and assessment practices in clinical environments (Hsu et al., 2014; Wu et al., 2022). CTCI comprises four main domains:

student evaluation, goal setting and individual teaching, teaching strategies, and demonstration of organized knowledge, encompassing 31 items (Hsu et al., 2014). The CTCI underwent a psychometric evaluation, revealing adequate content validity (Scale-CVI = 0.75) and high internal consistency (Cronbach's Alpha = 0.88) (Hsu et al., 2014; Wu et al., 2022). This indicates that this tool is a reliable and valid measure for assessing clinical teaching competencies for preceptors pre- and post-intervention of the preceptorship program in this study.

However, in this study, the internal consistency of the CTCI scale, as measured by Cronbach's Alpha coefficient, was 0.949 pre-intervention and 0.947 post-intervention. Thus, the CTCI instrument was reliable and valid.

The reliability Statistics results demonstrate a significant level of internal consistency in the respondents' answers to the CTCI scale pre-and post-intervention since the minimum acceptable level of Cronbach's Alpha coefficient is 70% (García-García et al., 2024).

4.9.2 Testing the internal consistency of the NCTEI scale

The Nursing Clinical Teacher Effectiveness Inventory (NCTEI) was created as a survey instrument for nursing students, graduates, and faculty to evaluate the attributes of the most and worst effective clinical teaching behaviors they saw (Knox & Mogan, 1985). This instrument consists of five categories and 47 items. This instrument was developed by Knox and Mogan, (1985) to assess students' perceptions of clinical teacher effectiveness. The content validity for the five categories ranged from Cronbach Alpha Coefficient 0.82 to 0.89 and for items in subcategories from 0.79 to 0.88 (Knox & Mogan, 1985).

Fortunately, in this study, the reliability statistics results show that the Cronbach's Alpha coefficients range from 97.3% to 99.1% for the subdomains and 99.5% for the total overall domains in the NCTEI scale observed by the researcher, and the Cronbach's Alpha coefficients

range from 92.7% to 98% for the subdomains and 99% for the total overall domains in the students' NCTEI scale.

In conclusion, the reliability Statistics results demonstrate a significant level of internal consistency in the respondents' answers to the NCTEI scale pre-and post-intervention since the minimum acceptable level of Cronbach's Alpha coefficient is 70% (García-García et al., 2024).

4.10 Summary

The results of this study showed that there were statistically significant differences between pre-intervention and post-test among preceptors. This is evident from the higher mean score of the post-test than the preintervention. Additionally, the results of the analysis of differences in the Pre-Post change of Goal setting and individual teaching scores according to the demographic characteristics of the preceptors show that the differences are statistically significant only according to the name of the course that currently training at 0.05 level of significance, and the results show that the mean of change for the Advanced Nursing course (Mean=0.94) is significantly higher than the mean of change for the Medical & Surgical course (Mean=0.56). On the other hand, the control group of nursing students is less significant, hence, the post-experimental group is significant, and its mean score is higher than the control group and above the average. Furthermore, there was no statistically significant difference in overall demographic characteristics and the responses of participants. Section six will discuss the findings, summary, conclusion, limitations, implications, and recommendations.

Chapter Five

Discussion

5.1 Introduction

This chapter discussed the study findings in light of other studies, examining the effect of the preceptorship program on the preceptors through a quasi-experimental design pre- and post-interventional study. This is an attempt to utilize these findings, by implication, in the current university nursing faculty to improve preceptors' competencies and increase the quality of nursing education and training practice. Moreover, this would enhance the quality of nursing students, increase patient care, and ensure better patient safety outcomes.

The key findings are summarized, and then the interpretation of the results with the aims of the present study. Then the discussion is organized according to the variables and domains, followed by the conclusion, limitations, implications, and recommendations.

5.2 The Preceptors' Self-reported CTCI Tool

The data analysis indicates that the differences are statistically significant at a 0.05 significance level. All the mean values of overall domains in CTCI in the posttests are higher than the corresponding means in the pretests (F = 8.19, P = 0.00), these results support the results of a study done by Wu et al., (2022) that show to overall, the preceptors who underwent to the web-based clinical pedagogy (WCP) program had a much higher trend in their CTCI scores (F = 5.390, p = 0.005). In the same study, the results of the first domain students' evaluation were consistent with the results of the present study. The results showed that the mean of the Student Evaluation domain in the posttest (Mean=4.59) was significantly higher than in the pretest (Mean=3.92). Notably, the significant differences were in the first domain in the present study alignment with the study of Wu et al., (2022). Additionally, the study findings by Keinanen et al., (2023) indicated that mentoring educational interventions enhance mentoring practices in the

workplace, facilitate student-centered evaluation, promote students' learning processes, and cultivate a goal-oriented mentality (Keinänen et al., 2023; Wu et al., 2022). This confirmed that the preceptorship training program enhances and improves the competency of preceptors in student evaluation.

The findings in the running study are significantly higher than those in the previous research. Regarding the Goal setting and Individual teaching domain, the results show that the mean in the posttest (Mean=4.51) is significantly higher than in the pretest (Mean=3.8). This means that this domain is more significant than prior studies. This was contradicted by the results of the same domain in the study done by (Wu et al., 2022), which indicated no significant differences. This also confirmed that the preceptorship program is effective in preparing preceptors with goal-setting and individual teaching that grant the preceptors competence and confidence in teaching students, which matches the study of Brook, et al., (2023) that preceptorships involving prepare nurses as preceptors or mentors to become more competence and confidence to support nursing students in undergraduate programs.

Regarding the teaching strategies domain, the results in the present study show that the mean in the posttest (Mean=4.58) is significantly higher than in the pretest (Mean=4.00). Therefore, teaching strategies in the present study are significant in the p-value of 0.05, this indicates the importance of teaching strategies in the preceptorship program and for nursing students. Similarly, the teaching strategies were significant (F=5.663, p=0.004) in previous research of (Wu et al., 2022) in post-intervention.

The preceptorship program enhances the preceptor competencies and utilizes various teaching strategies to equip effective nursing students. Likewise, Asirifi, et al., (2024) advised in their study to adopt professional development programs for preceptors not only to measure the

efficacy of their duties in precepting nursing students, and provide valuable support by equipping preceptors with essential skills and knowledge but also it is crucial in using clinical teaching methodologies to recognize learning opportunities for nursing students (Asirifi et al., 2024b; Chan et al., 2019).

Moreover, other studies highlight the use of diverse teaching strategies as a means to accommodate the diverse learning styles and preferences of the nurses. Through the utilization of various teaching strategies, preceptors are better equipped to aid novice nurses and student nurses in developing essential competencies. These strategies help students hone their critical thinking, enhance patient care prioritization, and enhance their decision-making skills in complex scenarios (Çamveren et al., 2022; Hamarash et al., 2023; Varghese et al., 2023).

In summary, understanding nurses' perspectives is key to designing strategies that not only enhance the preceptorship experience but also support the ongoing professional growth and satisfaction of preceptors across different healthcare contexts (Regaira-Martínez et al., 2023) thereby improving the precepting and education of nursing students.

Regarding the organized Knowledge domain, the results of the present study also show that the mean in the posttest (Mean=4.62) is significantly higher than in the pretest (Mean=4.19). These findings matched with research done by Hamarash, et al., (2023) when they shed light on the knowledge that could be utilized in designing a preceptorship program which is important to cultivate critical thinking abilities and decision-making in graduating nursing students at governmental nursing colleges in Iraq. This corroborated findings from the same research, revealing that the preceptors' lack of knowledge constituted a considerable challenge, with 74.4% of preceptors indicating feelings of unpreparedness to instruct students in specific domains while training them (Hamarash et al., 2023). Moreover, increased nursing knowledge

among preceptors and newly qualified nurses was significant in an effective preceptorship program that will improve the quality of care and patients' safety and decrease medication errors the administration (Hamarash et al., 2023; Hansen & Zuma, 2024; Hardie et al., 2022). To that end, the preceptorship program is essential for equipping and preparing preceptors to mentor nursing students to enhance the quality of patient care and safety.

Finally, the results of the present study show that the mean in the total CTCI posttest (Mean=4.57) is significantly higher than the corresponding pretest (Mean=3.94). Overall, regardless of the demographic characteristics of the preceptors, the preceptorship training program was effective with no significant differences between it. This finding was confirmed through student evaluation utilizing the NCTEI in pre-intervention and post-test assessment, which revealed notable improvements in preceptor performance attributed to the impact of the preceptorship program.

5.3 Discussion of the Demographic characteristics of the preceptors

The demographic characteristics of the preceptors in the present study are corroborated with the same finding of the demographic characteristics in the study of Wu, et al., (2022), that no statistically significant in sociodemographic variables between the control and experimental groups.

Furthermore, the Nursing Clinical Teacher Effectiveness Inventory (NCTEI) scores of the researcher observation's preceptors in the current study showed that all means were above the midpoints. This means that there are strong agreements from preceptors for all domains and items of this tool. The highest ones were Interpersonal Relations, Personality, Evaluation, and Teaching ability, and the last was Nursing Competence (Mean = 4.63, 4.47, 4.4, 4.37, and 4.2) respectively. The results were in agreement in one domain with one research that extracted

professional competence and interpersonal skills were the highest and the most favored teaching characteristics, whereas personality was deemed the least favored characteristic (Labrague et al., 2020).

Moreover, the findings of the researcher's observation contradict another one of the previous studies that rated personality as the highest domain, then interpersonal relationship, evaluation, nursing competence, and the last teaching ability (Hababeh & Lalithabai, 2020). Furthermore, there are differences in results with other studies according to teaching ability was the highest, then nursing competence, and evaluation, while contradicted with personality and interpersonal relations (Jacobson, 2024; Molina, 2021). The differences were due to the various cultures and environments that affect the perception of the participants.

The current study highlighted some key important items within this tool that support the significance of specific characteristics among preceptors were arranged in order of highest importance as follows: encouraging a climate of mutual respect, being approachable, being self-critical, demonstrating communication skills, and possessing a good sense of humor.

Based on these results, the five domains are strongly significant in measuring the competency of preceptors to be effective and monitor nursing students efficiently and effectively. However, the preceptorship program could improve the effectiveness of the competencies of preceptors from various domains and areas. This preceptorship program for professional nurses will enhance practice and nursing education. This concept is applicable in clinical environments during the transfer of nurses (Hamarash et al., 2023; Hansen & Zuma, 2024; Hardie et al., 2022; Ismail et al., 2016) to become preceptors and in the educational activities of newly qualified nurses. Utilizing this strategy, qualified professional nurses may undergo a beneficial transition phase and enhance their clinical competency as preceptors.

On the other hand, when this study compares NCTEI scores between control and experimental groups of students, the researcher uses the NCTEI to evaluate the nursing students' perception of preceptor characteristics before and after implementing the preceptorship program. The research findings revealed no statistical significance between the control and experimental groups of the NCTEI. At the same time, the mean score in the experimental group was higher than in the control group. This explores the significance of implementing the preceptorship program.

In each domain in NCTEI, the overall mean score was higher in the experimental group than in the control group. The p-values in some items in teaching ability were significant as in provides specific practice opportunities, is well prepared for teaching, gears instruction to student's level of readiness, quickly grasps what students are asking or telling, answers carefully and precisely questions raised by students, and question's students to elicit underlying reasoning, arranged respectively. These confirmed the importance of implementing the preceptorship program that improves the teaching ability of preceptors. In conclusion, the study finds the results reflect the high student perception of preceptor characteristics that are congruent with the study done by Molina, (2021).

The total Nursing Competence domain in NCTEI was statistically significant with a p-value of 0.041, indicating that the experimental group's mean (Mean = 6.14) surpassed that of the control group (Mean = 5.69). This calls for confirming the desired benefit and verifying the intended advantage of the preceptorship training program for preceptors by enhancing their competency. Nonetheless, the preceptorship program was one of the decisive factors for the emergence and highlighting of this thesis. This outcome underscores the program's effectiveness in advancing clinical nursing practice and education. This finding was consistent

with the study done by Lindfors et al., (2022) showed that preceptorship and transition programs are crucial in improving nurses' competency and enhancing confidence, holistic care for patients, and safe practice. This is what this research emerges to equip and prepare preceptors for precepting nursing students with high-quality care, safe practice, and competence skills. The preceptorship program contributes to developing the clinical competence of preceptors (Araújo et al., 2023; Lindfors et al., 2022; Molina, 2021).

The current research findings in the competency domain align with Mogan and Knox, (1987), who identified competency as the paramount consensus among students and faculty, thereby affirming its significance as a crucial requirement for preceptors training nursing students. Furthermore, the items in this domain related to the preceptor serving as a good role model received the highest scores rate from both the students and faculty members concerning their significance (Mogan & Knox, 1987). This is consistent with the current research in researcher observation findings, and students' perception in experimental as post-test showing mean scores of 4.83, and 6.22, respectively. Whereas a statistically significant difference exists between the control group of students and the experimental group in the competency domain and the item role model (P = 0.041, P = 0.28, respectively). Thus, the preceptorship program is essential for ensuring the preparation of preceptors to be competent and effective role models for nursing students (Ismail et al., 2016; Lindfors et al., 2022; Mogan & Knox, 1987; Pere et al., 2022; Wu et al., 2022).

To that end, Chipwanya, et al., (2024) align with the contemporary research findings that evidence the benefits of the preceptorship program, this was highlighted by the participants who reported an enhanced higher competency level after participating in the preceptorship program.

According to the evaluation domain, the findings of this study indicated no statistically significant differences at a p-value of 0.055, despite that the mean value of the experimental group of students (mean = 6.12) was higher than the mean value of the control group of students (mean=5.74). Additionally, the evaluation domain by researcher observation is also above midpoints (mean = 4.4), this confirms that the preceptorship program is respectable for concerned objective evaluation of the nursing students (Regaira-Martínez et al., 2023). In another previous study, the results indicated that both students and faculties were assigned the lowest rating evaluation category, whereas the highest-rated behaviors in items in this domain included giving students positive reinforcement for good contributions, observations, or performance, observing students' performance frequently, and providing frequent feedback on students' performance (Sunitha & Babu Dharmarajan, 2022), these similar findings in the current research (mean = 6.29, 6.22, and 6.16 respectively).

In the fourth domain, Interpersonal Relations, the findings in this study showed that there is no significant difference between the control group of nursing students and the experimental group. Regardless of these findings, the perception of nursing students in interpersonal relations in the experimental group on NCTEI improved due to using the preceptorship program, evidenced by the mean scores (Mean = 6.14, 5.76, respectively). This result is similar to the perception of the students in interpersonal relations was the least and not significant (Mean = 26.03) (Buzieh, 2024a). While contradicts with findings of the research done by Hardie, et al., (2022) showed the significance of interpersonal relations which play a crucial role in preceptors. However, the present study and Hardie, et al., (2022) reinforced the importance of the preceptorship program in preparing the crucial role of preceptors. On the other hand, the student's anticipations regarding their interactions with clinical preceptors and instructors

underscore the significance of the relationship characterized by respect and empathy in the attainment of nursing knowledge and competencies (Aziz et al., 2024). This is what the current study promotes to capture it.

The last domain in this study was the personality domain, the findings concluded the higher mean scores (Mean = 6.05) in the experimental group of students than in the control group (Mean =5.76). These results adapted to a previous study that a positive impact of personality on the learning of students (Aziz et al., 2024) which indicated a mean score of 5.37 for personality was high above the midpoint. This was also explicit that the preceptorship program is an important method for refining the preceptor's personality. This was confirmed by the researcher's observation of the preceptors after the implementation of the preceptorship program where the finding of the mean score for personality was high with a mean score of 4.47.

Training in the nursing profession necessitates a robust personality to cover the demands of the work and the need for constant interaction with patients and support nursing students in their environment (Aziz et al., 2024).

Overall, it is imperative to stand on preceptors' responsibility by implementing a preceptorship program to develop preceptors' performance based on holistic factors that grow and promote personality, behavior, interpersonal relationships, equitable evaluation, and cognitive skills in teaching (Hamarash et al., 2023; Jacobson, 2024; Keinänen et al., 2023; Pandelaki & Rochmawati, 2022; Sunitha & Babu Dharmarajan, 2022; Wu et al., 2022) that will enhance students' competency which supports patient satisfaction and ensures quality of patient care and safety (Hardie et al., 2022).

The preceptorship program proved to be an effective plan and method (Chipwanya et al., 2024) to that overall results, as post-test intervention scores were significantly higher than pre-test scores.

Lastly, the current research findings concluded that there was no significant relationship among all the demographic characteristics of preceptors or nursing students. In addition, the findings of this study are consistent with prior studies indicating no relationship between demographic characteristics and the preceptorship program (Chipwanya et al., 2024). There were no significant differences in the demographic data between the control and the experimental groups (Wu et al., 2022), which was consistent with the investigation of this study.

Additionally, the researcher in this study used tests to explore the correlations and relations with the demographic characteristics of preceptors. As previously mentioned, there were no significant differences in the demographic data between the pre-intervention and the post-experimental groups. The mean value of CTCI in all participants in the intervention group as preceptors was significantly higher than the mean value of the pre-intervention, so they are interested in the preceptorship program and the impact of the preceptorship program was significantly high a mean of 4.57, a p-value of 0.00.

 Notably, the results of the analysis of differences in the Post Student evaluation scores and the Post Demonstration of organized knowledge scores, according to the demographic characteristics of the preceptors show that the differences are statistically significant only according to gender at 0.05 level of significance, the results show that the mean of males (Mean=4.67, Mean=4.7; respectively), is significantly higher than the mean of females (Mean=4.33, 4.34, respectively). This may be due to the number of participants being higher in

males than females. In this contrast study by Wu et al., (2022) most of the participants were female (86.4% vs. 83.1%).

Furthermore, the results of the analysis of differences in the Post Total CTCI scores according to the demographic characteristics of the preceptors show that the differences are statistically significant only according to gender at 0.05 level of significance, and the results show that the mean of males (Mean=4.63) is significantly higher than the mean of females (Mean=4.37) who were holders of bachelor's degrees, these findings contradict with findings of overall CTCI according to gender that no significant differences at a p-value of 0.609 (Wu et al., 2022) hence they were bachelor's degrees and above.

On the other hand, the findings show that the mean of change for the Advanced Nursing course (Mean=0.94) is significantly higher than the mean of change for the Medical & Surgical course (Mean=0.56), this confirmed that the preceptorship program is crucial to preparing preceptors for nursing students. In the advanced course, the preceptors were more knowledgeable and had more experience than other preceptors, which added impact to the students who were on the high-level degree and training in this course. They were more mature and had more experience than other nursing students. This is similar to the study conducted by Hansen & Zuma, (2024) the survey determined that the majority of preceptors recognized the significance of critical thinking in nursing education and believed that these skills were adequately imparted during preceptorship through advanced nursing courses and various methodologies such as case studies, problem-based learning to augment critical thinking skills in nursing students.

Regardless of that, the findings of this study align with other evidence that the preceptorship program had an impact and positive effect on using it as a strategy, to improve competency and develop preceptors to be ready to train nursing students which supports and

promotes nursing education and practice (Alhassan et al., 2022; Amaral & Figueiredo, 2023; Araújo et al., 2023; Çamveren et al., 2022; Chipwanya et al., 2024; Choi & Yu, 2022; Enyan et al., 2022; Gholizadeh et al., 2022; Hamarash et al., 2023; Hansen & Zuma, 2024; Hardie et al., 2022; Lau et al., 2024; Mashayekh et al., 2024; Pere et al., 2022; Regaira-Martínez et al., 2023; Varghese et al., 2023; Wu et al., 2022).

5.4 Summary

The purpose of a quasi-experimental study pre-post-test one single group is to assess the impact of the nursing preceptorship program on teaching competencies and effectiveness among Palestinian preceptors. The second aims to measure the competencies of preceptors before and after implementing the preceptorship program by using CTCI. The third one is to compare the effect of the preceptorship program pre-test and post-test. The fourth one is to observe the preceptor's performance by NCTEI during the program's implementation and to determine the perception of the nursing students in the competency and training of preceptors after the preceptorship program as measured by NCTEI. Additionally, to determine if there is a relationship between nursing preceptorship program and the years of clinical experience, gender, age, level of student nurses, setting, and other variables that could predict the competence of clinical preceptors in hospitals when answering research questions. The last one is to create recommendations that may improve the competency and quality of teaching training and supervision of preceptors. Moreover, to prepare high-quality, effective, efficient preceptors.

The convenient sampling of nurses who are preceptors of Bachelor of Nursing students recruited from any university in Northen Government Hospitals. The total number of preceptors working at Northen Government Hospitals in the second semester of 2024 is more than 100, according to data obtained by the Palestinian Ministry of Health, the sample size is determined

according to previous evidence was 62 participants who eligible for the study. The pre-intervention and the experimental groups were similar, with 62 preceptors. Hence, 150 nursing students agreed to participate in the current study. Of 150 participants, 67 students were assigned to the control group who participated from May 26, 2024, until June 03, 2024, while the remaining participants completed the questionnaire following the implementation of the preceptorship program, representing the intervention group.

The preceptors who underwent the preceptorship program completed a CTCI questionnaire both before and after the intervention. The intervention consisted of a three-day preceptorship training program, delivered as a comprehensive workshop intervention designed to enhance their teaching competencies. The course was developed to encompass all essential components for a successful preceptorship training program, with a specific focus on equipping clinical preceptors with the competence and confidence required to be effective in their roles. This comprehensive approach aimed to enhance their ability to mentor and guide nursing students, ultimately improving the overall quality of clinical education (Chipwanya et al., 2024; Wu et al., 2022). After the preceptorship training program, the competency of these preceptors (clinical instructors) was measured using CTCI and then compared with the pretest conducted prior to the implementation of the training program. Additionally, "The Nursing Clinical Teacher Effectiveness Inventory (NCTEI)" was utilized by the researcher as an observational tool to assess the performance of the preceptor (clinical instructor) during the implementation and training of the program. Furthermore, this tool was utilized by nursing students, both a control and intervention group, to assess their perception regarding the competency and training of preceptors after the post-test. This tool assessed the impact of the preceptorship program

influenced the effectiveness of preceptors from the students' perspectives (Hababeh & Lalithabai, 2020; Ismail et al., 2016; Jacobson, 2024; Lindfors et al., 2022) .

The findings begin with socio-demographic data, followed by a discussion of the subcategories of the CTCI and preceptors' competencies at the bachelor level. In the second part of the discussion, the researcher focuses on the correlation between the independent variables and the participants' dependent variables and the effect of the preceptorship program on post-intervention and socio-demographics.

In this study, the researcher answered the following research questions: Research Question one: What is the Impact of the Nursing Preceptorship Program on Teaching Competencies and Effectiveness among Palestinian Clinical Preceptors? To answer the research question, some of these sub-questions helped the researcher to attain goals and answers.

- What is the impact of a preceptorship program on preceptors' competency?

- What is the efficiency of the preceptorship teaching programs through preceptors' self-evaluation?

- What is the efficiency of the preceptorship teaching programs through the researcher evaluation?

- What is the efficiency of the preceptorship teaching programs through the students' evaluation?

- What is the difference in the competencies of the preceptor's pre-test-posttest of the preceptorship program based on using the Clinical Teaching Competence Inventory CTCI?

- What is the difference in the competencies of the preceptor's pre-test-posttest of the preceptorship program based on using the Nursing Clinical Teacher Effectiveness Inventory (NCTEI) by control group and post-test?

- Which demographic variable: age, gender, level of education, years of experience, knowledge of specialty of the department, course training, setting of work, or department of work, etc.., predicts the effect on the competence of clinical preceptors after the Nursing Preceptorship Program?

5.5 Conclusion

Clinical training constitutes the core nursing education. To ensure the highest quality in nursing education, it is imperative to highlight the clinical training. The cornerstone of improved and enhanced clinical training falls on the shoulders of preceptors who train nursing students. So, preceptors need to have effective competency for their perfect in their role. For that last, the preceptorship program was essential to illuminate and light that aspect.

