

Training Program for Improving Nursing Educators' Clinical Teaching Competencies and Its Effect on Nursing Student Achievement

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Abstract

Background: Clinical teaching competencies are a core requirement for nursing educators, contributing toward better nursing student achievement in clinical settings. **The study aimed** to assess training program for improving nursing educators' clinical teaching competencies and its effect on nursing student achievement. **Study design:** A quasi-experimental design was utilized. **Setting:** The study was conducted in Secondary Technical Nursing Schools associated with the Directorate of Health Affairs in Menoufia Governorate named "Sers Elyan, Menof, Elbagour, Ashmon, and Shibin Elkom". **Study subjects:** 60 all available nursing educators and 130 undergraduate nursing students from the five selected Secondary Technical Nursing Schools from 2nd and 3rd academic year (2021-2022) who were selected using proportion allocation sampling 30% from the total number of nursing students. **Tools of data collection:** Three tools were used; **Tool (1)** Clinical teaching competencies knowledge questionnaire, **Tool (2)** Observational checklist for clinical teaching competencies, **Tool (3)** Observational checklist for nursing students' achievement. **Results:** There was highly statistical improvement in nursing educators knowledge and performance regarding clinical teaching competencies (78.3% & 95.0%) and (75.0% & 90.0%), respectively at the immediate post and follow-up phases of the training program, as well as the majority (88.5%) and about three quarters (74.6%) of the studied nursing students had good clinical evaluation achievement at the immediate post and follow-up phases compared with 7.0% of them at the pre-training program. **Conclusion:** There was a highly statistically significant positive correlation between total knowledge, performance regarding clinical teaching competencies, and nursing students' clinical evaluation achievement at immediate post-training program phases. Also, there was a statistically significant positive correlation between total knowledge, performance regarding clinical teaching competencies, and nursing students' clinical evaluation achievement at follow-up phases. **Recommendations:** Establishing an orientation program for the preparation of new nursing educators about the principles and evidence-based practice of clinical teaching competencies that effects on nursing students' achievement.

Keywords: Achievement, Clinical teaching competencies, Nursing educators, Nursing students.

Introduction:

The challenge for nursing education is to prepare graduates to deal with the challenges of today's healthcare setting as a result of inadequate training. New nurses must be able to care for patients in a fast-paced environment that stresses clinical competence and precise, timely decision-making skills as soon as they graduate from the nursing curriculum (Strom et al., 2023). Clinical teaching is an important

part and the lifeblood of nursing education. It is a more important component of the educational process than classroom learning. The quality of nursing students and educators' interaction in the clinical field can either facilitate or hinder the nursing students' integration of theory to practice. Clinical teaching competencies are a dynamic process that occurs in a variety of socio-cultural contexts (Pedregosa et al., 2020). And it

requires that nursing educators must be competent and experts in clinical nursing and capable of assuming legal and ethical responsibility for nursing students and patient care (**Monsivais & Nunez, 2022**).

Clinical teaching competency enhances the quality of clinical education, helps to achieve the specific objectives in the laboratory, develops time management competency, provides an opportunity to have new education research, develops good leadership quality, enhances good interaction between nursing educators and students, and motivates to design and organize the curricular and co-curricular activities so, trained nursing educators is essential for nursing professional development (**Labrague et al., 2020**).

The training program is an organized procedure and method for increasing the knowledge and skills of nursing educators for a definite purpose and it helps to acquire the necessary knowledge and competencies to perform the duties of their job (**Sadullayevich, 2021**). The nursing educator is a nursing professional who teaches the nursing student through the real life situation within the clinical practice. Nursing educators have the opportunity to greatly influence the students' learning who eventually graduate and shape nursing practice (**Pramila-Savukoski et al., 2023**).

The competence of nursing educators is important for the quality of nursing education. It has been assured that nursing educators must possess effective competence characteristics. professional competence includes clinical competence as the best nursing educators are expert in their clinical speciality have maintained their clinical skills, knowledge and support nursing students in clinical teaching followed by interpersonal competence, being sensitive by using three basic therapeutic approaches empathic

listening, and honest communication (**Mikkonen et al., 2018**).

Personal competence refers to all desirable personal characteristics of nursing educators as; cheerfulness, self control, sense of humor and enthusiasm. Then teaching practice competence includes the ability of the nursing educator to assess, plan, implement learning need and foster achievement the outcomes of the clinical course. Evaluation competence nursing educator evaluate nursing student to determine how well they are meeting objectives and to clarify that they are safe practitioners (**Bryant et al., 2019**).

An effective and sufficient clinical competency from the nursing educator in the clinical setting is vital to the nursing students' learning and achievement (**Tsai, 2022**). Achievement is the need to perform well or the striving for success, evidenced by persistence and effort in the face of difficulties. Nursing students' achievement is the ability to meet or exceed the academic standards of a given institution. It is essential to reflect on a measure of nursing students' acquisition of knowledge and skills that has achieved and developed in the institution subjects (**Abaan, 2021**).

The nursing students' achievement includes absenteeism, commitment to attendance, the degree of commitment to formal uniform and appearance, and level of achieving practical procedure. student response to commands and instructions, student behavior to assess the relationship between student and nursing educators, the relation between student and their peers, the relation between student and clinical placement staff and his relation with patients and their relatives, the quality of student documentation (**Kaarlela et al., 2021**).