The findings of this study showed that the preceptorship program was significant in improving preceptors' competencies which aligned with previous evidence (Alhassan et al., 2024; Alhassan et al., 2022; Lau et al., 2024; Pandelaki & Rochmawati, 2022). However, the ongoing study's findings provided strong statistical significance between the pre-test and post-test. Further, the results revealed that most items and three domains have strong effect sizes, while one domain exhibited a moderate effect. These results highlight the practical significance of the findings. Overall, the impact of the preceptorship program conducted was strong.

It also found a weak statistical significance relationship between a control group and an experimental group of nursing students, where the mean score for the experimental group was higher than that for the control group.

Contrary to this, the results provided a strong significant difference in several items of domains, such as teaching ability, nursing competence, and evaluation, between the control group and the experimental group of nursing students. The results of the analysis of differences in the post-student evaluation scores according to the demographic characteristics of the preceptors show that the differences are statistically significant only according to gender. Regardless of that, the preceptorship program confirmed the importance of employing it as a policy and strategy to improve, enhance, and refine the preceptors' behaviors, competencies, and skills prior to training nursing students, as evidenced by the study's findings and existing highlighted by literature.

Further, this will increase the awareness of nursing schools in Palestine to start preparing preceptors through employing the preceptorship program. This introduced the potential to improve nursing education practice in Palestine. Highlighting this research study can attract attention to this emerging research domain in Palestine, which significantly more investigation. A preceptorship program is widely recognized as a worthy and efficient means for preparing nurses as preceptors for precepting nursing students, who support the clinical learning environment and opportunities (Alhassan et al., 2024; Asirifi et al., 2024b; Lima & Alzyood, 2024; Pleshkan, 2024). The preceptorship is the core and integral component of excellent and high-quality nursing education (Alsolami et al., 2022).

5.6 Limitations

In spite of the substantial efforts to design and execute a thorough intervention study, some limitations emerged. As with any study, there are some challenges (Karunarathna et al., 2024; Portney, 2020). These limitations were the difficulty in recruiting participants, the small sample size, and the generalizability of the study as the sample was taken from participants who just had been from a nursing program that covered inclusion criteria. Furthermore, the research

design was a single-group pre-post-test quasi-experimental. The CTCI scale was completed by the preceptors themselves, which could lead to bias in the results. Another issue was the short duration of exposure, due to the students not sufficiently taking enough time to see the differences between pre-and post-test preceptorship program. Moreover, the time frame was short while implementing the preceptorship program, and there was not enough time to investigate its effectiveness after a longer period such as six months for example. Nevertheless, the triangulation in data sources lends strength to the findings of this research.

5.7 Recommendations

As the findings of this research study indicated the significance of a preceptorship program to increase the competency of the preceptorship, was clear from post-intervention preceptors and nursing students. The recommendations of the study will fall into three classes, recommendations for practice, recommendations for education, and recommendations for research.

5.7.1 Recommendation for Practice

The preceptorship program was an effective method for preparing and equipping preceptors' competency for training and teaching nursing students. The preceptorship program will serve as a strategy and policy by the Palestinian Ministry of Health, the Ministry of Higher Education, and universities that offer nursing programs to allow nurses who meet the selection criteria and conditions to become preceptors for nursing students. This preceptorship program will require them to undergo training to enhance their competence and behaviors toward training students. This will promote the quality of patient care and improve patient safety by developing nursing students' confidence in knowledge and skills that enhance their competency in patient care.

Preceptors provide critical guidance to nursing students to ensure effective training in the healthcare field. Providing preceptors with training through a structured preceptorship program can strengthen nursing students' skills and ensure consistency in their integration into professional practice.

5.7.2 Recommendation for Education

This study enhanced nursing education by preparing preceptors with a competency that is needed to bridge the theoretical and clinical aspects through training nursing students. Utilized updates from evidence for improving patient care. Promote a preceptor-student relationship that allows nursing students to apply their core knowledge and skills in a real-world context, improving critical thinking, clinical reasoning, and clinical skills, and enhancing decision-making.

5.7.3 Recommendation for Research

There is a dearth of this topic of research, so further research will build up a body of knowledge on this topic. The researcher recommends conducting further research studies with robust designs, such as randomized controlled trials (RCTs) and randomized studies, and using a larger sample size to establish a well-defined control group with different participants. Additionally, employing this study as a longitudinal research design would improve accuracy and provide deeper insight into long-term outcomes.

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Appendices

Appendix 1

Summary of Literature (Matrix table)

Ref. no.	Authors, Year Title Research, & origin	Research Design/ Methods	Quality Score	Sample	Comparison or Control group Goal, Data collection method, and analysis	Focus Research aims	Findings	Limitations
1.	Mashayekh, et al., (2024). The effect of the preceptorship training program on the participation of clinical nurses in training nursing internship students: a quasi-experimental study EBSCO Iran	quasi-experimental study	9/9	66 nurses from a teaching hospital were selected using the accessible method and randomly were put into two groups.	all nurses who met the criteria for inclusion in the study were selected as available and then randomly allocated to either the test or control group using a random block allocation method by the first author.	to determine the effectiveness of the preceptorship training program for the participation of clinical nurses in the education of nursing students	A comparison of the nurses' participation scores in the test group indicated a significant difference from the pretest to the posttest, with the improvement in all nurses's participation scores (P < 0.001). However, in the control group, this difference was not significant (P = 0.41). The preceptorship training program is effective in light of increasing the participation of clinical nurses in the education of nursing students. This program can improve various aspects, such as motivation, satisfaction, commitment, implementation, and obstacle removal. Considering the importance of clinical training for nursing students and the essential role of preceptors, it is recommended that managers and health trustees in all universities.	This study was the use of a self-report questionnaire. There is a possibility that respondents misappropriated the completion of the self-report questionnaire, which can be considered a limitation of using this type of questionnaire.
Ref. no.	Authors, Year Title Research, & origin	Research Design/ Methods	Quality Score	Sample	Comparison or Control group	Focus Research aims	Findings	Limitations

Ref. no.	Authors, Year Title Research, & origin	Research Design/ Methods	Quality Score	Sample	Comparison or Control group Goal, Data collection method, and analysis	Focus Research aims	Findings	Limitations
2.	Varghese et al., (2023) The lived experiences of nurse preceptors in training new nurses in Qatar: qualitative study Qatar EBSCO Qatar	Qualitative study: methodological orientation of phenomenology. Online semi-structured interviews	4/9	13 nurse preceptors	No	This study aimed to explore the experiences of nurse preceptors in training newly joined nurses in Qatar. Teaching strategies and progressive skill development in preceptorship. Highlights the critical role preceptors play in shaping the skill development of novice nurses through hands-on guidance and mentorship.	The study revealed several main themes: teaching strategies and progressive skill development in preceptorship, challenges faced by the preceptor and preceptor better supported in training new nurses. The preceptors utilized different techniques to support new nurses including demonstration, discussion, use of technology, application of real-life clinical scenarios, simulations, and a gradual decrease in supervision to promote independence. Highlighting the importance of preceptorship in nursing education and practice.	It was conducted within a single department, which may limit the generalizability of the findings to other healthcare settings. Additionally, the lack of participation by male preceptors could introduce gender bias in the study's insights. Furthermore, the subjective nature of qualitative data may be influenced by perspectives and biases, potentially affecting the objectivity of the study's conclusions.
Ref. no.	Authors, Year Title Research, & origin	Research Design/ Methods	Quality Score	Sample	Comparison or Control group Goal, Data collection method, and analysis	Focus Research aims	Findings	Limitations
3.	Amaral and Figueiredo, (2023). How to choose a preceptor: aspects to	A qualitative study based on Grounded Theory used Strauss and	4/9	Convenience sampling: 14 semi-structured interviews with	No	To identify the aspects that should be considered when selecting	Nurses value both the individual characteristics they possess and the skills they have developed	The research is set as a case study format in two specific contexts (medicine and

Ref. no.	Authors, Year Title Research, & origin	Research Design/ Methods	Quality Score	Sample	Comparison or Control group Goal, Data collection method, and analysis	Focus Research aims	Findings	Limitations
	consider based on a grounded theory study EBSCO Portugal	Corbin's version.		nurses who were at different stages of Benner's Professional Development Model and with different outlooks on nursing preceptorship.		a nurse preceptor Two categories emerged that were supported by all nurses: skills and individual characteristics. The former includes communication skills, relational skills, reflective skills, technical-scientific skills, and emotional skills, while the latter includes perceptiveness, responsibility, motivation, and professional initiative.	throughout their career. The recognition of the aspects found in this study for the selection of nurse preceptors allows for an informed and reasoned decision making, with a view to the success of the preceptorship and to the improvement of the quality of nursing education.	surgery) present itself as a limitation since the results can only be generalized from an analytical point of view.
4.	Lindfors, et al., (2022)	A quasi-experimental longitudinal	9/9		Yes: to investigate new graduate nurses'	to investigate new graduate nurses'	The education intervention aimed at preceptors did not	The data collection from

New graduate registered nurses' professional competence and the impact of preceptors' education intervention: a quasi-experimental longitudinal intervention study EBSCO Finland	intervention study. The intervention group preceptors had an eight-hour education intervention that focused on new employees' orientation, particularly from new graduates' point of view. Wards in the control group continued to precept as before. The Nurse Competence Scale was used for new graduates' self-assessment at base line and at three-month and nine-month follow-up. This study is reported in accordance with the		Participating wards were randomized into intervention and control groups.	professional competence development after preceptors' participation in an education intervention.	professional competence development after preceptors' participation in an education intervention.	have impact on the intervention group NGRNs' competence development. There were no statistically significant differences between the groups and effect size remained small. The preceptors' education intervention was not effective enough to develop new graduates' professional competence so that it would have differed from that of the graduates receiving conventional orientation at the university hospital. This study confirmed that competence development is a complex and multidimensional phenomenon and organizations should invest in new graduate registered nurses' competence development during their early	one university hospital in Fin land made this study geographically limited by reducing the representativeness of the result. The sample size also remained small despite the relatively long study period (two years) and the numerous reminders send to ward managers and participants.

Ref. no.	Authors, Year Title Research, & origin	Research Design/ Methods	Quality Score	Sample	Comparison or Control group Goal, Data collection method, and analysis	Focus Research aims	Findings	Limitations
		TREND Statement Checklist.						
5.	Ebu Enyan, et al., (2022). Clinical preceptorship in Ghana in the era of COVID-19 pandemic: an interventional study EBSCO Ghana	mixed-methods design with a non-randomized interventional study using three phase multi-methods technique	7/9	Forty-five nurse preceptors participated in a pre and post training intervention while seven were purposively selected for the qualitative interview.	non-randomized interventional. pre and post training intervention.	This study aimed at investigating nurse preceptors' perceptions of use, intention to use and self-efficacy towards digital technology in preceptorship in the Cape Coast Metropolis of Ghana.	The training intervention improved participants intentions, self-efficacy, perceived use and perceived ease of use of technology. However, there are constraints in the clinical learning environment including students and preceptor-related factors, and institutional factors that needs to be addressed as part of efforts to implement technology in clinical teaching in this era of COVID-19 pandemic and beyond.	the small sample size, and this therefore influences the recommendations from the study. Further studies could explore interventions that support virtual teaching in the clinical environment in low-to-middle-income economies using multiple sites with larger number of preceptors.
Ref. no.	Authors, Year Title Research, & origin	Research Design/ Methods	Quality Score	Sample	Comparison or Control group Goal, Data collection method, and analysis	Focus Research aims	Findings	Limitations
6.	Arnaert, et al., (2023). Nurse Preceptors' Experiences of an Online Strength-Based Nursing Course in Clinical Teaching PubMed	A qualitative descriptive design	3/9	a purposive sample of six French and English-speaking nurse preceptors who obtained professional development credits from the	No Online educational programs for nurse preceptors have been created based on various theoretical frame works; however, no programs using a	This study explored the nurse preceptors' experiences in using a SBN approach to provide clinical	Findings revealed that although the levels of familiarity with the SBN approach varied, all nurse preceptors were motivated to learn more about the use of the SBN approach in	The small number of participants enrolled in this study can be seen as a limitation; however, data saturation was achieved,

				school's office for Continuing Nursing Education (CNE) were recruited	Strengths-Based Nursing (SBN) approach could be located. This study explored the nurse preceptors' experiences in using a SBN approach to provide clinical teaching to nursing students after completing an online SBN clinical teaching course.	teaching to nursing students after completing an online SBN clinical teaching course.	their clinical teaching, and they acknowledged that using SBN in clinical teaching benefits both students and educators. Using a SBN approach increased the self-confidence of the nurse preceptor in their role and in providing tailored feedback according to the students' learning needs; hence promoting student empowerment. The SBN online course for preceptors demonstrates the school's commitment to the importance of the preceptor role, and the value of incorporating a strengths-based philosophy in clinical teaching and learning.	and the results provided a comprehensive picture of the nurse preceptors' experiences with using a SBN approach to provide clinical teaching to nursing students after completing an online SBN clinical teaching course. A second limitation pertains to the fact that some interviews were conducted with nurse preceptors that took the course approximately 12 months prior can be identified as limitations of this study. The elapsed time between completing the course and the interview may have been important to better understand how preceptors integrated SBN in their interactions with students;
Canada								

Ref. no.	Authors, Year Title Research, & origin	Research Design/ Methods	Quality Score	Sample	Comparison or Control group Goal, Data collection method, and analysis	Focus Research aims	Findings	Limitations
								however, for a few preceptors it was challenging to remember the course details from an instructional design perspective.
7.	Araújo, et al., (2023). Preceptorship contributions to the development of clinical and managerial skills in nursing residency. *Revista brasileira de enfermagem*, 76(2), e20220510. PubMed Brazil	Exploratory qualitative study developed in two stages: document analysis and semi-structured interview.	3/9	The research analyzed three uni-professional residency programs in nursing at a public university located in the Southeast Region, namely: Obstetrics (OBS), Child and Adolescent Health (CAH) and Adult and Elderly Health (AEH). the 22 residents who agreed to participate in the research, in the online format or in person.	No two stages: document analysis of pedagogical projects and semi-structured interviews with residents. Content analysis was carried out based on the framework of the nurse's work process and skills.	To analyze the residents' experience with the preceptorship's contributions to the development of common clinical and managerial skills foreseen in the three PPs studied, considering the context of hospital practice.	The PPs of the three studied programs indicate the predominant development of clinical competences, compared to managerial competences. The residents' experience with preceptorship evidenced its focus on procedural clinical skills, with fragile articulation with clinical reasoning and the managerial dimension of nursing practice in the hospital setting. Some reports also showed learning experiences promoted by formal and informal preceptors, including nursing technicians, which enabled the development of broader clinical skills and confidence for practicing as a nurse.	The document analysis stage was limited due to the similarity between the three PPs, so that it was not possible to better explore the specific competences of each area of nursing knowledge and practice (OBS, CAH, AEH). Another limitation concerns the study design, which only included residents and not the preceptors of the three programs. The inclusion of preceptors, if it had occurred,

Ref. no.	Authors, Year Title Research, & origin	Research Design/ Methods	Quality Score	Sample	Comparison or Control group Goal, Data collection method, and analysis	Focus Research aims	Findings	Limitations
							The limitations experienced with preceptorship were related, among other reasons, to the need for training for preceptorship, the shortage of nursing professionals and their overload in the context of the hospital practice studied.	would allow a more comprehensive understanding of the study problem through the triangulation of the results.
8.	Gholizadeh, et al., (2022). Nurse preceptors' perceptions of benefits, rewards, support, and commitment to the preceptor role in a new preceptorship program

Tabriz, Iran

PubMed
Iran | A descriptive correlational study design | 5/9 | 45 preceptor nurses were recruited from a tertiary referral teaching hospital in Iran. | No

Data were collected using the Preceptor's Perception of Benefits and Rewards Scale, the Preceptor's Perception of Support Scale, and the Commitment to the Preceptor Role Scale. | to assess preceptor nurses' perceived benefits, rewards, support, and commitment to the role in a new nurse preceptorship program in Iran and to examine the relationships between these concepts. | Preceptors' commitment to their role was positively and moderately associated with their perceived benefits and rewards (r = 0.503, p = 0.001) and perceived support (r = 0.430, p = 0.003). None of the examined demographic and practice variables showed statistically significant association with commitment to the preceptor role. Commitment to the preceptor role was associated with benefits, rewards and support that preceptor nurses perceive in relation to their role. To optimize the effectiveness of nurse preceptorship programs, benefits, rewards, recognition, and support should be integral to planning of these programs. | a single-center study with small sample size, although the setting was a tertiary referral hospital, and preceptors were recruited from different wards with a high response rate (97.82%) to the study invitations. All participating preceptors were female; therefore, the findings of this study may not reflect the experience of preceptors' working in other hospitals or of |

						The success of a preceptorship program depends partially on the commitment of the preceptor to the role. The commitment to the role may be improved through providing preceptors with sufficient benefits and rewards, resources and support.	male preceptors. The study focused on perceptions of benefits, rewards, support, and commitment to the preceptor role of preceptors engaged in a nurse preceptorship program, therefore, the findings of this study may not be generalized to preceptors who provide preceptorship to nursing students.
Ref. no.	Authors, Year Title Research, & origin	Research Design/ Methods	Qualit y Score	Sample	Comparison or Control group Goal, Data collection method, and analysis	Focus Research aims	Findings	Limitations
9.	Hamarash, et al., (2023). Preceptoring of Graduate Nursing Students in Iraq Iraq PubMed	A cross-sectional research design	4/9	A convenience sampling technique 215 preceptors employed in Al governmental nursing colleges in Iraq. The data collected from the questionnaires were analyzed using descriptive and inferential	No A paper-based assessment and the survey instrument used in the study was based on previous studies31,32 that consisted of four open-ended questions as follows: Statement 1: The Definition of Critical Thinking Includes Analyzing, Evaluating, and Synthesizing Information	to explore and examine the approaches utilized by preceptors in guiding graduate nursing students toward developing critical thinking skills within governmental nursing	The findings revealed that the majority of preceptors recognized the importance of critical thinking in nursing education and believed that critical thinking skills were adequately taught during preceptorship. Preceptors reported utilizing various methods such as case studies, simulation, and problem-based learning to enhance critical thinking skills in nursing students. However, challenges related to student	Using a self-administered questionnaire, which may result in social desirability bias. Additionally, the study was conducted in only Al governmental nursing colleges in Iraq, and the findings may not be generalizable to other settings

| | | | | statistics. The descriptive statistics used included means, frequencies, and percentages. The inferential statistics used included chi-square tests to compare perceptions between the preceptors. | to Make Decisions and Solve Problems Effectively. Statement 2: Critical Thinking Skills are Adequately Taught During Preceptorship. Statement 3: Critical Thinking is an Important Aspect of Graduate Nursing Education. Statement 4: Critical Thinking is an Essential Skill for Healthcare Professionals to Provide Safe and Effective Patient Care. | colleges in Iraq. | diversity, socialization, educator knowledge, selection criteria, teaching strategies, and language were also identified.

Most preceptors (82.8%) agreed that critical thinking is important to graduate nursing education, and 93.5% agreed that critical thinking skills are adequately taught during preceptorship. Case studies (92.1%), simulation (87.4%), and problem-based learning (81.9%) were the most commonly used methods to enhance critical thinking skills in nursing students during preceptorship.

The study identified six main challenges, including managing the diverse needs and abilities of students, integrating students into the clinical environment, educators' lack of knowledge, selection criteria, teaching strategies, and language.

The study concluded that most preceptors acknowledged the significance of critical thinking in nursing education and felt that these skills were effectively taught during preceptorship. Preceptors | |

Ref. no.	Authors, Year Title Research, & origin	Research Design/ Methods	Quality Score	Sample	Comparison or Control group Goal, Data collection method, and analysis	Focus Research aims	Findings	Limitations
							employed different techniques like case studies, simulation, and problem-based learning to enhance critical thinking abilities in nursing students.	
10.	Hansen & Zuma, (2024). Guidelines to support newly qualified professional nurses for effective clinical practice South Africa PubMed	A qualitative with a descriptive phenomenology design.	4/9	25 participants who were purposively selected: 11 newly qualified professional nurses, 7 preceptors, and 7 operational managers.	NO Semi-structured interviews were utilized to collect data. The researcher used a self-developed interview guide that was created for this study. Data were collected over a period of 6 months. The key informers in this study were newly qualified professional nurses who shared their transition experiences, preceptors and operational managers, who shared their perceptions about the newly qualified professional nurses' transition and readiness for the independent practice role.	to explore the transition experiences of newly qualified professional nurses to develop a preceptorship model.	The results show the significance of support and guidance for newly qualified professional nurses. The results were used as the basis for the development of the preceptorship model for newly qualified professional nurses. The developed preceptorship model for the newly qualified professional nurses will positively contribute to the transition of newly qualified professional nurses, thus ensuring that they receive clinical training from trained preceptors and support from nursing managers who collaborate to achieve an effective preceptorship. Thus, the results of this study can greatly benefit the body of knowledge of nursing education and the nursing profession.	The restriction of the study to two hospitals within the same region and province, which limits the generalization. A further limitation to generalization is that this model employed a qualitative approach and used a non-probability sampling technique. It would be useful to evaluate the preceptorship model developed through this study at a clinical facility.

Ref. no.	Authors, Year Title Research, & origin	Research Design/ Methods	Qualit y Score	Sample	Comparison or Control group Goal, Data collection method, and analysis	Focus Research aims	Findings	Limitations
11.	Hardie, et al., (2022). Experienced based co design: nursing preceptorship educational programme Dublin, Ireland PubMed	A qualitative interview & A collaborative participatory design process. Using the principles and the iterative process of Experienced Based Co Design (EBCD), data was collected from qualitative interviews and used to inform a series of co-design workshops and the co-production of the new educational programme.	3/9	Twenty-six individuals, including undergraduate student nurses (n=5), staff nurses (n=5), patients, and a team of nursing (n=5), educational and educational technologist experts (n=11). (Co-design team demographics)	A narrative interview methodology using open-ended questions followed by questions based on the key themes identified in a recent scoping review	to identify key "touch points" to determine what SPP liked about their experiences of a nursing preceptorship, what worked well for them in generating positive interpersonal relationships or what caused anxiety or adverse reactions in the professional relationship. It also aims to co-design and co-produce an innovative preceptorship education pro gramme with students, preceptors, patients and experts in nursing and nursing education, incorporating	to developing a blended learning preceptorship educational programme that consists of three core elements (1) six online reusable learning objects, (2) two role play simulations and (3) a virtual reality storytelling simulated experience. The Experienced Based Co Design (EBCD) process ensured that the educational programme was developed to meet SPP viewpoints associated with fostering positive interpersonal relationships in a nursing preceptorship. EBCD is a valuable framework for developing human-centred educational resources that combine experiential knowledge (experiences) and scientific knowledge (literature-based knowledge). It facilitated the identification and the development of Interpersonal and Communications skills (IP & C skills) training required within a nursing preceptorship relationship, creating an authentic and memorable learning programme. The	This new education programme addresses some of the current limitations of preceptorship education pro grammes observed in the literature. Most notably, the inclusion of the patient voice and perspective throughout the programme. Furthermore, it addresses a key concern for both students and preceptors to incorporate foundational interpersonal skills such as creating positive first impressions or language to use when providing feedback that appears to be lacking in many preceptorship education

| | | | | | | experiential knowledge (touchpoints) and scientific knowledge (literature and expert-based knowledge) applying a user-centred design EBCD approach.

The researcher aimed to capture the experiences and identify major touchpoints of students, preceptors, and patients (SPP) to later inform the co-design and co production of the new educational programme. | structure of EBCD harnesses SPP involvement throughout the research and development process, ensuring transparency and continuity of message, scope, and outcomes. | programmes, including the new national mandatory online preceptorship programme, "Preceptorship in Practice" HSEland

this programme is online; therefore, preceptors are not offered the opportunity to apply new knowledge gained from completing the programme in a safe environment, such as role-play simulations included in this new programme.

A primary focus of the HSE programme is the preceptor's role in assessing student competency and its associated documentation. Limited focus is placed on the practical skills required to facilitate |

Ref. no.	Authors, Year Title Research, & origin	Research Design/ Methods	Quality Score	Sample	Comparison or Control group Goal, Data collection method, and analysis	Focus Research aims	Findings	Limitations
								a positive clinical learning experience, including practical interpersonal and communication skills associated with teaching and feedback, and the patient is not mentioned throughout the programme. Examining the co-designers' experiences of partaking in this study could provide further insight into effective EBCD practices or limitations to creating a new educational programme.
12.	Alhassan, et al., (2022). Preceptors' perceptions of support, commitment to the preceptor role, and preferred incentives: A cross-sectional study	A descriptive cross-sectional survey design. Quantitative methods	3/9	All nurse preceptors working in the four selected hospitals in the Northern region of Ghana	No a secure google forms survey link was distributed to all eligible preceptors within the participating facilities via	explored the perceptions of preceptors regarding support for the role and their	Many preceptors in this study perceived their level of support in the preceptorship role to be adequate, it is still necessary for hospitals and nursing schools to provide the needed support to preceptors because almost half of the	Considering the methodological limitations of these available studies and the scarcity of similar studies in

Ghana, Australia Science Direct			(approximately 240 preceptors). The list and email addresses of all preceptors working in the participating hospitals were obtained from the nursing directorates of these hospitals In all 226 email surveys were sent to the potential participants and 172 surveys were returned. However, 18 surveys were excluded from analysis because they were incomplete as only some items in the demographic information section were completed. Therefore, after data cleaning 154 surveys were retained for analysis bringing the effective	email. The email message explained the study purpose and participants' rights. A four-part questionnaire comprising a demographic information section, the preceptors' perception of support scale (PPS), preceptor rewards and incentives questionnaire (PRIQ), and the commitment to the preceptor role scale (CPR) was used to collect the data for this study. The PPS and CPR scales were originally developed and tested by Dibert and Goldenberg (1995). The PPS scale is a 10-item questionnaire designed to measure preceptors' perception of support for the preceptor role. Each item on the scale is measured on a six-point Likert scale from strongly disagree (1) to strongly agree (6). The CPR scale contains 10 items measured on a six-point Likert scale and used to assess preceptors' commitment to the role. The Cronbach's alpha for the PPS and CPR scales in Dibert and	commitment to the role. investigated the types of incentives that preceptors prefer to receive from stakeholders. 1. To explore the perceived level of support for Ghanaian nurse preceptors. 2. To identify the types of incentives that are valuable to nurse preceptors in Ghana. 3. To determine preceptors' perceived level of commitment to the preceptor role and factors associated with it.	participants perceived their support levels to be low. In providing support to preceptors, priority should be given to preceptor training and other interventions that enhance the professional development of preceptors. Preceptors reported high levels of support in the preceptor role and perceived themselves to be highly committed to the role. Preceptors identified preceptor training, continuing education opportunities, and text books on effective preceptorship as the three most important incentives to them. No associations were found between perceived commitment and demographic characteristics of participants.	the literature, the evidence is not adequate to draw conclusions about the levels of preceptor support. Therefore, there is the need for further exploration of this subject in different contexts using larger sample sizes.

Ref. no.	Authors, Year Title Research, & origin	Research Design/ Methods	Quality Score	Sample	Comparison or Control group Goal, Data collection method, and analysis	Focus Research aims	Findings	Limitations
				response rate of the survey to 68 %.	Goldenberg's (1995) study were 0.086 and 0.087, respectively.			
13.	Çamveren, et al., (2022). The effects of a preceptorship program on newcomer nurses' turnover intention, commitment and job satisfaction: Quasi-experimental study Turkey Science Direct	Using a single-group quasi-experimental design including a pretest and a posttest at a university hospital (>700 beds) in Izmir, Turkey, between September 2018 and September 2019. A one group pretest-posttest design.	7/9	A newcomer nurses from the university hospital of ˙Izmir (N = 56) in Turkey	No Four scales were administered to the newcomer nurses at the first and third months before the commencement of the preceptor program (pretest) and at the 12th month of the program (posttest). The Turkish versions of the scales were applied after obtaining permission for their use from the authors, who performed validity and reliability analyses on the scales.	to examine the effect of an organizational socialization model-based preceptorship program on the organizational outcomes of newcomer nurses.	The newcomer nurses' intention to leave their unit and profession, organizational and professional continuance commitment, professional normative commitment and job satisfaction levels were similar at the end of the one-year preceptorship program compared with the baseline (p > .05). It was also determined that the participants' intention to leave the organization increased (t = 4.153, p < .001), while their affective (t = 4.443, p < .001) and normative commitment to the organization (t = 3.443, p < .001) and their professional affective commitment decreased (t = 7.390, p < .001) by the end of the program. The organizational socialization model has the potential to be used as an effective framework to improve the organizational outcomes of new graduate nurses. Although organizational socialization meets some dimensions of	the absence of a control group. In addition, since the study was conducted with a single-group pre-post-test design, the changes in repeated measurements may have caused bias due to the regression effect on the mean. Therefore, it would be appropriate to re-examine the contribution of the organizational socialization model to the adaptation process of newcomer nurses with further studies that include control groups.

							institutional and professional needs of newcomer nurses in the first year, there is still a need to use different strategies and enrich organizational socialization to support their adaptation process. This model also guides practices that will contribute to the improvement of the work environment and relation ships for both nurse preceptors and newcomer nurses. The model draws attention to the importance of prioritizing issues that will ensure commitment to the organization, such as respecting, understanding and making newcomer nurses feel valued in the adaptation process.	some interventions planned for the second phase of the model could not be undertaken due to the change in nursing management staff during the study period. The newcomer nurses completed the scales themselves, which may have caused bias in the results.
Ref. no.	Authors, Year Title Research, & origin	Research Design/ Methods	Qualit y Score	Sample	Comparison or Control group Goal, Data collection method, and analysis	Focus Research aims	Findings	Limitations
14.	Wu, et al., (2022). A web-based clinical pedagogy program to promote professional development for nurse preceptors: A quasi-experimental study Singapore Science Direct	A prospective quasi-experimental approach with two-group pre-test and post-test repeated measures design.	9/9	A total of 150 nurses (75 participants/grou p) were recruited from a tertiary hospital in Singapore from July 2018 to June 2020.	Yes: two-group pre-test and post-test repeated measures. Clinical Teaching Competence Inventory (CTCI), Preceptor Self-efficacy Assessment Instrument (PSEQ), and Attitudes toward Web-based Continuing	To examine the effectiveness of a web-based clinical pedagogy program on nurse preceptors' clinical	there was a significant interaction effect (group x time) on the overall CTCI score after adjusting for covariate (F = 5.390, p = 0.005). However, there were no significant interaction effect (group x time) on PSEQ (F = 2.693, p = 0.070) and overall AWCLS score (F = 1.341, p = 0.264) between the	This follow-up study on preceptors was conducted after the completion of clinical teaching experience. Some nurses were not assigned to any student due to

		The web-based clinical pedagogy program was provided to the preceptors in the experimental group, while control group received the face-to-face preceptorship course.		Using the medium effect size, a minimum of 64 participants in each group was needed to achieve 80% power at 5% level of significance (Cohen, 1992). Taking possible attrition into consideration, 150 participants (75 par ticipants/group) were recruited in this study.	Learning Survey (AWCLS) were used to evaluate preceptors' learning outcomes. Data were collected at three time points – before, immediately after the learning program, and after 6 months of the clinical teaching experience.	teaching competency, self-efficacy, and attitudes toward web-based learning in comparison to face-to-face course.	two groups across the three time points. The web-based clinical pedagogy program produced outcomes comparable to the face-to-face program in terms of preceptors' clinical teaching competence and self-efficacy. The innovative and cost-effective web-based clinical pedagogy program provided professional development and the flexibility to accommodate preceptors' busy work schedules. Online learning has become increasingly popular during the COVID-19 pandemic and the web-based clinical pedagogy program was implemented when face-to-face workshop was not feasible.	a clash in schedule with students' clinical posting. The research team followed up closely with the nurse managers of 150 preceptors from each department. Huge amount of time and effort were invested. Attrition rate was relatively high as some preceptors resigned, or took maternity leave, study leave or unpaid leave. The data collection was expected to complete in March 2020; however, the students' clinical posting was discontinued due to the COVID-19 pandemic. Hence, the study was extended till November 2020. The study population was restricted to one healthcare

Ref. no.	Authors, Year Title Research, & origin	Research Design/ Methods	Quality Score	Sample	Comparison or Control group Goal, Data collection method, and analysis	Focus Research aims	Findings	Limitations
							institution. Hence, this may limit the generalizability of the study. The participants were from various clinical departments and could be a good representation since they were from different clinical settings.	
15.	Pere, et al., (2022). Preceptors' experiences of one to one preceptorship model for students undertaking an accelerated undergraduate nursing program: An interpretive descriptive qualitative study

Toronto, Canada

Science Direct | An interpretive descriptive design. | 3/9 | A purposeful sampling technique, nine Registered Nurses from one affiliate organization, were invited to 30 – 60 min semi-structured, face to face interviews. | No

A semi-structured, face to face interviews. Thematic and pattern analysis supported the data analysis. | to describe and interpret the experiences of preceptors' in supporting nursing students in a one-to-one model across all semesters of the nursing program. | Four major themes emerged: acknowledging expectations to teach, recognizing preceptor needs, balancing the act of nursing and teaching and discovering self through the preceptorship experience. To make the new meaning more accessible, a conceptual interpretation of the themes was transformed into a metaphor that depicts the relationship across the meaning units. The image of a bamboo tree represents both the descriptive and interpretive insights. This study illuminates the role competency of preceptors involved in a one-to-one preceptored model in a second-degree accelerated | Not mentioned |

Ref. no.	Authors, Year Title Research, & origin	Research Design/ Methods	Quality Score	Sample	Comparison or Control group Goal, Data collection method, and analysis	Focus Research aims	Findings	Limitations
							nursing program. A continued use of a one to one preceptor model within each semester of a two-year program serves as a platform to foster cognitive companionship, clinical teaching and experiential learning opportunities.	
16.	Choi, & Yu, (2022). Effects of preceptors' mentoring function on novice nurses' self-efficacy and organizational commitment: A cross-sectional study

Korea

Science Direct | A cross-sectional | 4/9 | 160 novice nurses from Korean general hospitals | No

A questionnaire survey was conducted with 160 novice nurses from Korean general hospitals who had been working for less than a year after completing their preceptorship.

The questionnaire included general characteristics, such as gender, age, education level, current department and work experience. alongside the following psychometrically validated scales:
1. mentoring function measurement tool originally developed by Noe (1988) was translated and modified by Kwak | This study investigated novice nurses' perception of the effects of preceptors' mentoring function on their self-efficacy and organizational commitment. | The preceptors' mentoring function as perceived by the novice nurses was 3.87, self-efficacy of the novice nurses was 3.71 points, and the organizational commitment was 3.46 out of 5 points. The results of the multiple regression analysis showed that mentoring function significantly affected novice nurses' self-efficacy ($\beta = 0.50$, $p < 0.01$) and organizational commitment ($\beta = 0.54$, $p < 0.01$). Further, the preceptorship training period had a significant effect on organizational commitment ($\beta = 0.13$, $p < 0.05$). Preceptors' mentoring function, as perceived by novice nurses, affected their self-efficacy and organizational commitment. | The findings of this study may have limited generalizability. This is because this study used convenience sampling, of novice nurses at only three university hospitals.

The data of this study were collected from self-administered questionnaires, which may have created limitations due to the bias of participants.

The fact that novice nurses evaluated |

| | | | | | (2004). This tool has three categories, consisting of a total of 23 questions, including eight questions for career development functions, four questions for role modeling functions and 11 questions for psychosocial functions. This tool was used by various countries and participants to check the validity of the mentoring function. 2. To assess self-efficacy, a tool developed by Jung (2007) was used. This tool was originally a self-efficacy measurement tool developed by Sherer et al. (1982), which was modified and supplemented by Jung (2007) and used for various studies. This tool has a total of 17 questions, the response of each measured on a 5-point Likert scale, with higher scores indicating higher self-efficacy. Cronbach's alpha for this scale was 0.93, compared with 0.94 at the time of development. 3. Organizational commitment was assessed with a tool developed by | | | preceptor nurses can also be a limitation. There may be limitations to the reliability and validity of the instruments. |

Ref. no.	Authors, Year Title Research, & origin	Research Design/ Methods	Quality Score	Sample	Comparison or Control group Goal, Data collection method, and analysis	Focus Research aims	Findings	Limitations
					Son (2015) who translated the items corresponding to the emotional commitment section of the organizational commitment tool developed by Allen and Meyer (1990). Their Affective Commitment Scale is a popular measure of organizational commitment (Merritt, 2012) and has been used in several studies (Merritt, 2012; Craig et al., 2013). It comprises eight items, with each item measured on a 5-point Likert scale. The higher the score, the higher the organizational commitment. Cronbach's alpha for this scale was 0.84, compared with 0.817 in Son's (2015) study.			
17.	Regaira-Martínez, et al., (2023). Nurses' perceptions of preceptorship of undergraduate students in clinical context. Spain	A descriptive cross-sectional study	4/9	A sample of 307 nurses who worked full-time and part-time with permanent and temporary contracts.	No Involvement, Motivation, Satisfaction, Obstacles and Commitment" (IMSOC) questionnaire was used.	to determine nurses' perceptions of preceptorships for nursing students in two hospitals located in northern Spain.	The mean global questionnaire score was 115.25 ± 33.86 (95 % CI: 111.62–123), with the highest score obtained for the "Involvement" dimension (29.96; SD: 9.23; 95 % CI: 29.01–34.87). Age showed statistically significant negative correlations with the overall	The study was based on a self-report tool, which may have introduced reporting bias, as such tools may lead to the over estimation or underestimation

| | Science Direct | | | | | | and dimension scores ($p < 0.05$). Comparisons by work sector and type of contract reflected that nurse working in the private sector and those with permanent contracts had higher motivation and commitment scores.

Preceptors had positive perceptions of their role in undergraduate nursing students' education. Age, work sector, type of contract and time allocation should be considered when designing strategies to enhance the involvement, motivation, commitment, and satisfaction of nurses in their experiences as preceptors for under graduate nursing students. Improving the preceptorship experience will benefit both nurses and students by improving preparation, satisfaction, and retention. a clear need to develop new strategies for the training of professionals dedicated to clinical preceptorships. This training should focus on strategies for managing time, being assertive and having effective verbal communication and objective evaluations of students. | of the construct assessed.

In this sense, the results should be interpreted with caution. |

Ref. no.	Authors, Year Title Research, & origin	Research Design/ Methods	Quality Score	Sample	Comparison or Control group Goal, Data collection method, and analysis	Focus Research aims	Findings	Limitations
18.	Lau, et al., (2024). Experiences of preceptorship in Singapore: A qualitative exploratory study of preceptors' experience in precepting nursing students during pre-registration of clinical placement in an acute hospital. Singapore Science Direct	A qualitative exploratory study Semi-structured interviews	4/9	Purposive sampling ten participants, who were registered nurses with at least two years of working experience, attended preceptorship course conducted by Sing Health Alice Lee for Advanced Nursing (IAN) and precepted one nursing student in the PRCP during the period from December 2020 to February 2021.	No Semi-structured individual interviews were conducted to elicit information from the participants using four domains – role & experience, relationship with preceptee, expected performance of preceptee & sup port from institution, management & education faculty. The guiding questionnaire was developed by four researchers who are experienced clinical instructors.	This study explored the preceptors' experience to understand their challenges and support received in the facilitation of the preceptorship and learning experience of the nursing students in an acute care hospital in Singapore.	This study provided valuable insights in the experience of the preceptors in Singapore. Recommendation for nursing management and leaders to establish support system in promoting recognition of preceptors, establish dialog sessions between stakeholders. Nursing education to provide support and to review the efficacy of the current preceptorship program to identify correlation with successful precepting experience for both preceptors and nursing students. Despite challenges faced by the preceptors, their experience had been positive and they are committed in precepting the nursing students.	There was a lack of research involving nurse preceptors in Singapore, which led to the inability to compare the findings of this study to others. The study focused on diploma nursing students compared with other studies that focused on undergraduate nursing students. The sample size was limited to nurse preceptors who had preceptorship experience during the past two years and may not be representative of the entire population of nurse preceptors in Singapore. As this study is conducted in only one acute hospital, there is a limitation on

Ref. no.	Authors, Year Title Research, & origin	Research Design/ Methods	Quality Score	Sample	Comparison or Control group Goal, Data collection method, and analysis	Focus Research aims	Findings	Limitations
								generalizing the findings across other hospitals.
19.	Chipwanya, et al., (2024). The effect of a preceptorship programme on newly hired experienced professional nurses' self-efficacy in nursing clinical competency in Saudi Arabia. South Africa Science Direct	A quasi-experimental, quantitative pre- and post-test one-group study design	7/9	convenient sampling 100 newly Hired experienced professional nurses who met the predetermined inclusion criteria at a 945-bedded tertiary hospital in Saudi Arabia. *Preceptorship programme:* Newly hired experienced professional nurses at the sampled hospital attend a 90-day preceptorship programme. They are assigned a one-on-one preceptor to take them through the entire 90-day programme. A	No the researcher used an adopted SECP and Likert scale-based questionnaire for data collection. The first part of the questionnaire comprised 12 items focused on respondents' background and general professional information. The second part centred on self-efficacy in clinical performance and contained 37 items based on a four-point Likert scale rating from strongly disagree (1) to strongly agree (4) (for example, l can gather necessary information through medical history taking). The questionnaire covers five sequential steps, namely patient assessment, nursing diagnosis, plan of care, implementation of care, and evaluation of care	to determine if participation in a preceptorship programme affected newly hired experienced professional nurses' self-efficacy in clinical practice and whether their perceived competence was related to respondents' demographic profiles at a university hospital in Saudi Arabia.	Self-efficacy post-test scores were significantly higher than pre-test scores (p<0.001). The programme positively influenced the respondents' self-efficacy scores. As perceived by the respondents, the preceptorship programme had a positive effect and improved their clinical performance in the nursing process. There was no relationship between perceived competence and respondents' demographic profiles. Reporting on self-efficacy in clinical practice may not be the most effective, reliable or accurate measure or evaluation of clinical performance since self-scoring may be affected by existing cultural implications and a strong sense of self-efficacy. The self-scoring results may be followed by qualitative information, like interviews, to determine respondents' knowledge of the nursing process, direct observation of performance in the	the results could not be generalized since the study leveraged findings from one university hospital in Saudi Arabia. The questionnaire was printed in English, a secondary language for most of the respondents. Although all respondents were proficient in understanding and reading English, the use of a secondary language could impact respondents' understanding of the meaning of certain words and questions. Evaluating clinical competence using the self-

| | | | | preceptorship workbook is handed to both the preceptor and preceptee at the commencement of their relationship. | **Pre-test** data were collected from respondents during the first week of their employment during the hospital introductory programme prior to the commencement of the preceptorship programme. Respondents were told to submit the pre-test questionnaire before starting the mentorship programme. **Post-test** data were collected after the preceptorship programme. | | clinical area and care outcomes, and confirm if the respondents' clinical performance matches the obtained results.

The findings suggested a significant increase in self-efficacy in executing the nursing process in clinical practice among newly hired experienced professional nurses at a university hospital in Saudi Arabia. | assessment method can reduce the accuracy and objectivity of this evaluation method. Respondents may give themselves unrealistic scores; therefore, this method of clinical competence assessment should be evaluated as part of an additional approach, and it should not be used in isolation. |

Critical Appraisal tools for use in JBI Systematic Reviews

Items \ No. of Articles	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1. Is it clear in the study what is the 'cause' and what is the 'effect' (i.e. there is no confusion about which variable comes first)?	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
2. Were the participants included in any comparisons similar?	x			x	x									x		x			x
3. Were the participants included in any comparisons receiving similar treatment/care, other than the exposure or intervention of interest?	x			x	x								x	x			x	x	
4. Was there a control group?	x			x										x					
5. Were there multiple measurements of the outcome both pre and post the intervention/exposure?	x	x	x	x									x	x					x
6. Was follow up complete and if not, were differences between groups in terms of their follow up adequately described and analyzed?	x			x	x			x					x	x					x
7. Were the outcomes of participants included in any comparisons measured in the same way?	x			x	x			x	x	x			x	x					
8. Were outcomes measured in a reliable way?	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
9. Was appropriate statistical analysis used?	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Total score	9	4	4	9	7	3	3	5	4	4	3	3	7	9	3	4	4	4	4

Appendix 2

Arab American University
Institutional Review Board - Ramallah

الجامعـــة العربيـــة الأمريكيــة
مجلس اخلاقيات البحث العلمي – رام الله

IRB Approval Letter

Study Title: "The Effect of a Preceptorship Program on Clinical Instructors' Teaching Competencies in Palestinian Governmental Hospitals: A quasi-experimental Study (Pretest-Posttest)"

Submitted by: Samah Abd Lateif Mousa Buzieh

Date received: 4th May 2024

Date reviewed: 5th May 2024

Date approved: 16th May 2024

Your Study titled **"The Effect of a Preceptorship Program on Clinical Instructors' Teaching Competencies in Palestinian Governmental Hospitals: A quasi-experimental Study (Pretest-Posttest)"** with the code number **"R-2024/A/74/N"** was reviewed by the Arab American University Institutional Review Board - Ramallah and it was approved on the 16th of May 2024.

Sajed Ghawadra, PhD
IRB-R Chairman
Arab American University of Palestine

الجامعة العربية الأمريكية . فلسطين
مجلس اخلاقيات البحث العلمي - رام الله
IRB-R
ARAB AMERICAN UNIVERSITY-PALESTINE
INSTITUTIONAL REVIEW BOARD - RAMALLAH

General Conditions:
1. Valid for 6 months from the date of approval.
2. It is important to inform the IRB-R with any modification of the approved study protocol.
3. The Bord appreciates a copy of the research when accomplished.

رام الله – فلسطين

Tel: 02-294-1999   E-Email: IRB-R@aaup.edu   Website: www.aaup.edu

Appendix 3

2024/5/22

حضرة السيدة نجاة دويكات المحترمة

مدير عام الادارة العامة للتمريض في وزارة الصحة الفلسطينية،

<u>تسهيل مهمة الطالبة الدكتوراة (سماح بوزية)</u>

تحية طيبة وبعد،

نرجو من حضرتكم التكرم بالموافقة على تسهيل مهمة طالبة الدكتوراة "سماح عبد اللطيف بوزية" من اجل الحصول على اسماء المدربين الذين سيتم مشاركتهم في الدراسة من خلال وزارة الصحة وتسهيل عملية تطبيق البرنامج التدريبي من خلال السماح للمشاركين بحضور يومان يتم التنسيق لهم مع المشاركين ليكون مناسب لهم واستخدام قاعة مستشفى رفيديا للعرض، حيث ان عنوان الاطروحة للطالبة هي:

"The Effect of a Preceptorship Program on Clinical Instructors' Teaching Competencies in Palestinian Governmental Hospitals: A quasi-experimental Study "Pretest-Posttest"

نرجو التكرم بالموافقة على تسهيل مهمة الطالبة في وزارة الصحة والمستشفيات الحكومية.

تحت اشراف: - البروفيسور محمد اسبا والبروفيسور محمود الكلالدة.

مرفق: IRB

تفضلوا بقبول الطلب ولكم فائق الاحترام، ،

مساعد العميد للشؤون الصحية
ورئيس قسم العلوم الصحية
د. عماد أبو خضر

OF GRADUATE STUDIES

Appendix 4

Ref.: ....
Date:..........

الرقم: ....
التاريخ: ....

عطوفة الوكيل المساعد لشؤون المستشفيات والطوارئ المحترم،،،

تحية واحترام،،،

الموضوع: تسهيل مهمة بحث دكتوراه

يرجى تسهيل مهمة الطالبة: سماح بوزيه – برنامج الدكتوراه في التمريض– الجامعة العربية

الامريكية، بعنوان:

"The Effect of a Preceptorship Program on Clinical Instructors' Teaching Competencies in Palestinian Governmental Hospitals: A quasi-experimental Study "Pretest-Posttest "

حيث ستقوم الطالبة بعمل يومان تدريبيان للمرضين وتم التنسيق مع الاخ عماد زكي مدير دائرة التمريض

في المستشفيات، وذلك في:

مستشفى رفيديا

مع العلم ان مشرفة الدراسة: د. محمد اسيا ومحمود الكلالدة.

مع الاحترام،،،

د. عبد الله القواسمي
رئيس وحدة التعليم الصحي والبحث العلمي

نسخة: مساعد العميد للشؤون الصحية المحترم/ الجامعة العربية الامريكية

Appendix 5

Re: Fw: Request for Questionnaire

謝素英 <ishsieh@mail.cgust.edu.tw>

Sat 1/20/2024 3:26 PM

To:Samah AbduLateif Mousa Buzieh <s.buzieh@student.aaup.edu>

📎 1 attachments (415 KB)
CNJ_46(2)_214-224.pdf;

Please see the attached file related to the questionnaire.
You can use it for your scholarship application.
SIH

Samah AbduLateif Mousa Buzieh <s.buzieh@student.aaup.edu> 於 2024年1月20日 週六 上午4:01寫道：

From: Samah AbduLateif Mousa Buzieh <s.buzieh@student.aaup.edu>
Sent: Friday, January 19, 2024 9:55 PM
To: ysli@gw.cgit.edu.tw <ysli@gw.cgit.edu.tw>; ysli@mail.cgit.edu.tw <ysli@mail.cgit.edu.tw>;
hsu.liling@msa.hinet.net <hsu.liling@msa.hinet.net>
Cc: Samah AbduLateif Mousa Buzieh <s.buzieh@student.aaup.edu>
Subject: Request for Questionnaire

Dear Prof. Yuh-Shiow Li,

I hope this letter finds you well. My name is Samah Buzieh, I am a Ph.D. student from Palestine. I recently came across your published work titled "Clinical Teaching Competence Inventory for Nursing Preceptors: Instrument Development and Testing" in PubMed journal, and I am impressed by the thoroughness and relevance of your research and the tools used.

I am currently working on a research project that aligns closely with the subject matter of your paper. After reviewing your study, I believe the measurement tool you developed and used would be instrumental in our investigation. Your work has inspired us, and we are interested in utilizing your questionnaire as a valuable tool in our research.

To facilitate the progress of our study and maintain the integrity of your intellectual property, we kindly request your permission to use the questionnaire in our research. "Clinical teaching competence inventory for nursing preceptors (CTCI)".

My Title Project: The Effect of a Preceptorship Program on Clinical Instructors' Teaching Competencies in Palestinian Governmental Hospitals: A Mixed-Methods Study.

We assure you that any usage will be properly credited to your work, and we are committed to adhering to ethical standards in research.

If you are open to sharing the questionnaire, could you please provide us with your permission and with the necessary materials?

We understand the importance of protecting intellectual property and want to assure you that the information will only be used for the stated research purposes. Furthermore, any findings or publications resulting from our study will duly acknowledge your contribution.

Your support in this matter would significantly contribute to advancing knowledge in our field. We look forward to the possibility of collaborating with you and appreciate your time and consideration.

Thank you for your interest and cooperation

Sincerely,

Samah Buzieh
s.buzieh@student.aaup.edu

+970599034836

Appendix 6

Re: Fw: Request for Questionnaire

謝素英 <ishsieh@mail.cgust.edu.tw>
Mon 1/22/2024 3:46 PM
To: Samah AbduLateif Mousa Buzieh <s.buzieh@student.aaup.edu>

All items were scored on a 5-point Likert scale ranging from 1 (incompletely met) to 5 (completely met).
All items are in the article.
SIH

Samah AbduLateif Mousa Buzieh <s.buzieh@student.aaup.edu> 於 2024年1月22日 週一 上午2:20寫道：
> Dear Dr. SUH-ING HSIEH,
> Please send the tool and tell me how it was distributed. Could you let me know if you used a Likert scale in responding?
>
> Thank you very much for your help
>
> Regards
>
> Samah Buzieh
>
> s.buzieh@student.aaup.edu
>
> +970599034836
>
> _____
>
> **From:** 謝素英 <ishsieh@mail.cgust.edu.tw>
> **Sent:** Saturday, January 20, 2024 3:26 PM
> **To:** Samah AbduLateif Mousa Buzieh <s.buzieh@student.aaup.edu>
> **Subject:** Re: Fw: Request for Questionnaire
>
> Please see the attached file related to the questionnaire.
> You can use it for your scholarship application.
> SIH
>
> Samah AbduLateif Mousa Buzieh <s.buzieh@student.aaup.edu> 於 2024年1月20日 週六 上午4:01寫道：

Appendix 7

Re: Fw: Request for Questionnaire

謝素英 <ishsieh@mail.cgust.edu.tw>
Sat 1/20/2024 3:26 PM
To: Samah AbduLateif Mousa Buzieh <s.buzieh@student.aaup.edu>

📎 1 attachments (415 KB)
CNJ_46(2)_214-224.pdf;

Please see the attached file related to the questionnaire.
You can use it for your scholarship application.
SIH

Samah AbduLateif Mousa Buzieh <s.buzieh@student.aaup.edu> 於 2024年1月20日 週六 上午4:01寫道:

From: Samah AbduLateif Mousa Buzieh <s.buzieh@student.aaup.edu>
Sent: Friday, January 19, 2024 9:55 PM
To: ysli@gw.cgit.edu.tw <ysli@gw.cgit.edu.tw>; ysli@mail.cgit.edu.tw <ysli@mail.cgit.edu.tw>; hsu.liling@msa.hinet.net <hsu.liling@msa.hinet.net>
Cc: Samah AbduLateif Mousa Buzieh <s.buzieh@student.aaup.edu>
Subject: Request for Questionnaire

Appendix 8

Outlook

preceptorship course

From Samah AbduLateif Mousa Buzieh <s.buzieh@student.aaup.edu>
Date Sun 7/16/2023 11:16 PM
To hnawafleh@jnc.gov.jo <hnawafleh@jnc.gov.jo>
Cc Samah AbduLateif Mousa Buzieh <s.buzieh@student.aaup.edu>

السلام عليكم ورحمة الله وبركاته

حضرة عطوفة الاستاذ الدكتور هاني النوافله المحترم

،،،تحية طيبة وبعد

انا طالبة دكتوراة في برنامج فلسفة التمريض من فلسطين ارجو التكرم من حضرتكم بالموافقة على مساعدتي في الحصول على برنامج
تدريب مدربي التمريض
(Preceptorship Course)

من أجل تحسين كفاءة المدربين السريريين في فلسطين
حيث اني اقوم بتحضير برنامج تدريبي في هذا الموضوع وعنوان رسالتي للاطروحه هو:

My research Title: **The Effect of a Preceptorship Program on Clinical Instructors' Teaching
Competencies in Palestinian Governmental Hospitals: A Mixed-Methods Study**

لذا ارغب التكرم من حضرتكم الايعاز لمن يلزم بالمساعدة في الحصول على البرنامج حيث اني وجدت هذا البرنامج يقدم ضمن قائمة
من الأنشطة المعتمدة في المجلس التمريضي الاردني وينفذ من قبل خمس مستشفيات

اسم البرنامج / النشاط		نوع النشاط	الجهة التي تعقد النشاط (المكان)
1.	Preceptorship Course	وجاهي	مركز الحسين للسرطان
2.	Preceptorship Course	وجاهي	مستشفى العبدلي
3.	Preceptorship Course	وجاهي	مستشفى الملك المؤسس عبده الله الجامعي
4.	Preceptorship Course	وجاهي	مستشفى الاستقلال
5.	Preceptorship workshop	وجاهي	مستشفى الخالدي

وجزاكم الله خير الجزاء وبارك الله فيكم على وقتكم الثمين واهتمامكم

وتقبلوا منا فائق الاحترام والتقدير،،،

ابنتكم طالبة الدكتوراة في فلسطين/ الجامعة العربية الامريكية

سماح بوزية

All folders ⌄   ←   ضمرة   ⌄   Q   S

🖨 Print   ✕ Close

Fw: preceptorship course

Samah AbduLateif Mousa Buzieh <s.buzieh@student.aaup.edu>
Wed 7/19/2023 9:30 PM
To: aisha <aisha@JNC.GOV.JO>; aisha <aisha@JNC.GOV.JO>
Cc: Samah AbduLateif Mousa Buzieh <s.buzieh@student.aaup.edu>

السلام عليكم ورحمة الله وبركاته

حضرة الدكتورة عائشة ضمرة المحترمة

تحية طيبة وبعد،،،

ارجو التكرم من حضرتكم بمساعدتي في امكانية الاستعانة والحصول على برنامج التدريب
حيث اني اخذت موافقة عطوفة الاستاذ الدكتور هاني النوافله
حيث اني طالبة دكتوراة في برنامج فلسفة التمريض من فلسطين ارغب من حضرتكم
بمساعدتي في الحصول على برنامج تدريب مدربي التمريض
(Preceptorship Course)

من أجل تحسين كفاءة المدربين السريريين في فلسطين
حيث اني اقوم بتحضير برنامج تدريبي في هذا الموضوع وعنوان رسالتي للاطروحه هو:

My research Title: **The Effect of a Preceptorship Program on
Clinical Instructors' Teaching Competencies in Palestinian
Governmental Hospitals: A Mixed-Methods Study**

واشكر حضرتكم كل الشكر والتقدير على تعاونكم ومساعدتكم

وتقبلوا منا فائق الاحترام والتقدير ،،،

ابنتكم طالبة الدكتوراة في فلسطين/ الجامعة العربية الامريكية

سماح بوزية

From: hnawafleh <hnawafleh@jnc.gov.jo>
Sent: Monday, July 17, 2023 12:39 PM
To: aisha <aisha@JNC.GOV.JO>
Cc: Samah AbduLateif Mousa Buzieh <s.buzieh@student.aaup.edu>
Subject: RE: preceptorship course

Appendix 9

Outlook

RE: preceptorship course

From	hnawafleh <hnawafleh@jnc.gov.jo>
Date	Mon 7/17/2023 12:39 PM
To	aisha <aisha@JNC.GOV.JO>
Cc	Samah AbduLateif Mousa Buzieh <s.buzieh@student.aaup.edu>

Dear Aisha,
Kindly please provide all the assistance we can to help and facilitate her task.
Best regards
Hani Nawafleh

From: Samah AbduLateif Mousa Buzieh <s.buzieh@student.aaup.edu>
Sent: Sunday, July 16, 2023 11:17 PM
To: hnawafleh <hnawafleh@jnc.gov.jo>
Cc: Samah AbduLateif Mousa Buzieh <s.buzieh@student.aaup.edu>
Subject: preceptorship course

السلام عليكم ورحمة الله وبركاته

حضرة عطوفة الاستاذ الدكتور هاني النوافله المحترم

تحية طيبة وبعد،،،

انا طالبة دكتوراة في برنامج فلسفة التمريض من فلسطين ارجو التكرم من حضرتكم بالموافقة على مساعدتي في الحصول على برنامج
تدريب مدربي التمريض
(Preceptorship Course)

من أجل تحسين كفاءة المدربين السريريين في فلسطين
حيث اني اقوم بتحضير برنامج تدريبي في هذا الموضوع وعنوان رسالي للاطروحه هو:

My research Title: **The Effect of a Preceptorship Program on Clinical Instructors' Teaching
Competencies in Palestinian Governmental Hospitals: A Mixed-Methods Study**

لذا ارغب من حضرتكم الايعاز لمن يلزم بالمساعدة في الحصول على البرنامج حيث اني وجدت هذا البرنامج يقدم ضمن قائمة
من الانشطة المعتمدة في المجلس التمريضي الاردني وينفذ من قبل خمس مستشفيات

	اسم البرنامج / النشاط	نوع النشاط	الجهة التي تعقد النشاط (المكان)
1.	Preceptorship Course	وجاهي	مركز الحسين للسرطان
2.	Preceptorship Course	وجاهي	مستشفى العبدلي
3.	Preceptorship Course	وجاهي	مستشفى الملك المؤسس عبده الله الجامعي
4.	Preceptorship Course	وجاهي	مستشفى الاستقلال
5.	Preceptorship workshop	وجاهي	مستشفى الخالدي

وجزاكم الله خير الجزاء وبارك الله فيكم على وقتكم الثمين واهتمامكم

Appendix 10

تسهيل مهمة بحث لطالبة الدكتوراة سماح بوزية

Samah AbduLateif Mousa Buzieh <s.buzieh@student.aaup.edu>
Wed 5/29/2024 12:17 AM
To:scientificresearch.dep@gmail.com <scientificresearch.dep@gmail.com>
Cc:Samah AbduLateif Mousa Buzieh <s.buzieh@student.aaup.edu>;s.ishtieh@najah.edu <s.ishtieh@najah.edu>

السلام عليكم ورحمة الله
تحية طيبة وبعد،،،
لاحقا لما وصلكم من مكتب مدير عام الادارة العامة للتمريض الاستاذة نجاة دويكات من اجل تسهيل مهمة طالبة الدكتوراة سماح عبد اللطيف بوزية، فقد تم التواصل و اخذ موافقة السيد عماد زكي لمشاركة الممرضين المدربين لطلبة التمريض/البكالوريوس لحضور الورشة التدريبية للمدربين على مدار يومان بحيث يعتبر اليومان (ايام دراسية للمشاركين) واليوم الثالث له يكون من اجازة الممرضين المشاركين، بحيث سيتم التواصل مع الممرضين المدربين في مستشفيات الشمال (م. رفيديا وم.الوطني وم. الشهيد ياسر عرفات، وم. طوباس التركي، وم.ثابت ثابت طولكرم وم. جنين ودرويش نزال قلقيلية)
سيتم دعوة المجموعة الاولى من ممرضي مستشفيات نابلس رفيديا والوطني وسلفيت وطوباس لحضور الدورة التدريبية في قاعة مستشفى رفيديا حيث تم اعلام الاستاذ عماد زكي من اجل استخدام القاعة فارجو تسهيل المهمة لها وسيتم التواصل مع المجموعة الثانية من ممرضي مستشفيات جنين وطولكرم وقلقيلية للتنسيق وتحديد المكان المناسب لعمل الدورة والذهاب لجنين وطولكرم كل على حدة اذا لزم الامر.
فارجو من حضرتكم تسهيل اجراءات المهمة لامكانية البدء يوم السبت ان شاء الله تعالى بعقد الدورة واعلام المشاركين وتجهيز القاعة.

دمتم ودام عطائكم

وافر الشكر والاحترام

Ministry of Health
in Health and Scientific
Research Unit

وحدة التعليم الصحي
والبحث العلمي

عطوفة الوكيل المساعد لشؤون المستشفيات والطوارئ المحترم،،،
تحية واحتراماً،،،

الموضوع: تسهيل مهمة بحث دكتوراه

يرجى تسهيل مهمة الطالبة: سماح بوزيه – برنامج الدكتوراه في التمريض – الجامعة العربية الامريكية، بعنوان:
"The Effect of a Preceptorship Program on Clinical Instructors' Teaching Competencies in Palestinian Governmental Hospitals: A quasi-experimental Study "Pretest-Posttest "
حيث ستقوم الطالبة بعمل يومان تدريبيان للممرضين وتم التنسيق مع الأخ عماد زكي مدير دائرة التمريض في المستشفيات، وذلك في:
مستشفى رفيديا
مع العلم ان مشرفة الدراسة: د. محمد اسيا وبمسعود الكلالدة.
مع الاحترام،،،

د.ر. عبد الله القواسمي
رئيس وحدة التعليم الصحي والبحث العلمي

نسخة: مساعد العميد لشؤون الصحية المحترم/ الجامعة العربية الامريكية

Appendix 11

<div align="center">

الجامعة العربية الأمريكية

مجلس اخلاقيات البحث العلمي – رام الله

Arab American University

Institutional Review Board - Ramallah

نموذج الموافقة

</div>

AAUP-IRB-R Code No.: ………………………….

AAUP-IRB-R Date: …………………………….

أنا ……… ……………………………………………… .. ……. ……………………)اسم المشارك / اختياري)

أوافق بموجبه على المشاركة في البحث السريري)الدراسة السريرية / دراسة الاستبيان / تجربة الأدوية(المحددة أدناه: أثربرنامج التدريب على كفاءة المدربين السريريين في المستشفيات الحكومية الفلسطينية: دراسة شبه تجريبية...

……… ....لتحقيق درجة: الدكتوراة .....، في برنامج: …………… دكتوراة في التمريض/دراسات عليا ……… في الجامعة العربية الامريكية.

تم شرح وتفسير طبيعة الدراسة وهدفها عن طريق الباح ث: سماح بوزية……………………….

لقد تم إخباري عن طبيعة البحث من حيث المنهجية والآثار السلبية المحتملة والمضاعفات)حسب ورقة معلومات المشارك.)

بعد معرفة وفهم جميع المزايا والعيوب المحتملة لهذا البحث، أوافق طواعية بمحض إرادتي على المشاركة في البحث السريري المحدد أعلاه.

أفهم أنه يمكنني الانسحاب من هذا البحث في أي وقت دون إبداء أي سبب على الإطلاق.

التاريخ: ……………….…………..…………………...... إمضاء المشارك… :………………..……………

في حضور- :

اسم… … ………… : …………………………………….

التسمية / اللق ب: … ………………………………… إمضاء : ……………………………

(شاهد على توقيع المشارك)

أؤكد أنني أوضحت للمشارك طبيعة وهدف البحث المذكور أعلاه.

تاريخ: ………………… إمضاء… :…………………………………….

(الباحث)

<div align="center">

رام الله – فلسطين

</div>

Tel: 02-294-1999   **E-Email:** IRB-R@aaup.edu   **Website:** www.aaup.edu

Appendix 12

Questionnaire I: (CTCI)

Faculty Graduate Studies
PhD Program in Nursing
Questionnaire

The Effect of a Preceptorship Program on Clinical Instructors' Teaching Competencies in Palestinian Governmental Hospitals: A Quasi-experimental Study "Pretest-Posttest"

Dear Participant,

I am a PhD Student working on the effect of a Preceptorship Program on Clinical Instructors' Teaching Competencies in Palestinian Governmental Hospitals: A quasi-experimental Study. The following questionnaire is divided into two parts, Part one is seeking some of biographic information from the participants. Part two consists of 31 items for four domains, each focusing on different aspects including: student evaluation, goal setting and individual teaching strategies, and demonstration of organized knowledge. Answers will be kept confidential and anonymous, and the information gathered will be used solely for research purposes. It will take 15-20 minutes to complete the questionnaire.

تهدف هذه الدراسة البحثية لطالبة الدكتوراه إلى جمع معلومات حول معالجة أثر برنامج التدريب للمدرين الاكلينيكيين على الكفايات التدريسية التدريبية للمدرين السريرين في المستشفيات الحكومية الفلسطينية: دراسة شبه تجريبية. ينقسم الاستبيان إلى جزأين، الجزء الأول هو الملف التعريفي للمشاركين مثل البيانات الديموغرافية. ويتكون الجزء الثاني من 31 عنصرًا لأربع فئات فرعية تركز كل منها على جوانب مختلفة من العوامل: تقييم الطلاب، تحديد الأهداف والتدريس الفردي، استراتيجيات التدريس، وإظهار المعرفة المنظمة. ستبقى الإجابات سرية ومجهولة المصدر والهوية، وسيتم استخدام المعلومات التي تم جمعها لأغراض البحث فقط. سوف يستغرق إكمال الاستبيان من 15 إلى 20 دقيقة.

Sincerely,
Samah Buzieh
s.buzieh@student.aaup.edu
00970599034836

Part one: Demographical data

1. Age: ☐ 25-30 years ☐ 31-35 years ☐ 36-40 years ☐ 41 >41 years
2. Gender: ☐ Male ☐ Female
3. Marital status: ☐ Single ☐ Married ☐ Divorced ☐ Widow
4. Education level: ☐ Bachelor ☐ High Diploma ☐ Master
5. Place of work: _____
6. Type of Clinical Unit (The name of the department you work in) _____
7. The name of the university you are training at: _____
8. Nursing Students clinical level: ☐ Second year ☐ Third year ☐ Fourth year
9. The name of the course you currently training:
   ☐ i. Medical & Surgical I
   ☐ ii. Medical & Surgical II
   ☐ iii. Medical & Surgical III
   ☐ iv. Medical & Surgical IV
   ☐ v. Medical & Surgical V
   ☐ vi. Medical & Surgical VI (Advanced)
10. Work experience: ☐ 3 years ☐ 4-6 years ☐ 7-9 years ☐ > 10 years
11. Work experience as a clinical nursing instructor in years:
   ☐ One year ☐ Two year ☐ Three years ☐ Other, please specify: _____
12. Reasons for holding the position of clinical nursing preceptor/instructor:
   ☐ Given the position by managers ☐ Other reasons, specify: _____
13. Possessed registered nurse licenses: ☐ Yes ☐ No

14. Whether you previously participated in a training program: ☐ Yes ☐No

Part Two: Clinical Teaching Competence Inventory for Clinical Nursing Preceptors: Put a mark (√) in front of the appropriate choice that matches your opinion, and please choose the most appropriate answer based on the number that expresses what you think about the importance of whether this item is met or not in clinical training (from 1 = Incompletely met, to 5= Completely met).

ضع علامة (√) أمام الاختيار المناسب الذي يطابق يتوافق مع رأيك و يرجى اختيار الاجابه الأنسب بناء على الرقم الذي يعبر عن رأيك في أهمية استيفاء هذا البند أم لا في التدريب السريري (من 1 = لم يتم استيفاءه بالكامل، إلى 5 = تم استيفاءه بالكامل).

#	Items	Completely met (5)	Met (4)	Neutral (3)	Not met (2)	Incomplete ly met (1)
#1	**Student evaluation**	**Completely met (5)**	**Met (4)**	**Neutral (3)**	**Not met (2)**	**Incomplete ly met (1)**
1.	Giving students grades that truly reflect their efforts and performance منح الطلاب درجات تعكس حقيقة جهودهم وأدائهم					
2.	Responding positively to students' comments and suggestions about teaching performance الرد بإيجابية على تعليقات الطلاب ومقترحاتهم بشأنها أداء التدريس					
3.	Encouraging students to evaluate their own performance تشجيع الطلاب على تقييم أدائهم					
4.	Giving students positive feedback for good work إعطاء الطلاب تغذية راجعة إيجابية للعمل الجيد					
5.	Observing student performance in a proper manner مراقبة أداء الطلاب بطريقة سليمة					
6.	Evaluating students based on the objectives set at the beginning of internship تقييم الطلاب على أساس الأهداف المحددة في بداية التدريب الداخلي					
7.	Discussing with students the pros and cons and limitations of internship مناقشة إيجابيات وسلبيات وقيود التدريب مع الطلاب					
#1	**Student evaluation**	**Completely met (5)**	**Met (4)**	**Neutral (3)**	**Not met (2)**	**Incomplete ly met (1)**
8.	Asking students to evaluate the teaching performance of clinical nurse trainer مطالبة الطلاب بتقييم الأداء التدريسي لمدرب التمريض السريري					
9.	Evaluating student attitude, knowledge and skills properly تقييم موقف الطالب والمعرفة والمهارات بشكل صحيح					
#2	**Goal setting and individual teaching**	**Completely met (5)**	**Met (4)**	**Neutral (3)**	**Not met (2)**	**Incomplete ly met (1)**
10.	Setting goals and objectives based on students' expectations and levels of experience تحديد الأهداف والغايات بناءً على توقعات الطلاب ومستويات الخبرة					
11.	Addressing issues that students had not dealt with in previous internship experience معالجة المشكلات التي لم يتعامل معها الطلاب في السابق تجربة التدريب					

		Completely met (5)	Met (4)	Neutral (3)	Not met (2)	Incomplete ly met (1)
12.	Asking students to fulfill certain responsibilities in internship مطالبة الطلاب بالوفاء بمسؤوليات معينة في التدريب					
13.	Explaining the purpose and objectives of internship شرح غرض وأهداف التدريب					
14.	Expecting students to set their own goals for internship توقع أن يحدد الطلاب أهدافهم الخاصة للتدريب					
15.	Setting performance standard for individual student and adjusting teaching practice where necessary تحديد معايير الأداء للطالب الفردي وتعديل ممارسة التدريس عند الضرورة					
#2	**Goal setting and individual teaching**	Completely met (5)	Met (4)	Neutral (3)	Not met (2)	Incomplete ly met (1)
16.	Assigning students to a proper number of patients whose conditions can be reasonably handled by students تخصيص الطلاب لعدد مناسب من المرضى الذين حالاتهم يمكن التعامل معها بشكل معقول من قبل الطلاب					
17.	Planning the right kind of activities that would help students achieve their goals in internship تخطيط النوع المناسب من الأنشطة التي من شأنها أن تساعد الطلاب على إنجاز أهدافهم في التدريب					
18.	Inspiring students to do practical work إلهام الطالب للقيام بالأعمال العملية					
# 3	**Teaching strategies**	Completely met (5)	Met (4)	Neutral (3)	Not met (2)	Incomplete ly met (1)
19.	Having good relationships with patients وجود علاقة جيدة مع المرضى					
20.	Showing enthusiasm in providing patient care إظهار الحماس في تقديم الرعاية للمرضى					
21.	Providing good care to patients توفير الرعاية الجيدة للمرضى					
22.	Requiring students to respond to demo teaching مطالبة الطلاب بالاستجابة للتدريس التجريبي					
23.	Discussing practical applications of knowledge and skills مناقشة التطبيقات العملية للمعارف والمهارات					
24.	Leading students to analyze, evaluate, and interpret issues قيادة الطلاب إلى تحليل القضايا وتقييمها و تفسيرها					
# 3	**Teaching strategies**	Completely met (5)	Met (4)	Neutral (3)	Not met (2)	Incomplete ly met (1)
25.	Using the most up-to-date knowledge and techniques to take care of patients in need of special care استخدام أحدث المعارف والتقنيات للعناية بها المرضى الذين يحتاجون إلى رعاية خاصة					
26.	Remaining accessible to students in need of help					

		Completely met (5)	Met (4)	Neutral (3)	Not met (2)	Incomplete ly met (1)
	تبقى في متناول الطلاب الذين يحتاجون إلى المساعدة					
27.	Helping students locate relevant information and website resources مساعدة الطلاب على تحديد المعلومات ذات الصلة وموارد الموقع					
# 4	**Demonstration of organized knowledge**	**Completely met (5)**	**Met (4)**	**Neutral (3)**	**Not met (2)**	**Incomplete ly met (1)**
28.	Explaining the basis of actions and decision-making in patient management شرح أساس التصرفات واتخاذ القرار لدى إدارة المريض					
29.	Presenting information and key points in an organized way تقديم المعلومات والنقاط الرئيسية بطريقة منظمة					
30.	Answering questions clearly and accurately الإجابة على الأسئلة بوضوح ودقة					
31.	Possessing coordination and conflict-solving abilities يمتلك القدرة على التنسيق وحل المشكلات					

Thank you for your response

The researcher
Samah Buzieh
Ph.D Student in Nursing
s.buzieh@student.aaup.edu
00970599034836

Appendix 13

Questionnaires II: NCTEI (Researcher observation)

Faculty Graduate Studies
PhD Program in Nursing
Questionnaire

<div dir="rtl">

دراسة العلاقة بين خصائص المدرب الإكلينيكي وتصور طالب التمريض لتلك الخصائص و مدي تأثيرها علي التدريب الإكلينيكي

أولا: خصائص المدرب الإكلينيكي

التعليمات:

عزيزي الطالب/ة ...هذا الاستبيان *لتقييم المدرب الاكلينيكي* حيث انه يستفسر عما يتوافر لدي القائم علي التدريب الإكلينيكي من خصائص في مهارات التدريب والتدريس - الكفاءة التمريضية (المهارة العملية)– التقييم – العلاقة بين الأفراد- الصفات الشخصية وكذلك إلي أي درجة تعتقد أن النقاط التالية تعتبر نقاط قوة أو نقاط ضعف لدي القائم علي التدريب الإكلينيكي *(من هو المدرب الاكلينيكي المثالى من وجهة نظرك لرفع الكفاءة التمريضية)*

نرجو منك الاجابة على هذا الاستبيان علما بأن المعلومات التي سوف نحصل عليها منك سرية للغاية و ليس لأي شخص الحق في الاطلاع عليها سوي الباحث علما بأنه لن تكتب أي أسماء علي استمارة الاستبيان . لذا إن ملأ الاستبيان يعني موافقتك على الاشتراك في البحث.

ضع علامة (√) أمام الاختيار المناسب الذي يطابق رأيك و نرجو اختيار الاجابه الأنسب عند اختيار الرقم الذي **يعبر عما تعتقدة حول أهميه تلك الصفات** علي مدي تحصيلك في التدريب العملي.

1 = غير موجودة مطلقا (غير فعال) ------- 4= محايد --- 7 = دائما (فعال) هناك قدر كبير **من الأهمية**

</div>

7	6	5	4	3	2	1	**1. المهارات التدريسية / Teaching Behaviours**	
							يشرح المهارات التمريضية بوضوح. Explains clearly	1
							يؤكد علي النقاط الهامة الموجودة في المهارات التمريضية . Emphasizes what is important.	2
							يحفز و يشجع الطلاب علي الاهتمام بموضوع ما. Stimulates student interest in the subject.	3
							التواجد المستمر مع الطلاب و خاصة وقت الحاجة له. Remains accessible to students.	4
							أداء الأنشطة التمريضية بكفاءة أثناء التدريب العملي. Demonstrates clinical procedures and techniques.	5
							يوجه الطلاب إلي كيفية تطوير المهارات الخاصة بالأنشطة التمريضية. Guides students' development of clinical skills.	6
							يوفر فرص ممارسة المهارات الخاصة بالأنشطة التمريضيه في التدريب العملي. Provides specific practice opportunity.	7
							مساعدة الطلاب علي حل المشاكل التي تعوق التدريب العملي. Offers special help when difficulties arise.	8
							مهيأ و معد جيدا للتدريس / **لديه القدرة الفعالة في التدريس.** Is well prepared for teaching.	9
							يستمتع بالتدريس. Enjoys teaching.	10
							يشجع و يدير الحلقات النقاشية بفاعليه و طلاقه. Encourages active participation in discussion.	11
							يوصل المعلومات إلي الطلاب بطريقة مبسطه ومناسبة لمستوى استعداد الطلاب. Gears instruction to students' level of readiness.	12

199

7	6	5	4	3	2	1		
							يفهم و يدرك بسرعة عما يسأل الطلاب أو يقولون – سريع البديهة. Quickly grasps what students are asking or telling.	13
							يجيب بعناية وبدقة عن الأسئلة التي أثارها الطلاب. Answers carefully and precisely questions raised by students.	14
							يعرض و يناقش الأساس المنطقي أو السبب الكامن للحصول علي تفسير منطقي لكيفية أداء المهارات التمريضية. Questions students to elicit underlying reasoning.	15
							يساعد الطلاب على تنظيم أفكارهم حول مشاكل المريض. Helps students organize their thoughts about patient problems.	16
							يشجع الطلاب علي اعتمادهم علي أنفسهم لزيادة وعيهم مما يسهل من مسؤوليتهم المهنيه. Promotes student independence.	17
7	6	5	4	3	2	1	**2. كفاءة التمريض / المهارة العملية / Nursing Competence**	
							المحافظة على أداء الأنشطة التمريضية بصورة جيدة. Demonstrates clinical skill and judgment.	18
							يمارس مهارات الاتصال الفعالة. Demonstrates communication skills.	19
							واسع القراءة في الموضوعات و خاصة ذات الصلة بالتدريب العملي. Reveals broad reading in his/her area of interest.	20
							المبادرة والإبداع في تطوير الأداء في التدريب العملي. Discusses current development in his/her field.	21
							يرشد الطلاب إلى المراجع المفيدة في مجال التمريض . Directs students to useful literature in nursing.	22
							التمكن من المعلومات العلمية في مجال التمريض و تطبيق المعرفة النظرية في ممارسة الأنشطة التمريضية. Demonstrates a breadth of knowledge in nursing.	23
							يدرك و يعترف بالقصور الموجود لديه. Recognizes own limitations.	24
							لديه القدرة على القيادة والتصرف في الأزمات و المواقف المختلفة. Takes responsibility of own actions.	25
							يعد قدوة جيده للطلاب بالتدريب العملي. Is a good role model.	26
7	6	5	4	3	2	1	**3. تقييم: Evaluation**	
							يقدم اقتراحات محددة لتحسين أداء الطلاب . Makes specific suggestions for improvement.	27
							الملاحظة و التعليق باستمرار على أداء الطلاب. Provides frequent feedback on students' performance.	28
							يتناقش بطريقة موضوعية في نقاط القوة والضعف لدي الطلاب Identifies students' strengths and limitations objectively	29
							يلاحظ أداء الطلاب في كثير من الأحيان. Observes students' performance frequently.	30
							يتحاور مع الطلاب في توقعاتهم. Communicates expectations of students.	31
							الملاحظة و التعليق الايجابي علي أداء الطلاب. Gives students positive reinforcement for good contributions, observations or performance	32
							يصحح أخطاء الطلاب دون التقليل منهم . Corrects students' mistakes without belittling them.	33
							لا ينتقد الطلاب أمام الآخرين. Does not criticize students in front of others.	34
7	6	5	4	3	2	1	**4. العلاقات بين الأفراد (الطلاب – زملانه- فريق العمل-.......): Interpersonal Relations**	
							يوفر الدعم والتشجيع للطلاب . Provides support and encouragement to students	35
							ودود و يخلق مناخ مناسب لتعاون الطلاب مع أعضاء فريق الرعاية الصحية.	36

7	6	5	4	3	2	1		
							Is approachable	
							يهيئ و يشجع علي مناخ من الاحترام المتبادل. Encourages a climate of mutual respect	37
							يستمع بانتباه إلي أراء و توقعات الطلاب في التدريب العملي. Listens attentively	38
							يبين اهتمامه الشخصي بالطلاب. Shows a personal interest in students	39
							يظهر التعاطف تجاه الطلاب. Demonstrates empathy	40

7	6	5	4	3	2	1	5. الصفات الشخصية : / Personality	
							يبين الحماس في التدريب العملي. Demonstrates enthusiasm	41
							هو شخص ملئ بالدينامكية والحيوية. Is a dynamic and energetic person	42
							لديه الثقة بالنفس . Self -confidence	43
							يقبل النقد و التوجيه من الآخرين لنفسه. Is self-critical	44
							هو متفتح و موضوعي مع ضبط النفس و الصبر. Is open-minded and non-judgmental	45
							لديه شعور جيد من المرح و الدعابة. Has a good sense of humour	46
							يبدو منظم في أداء عمله. Appeasers [Appears] organized	47

7	6	5	4	3	2	1	صفات أخري	
							يوضح مهام الطالب أثناء التدريب الإكلينيكي وأساليب التقييم، توزيع الدرجات . It explains the student's tasks during clinical training, evaluation methods, and grade distribution.	48
							يشجع الطلاب لبذل قصارى جهدهم لإتمام المهام التمريضية في الوقت المناسب مع تقدير الوقت اللازم تقديرا صحيحا. Students are encouraged to do their best to complete nursing tasks in a timely manner while correctly estimating the time needed.	49
							يتصف بالصبر و ضبط النفس. He is characterized by patience and self-control.	50
							يتصف بالعدل و الموضوعيه اثناء التقييم He is characterized by fairness and objectivity during evaluation.	51

- **يرجى تقييم جودة المدرب الإكلينيكي في التدريب الإكلينيكي الحالي. (من سيئ جدا الى ممتاز).**

10   9   8   7   6   5   4   3   2   1

شكرا لحسن تعاونكم معنا

الباحثة: سماح عبداللطيف بوزية اشتية

s.buzieh@student.aaup.edu

+970599034836

Appendix 14

Questionnaires III: NCTEI (Students)

Faculty Graduate Studies
PhD Program in Nursing
Students Questionnaire

<u>**دراسة العلاقة بين خصائص المدرب الإكلينيكي وتصور طالب التمريض لتلك الخصائص و مدى تأثيرها على التدريب الإكلينيكي**</u>

تهدف هذه الدراسة البحثية لطالبة الدكتوراه سماح بوزية إلى جمع معلومات حول خصائص المدرب الاكلينيكي السريري في المستشفيات الحكومية الفلسطينية

عزيزي الطالب/ة ...هذا الاستبيان<u>*لتقييم المدرب الاكلينيكي*</u> حيث انه يستفسر عما يتوافر لدي القائم علي التدريب الإكلينيكي الذي يدربك حاليا من خصائص في مهارات التدريب والتدريس - الكفاءة التمريضية (المهارة العملية)– التقييم – العلاقة بين الأفراد- الصفات الشخصية وكذلك إلي أي درجة تعتقد أن النقاط التالية تعتبر نقاط قوة أو نقاط ضعف لدي القائم علي التدريب الإكلينيكي

<u>*(ماهي خصائص المدرب الاكلينيكي الذي دربك من وجهة نظرك؟)*</u>

نرجو منك الاجابة على هذا الاستبيان علما بأن المعلومات التي سوف نحصل عليها منك سرية للغاية و ليس لأي شخص الحق في الاطلاع عليها سوي الباحث علما بأنه لن تكتب أي أسماء علي استمارة الاستبيان . لذا <u>إن ملأ الاستبيان يعني موافقتك على الاشتراك في البحث.</u>

<u>ضع علامة (√)</u> أمام الاختيار المناسب الذي يطابق رأيك و نرجو اختيار الاجابه الأنسب عند الرقم الذي **يعبر عما تعتقدة حول أهميه تلك الصفات علي مدي تحصيلك في التدريب العملي .**

1 = غير موجودة مطلقا (غير فعال)
2 = غير موجودة (غير فعال)
3 = غير موجودة احيانا (غير فعال)
4 = محايد
5 = موجود قليلا في بعض الاحيان (فعال)
6 = موجود احيانا (فعال)
7 = موجود دائما (فعال) هناك قدر كبير من الأهمية

أنا ....(اسم المشارك / اختياري) أوافق بموجبه على المشاركة في البحث السريري (دراسة الاستبيان) المحددة أدناه:

<u>**دراسة العلاقة بين خصائص المدرب الإكلينيكي وتصور طالب التمريض لتلك الخصائص و مدى تأثيرها على التدريب الإكلينيكي**</u>   لمعرفة الكفايات والكفاءات التدريسية التدريبية للمدربين السريريين في المستشفيات الحكومية الفلسطينية ......لتحقيق درجة: الدكتوراة .....، في برنامج :دكتوراة في التمريض/دراسات عليا في الجامعة العربية الامريكية.

لقد تم إخباري عن طبيعة البحث من حيث المنهجية والآثار السلبية المحتملة والمضاعفات (حسب ورقة معلومات المشارك).بعد معرفة وفهم جميع المزايا والعيوب المحتملة لهذا البحث، أوافق طواعية بمحض إرادتي على المشاركة في البحث السريري المحدد أعلاه.أفهم أنه يمكنني الانسحاب من هذا البحث في أي وقت دون إبداء أي سبب على الإطلاق.

التاريخ: .... إمضاء المشارك................................ :

➢ **الجامعة التي تدرس فيها**

☐ جامعة النجاح الوطنية

☐ الجامعة العربية الامريكية

☐ جامعة بير زيت

□ جامعة نابلس للتعليم المهني والتقني (كلية ابن سينا للمهن الصحية)

□ كلية الروضة الجامعية

□ جامعة الزيتونه للعلوم والتكنولوجيا ـ سلفيت

□ غير ذلك / حدد ــ

➢ **الجنس:**   □ ذكر   □ أنثى

➢ **العمر:**   □ 20-24   □ 25-29   □ 30 <   □ 20 >

مكان السكن: □ مدينة   □ قرية / بلدة   □ مخيم

مكان التدريب / المستشفى: ــــــــــــــــــــــــ

السنة الدراسية: □ سنة ثانية   □ سنة ثالثة   □ سنة رابعة

مساق التدريس:

The name of the course you are currently training:
i.   Medical & Surgical I
ii.   Medical & Surgical II
iii.   Medical & Surgical III
iv.   Medical & Surgical IV
v.   Medical & Surgical V
vi.   Medical & Surgical VI (Advanced)

7	6	5	4	3	2	1	**المهارات التدريسية / Teaching Behaviours** .2	
							يشرح المهارات التمريضية بوضوح. Explains clearly	1
							يؤكد علي النقاط الهامة الموجودة في المهارات التمريضية . Emphasizes what is important.	2
							يحفز و يشجع الطلاب علي الاهتمام بموضوع ما. Stimulates student interest in the subject.	3
							التواجد المستمر مع الطلاب و خاصة وقت الحاجة له. Remains accessible to students.	4
							أداء الأنشطة التمريضية بكفاءة أثناء التدريب العملي. Demonstrates clinical procedures and techniques.	5
							يوجه الطلاب إلي كيفية تطوير المهارات الخاصة بالأنشطة التمريضية. Guides students' development of clinical skills.	6
							يوفر فرص ممارسة المهارات الخاصة بالأنشطة التمريضيه في التدريب العملي. Provides specific practice opportunity.	7
							مساعدة الطلاب علي حل المشاكل التي تعوق التدريب العملي. Offers special help when difficulties arise.	8
							مهيأ و معد جيدا للتدريس / **لديه القدرة الفعالة في التدريس.** Is well prepared for teaching.	9
							يستمتع بالتدريس. Enjoys teaching.	10
							يشجع و يدير الحلقات النقاشية بفاعليه و طلاقه. Encourages active participation in discussion.	11
							يوصل المعلومات إلي الطلاب بطريقه مبسطه ومناسبة لمستوى استعداد الطلاب. Gears instruction to students' level of readiness.	12
							يفهم و يدرك بسرعة عما يسأل الطلاب أو يقولون ـ سريع البديهة. Quickly grasps what students are asking or telling.	13

7	6	5	4	3	2	1		
							يجيب بعناية وبدقة عن الأسئلة التي أثارها الطلاب. Answers carefully and precisely questions raised by students.	14
							يعرض و يناقش الأساس المنطقي أو السبب الكامن للحصول علي تفسير منطقي لكيفية أداء المهارات التمريضية. Questions students to elicit underlying reasoning.	15
							يساعد الطلاب على تنظيم أفكارهم حول مشاكل المريض. Helps students organize their thoughts about patient problems.	16
							يشجع الطلاب علي اعتمادهم علي أنفسهم لزيادة وعيهم مما يسهل من مسؤوليتهم المهنيه. Promotes student independence.	17
7	**6**	**5**	**4**	**3**	**2**	**1**	**2. كفاءة التمريض / المهارة العملية / Nursing Competence**	
							المحافظة على أداء الأنشطة التمريضية بصورة جيدة. Demonstrates clinical skill and judgment.	18
							يمارس مهارات الاتصال الفعالة. Demonstrates communication skills.	19
							واسع القراءة في الموضوعات و خاصة ذات الصلة بالتدريب العملي. Reveals broad reading in his/her area of interest.	20
							المبادرة والإبداع في تطوير الأداء في التدريب العملي. Discusses current development in his/her field.	21
							يرشد الطلاب إلى المراجع المفيدة في مجال التمريض . Directs students to useful literature in nursing.	22
							التمكن من المعلومات العلمية في مجال التمريض و تطبيق المعرفة النظرية في ممارسة الأنشطة التمريضية. Demonstrates a breadth of knowledge in nursing.	23
							يدرك و يعترف بالقصور الموجود لديه. Recognizes own limitations.	24
							لديه القدرة على القيادة والتصرف في الأزمات و المواقف المختلفة. Takes responsibility of own actions.	25
							يعد قدوة جيده للطلاب بالتدريب العملي. Is a good role model.	26
7	**6**	**5**	**4**	**3**	**2**	**1**	**3. تقييم: Evaluation**	
							يقدم اقتراحات محددة لتحسين أداء الطلاب . Makes specific suggestions for improvement.	27
							الملاحظة و التعليق باستمرار على أداء الطلاب. Provides frequent feedback on students' performance.	28
							يتناقش بطريقة موضوعية في نقاط القوة والضعف لدي الطلاب Identifies students' strengths and limitations objectively	29
							يلاحظ أداء الطلاب في كثير من الأحيان. Observes students' performance frequently.	30
							يتحاور مع الطلاب في توقعاتهم. Communicates expectations of students.	31
							الملاحظة و التعليق الايجابي علي أداء الطلاب. Gives students positive reinforcement for good contributions, observations or performance	32
							يصحح أخطاء الطلاب دون التقليل منهم . Corrects students' mistakes without belittling them.	33
							لا ينتقد الطلاب أمام الآخرين. Does not criticize students in front of others.	34
7	**6**	**5**	**4**	**3**	**2**	**1**	**6. العلاقات بين الأفراد (الطلاب – زملائه- فريق العمل-.......):** **Interpersonal Relations**	
							يوفر الدعم والتشجيع للطلاب . Provides support and encouragement to students	35
							ودود و يخلق مناخ مناسب لتعاون الطلاب مع أعضاء فريق الرعاية الصحية. Is approachable	36
							يهيئ و يشجع علي مناخ من الاحترام المتبادل. Encourages a climate of mutual respect	37
							يستمع بانتباه إلي أراء و توقعات الطلاب في التدريب العملي. Listens attentively	38
							يبين اهتمامه الشخصي بالطلاب. Shows a personal interest in students	39
							يظهر التعاطف تجاه الطلاب. Demonstrates empathy	40

7	6	5	4	3	2	1	Personality / الصفات الشخصية : 7.	
							يبين الحماس في التدريب العملي. Demonstrates enthusiasm	41
							هو شخص ملئ بالديناميكية والحيوية. Is a dynamic and energetic person	42
							لديه الثقة بالنفس . Self -confidence	43
							يقبّل النقد و التوجيه من الآخرين لنفسه. Is self-critical	44
							هو متفتح و موضوعي مع ضبط النفس و الصبر. Is open-minded and non-judgmental	45
							لديه شعور جيد من المرح و الدعابة. Has a good sense of humour	46
							يبدو منظم في أداء عمله. Appeasers [Appears] organized	47
7	6	5	4	3	2	1	صفات أخرى	
							يوضح مهام الطالب أثناء التدريب الإكلينيكي وأساليب التقييم، توزيع الدرجات . It explains the student's tasks during clinical training, evaluation methods, and grade distribution.	48
							يشجع الطلاب لبذل قصارى جهدهم لإتمام المهام التمريضية في الوقت المناسب مع تقدير الوقت اللازم تقديرا صحيحا. Students are encouraged to do their best to complete nursing tasks in a timely manner while correctly estimating the time needed.	49
							يتصف بالصبر و ضبط النفس. He is characterized by patience and self-control.	50
							يتصف بالعدل و الموضوعيه اثناء التقييم He is characterized by fairness and objectivity during evaluation.	51

- يرجى تقيم جودة المدرب الإكلينيكي في التدريب الإكلينيكي الحالي. (من سيئ جدا الى ممتاز).

10   9   8   7   6   5   4   3   2   1

- حدد أفضل نسبة من وجه نظرك بين عدد الطلبة لكل مدرب إكلينيكي.
  - □ 4 طلاب لكل مدرب
  - □ 5 طلاب لكل مدرب
  - □ 6 طلاب لكل مدرب
  - □ 7 طلاب لكل مدرب

شكرا لحسن تعاونكم معنا

الباحثة: سماح عبداللطيف بوزية اشتية
s.buzieh@student.aaup.edu
+970599034836

Appendix 15

Faculty Graduate Studies
PhD Program in Nursing

Preceptorship Program on Clinical Instructors' Teaching Competencies in Palestine (Workshop-Course)

The contents of the First day:

	Content Outline	Learning Activities	Time	
1.	Introduction: Revision of definitions	1. Review definitions 2. Lecture/ Discussion	30 min	9:00-9:30
2.	Roles & Responsibilities of preceptor and preceptee	1. Lecture /Discussion	30 min	9:30-10:00
3.	Benefits of Preceptorship	1. Lecture/ Discussion	30 min	10:00-10:30
4.	Competencies of Preceptor	1. Lecture /Discussion	30 min	10:30-11:00
	Break		15 min	11:00-11:15

The contents of the First & Second days:

	Content Outline	Learning Activities	Time	
5.	Adult learning principles	1. Lecture & discussion: How can I use adult learning principles	30 min	11:15-11:45
6.	Learning theories: - Behaviorism - Cognitivism	1. Lecture & discussion	30 min	11:45-12:15
7.	Learning Style (Kolb 's model)	1. Identify your own learning style with reference to Kolb model Ex. 2.1 2. Group discussion	30 min	12:15-12:45
8.	Objectives: definitions, categories, types, components and formulation of objectives	1. Brainstorm the definition of learning objectives 2. Writing objectives Ex. 2.2	30 min	12:45-01:15
9.	Teaching techniques & Teaching methods	1. Discussion 2. Group work	30 min	01:15-01:45
	Break		30 min	01:45-02:15

The contents of the Second & Third day:

	Content Outline	Learning Activities	Time	
1.	Characteristics of the learning environment according to: - English National Board - Jordanian Nursing Council Standards	Group Discussion Scenario 1	30 min	9:00-9:30
2.	Characteristics of effective Preceptor	1. Two role Play: Effective Preceptor VS ineffective Preceptor	30 min	9:30-10:00
3.	Competence learning in clinical environment.	1. Lecture 2. Discussion	30 min	10:00-10:30

	- Definition, Steps of teaching competencies, Levels of competencies, Competence Learning Stages, Indicators that the preceptee is learning in the clinical setting.	Scenario 3		
4.	Strategies to maximize the integration of the preceptee into the clinical environment: The Preceptor/Preceptee Relationship, Communication, Conflict Resolution, Decision Making, Critical Thinking, and Reflection	1.Group Discussion 2.Lecture 3.Article Discussion 4.Reflection Exercise Scenario 2 Scenario 4	30 min	10:30-11:00
	Break		15 min	11:00-11:15

	Content Outline	Learning Activities	Time	
1.	Introduction - Definition of Evaluation - Purposes - Main types of Evaluation	Group Discussion Lecture/Discussion	30 min	11:15-11:45
2.	Five basic level of evaluation according to (Roberta Straessel Abrozzese model)	Lecture/Discussion Scenario 5	30 min	11:45-12:15
	Break		15 min	12:15-12:30
3.	Evaluation Methodologies according to educational objectives and domains	Lecture/Discussion	30 min	12:30-01:00
4.	Consequences of evaluation for (student, teacher, program, and institute)	Group Discussion Lecture/Discussion	30 min	01:00-01:30
5.	Evaluation this course program		10 min	01:30-01:40
6.	Post test		30 min	01:40-02:15
	Break		30	02:15-02:45

Prepare by the researcher

Samah Buzieh, PhD. Candidate
s.buzieh@student.aaup.edu
00970599034836

Appendix 16

Preceptorship Training Program

The overall goal:

Providing participants with the necessary knowledge of the characteristics of professions, especially the nursing profession (Al-Momani et al., 2005), and the necessary skills that enable participants to work on training students and graduate them with the required level of knowledge and skill that will make them competent as professionals and nurses in the future.

Note: *I have to ask preceptors preparing each session's materials before attending it to enable discussion instead of classical lecturing.*

Module 1 – Foundation of Preceptorship

Goal: The goal of this module is to introduce the participant to the roles and responsibilities of the preceptor (clinical instructor) and preceptee.

Learning Objectives:

At the completion of this module, the participant will be able to:

1. Discuss the overall program goal and objectives

2. Define the terms related to preceptor and preceptee

3. Identify the Roles and Responsibilities of Preceptor, Preceptee, and Faculty

4. Discuss the benefit of Preceptorship program

5. Discuss required competencies for successful preceptor

The contents of this First day:

	Content Outline	Learning Activities	Time	
	Introduction: Revision of definitions	1. Review definitions 2. Lecture/ Discussion	30 min	9:00-9:30
	Roles & Responsibilities of preceptor and preceptee	1. Lecture /Discussion	30 min	9:30-10:00
	Benefits of Preceptorship	1. Lecture/ Discussion	30 min	10:00-10:30
	Competencies of Preceptor	1. Lecture /Discussion	30 min	10:30-11:00
	Break		15 min	11:00-11:15

Introduction

1. Definitions

Nursing: "Nursing is an active, interpersonal, professional practice that seeks to improve the health status of individuals. Nursing's focus is person-centered and communicates a caring intent. Caring and compassion are demonstrated through nursing intervention. Nursing is a professional practice based on scientific knowledge and is delivered in an artful manner" (DeLaune, et al., 2023).

> "Nursing is the protection, promotion, and optimization of health and abilities, prevention of illness and injury, alleviation of suffering through the diagnosis and treatment of human response, and advocacy in the care of individuals, families, communities, and populations." (The ANA's Nursing's Social Policy Statement (2003) and Nursing Scope and Standards of Practice (2004)).

Preceptorship is an effective strategy that facilitates clinical practice learning in healthcare professions such as nursing (Rambod, et al., 2018). Nursing preceptorship programs are known to be effective and efficient methods for orienting nurses and supporting learning opportunities (Alsolami, et al., 2023). It is the act of providing clinical knowledge to nursing students through supervision, monitoring, and teaching of clinical and professional skills (Akpor et al., 2023).

> "a frequently employed teaching and learning method using nurses as clinical
>
> role model. It is a formal, one-to-one relationship of pre-determined length, between an
>
> experienced nurse(preceptor) and a novice (preceptee) designed to assist the novice in
>
> successfully adjusting to and performing a new role" (Canadian Nurses Association (CNA), 1995, p. 3).

A preceptor as "an individual who guides, assesses, and validates the knowledge, skills, and attitudes required to transition to an unfamiliar role, specialty, or environment in the health care setting" (Harper et al., 2023). **A preceptor** is an experienced nurse, who is formally assigned for a fixed period of time to provide transitional support to a new nurse, students, and a nurse in new role or setting and has an instructor's qualities (teaches, supervises, and role modeling). Preceptor used "when the students were supervised by a somebody other than a faculty member from their school, for example, a registered nurse in the clinical setting" (Alamoush, 2023). Registered nurses in the inpatient department who have more than 2 years of clinical experience and identify as preceptor who's attending the training program.

> **A preceptee** is a new nurse, a student, and a nurse in new role or setting who engaged in the learning role of the nurse from experienced preceptors (Kaviani and Stillwell, 2000) and "new graduate

registered nurses during their first year of hire" (Alsolami, et al., 2023).

Mentoring "involves a voluntary, mutually beneficial and usually long-term professional

relationship. In this relationship, one person is an experienced and knowledgeable leader

(mentor), who supports the maturation of a less-experienced person with leadership potential

(mentee)" (CAN, 1995, p. 5). Monitoring of instructors' performance with students and monitoring students'

clinical training (Elkhateeb, 2020).

Mentoring is dynamic, non-competitive, nurturing relationship that promotes independence,

autonomy, and self-actualization (Taylor, 2004).

Competency: "Nursing competency is a core ability that is required for fulfilling nursing responsibilities"

(Fukada, 2018). The American Nurses Association defines competency as "an expected and measurable level of

nursing performance that integrates knowledge, skills, abilities, and judgment based on established scientific

knowledge and expectations for nursing practice (Bell, 2020, ANA, 2015).

Nursing competency can be divided into the three theories: "behaviorism, trait theory, and holism.

Behaviorism refers to competency as an ability to perform individual core skills, and is evaluated by

demonstration of those skills. Trait theory considers competency as individual traits necessary for effectively

performing duties (knowledge, critical thinking skills, etc.). Holism views competency as a cluster of elements,

including knowledge, skills, attitudes, thinking ability and values that are required in certain contexts" (Fukada,

2018).

Nursing professionalism: is a "commitment to a profession and professional identity level". Health-care

workers demonstrate professionalism through attitudes, knowledge, and behaviours, which reflect approaches to

the regulations, principles, and standards underlying successful clinical practices. Nursing professionalism

reflects the value orientation, concepts of nursing, work attitude and standards of clinical nurses. Nursing

professionalism defined as multidimensional, dynamic, and culture oriented (Cao, et al., 2023). Moreover, de

Klerk, et al., (2023) also defined professionalism as 'the enrolled nurse's competency to display behaviour that is

expected within the environment'. This highlighted by study conducted by Coutts, & Barber, (2023) were

indicated to in a clinical setting, students could learn how to conduct themselves professionally around their

peers. For this reason, this paradigm encourages the growth of professionalism via clinical experience which

concentrate in encouragement of the colleagues, peer assessments, and support from collective nature of

profession (Preceptor Training Manual, 2014).

2. Roles and Responsibilities of Preceptor &Preceptee:

As listed "Preceptorship Framework for Nursing, Midwifery and Specialist community/ Public Health Nursing in Northern Ireland, 2013" (Rice, et al., 2013).

The preceptor guides the student's clinical learning experience, facilitates student autonomy, and acts as a role model.

➢ **Preceptor**

The role and responsibility of the preceptor is to facilitate the Preceptorship process by:

• demonstrating an adherence to codes of professional practice.

• supporting orientation and induction to the workplace.

• providing an overview of the Preceptorship process and documentation.

• monitoring and provide feedback to support the preceptee in the completion of his/her Preceptorship portfolio.

• supporting learning and development in line with requirements of the role and, where relevant, knowledge, skill, framework (KSF) post outline and the development of an action plan to meet learning needs, including teaching/coaching/experiential learning sessions.

• using models of reflection to promote self-development.

• at specific review points during the Preceptorship period, reflect with the preceptee on his/her progress, noting any concerns and provide feedback to the line manager.

• acting as a role model for the preceptee.

• Completing the Preceptorship process documentation as per the organization's policies.

➢ **Preceptee**

The role and responsibility of the preceptee is to participate actively in the preceptorship process and:

• demonstrate adherence to codes of professional practice.

• take ownership of the preceptorship process and be proactive in completion of the objectives.

• liaise with the line manager to ensure that working arrangements (off duty) (clinical program).

• facilitate the preceptee and preceptor to meet regularly, to review progress and identify development needs.

• attend and actively engage in agreed meetings (Conference meeting during clinical training).

• reflect with the preceptor on his/her progress at review meetings, including discussing any concerns about progress through the preceptorship process.

• maintain and update all relevant documentation including preceptorship portfolio.

• ensure that relevant preceptorship process documents are forwarded to line manager and that a copy is retained for personal records.

• raise any areas of concern about the process with line manager or other relevant person.

3. Benefits of Preceptorship

The institution, preceptor and preceptee, and the profession are all benefit from the

Preceptorship program. A summary of the program outcome is listed below (CNA, 2004; Phillips, 2016; Sutcliffe, 2020):

Profession	Institution
• Improved support for new graduates • Competencies required for safe practice • Programs to assist nurses to maintain competence and to acquire new competencies • Increased number of nurses with leadership and teaching skills • Improved retention of nurses • Reduced need to recruit and educate nurses	• Decreased cost of care • Increased recruitment of new nurses • Increased retention of those already in the workforce • the preceptor feels prepared to perform the role's duties efficiently and effectively • Improved outcomes for patients • Increasing institutional loyalty • Increase productivity
Preceptor	**Preceptee**
• Increased job satisfaction • Less burnout • Improve self-esteem • Increase self-awareness of being role model	• Enhanced job satisfaction • Decreased stress • Significant personal growth • Increased confidence • Attainment of new attitude, knowledge and skills (competencies)

4. Preceptor Competencies (Moran, et al., 2023; Huang, et al., 2022; Bartlett, et al., 2020)
• Collaborates with preceptee, manager, partners, colleagues, other preceptors, and other health care team members

• Demonstrates enthusiasm and interest in preceptoring

• Has effective communication, effective conflict resolution skills

• Has effective skills of: Leadership, critical thinking, decision making and problem solving

• Fosters a positive learning environment

• Adapts to change and integrates preceptee into the social culture of the institution

• Practices autonomously and consistently in accordance with the relevant nursing standards established by appropriate regulatory body or the Code of Ethics

• Works toward meeting the current national/international standards of practice

• Is knowledgeable of the basic content of the institution (mission, vision, philosophy, physical environment, policies and procedures, forms, documents, learning resources).

• Demonstrates the role of the nurse within the multidisciplinary team

• Has Ability to supervise and evaluate

• Displays commitment to nurses and to the nursing profession

• Demonstrates strong knowledge, judgment, skill and caring in their domain of practice

• Actively expands knowledge base using research evidence and remains current with latest thinking and best practices in area of expertise

• Uses an ethical framework to guide professional practice and interpersonal relationships

Module 2- Principles of Teaching (First and Second day)
Goal: the goal of this model is to provide participants with knowledge, skills, and attitude that are essential in creating and maintaining a learning environment most conducive to meeting preceptee needs.

Learning objectives:

At the completion of this module, the participant will be able to:

1. Explain adult learning principles

2. List and analyze adults learning principles

3. Distinguish between cognitive and behavioral theory

4. Describe the characteristics of four learning styles according to David Kolb

5. Identify the three types of educational objectives.

6. Describe the components of learning objectives.

7. Formulate learning objectives according to objectives categories.

8. Describe the characteristics of an effective teaching method

9. Discuss factors to be considered when selecting a teaching method

10. Describe the advantages and disadvantages of the teaching method

Content Outline	Learning Activities	Time

	Adult learning principles	1. Lecture & discussion: How can I use adult learning principles	30 min	11:15-11:45
	Learning theories: - Behaviorism - Cognitivism	1. Lecture & discussion	30 min	11:45-12:15
	Learning Style (Kolb 's model)	1. Identify your own learning style with reference to Kolb model Ex. 2.1 2. Group discussion	30 min	12:15-12:45
	Objectives: definitions, categories, types, components and formulation of objectives	1. Brainstorm the definition of learning objectives 2. Writing objectives Ex. 2.2	30 min	12:45-01:15
	Teaching techniques & Teaching methods	1. Discussion 2. Group work	30 min	01:15-01:45
	Break		30 min	01:45-02:15

1.Adult learning principles

Knowles identified the six principles of adult learning outlined below.

1. Adults are internally motivated and self-directed

2. Adults bring life experiences and knowledge to learning experiences

3. Adults are goal oriented

4. Adults are relevancy oriented

5. Adults are practical

6. Adult learners like to be respected

Discuss: How can I use adult learning principles to facilitate student learning on placement?

2. Learning theories

❖ **Behaviorism**

John Watson is credited with coining the word "behaviorism" (1878–1958). Watson said that psychology should concentrate on measurable behaviors and that it was not scientific to theorize thoughts, intentions, or other subjective experiences. According to behaviorism, learning is the process of developing a new behavior via conditioning (Chaudhary, 2013; Hansen & Jordan, 2020; Watson, 2017). Under behaviorism, responses that are reinforced are more likely to occur again in the future because behaviorism emphasizes the significance of the

outcomes of those performances. There is little effort made to ascertain the cognitive processes that students must employ or the organization of their information (Chaudhary, 2013; Hansen & Jordan, 2020; Watson, 2017).

There are two types of conditioning:

1. Classical conditioning, where the behavior becomes a reflex response to the stimulus.

2. Operant conditioning, where there is reinforcement of the behavior by a reward or a Punishment (Chaudhary, 2013).

Classical conditioning was first observed by Ivan Pavlov when he noticed that dogs will produce saliva even in the absence of food scent or sight when they learned to associate meal delivery with a white lab coat or the ringing of a bell. According to classical conditioning, this type of learning occurs in both humans and dogs. This behavior is reinforced with a reward or a penalty (a punishment) by radical behaviorism, also known as operant conditioning. The possibility of the behavior reoccurring is increased by a reward and decreased by a penalty (Chaudhary, 2013; Hansen & Jordan, 2020; Watson, 2017).

"Behaviorists view the learning process as a change in behavior and will arrange the environment to elicit desired responses through such devices as behavioral objectives, Competency-based learning, and skill development and training. Educational approaches such as applied behavior analysis, curriculum-based measurement, and direct instruction have emerged from this model" (Chaudhary, 2013; Ertmer, & Newby, 2013; Preceptor Training Manual, 2014).

❖ **Cognitivism**

Cognitive theories grew out of Gestalt psychology, developed in Germany in the early 1900s

and brought to America in the 1920s. The German word gestalt is roughly equivalent to the

English configuration or pattern and emphasizes the whole of human experience. Over the

years, the Gestalt psychologists provided demonstrations and described principles to explain

the way we organize our sensations into perceptions (Chaudhary, 2013; Preceptor Training Manual, 2014).

Gestalt psychologists criticize behaviorists for being too dependent on overt behavior to explain

learning. They propose looking at the patterns rather than isolated events. Gestalt views of

learning has been incorporated into what have come to be labeled cognitive theories. Two keys

assumptions underlie this cognitive approach: that the memory system is an active organized

processor of information and that prior knowledge plays an important role in learning (Chaudhary, 2013; Preceptor Training Manual, 2014).

Cognitive theories look beyond behavior to consider how human memory works to promote learning, and an understanding of short-term memory and long-term memory is important to educators influenced by cognitive theory. They view learning as an internal mental process (including insight, information processing, memory and perception) where the educator focuses on building intelligence and cognitive development. The individual learner is more important than the environment (Chaudhary, 2013; Preceptor Training Manual, 2014).

Cognitive Theory Building upon previous knowledge

Simple ------------- Complex

Known ------------ Unknown

Concrete ---------- Abstract

3. Learning Styles

Assessment of the learner is the first step in the education process. A useful tool has been developed by Kolb called the "Learning-Style Inventory". The Learning-Style Inventory describes the way a person learns and how they deal with ideas and day-to-day situations in their life (Preceptor Training Manual, 2014).

The Learning-Style Inventory uses 12 sentences with a choice of endings. These endings are ranked according to how a person would go about learning something.

Following the completion of the inventory, the learner then inserts the rankings into a "Cycle of Learning" and a "Learning-Style Grid." The results are correlated to four points:

- **Concrete Experience (CE)**

  - Person's strength of preference for learning are things that have personal meaning in their life today
  - Person likes to learn things that are useable in current situations
  - We all use CE at some level

- **Reflective Observation (RO)**

  - Person's strength of preference for wanting some time to reflect and think about the things that they are learning.
  - Person likes to plan things out and take time to make sure that they have it correct
  - We all use RO at some level

- **Abstract Conceptualizations (AC)**

  - Person's strength of preference for learning lots of facts and figures
  - Person likes to learn lots of new concepts and information on about any topic

- We all use AC at some level

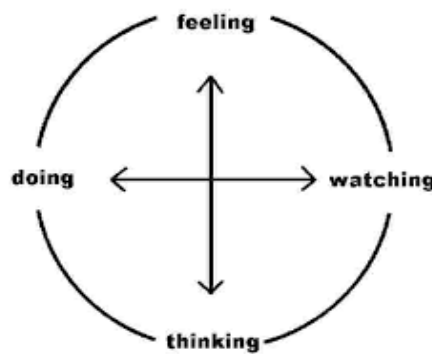- **Active Experimentation (AE)**

  - Person's strength of preference for applying and practicing what has been learned
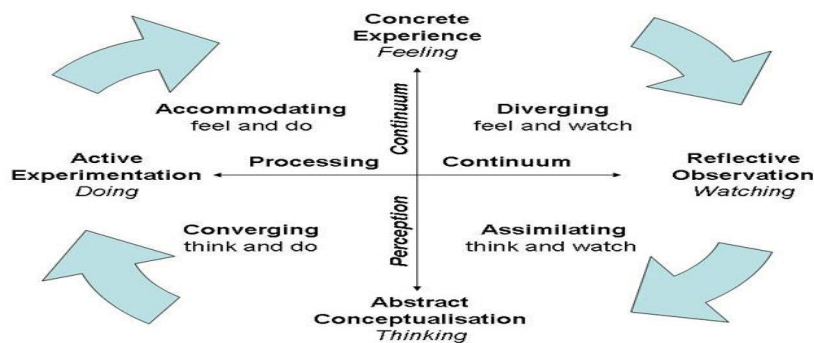
  - Person enjoys hands-on activities

  - We all use AE at some level

The profile on the Cycle of Learning gives an indication as to a person's best part in the learning cycle. Remember, a person is all four styles and operate in all four stages of quadrants. However, a person probably has a stage in which they do very well and a stage in which they do poorly. We need to learn to take advantage of the things we do well and increase in our abilities in the areas of concern.

https://images.app.goo.gl/WAx3vj9i1ksbjayNA

Kolb's Learning Styles

https://images.app.goo.gl/7QaEcLXzZnuvzmHq7

Exercise 2.1: Identify your own learning style with reference to Kolb model.

4. Developing Learning objective

If you are not certain of where you are going you may very well and up somewhere else and not

even know it.

Definition: Learning objectives (often called performance objectives or competencies) are brief, clear, specific statements of what learners will be able to perform at the conclusion of instructional activities.

Usefulness of Learning Objectives

- Guidelines for choosing course content and training methods
- Basis of evaluating what participants have learned
- Guidelines for learners to help organize their own learning

Categories of Objectives:

1.	Cognitive Domain	It includes objective concerning information or Knowledge, and thinking – naming, solving, predicting, and other intellectual aspects of learning.	Levels of cognitive domain: 1. Knowledge level 2. Understand level 3. Application level 4. Analysis level 5. Synthesis level 6. Evaluation level
2.	Psychomotor Domain	It treats the skills requiring using and coordination of skeletal muscles, as in the physical activities of performing, manipulating, and constructing	Levels of psychomotor domain: 1. Imitation level 2. Control level 3. Automatism level
3.	Affective Domain	It involves objectives concerning attitudes, appreciation, values, and emotion –enjoying, conserving, respecting, and so on.	Levels of affective domain: 1. Receiving level 2. Responding level 3. Valuing level 4. Organizing level 5. Characterizing by a value

➢ **Qualities of Learning Objectives (SMART):**
  1. **S**pecific, well explained
  2. **M**easurable and based on observable behaviour, such as results stated in numbers
  3. **A**ppropriate (or adequate) within the capacity of the group, feasible, achievable (resources are there, and obstacles can be overcome)
  4. **R**elevant (or realistic), pertinent, related to the problem and proposed solutions
  5. **T**ime bound, and able to be met within a stated time

➢ **Type of Educational Objectives:**
  1. Institutional Objectives
  2. Intermediate Objectives
  3. Specific Objectives

➢ **Components of a learning objective (ABCCD):**
  1. Audience (Learner): who is performing the action
  2. Behavior (Action verb): what action must occur
  3. Content: describe the content being treated
  4. Condition: under what conditions the action must occur
  5. Degree: the criteria or degree to which the action must occur (accuracy, quality, speed, etc.).

Learning objective = action verb+content+condition+criteria (degree of performance)

Example: By the end of this session the participant will be able to explain 6 principles of adult learning with reference to the session handout with an accuracy of 95%.

<u>**Ex2.2: Form small groups to write one objective you might set for your preceptee during the first week in your work setting. Then Review each group's objectives to see if characteristics met and have large group revise as needed.**</u>

5. Teaching Techniques

Learning Retention

Learning results from stimulation through the senses. It is estimated that 75% of what is heard is forgotten after 2 days. It has been said that learners remember: (Kolb)

- 10 %of what is read
- 20 %of what is heard
- 30 %of what is seen
- 50 %of what is heard and seen
- 80% of what is heard, seen and done

➢ **Principles of active learning**

    1. Participant that have an important role

    2. Content should make sense and activate prior knowledge

    3. Content should be useful

    4. Teaching should be fun, supportive, and engaging

Telling Vs. Teaching

Telling	Teaching
- Does not require active audience	- Require an active role by learner
- Unidirectional	- Bidirectional

➢ **How to produce Active learning**
- Include content that connects with your preceptee previous knowledge
- Include content activities that are applicable
- Explain content with examples, images, situations, etc.
- Include activities that are useful
- Make learning a fun experience
- Encourage participation
- Answer questions

➢ **Characteristics of effective teaching method**
- Motivate participants
- Appropriate for the trainees as well as appropriate to content (information, skills, attitudes, experiences).
- Process can be applied within the available conditions (time, number of participants, costs, available space).
- Take into consideration the different characteristics of students, such as their knowledge, skills and experience.
- Uses exciting audio-visual to enhance training and raise participants' attention and generate their motivation to learn.
- Maintain participants' activity.

Factors to be considered when choosing training method

Learning activities	Content
Trainers	Participants
Environment	Time
Cost	

Training methods
- Brainstorming
- Lecturing / Presentation
- Discussion and questioning
- Group work
- Role play
- Case study
- Games

Module Three / Second and Third Day
Clinical Teaching
Module 3 –Clinical Teaching (Socialization within the clinical environment)
Goal: The goal of this module is to introduce the participant to strategies that facilitate socialization of preceptee into work environment and foster their competence by different clinical teaching approaches.
Learning Objectives:
At the completion of this module, the participant will be able to:
1. Identify the characteristics of effective clinical learning environment.
2. Identify the skills of Effective preceptor versus the Ineffective preceptor.
3. Discuss the competence learning in the clinical environment.
4. Discuss strategies to maximize the integration of the preceptee into the clinical environment.
4. Utilize a process that encourages critical thinking skills.

	Content Outline	Learning Activities	Time	
5.	Characteristics of the learning environment according to: - English National Board - Jordanian Nursing Council Standards	Group Discussion Scenario 1	30 min	9:00-9:30
6.	Characteristics of effective Preceptor	1. Two role Play: Effective Preceptor VS ineffective Preceptor	30 min	9:30-10:00
7.	Competence learning in clinical environment. - Definition, Steps of teaching competencies, Levels of competencies, Competence Learning Stages, Indicators that the preceptee is learning in the clinical setting.	1. Lecture 2. Discussion Scenario 3	30 min	10:00-10:30
8.	Strategies to maximize the integration of the preceptee into the clinical environment: The Preceptor/Preceptee Relationship, Communication, Conflict Resolution, Decision	1.Group Discussion 2.Lecture 3.Article Discussion 4.Reflection Exercise Scenario 2 Scenario 4	30 min	10:30-11:00

	Making, Critical Thinking, and Reflection			
	Break		15 min	11:00-11:15

1. Characteristics of Effective Clinical Learning Environment.

Characteristics of the learning environment according to the English National Board "1997"

- Orientation Domain
- Preceptee are welcomed to the ward and have a named preceptor.
- Included within their orientation program are written details of the ward's mission, policies and procedures.
- The training and learning Domain
- There is a good relationship between the college and the clinical placement; what is learned in college is relevant to practice.
- Preceptee are well supported and have adequate opportunity to participate in care which incorporates relevant research.

The staff Domain

- Placement staff is approachable and supportive, and are well informed and positive about the Preceptorship process.
- Morale of the staff is adequate
- Preceptee is encouraged to work with the ward team, encouraged to ask questions, and given adequate feedback on their performance
- Staff and the preceptee have common understanding of the preceptee role.
- Students have opportunities to negotiate aspects of their placements.

The Preceptor Domain

- The preceptee has sustained exposure to a named preceptor.
- The preceptor is supportive, identifies learning opportunities for the preceptee.
- Able to respond to differing learning styles of preceptee.
- The requirements of placement assessment are agreed by the preceptee and the preceptor.
- Progress is regularly reviewed.
- The preceptee succeeds in achieving the agreed learning outcomes.

Jordanian Nursing Council standards for accreditation of Institutions and practice settings for clinical Training (2009), Ghrayeb, (2017).

- Standard (1): Structure and Governance should reflect institutional commitment to maintain quality and enhance clinical learning environment.
- Standard (2): The institution offers a healthy environment inductive to learning and provides learning opportunities that facilitate the transmission of knowledge, skills, and attitudes. The institution is accountable for the quality of learning and ensures the accomplishment of the expected outcomes of the programs according to the level of education and identified competencies.
- Standard (3): Assessment of the student experience is central to the program and assures the quality of the students and their ability to practice competently and safely.

2. Characteristic of Effective Preceptor

• Organized and focused	• Positive, enthusiastic attitude
• Value preceptor-student interactions	• Provide appropriate, frequent feedback
• Dynamic and enthusiastic	• Show respect for student
• Relate well to students	• Challenge student to perform
• Use an analytical approach	• Question student and promote higher
• Competent and confident	• level thinking

• Model professional behavior	• Provide appropriate structure

3. Competence Learning

Competency based training describes progression through training referenced to the demonstrated ability to perform certain tasks (Brightwell, & Grant, 2013). The term "competency-based training" refers to the training progression that is based on the exhibited capacity to carry out specific tasks (Brightwell, & Grant, 2013). Competency-based education is defined as "an outcomes-based approach using an organizational framework of competencies to the design, implementation, assessment, and evaluation of a medical education program" (Brightwell, & Grant, 2013).

Competency-based learning refers to systems of instruction, assessment, grading, and academic reporting that are based on students demonstrating that they have learned the knowledge and skills they are expected to learn as they progress through their education (Red'ko, et al., 2023; Preceptor Training Manual, 2014).

The general goal of competency-based learning is to ensure that students are acquiring the knowledge and skills that are deemed to be essential to success in school, higher education, careers, and adult life. If students fail to meet expected learning standards, they typically receive additional instruction, practice time, and academic support to help them achieve competency or meet the expected standards (Red'ko, et al., 2023; Preceptor Training Manual, 2014).

- The Four-Step of teaching competency (See the sheets in appendix I)

Step 1: Prepare	**Step 2: Present**
How do I prepare myself to give job instruction? 1- Do a training plan. • Who, what, when, where, how... 2- Do a job breakdown (e.g. (Developing A Curriculum (DACUM)) • Main steps • Task statements • Equipment and materials • Safety factors How do I prepare for receiving job instruction? 1- How would I put them at ease? • Ask them something they feel positive about and give a positive response. • Don't overload/overwhelm them. • Let them know you understand a new task can be difficult. • Make eye contact. 2- Why give them the big picture? • People work more effectively and are more motivated when they know why things are done certain ways and where their work fits in the overall picture. 3- What kind of reactions do I look for? • Sudden changes in facial expression • Stiffing in posture • Attentiveness	1- Tell them about the job. • Give brief overview of entire job. • Start with "Main Steps" column of Job Breakdown. • Give trainee a copy of Job Breakdown. 2- Place them correctly. • In actual place of doing job. • In relationship to equipment/materials used. 3- Show them the job. • Run through the whole process before concentrating on components. • Keep details to a minimum. 4- Demonstrate how to do it. • One step at a time. If it's complex, repeat it a few times. (You might want to demonstrate incorrect method and discuss results/effects). 5- Explain why it's done this way. • Connect proper methods to good results. • Focus on details. • Give it meaning. 6- Emphasize safe work methods. • Point out hazards- where they are, how they're dangerous. • What can happen if precautions aren't taken? What should be done if emergency occurs? 7- Summarize key points. 8- Ask for questions.

• Do they look at you when they talk? • Do they watch what you do? • Do they ask questions?	• Let them know you'll be glad to answer any questions. • It's O.K. to have questions.
Step 3: Tryout 1- Have them tell you the main steps. • Do they have the general picture? • Make corrections when necessary to avoid misunderstandings. • Ask questions. 2- Have them instruct you. • You follow the directions. • Are all the key steps, correct? 3- Have them explain how each step is done. • Also, explain why it's done this way. • Check emergency procedure, if any. • Ask if they have any concerns. 4- Let them try. • Watch closely. • REINFORCE what's done correctly. • If they make mistakes, ask them to examine what they did and correct it themselves.	**Step 4: Follow-up** 1- Check their familiarity with the area. • Location of departments, materials, equipment, helpful co-workers. 2- Check their knowledge of key procedures. • Ask for review of main tasks. 3- Let them know how to find you. • Encourage this when necessary. 4- Encourage them to continue asking questions. • Provide answers, or refer them to written procedures. 5- Model the desired behavior in daily practice. • Reinforce the proper techniques. 6- Taper off your supervision. • Check frequently at first, and then taper off. • As employee competence improves, direction from you can decrease. 7- Always tell them how they are doing. • Reinforce desirable learning. • Correct undesirable performance. 8- Watch on new assignments • Show how it's done and ask how it differs from old. • Ask how employee would handle this new situation.

➤ **Levels of Competency**

To assess levels of competence, understanding a person's professional growth and

development is critical. The Dreyfus Skill Acquisition Model applied to nursing practice

describes a progression of skill acquisition:

1. Novice:

- A new graduate nurse with no nursing experience

- Requires close supervision, assistance and education

- Needs rules (i.e. policies and procedures) to guide actions

2. Advanced beginner:

- Independent in some aspects of practice, yet not in all situations

- Needs assistance in setting priorities

- Needs frequent monitoring and education

3. Competent:

- Applies experience and judgment to new patient situations

- Sets priorities to achieve long-term goals

- Manages most complex situations

- Decision-making is logical and deliberate

- Requires ongoing education to remain current

4. Proficient:

- Nursing practice is efficient, flexible

- Decision-making is less labored

- Mentors other nurses

- Manages all situations effectively

- Requires ongoing education to remain current

5. Expert:

- Has intuitive grasp of patient care situations

- Masterful at problem-solving

- Anticipates complications

- Assists other nurses in becoming mentors

- Requires ongoing education to remain current

➢ **Learners generally progress through four stages as they gain competence with skills:**

1. Incompetence

The learner does not recognize what skills and knowledge they lack. They don't know what they don't know.

Strategy	• Get them to tell you what they plan to do or get them to "rehearse" the skill with you
	• Help them to set realistic goals
	• Gently guide them without being negative about what they can and can't do

2. Conscious Incompetence

The learner realizes it may not be as easy as they thought. They know what they don't know.

Strategy	• Let them know that you are confident they will eventually be a competent practitioner
	• If they are hesitant to try new skills, remind them that you will help them succeed
	• Break down skills into steps and sequences so they will be easier to learn

3. Conscious Competence

They are now competent but may be focused on every step of the procedure. Learners who are consciously competent are often good teachers since they can easily explain the steps and the clinical reasoning behind the skill.

Strategy	• Help them to mentally or physically rehearse skills before doing them.
	• Don't distract them when they are doing a skill unless a mistake is about to be made.

	• Talk with the patient while the preceptee is doing the skill so they can focus on the steps without also trying to engage in conversation. • Provide opportunities for independent practice as they become more confident. Encourage self-assessment and be available for support.

4. Unconsciously Competent

At this stage the learner stops thinking about every step and performs based on extensive experience. They practice without consciously thinking. They may find it difficult to explain the steps in their clinical decision making.

Strategy	• You may need to spend some time remembering the principles and steps of each procedure. You may need to slow down and pay attention to what and how you are doing things. • Talk out loud about how you do the skill. As a preceptor you will need to articulate what you are doing, how you are doing it and why you are doing it. • If appropriate, give explanations to the patient while you are providing care. • This teaches the client and the preceptee at the same time. Additional information that is not appropriate in front of the patient can be given later. • Review actions you took and the rationale for those actions. • Be in control without being controlling – the preceptee has the right to develop his or her own style of practice as long as it meets the criteria for safe, effective and ethical practice. With practice they will find a method that is comfortable for them. • Be a role model but not a show off - it is easy to get carried away showing how easy it is to do a complex task - unfortunately the ease with which you do a complex task may make the learner feel that it is hopeless and that he or she will never develop that ease and confidence.
Indicators that the preceptee is learning in the clinical setting	

Behaviors that indicate the preceptee is "getting it"	**"Red flag" behaviors**
• Presents thorough, focused history and physical • Consistently articulates sound decision making. • Develops and implements reasonable plan • Connects with patient interpersonally in caring manner. • Is organized, independent, time-efficient • Is self-confident but knows limits; asks for help.	• Is hesitant, anxious, defensive, not collegial • Has uneasy rapport with patient and misses cues • Presents less focused history and physical with excessive incomplete data • Performs physical examination poorly, inconsistently. • Is unable to explain reasoning for diagnosis • Is unable to prioritize patient problems

• Has holistic view of care; includes health promotion and disease prevention • Provides concise charting and oral presentations.	• Is unable to create plans independently • Misses' health education and disease prevention opportunities in plan • Is unsure of tests to order • Is unable to provide clear charting and presentations.

4. Strategies of preceptee integration into clinical environment.

➢ **The Preceptor/Preceptee Relationship**

• Knowing how to build a trusting relationship, how to communicate effectively and how to handle conflict are important to help keep the preceptor/preceptee relationship working smoothly.

• The learner should feel like a partner. This partnership can evolve over time as the learner is permitted to function to the full extent of their skill and knowledge level.

• Build trust by:

✓ Remaining open to new ideas that the preceptee may bring and information that may challenge what we have always done.

✓ Maintaining an environment of respect and acceptance. Give them meaningful tasks to do.

✓ Seeing the preceptee as a valuable addition to your work unit. Don't treat them as if they are a "5th wheel", slowing the work or flow of patients.

✓ Being honest. Don't be afraid to say "I don't know."

✓ Understanding the individual, attending to the little things, keeping promises, clarifying expectations, being consistent, having personal integrity and apologizing if necessary.

✓ Modeling professional and respectful ways of working through conflict.

➢ **Communication:**

• Listen first and then respond. Understand before you try to be understood.

• Before you react to a message try to clarify that you correctly understood what the other person was saying. Paraphrase what they said to check if you received the message correctly. "What I heard you say was ...Is this correct?"

• Be aware of your non-verbal—make eye contact, and try not to be distracted or focused on other tasks at the same time as you are listening.

• Pay attention to the other person's body language.

• Be generous in providing praise, support and encouragement.

• Be gentle and constructive when offering feedback on the preceptee performance.

• You can never communicate too much or too often. They may forget what you said but they will never forget how you made them feel.

➢ **Conflict in Clinical Setting:**

Methods of Conflict Resolution (Retrieved from Preceptor Handbook, Columbia University)

- **Denial or Withdrawal**

  Using this approach, the person attempts to get rid of the conflict by denying that it exists. S/he simply refuses to acknowledge it. Usually, the conflict does not disappear but will grow to the point where it becomes all but unmanageable. When the issue or the timing is not critical; denial can be a very productive way of dealing with conflict.

- **Suppression or Smoothing Over**

  A person using suppression plays down the differences and does not recognize the positive aspects of handling conflict openly. Again, the source of the conflict rarely goes away. Suppression may be used when it's more important to preserve a relationship that to deal with an insignificant issue through conflict.

- **Power or Dominance**

  Power is often used to settle differences. The source of power may be vested in one's authority or position. Power may take the form of a majority, or of a persuasive minority. Power strategies result in winners and losers, and the loser will not usually support the final decision in the same way winners will. Future meetings of the group may then be marred by the conscious or unconscious renewal of the struggle previously 'settled' by the use of power. In some instances, where other forms of handling conflict are clearly inappropriate, use of power can be effective.

- **Compromise or Negotiation**

  Although often regarded as a virtue, this method has some drawbacks. Bargaining often causes both sides to assume an inflated position, since each is aware that the other is 'going to give a little.' The compromise solution may be watered down or weakened to the point where it will not be effective, and there is often not enough commitment by any of the parties. There are times when compromise makes sense, such as when resources are limited or when it is necessary to avoid a win-lose situation.

- **Integration or Collaboration**

  This approach requires that all parties recognize the abilities and expertise of the others. Each individual's position is well prepared, but the emphasis of the group is in trying to solve the problem at hand, rather than in defending particular positions or factions. All involved expect to modify their original view as the group's work progresses. Ultimately the best of the group's thinking will emerge. The assumption is that the whole of the group effort exceeds the sum of the individual member contributions. If this approach is allowed to become and either/or statement or if because of lack of resources the conflict is resolved by the use of power; the final decision will suffer accordingly.

  Managing Conflict Effectively

- Address the problem, situation and behavior in question. Be hard on the problem, not the person.

- Ask questions to understand what is happening. Resist making assumptions and hypotheses.

- Talk about your feelings in a professional manner and express yourself respectfully even if reciprocated from the person you're talking with.

- Figure out if you may be inadvertently contributing to the problem. If you are, take ownership of your role and explore options that might be more helpful.

- By listening to someone else's perspective, you can gain insight into their point of view. See the issue from their perspective — even though you may disagree. You can understand AND disagree!

- Move from a problem-based discussion to figuring out what is needed. It's easy to get stuck in a circular discussion, trying to debate and establish who is "right" and who is "wrong." Instead, direct the conversation to identifying what the underlying need(s) may be and talk about how you can work together to address those needs.

- You may find it helpful to revisit the expectations and original agreements about the learning experience. It's possible that something has changed since that initial contact and discussion. Perhaps the preceptee has some difficulties in their personal life or perhaps you were less available than anticipated. Remember that most of the time, multiple factors come together to create a conflict.

- If you continue to feel stuck after trying to work it out, talk to the unit educator and consider involving a third party to get input from or facilitate a discussion.

- Keep communicating. Almost every problem in a preceptor/preceptee relationship is related to a lack of communication.

❖ **Clinical Decision Making**

- Clinical decision making may be defined as choosing between alternatives (Thompson & Dowding, 2002). Clinical decision making is a process that nurses undertake on a daily basis when they make judgments about the care that they provide to patients and management issues.

❖ **Critical Thinking:**

- Critical thinking defined as a composite of the attitudes, knowledge, and skills (Watson & Glaser, 1980). A dynamic cognitive process which the nurse makes reasonable decisions about what to believe in what to do (Enis, 1996).

- An expert clinician utilizes critical thinking to provide excellent patient care.

- Critical thinking can be seen as a two-tiered process. The first tier is acquiring or having a set of information and belief generating and processing skills. The second possesses the habit of using those skills to guide behavior.

- Critical thinking is self-directed, self-disciplined, self-monitored, and self-corrective thinking (Schriven 2007). The learner new to the clinical setting has not yet had the opportunity to form this habit of using these skills, which may explain why students or the novice nurses are often troubled by observing something new or different from what they have learned or experienced before.

> **A well cultivated critical thinker will:**
> ➢ Raises vital questions and problems, formulating them clearly and precisely;
> ➢ Gathers and assesses relevant information, using abstract ideas to interpret it effectively, comes to well-reasoned conclusions and solutions, testing them against relevant criteria and standards;

> ➢ Thinks open-mindedly within alternative systems of thought, recognizing and assessing, as need be, their assumptions, implications, and practical consequences; and
> ➢ Communicates effectively with others in figuring out solutions to complex problems.

❖ **Reflection:**

- Reflection on action is defined as: "The retrospective contemplation of practice undertaken in order to uncover the knowledge used in practical situations, by analyzing and interpreting the information recalled" (Fitzgerald, 1994pp67).

   Gibbs Framework for Reflection includes six stages:

Stage 1: Description of the event

Describe in detail the event you are reflecting on.

Include e.g. where you were; who else was there; why were you there; what were you doing; what were other people doing; what the context of the event was; what happened; what was your part in this; what parts did the other people play; what was the result.

Stage 2: Feelings and Thoughts (Self awareness)

At this stage, try to recall and explore those things that were going on inside your head.

Include:

- How you were feeling when the event started?
- What you were thinking about at the time?
- How did it make you feel?
- How did other people make you feel?
- How did you feel about the outcome of the event?
- What do you think about it now?

Stage 3: Evaluation

Try to evaluate or make a judgment about what has happened. Consider what was good about the experience and what was bad about the experience or what did or didn't go so well.

Stage 4: Analysis

Break the event down into its component parts so they can be explored separately.

You may need to ask more detailed questions about the answers to the last stage.

Include:

- What went well?
- What did you do well?
- What did others do well?
- What went wrong or did not turn out how it should have done?
- In what way did you or others contribute to this?

Stage 5: Conclusion (Synthesis)

This differs from the evaluation stage in that now you have explored the issue from different angles and have a lot of information to base your judgment. It is here that you are likely to develop insight into you own and other people's behavior in terms of how they contributed to the outcome of the event. Remember the purpose of reflection is to learn from an experience. Without detailed analysis and honest exploration that occurs during all the previous stages, it is unlikely that all aspects of the event will be taken into account and therefore valuable opportunities for learning can be missed. During this stage you should ask yourself what you could have done differently.

Stage 6: Action Plan

During this stage you should think yourself forward into encountering the event again and to plan what you would do – would you act differently or would you be likely to do the same?

Here the cycle is tentatively completed and suggests that should the event occur again it will be the focus of another reflective cycle.

Module Four: Evaluation Process

Goal of this module: to provide participant with the necessary (knowledge, skills and attitudes) related to student evaluation process.

Learning Objectives: By the end of this module, the participant will be able to:

1. Define evaluation in education

2. State purposes of evaluation (why we evaluate?)

3. Identify main types of evaluation (formative, and summative)

4. Describe five basic level of evaluation according to (Roberta Straessel Abrozzese model)

5. Describe the Evaluation Methodologies according to educational objectives and domains

6. Discuss the consequences of evaluation for (student, teacher, program, and institute)

Suggested time frame: nearly 4 hours of instruction

	Content Outline	Learning Activities	Time	
7.	Introduction - Definition of Evaluation - Purposes - Main types of Evaluation	Group Discussion Lecture/Discussion	30 min	11:15-11:45
8.	Five basic level of evaluation according to (Roberta Straessel Abrozzese model)	Lecture/Discussion Scenario 5	30 min	11:45-12:15
	Break		15 min	12:15-12:30

9.	Evaluation Methodologies according to educational objectives and domains	Lecture/Discussion	30 min	12:30-01:00
10.	Consequences of evaluation for (student, teacher, program, and institute)	Group Discussion Lecture/Discussion	30 min	01:00-01:30
11.	Post test		30 min	01:40-02:15
	Break		30	02:15-02:45

- **Definition of evaluation:**

  Bloom defined evaluation as an organized group of evidence showing whether changes have already taken place on a group of learners to determine the amount or degree of change on student as individual.

  Evaluation is a process that implies obtaining good information regarding the abilities of the students (objectives, knowledge, attitudes, skills, behaviours, etc.) and establishing value judgments (acceptable, adequate, good, sufficient, etc.) and taking decisions (admit, pass, recommend, promote, release, validate, etc. ...)"

  It is therefore a process that provides the foundations for a value judgment that allows better teaching decisions to be made.

- **The purposes of evaluation are to...**

  1. Judge the acquisition of essential skills and knowledge

  2. Measure progress.

  3. Classify the students.

  4. Identify the students' difficulties.

  5. Measure the efficiency of the teaching methods.

  6. Measure the efficiency of the programmes.

- ❖ **Types of evaluation:**

  1. Formative Evaluation

  Is the evaluation that occurs during the educational process, it starts with the beginning of the learning and continues with it, with the aim of organizing and giving it more effective. It is used to change some of the content or methods that provide content.

  Formative evaluation provides continuous information regarding the progress of the learning process and allows constant feedback that can be used by instructors to improve their teaching and by students to improve their learning. It also provides relevant information regarding the functioning of the programme and the teaching action. Fundamentally, it allows continuous improvement of all the processes involved.

- ❖ **Characteristics of formative evaluation:**

  • Throughout the whole learning process

• Offers immediate feedback

• To the teacher

• To the student

- **Summative Evaluation**

  Is the evaluation that being at the end of the training period, which determines if the students achieve the outputs of education, Judgment on the level or performance, and the consequences of this judgment providing certification. Also, summative evaluation provides an overall and finalist view of learning achievements, especially with regard to the objectives set by the programme. It also provides information regarding the evaluation of student learning at the end of an instructional unit.

- ❖ **Characteristics of the summative evaluation:**

  • Used at the end of an educational phase

  • Decisions are taken regarding the final qualification of the student

  • Traditional system

  • Assists in learning to learn

  • Educational function

  • Compiles information regarding progress and level of learning

- **Characteristics of evaluation**

  1. Is time bond.

  2. Is systemic and objective.

  3. Assess performance and impact.

  4. Can focuses on process (organization and management).

  5. Can focus on impact (effects on beneficiaries).

Roberta Straessel Abrozzese model
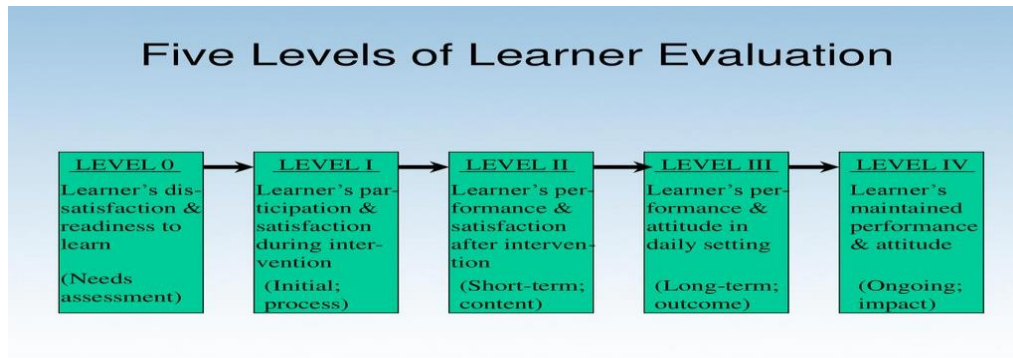
A simple evaluation model is exemplified by the Roberta Straessel Abrozzese (RSA), which was developed by Abrozzese for use in conceptualizing evaluations. Below figure represents triangle with simple to complex levels of evaluation, frequent of implementation, and cost factors.

Roberta Straessle Abruzzese Evaluation (RSA) Model

https://images.app.goo.gl/kdwXg1cedvWUJjrMA

Five Levels of Learner Evaluation

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https://slideplayer.com/slide/15827915/

The following are the levels of evaluation according to RSA model which are ranged from the simple (process evaluation) to the complex (impact evaluation).

1. The first level is "Process Evaluation".

2. The second level is "Content Evaluation".

3. The third level is "Outcome Evaluation".

4. The fourth level is "Impact Evaluation".

5. The space between the in inside triangle and the outside triangle represent the "Total Program Evaluation".

1. Process (Formative) Evaluation

Process evaluation measures learner satisfaction with the learner experience. American Nurses Association's (ANA's) commission on accreditation specifies the items to be included in process evaluation:

- Learners' achievement of each objective.

- Effectiveness of each educator or learning facilitator/clinical instructor.

- Relevance of the content to the stated objectives (theory and practice).

- Effectiveness of teaching and learning methods.

- Appropriateness of physical facilities.

- Learner's achievement of personal objectives.

The purpose of this evaluation is to make adjustment in an educational activity, whether those adjustments are in personnel, materials, facilities learning objectives, or even attitude. Asking questions such as "What can be done to improve this learning experience?" will elicit suggestions for improvement. The unbiased questions regarding process evaluation can provide learner with an opportunity to express both positive and negative responses.

Adjustments may need to be made after one class or session before the next is taught, so process evaluation occurs more frequently during and throughout every learning experience

than any other type (Bastable, 2016).

This on-going evaluation prevents problems before they occur or identify problems as they arise (Bastable, 2016).

2. Content Evaluation

The purpose of content evaluation is to determine whether learners have achieved the objectives (knowledge, skills, affect) of the learning experience. Asking questions such as "To what degree did learners achieve specified objectives?" will provide educator or facilitator with an opportunity to evaluate the objectives achievement.

Common tools used for content evaluation are:

- Self-rating scale.

- Pre-post-test.

- Return demonstration or competency-based assessment.

- Group work exercise.

- Case studies and prepare patient care plan.

3. Outcome Evaluation

The third level of evaluation is outcome evaluation; this is defined as a measurement of the change of behavior that persists after the learning experience.

The purpose of outcome evaluation is to determine the effects or outcomes of teaching efforts. Its intent is to sum what happened as a result of education.

Outcome evaluation occurs after teaching has been completed or after a program has been carried out, it is focusing on measuring long-term change that persists after the learning experience.

Some tools used to measure outcome are questionnaires to be completed by learner, observation of practice, audits of change in behavior, and learner behavior.

Change in practice on clinical unit following a learning experience; some change might be:

- Integration of new value.

- Habitual use of new skill.

- Creation of a new product.

- Institution of a new process

4. Impact Evaluation

The fourth level of evaluation is impact evaluation, which measures the effects of education on the institution or the community.

Outcome evaluation focuses on course objective, while impact evaluation focus on course goal.

Institutional results attributable in part of learning experience; some examples might be:

- Quality of patient care.

- Cost-benefit or cost effectiveness results.

5. Program Evaluation

The purpose of total program evaluation is to determine the extent to which all activities for an entire program over a specified period of time meets or exceed goals originally established. Asking questions such as "To what extent did programs undertaken by faculty members of the nursing college academic departments during the year accomplish annual goals established by the departments?" will provide college administrator with an opportunity to evaluate the total program.

It is encompassing all aspects of educational activity (e.g., process, content, outcome, impact) with input from all the participants (e.g., learners, teachers, institutional representatives, community representatives).

Evaluation Methodologies

Methods of evaluation must be selected according to educational objectives and domains to be evaluated. That should be covered clinical course training.

- Giving teachers focused feedback led to an immediate increase in performance levels and motivational feedback provided to students.

- Giving the students responsibility and the opportunity to carry out procedures are the most important aspects of the supervisors' role.

1. Cognitive Domain

Written test (Case study)

- Objective type (Short answers) (e.g. Case study care plan, analysis case)

- Subjective type (Long answer, Simulation) (e.g. Discharge plan, …)

Oral test

Observational rating scale

2. Attitude Domain

- Direct observation

- Rating scale

- Checklist

3. Psychomotor Domain

- Direct observation

- Practical tests

- In real Situation

- In simulation condition

Other types of evaluation:

1. Self-Evaluation

2. Pre-test assessment

3. Process evaluation

4. Peer evaluation

5. Post – test.

Consequences of evaluation

❖ **Consequences for the student**

Apart from certification, accreditation and promotion, which constitute some of the natural consequences of the summative function of evaluation, the evaluation process truly shows its optimizing capacity when it is able to revitalize the following aspects:

➢ Feedback regarding each and every one of the decisive moments of the learning process. In this way it collaborates in the improvement of this process and its results and in building the independent learning capacity of the students. Learning to learn is one of the most important goals that need to be reached in order to successfully confront life-long learning, and it has to be the logical consequence deriving from the processes of reflection and self-criticism arising from the in-depth analysis by students and teachers of the results of the assessment.

➢ Becoming aware of their own strong and weak points and the joint involvement of teachers and students in the search for formulas that allow the students to continue the acquisition of the most significant knowledge for their personal, academic and professional development. This facilitates the possibility for them to advance in processes of empowerment as a formula and route in order to obtain gradually the control of their own learning.

❖ **Consequences for the teacher**

Consequences also derive from the assessment results in relationship with the work of the teachers/clinical instructors. Analyzing how the overall management of the students' learning is developed includes reflecting on the quality of the teaching processes, the goodness of the methodologies that are being used, the sufficiency and suitability of the teaching resources applied, the teaching action inside and outside the classroom, the quality of the relationship established with the students, the fluidity of communication, etc. In short, everything that constitutes the foundation of the teaching commitment of the teacher towards the student and the university and on which it will be necessary to reflect continuously starting with the analysis of the assessment information.

❖**Consequences for the programme**

The intervention processes should also be reviewed taking the evaluation into account. It is absolutely necessary to check the appropriateness, functionality and difficulty of these processes continuously. The ambition of the objectives must be analyzed in the light of the real capacities of the students and their learning results. The structure of the programme should be an element that favours the teaching process, never an added difficulty. And the contents must be refined and renewed continuously in order to select and insist on those that best favour the personal, academic and professional development of the students. The assessment of learning must be designed and conducted in such a way as to provide substantive information for the improvement of these programmes elements.

❖ **Consequences for the institution**

The quality of learning constitutes, certainly, the most powerful and important indicator to judge and justify the socially entrusted mission of universities. Its analysis, based on the information deriving from the

evaluation of the learning assessment processes, must also allow conclusions to be drawn for the institution as a whole. Thus, factors such as the attention to processes of transition from secondary education to university, the functioning of guidance and tutorial services, rates of success and failure, the quality of the general resources, the policies for the training and innovation of teachers, the mechanisms for the review of curricula and programmes, the regulation of assessment systems, etc. must be the object of review based on the results obtained in all the learning assessments.

Case Scenarios for applying to the Preceptorship program

Sample of Case Scenarios

#	Case description	Guiding questions
Scenario 1 (Wu, et al., 2020)	**This will apply in second day:** You are the preceptor (clinical instructor) for a group of second or third-year nursing students. You can just go ahead and introduce yourself to your group of students. After completing the hospital orientation to the students, and went to the nurse manager to introduce your preceptee to his/her. Identify the ward you will train your group on. Explain to your students the plan of this course (medical-surgical, adult health nursing g). After a discussion with your preceptee, you find out that one of these students were previously trained at a different hospital and had never done any attachment in ABC hospital.	• Share how you will welcome your Preceptee • Discuss some concerns that you may have about your preceptee • How would you assess the level of competency for her/his expected skills?
Scenario 2 W:\CNE\Preceptor SD\COURSE MATERIALS\Day 2 Red Folders\Red 06 Other scenarios.doc	Scenario Two: You are preceptoring a second-year nursing student and you notice that the student appears to have a lack of knowledge regarding disease processes and appears disinterested in being on the ward/unit. He does not actively participate in ward/unit activities, does not ask questions, and often is late to work or returning from meal breaks.	1. Discuss the scenario within your group 2. Role plays the feedback to be given to preceptee 3. After the role play – each person to talk about how the role play went 4. Using the displayed overhead write down what your feedback would be and if further follow up needed – this is for discussion with the larger group
Scenario 3 W:\CNE\Preceptor SD\COURSE MATERIALS\Day 2 Red Folders\Red 06 Other scenarios.doc	You observe your preceptee talking to an elderly patient who has rung the bell and asked for assistance in the shower. The nurse says, with a hint of attitude "I am too busy love, you are not my only patient you know." • Discuss possible reasons for her behavior • Explore her learning needs • Discuss your plan in approaching the situation	1. Discuss the scenario within your group 2. Role play the feedback to be given to preceptee 3. After the role play – each person to talk about how the role play went 4. Using the displayed overhead write down what your feedback would be for discussion with the larger group.

| Scenario 4

Thurston, K. (2019). Validation of Communication Simulation Scenarios for Nurse Preceptors. | **Simulation Overview:** Erica has been precepting with you for four weeks. Her orientation seems to be progressing smoothly, and she has been able to meet many of her learning objectives. One of the objectives she has already met was properly inserting a foley catheter into a patient. Today, she has the opportunity to practice this skill again. Since you have previously validated her competency on this skill, you agree to let her perform this task independently. A few moments later, Erica calls for your assistance in the patient's room to close the window blinds since she is now "sterile." As you enter the room and wear clean gloves, you notice several things:
• She has the sterile package open on a bedside table that is crowded with drinking cups and other patient items.
• She is wearing general clean gloves from the patient's room, not sterile gloves.
• She is holding the Foley catheter with her non-dominant hand and is in motion to insert into the patient. The patient (Ms. Smith) knows Erica is a new nurse and orienting with you. Ms. Smith had mentioned earlier that she was nervous about having a catheter inserted, and is closely watching everything Erica is doing. | 1. Discuss the scenario within your group
2. Discuss some concerns that you may have about your preceptee.
3. How would you assess the level of competency for her/his expected skills? |
| Scenario 5

Thurston, K. (2019). Validation of Communication Simulation Scenarios for Nurse Preceptors. | Jackson is currently in his last week of preceptorship with you. You have noticed he has been having difficulty prioritizing patients at the start of his shift. Today, you and Jackson have the following patient assigned:
Patient: 78-year-old male with a diagnosis of pneumonia who is on 2L O2 via nasal cannula. During shift report, the off-going nurse shared that the patient had "sun downers" and had been picking at his IV catheter and removing his oxygen tubing. The patient has an IV antibiotic to be administered within the next hour. The nursing assistant just informed Jackson the patient's blood glucose is 48. What should Jackson do?

Preceptor utilizes the Five-Step Format ((Lefton, 2012) for addressing prioritization with Jackson.
1. Initiating the conversation with the student nurse.
2. Inquiring the student nurse on their perception of the situation.
3. Giving feedback on the NGN's perception and/or of the situation.
4. Illuminating the differences and potential outcomes.
5. Devising a plan or goal together – and accomplishing it. | 1. Discuss the scenario within your group
2. Discuss some concerns that you may have about your preceptee.
3. As a preceptor demonstrates neutral or open body language during the discussion with Jackson. |

Appendix 17

Effect size of the pretest-posttest.

Appendix 17

			m1	s1	m2	s2	spooled	Cohen's d	
Giving students grades that truly reflect their efforts and performance	3.77 (1.06)	4.59 (0.71)	3.77	1.06	4.59	0.71	0.902136	0.91	strong
Responding positively to students' comments and suggestions about teaching performance	4.09 (0.74)	4.69 (0.53)	4.09	0.74	4.69	0.53	0.643623	0.93	strong
Encouraging students to evaluate their performance	3.87 (0.98)	4.66 (0.57)	3.87	0.98	4.66	0.57	0.801655	0.99	strong
Giving students positive feedback for good work	4.16 (0.75)	4.64 (0.51)	4.16	0.75	4.64	0.51	0.641327	0.75	moderate
Observing student performance in a proper manner	4.01 (0.77)	4.72 (0.48)	4.01	0.77	4.72	0.48	0.6416	1.11	strong
Evaluating students based on the objectives set at the beginning of the internship	3.85 (0.93)	4.53 (0.80)	3.85	0.93	4.53	0.80	0.867439	0.78	moderate
Discussing with students the pros and cons and limitations of internship	3.91 (0.81)	4.54 (0.73)	3.91	0.81	4.54	0.73	0.771038	0.82	strong
Asking students to evaluate the teaching performance of clinical nurse trainer	3.58 (0.93)	4.37 (0.83)	3.58	0.93	4.37	0.83	0.881419	0.90	strong
Evaluating student attitude, knowledge, and skills properly	3.98 (0.77)	4.54 (0.61)	3.98	0.77	4.54	0.61	0.694622	0.81	strong
Total Students evaluation	**3.92 (0.56)**	**4.59 (0.44)**	3.92	0.56	4.59	0.44	0.503587	1.33	strong
Setting goals and objectives based on students' expectations and levels of experience	**3.45 (0.96)**	**4.25 (0.76)**	3.45	0.96	4.25	0.76	0.865794	0.92	strong
Addressing issues that students had not dealt with in previous internship experience	3.67 (1.05)	4.53 (0.59)	3.67	1.05	4.53	0.59	0.851645	1.01	strong
Asking students to fulfill certain responsibilities in internship	4.06 (0.90)	4.59 (0.63)	4.06	0.90	4.59	0.63	0.77682	0.68	moderate
Explaining the purpose and objectives of the internship	4.19 (0.84)	4.77 (0.49)	4.19	0.84	4.77	0.49	0.687641	0.84	strong
Expecting students to set their own goals for internship	3.61 (0.94)	4.54 (0.59)	3.61	0.94	4.54	0.59	0.784761	1.19	strong
Setting performance standards for individual students and adjusting teaching practice where necessary	3.53 (1.05)	4.50 (0.56)	3.53	1.05	4.50	0.56	0.841457	1.15	strong
Assigning students to a proper number of patients whose conditions can be reasonably handled by students	3.95 (0.83)	4.46 (0.56)	3.95	0.83	4.46	0.56	0.70799	0.72	moderate
Planning the right kind of activities that would help students achieve their goals in internship	3.85 (0.84)	4.51 (0.59)	3.85	0.84	4.51	0.59	0.725844	0.91	strong
Inspiring students to do practical work	3.83 (0.96)	4.43 (0.76)	3.83	0.96	4.43	0.76	0.865794	0.69	moderate
Total Goal setting and individual teaching	**3.80 (0.65)**	**4.51 (0.40)**	3.80	0.65	4.51	0.40	0.539676	1.32	strong

Having good relationships with patients	**4.03 (0.84)**	**4.46 (0.67)**	4.03	0.84	4.46	0.67	0.75977	0.57	moderate
Showing enthusiasm in providing patient care	4.06 (0.82)	4.50 (0.67)	4.06	0.82	4.50	0.67	0.748766	0.59	moderate
Providing good care to patients	4.12 (0.75)	4.64 (0.54)	4.12	0.75	4.64	0.54	0.653491	0.80	moderate
Requiring students to respond to demo teaching	3.87 (0.85)	4.54 (0.56)	3.87	0.85	4.54	0.56	0.719757	0.93	strong
Discussing practical applications of knowledge and skills	3.98 (0.82)	4.51 (0.74)	3.98	0.82	4.51	0.74	0.781025	0.68	moderate
Leading students to analyze, evaluate, and interpret issues	3.91 (0.89)	4.66 (0.57)	3.91	0.89	4.66	0.57	0.747329	1.00	strong
Using the most up-to-date knowledge and techniques to take care of patients in need of special care	3.79 (0.97)	4.59 (0.61)	3.79	0.97	4.59	0.61	0.810247	0.99	strong
Remaining accessible to students in need of help	4.16 (0.75)	4.64 (0.57)	4.16	0.75	4.64	0.57	0.666108	0.72	moderate
Helping students locate relevant information and website resources	**4.01 (0.83)**	**4.66 (0.54)**	4.01	0.83	4.66	0.54	0.700179	0.93	strong
Total Teaching strategies	**4.00 (0.62)**	**4.58 (0.43)**	4.00	0.62	4.58	0.43	0.533526	1.09	strong
Explaining the basis of actions and decision-making in patient management	**4.03 (0.78)**	**4.50 (0.64)**	4.03	0.78	4.50	0.64	0.713442	0.66	moderate
Presenting information and key points in an organized way	4.19 (0.76)	4.64 (0.54)	4.19	0.76	4.64	0.54	0.659242	0.68	moderate
Answering questions clearly and accurately	4.30 (0.66)	4.67 (0.62)	4.30	0.66	4.67	0.62	0.640312	0.58	moderate
Possessing coordination and conflict-solving abilities	4.24 (0.66)	4.66 (0.59)	4.24	0.66	4.66	0.59	0.625979	0.67	moderate
Total Demonstration of organized knowledge	**4.19 (0.61)**	**4.62 (0.53)**	4.19	0.61	4.62	0.53	0.571402	0.75	moderate
CTCI Total Score (n=31 items)	**3.94 (0.55)**	**4.57 (0.39)**	3.94	0.55	4.57	0.39	0.47676	1.32	strong

الملخص

الخلفية:

يُعد التعليم السريري أحد العناصر الأساسية في نقل المعرفة والمهارات لطلبة التمريض. وتُعتبر كفاءة وفعالية المدربين التمريضيّين أمرًا بالغ الأهمية في إعداد الطلاب بالمعرفة والمهارات اللازمة لتقديم رعاية صحية عالية الجودة. فمن خلال التعليم السريري، يكتسب الطلاب خبرة في بيئات رعاية مرضى متنوعة، ويتلقون التوجيه والإشراف المناسبين، ويطوّرون كفاءتهم السريرية في مجال التمريض. ويلعب المدربون التمريضيّون دورًا حيويًا في تعليم المهارات السريرية الأساسية، مما يؤثر بشكل كبير على تعلم وتطور الطلبة. ومع ذلك، فإن هذا الدور في تحقيق المعايير التعليمية يتطلب المزيد من البحث والاستكشاف. تهدف هذه الدراسة إلى فحص أثر برنامج الإرشاد التمريضي على كفاءات وفعالية التعليم لدى المدربين السريريين الفلسطينيين.

التصميم والمنهجية:

أُستخدم في هذه الدراسة نهج تقييمي شبه تجريبي لمجموعة واحدة مع تصميم اختبار قبلي وبعدي. تم تجنيد مجموعة واحدة مكونة من 62 مدرباً للمشاركة في اختبار قبلي وبعدي لبرنامج الإرشاد التمريضي، والذي نُفّذ على شكل ورشات عمل استمرت لمدة ثلاثة أيام في أربعة مستشفيات حكومية في الضفة الغربية. بالإضافة إلى ذلك، شارك 150 طالب تمريض قُسّموا إلى مجموعتين (67 في المجموعة الضابطة و83 في مجموعة التدخل) لتقييم أداء المدربين. استخدمت الدراسة أداتي قياس: "استبيان كفاءة التعليم السريري" و"استبيان فعالية المعلم السريري التمريضي". كما قام الباحث بتقييم أداء المدربين باستخدام "استبيان فعالية المعلم السريري التمريضي."

النتائج:

أظهرت النتائج أن 35.5% من المدربين تتراوح أعمارهم بين 31-35 سنة، بينما بلغت نسبة من هم فوق سن الأربعين 17.7%. وكان لدى معظم المشاركين خبرة عملية تتراوح بين خمس إلى عشر سنوات (بنسبة 90%). وقد تم تدريب 36 مدربًا (58%) في مساق التمريض الباطني والجراحي، بينما خضع 26 مدربًا (42%) لتدريب في مساق التمريض المتقدم. أظهرت تحليلات البيانات أن جميع القيم المتوسطة لمجالات "استبيان كفاءة التعليم السريري" في الاختبارات البعدية كانت أعلى من تلك في الاختبارات القبلية ($F = 8.19$)، ($P = 0.00$). وكان متوسط مجال "تقييم الطالب" في الاختبار البعدي (4.59) أعلى بشكل ملحوظ من الاختبار القبلي (3.92). كما أظهرت نتائج استبيان فعالية المعلم السريري التمريضي من خلال ملاحظات الباحث أن جميع القيم المتوسطة كانت فوق نقطة المنتصف. أما فيما يخص تصورات طلاب التمريض حول صفات المدربين قبل وبعد تنفيذ برنامج الإرشاد، فلم يكن هناك فرق دال إحصائيًا بين المجموعة الضابطة والمجموعة التجريبية، ومع ذلك، كان متوسط المجموعة التجريبية (6.18) أعلى من متوسط المجموعة الضابطة (5.93)، مما يدل على أهمية تنفيذ البرنامج التدريبي.

الخلاصة:

يساهم برنامج الإرشاد التمريضي في تعزيز وتحسين كفاءة وفعالية المرشدين المدربين، كما هو موضح في نتائج الاختبار البعدي وتقييمات الطلبة. ويُساعد المدربين على توظيف استراتيجيات تعليمية متنوعة لتأهيل طلاب تمريض أكفاء ومتمكنين.

الكلمات المفتاحية: برنامج الإرشاد التمريضي، المدرب السريري، المعلم السريري، طالب التمريض، الكفاءات.