Improved student achievement places pressure on nursing educators to research and finds ways for helping low performing

Training Program for Improving Nursing Educators' Clinical Teaching Competencies and Its Effect on Nursing Student Achievement

students to acquire needed skills to become academically successful in the clinical setting (Salifu et al., 2022). Since nursing educators are accountable to the discipline, to nursing students, and to the public for the outcome of nursing education, that has a direct impact on the quality of nursing to ensure nursing students achieve positive outcomes in clinical settings as well as in future practice (Kim & Roh, 2023).

Significant of the study:

Clinical teaching prepares nursing students to become competent practitioners and able to provide quality nursing care and promote the health of the people they serve. So, nursing educators must have the knowledge and skills to meet this competency gained through training (Mohamed, 2017 & Mallek, 2020).

Many studies recommended that programs must be conducted for all nursing educators to improve teaching strategies, teaching roles, and responsibilities in clinical teaching. Accordingly, Mahfouz, (2011) recommended that training programs should be conducted for nursing educators to improve their abilities and skills for clinical teaching. Badran, (2014) also recommended that an orientation program for newly appointed clinical instructors about clinical teaching skills is highly needed.

The researcher's experiences at Secondary Technical Nursing School observed that clinical teaching competencies need improvement because the knowledge of nursing educators about clinical teaching in clinical settings plays an important role in the performance of nursing students. To get better preparation for nursing students for clinical experience, nursing educators should be well-prepared for their roles in a clinical setting especially the newly employed members so that they will be able to integrate practice skills as teaching skills effectively and efficiently to be competent nursing educators.

So this study was conducted to assess training program for improving nursing educators' clinical teaching competences and its effect on nursing student achievement.

Aim of the study:

This study aimed to assess training program for improving nursing educators' clinical teaching competences and its effect on nursing student achievement through:

- 1- Assessing nursing educators' knowledge regarding clinical teaching competences thorough program.
- 2- Determining nursing educators' performance regarding clinical teaching competences thorough program.
- 3- Designing and implementing training program for improving nursing educators' clinical teaching competences.
- 4- Assessing the levels of nursing student achievement thorough program.
- 5- Evaluating the effect of implementing training program for improving nursing educators' clinical teaching competences on nursing student achievement.

Study hypothesis:

Implementation of clinical teaching competences training program will improve nursing educators' knowledge and performance toward clinical teaching competences also there will be positive effect in nursing student achievement.

Subjects and Method:

Research design:

A quasi-experimental study design with pre-test, immediate post-test, and follow-up (after three months) assessment was utilized to achieve the aim of the current study.

Research setting:

The current study was conducted in Secondary Technical Nursing Schools (STNS) associated with the Directorate of Health Affairs in Menoufia Governorate. There are 10 regions in Menoufia Governorate 5 of their region were selected randomly to ensure that all regions of

Menoufia Governorate are adequately represented in the sample.

Study Subjects:

The subjects of the present study included two groups:

1-Nursing educators' group: All available nursing educators 60 out from 66 who were working at the previously mentioned setting during the time of data collection and accepted to participate in the current study.

2- Nursing students' group: Consisted of 130 undergraduate nursing students from the five selected Secondary Technical Nursing Schools of Health Affairs in Menoufia Governorate from 2nd and 3rd academic year (2021-2022) who were selected using proportion allocation sample consisted of 30% from the total number of nursing students 442.

Tools of data collection:

The data was collected by using the following three tools:

Tool (I): Clinical teaching competences knowledge questionnaire:

A structured self-administered questionnaire was developed by the researcher after reviewing related literature (Mahfouz, 2011; Abo Elmaty, 2015; Zakaria, 2018). It consisted of two parts:

Part (I): Nursing educator's personal data including; age, marital status, educational qualifications, years of experience, previous attending training program about clinical teaching competence, and name of nursing schools.

Part (2): Clinical teaching competence knowledge: Included 50 questions to assess nursing educators' knowledge about clinical teaching competencies in the form of multiple choice and true or false questions.

Scoring system:

The nursing educator' answers were scored as "one" for correct and "zero" for incorrect. So, the total scores are 50. In this

respect the level of nursing educator knowledge was categorized as the following;

- Satisfactory level $\geq 80\%$ which equals ≥ 40 points.
- Unsatisfactory knowledge level $< 80\%$ equals < 40 (Zakaria, 2018).

Tool (II): Observational checklist for clinical teaching competencies:

This checklist was developed by the researcher after reviewing related literature (De-Yong, 2009; Bradshaw & Martha, 2011; Zakaria, 2018) to assess nursing educators' performance of clinical teaching competencies. It included 80 items categorized under five dimensions.

Scoring system:

The nursing educators' responses were evaluated by using a three-point Likert Scale as follows; (3) always done, (2) sometimes done, (1) never done. The range of scores is from 80-240. Accordingly, nursing educators' performance of clinical teaching competence level was categorized as the following;

- Competent level $\geq 85\%$ equals ≥ 204 points.
- Incompetent level $< 80\%$ equals < 204 points (Osman, 2019).

Tool (III) Observational checklist for nursing students' achievement:

It was developed by the researcher after reviewing related literature (Akese et al., 2014; Randall, 2015; Rahiem et al., 2020) to assess the levels of nursing students' clinical evaluation achievement. It consisted of two parts:

Part (I): Nursing students' personal data including; age, gender, the reason for joining the school of nursing, and the name of the nursing school.

Part (2): Nursing student clinical evaluation achievement: It included 31 items divided under 6 domains; attendance (4 items), appearance (5 items), practical procedure (3 items), communication during clinical training (6 items), response to clinical nursing

Training Program for Improving Nursing Educators' Clinical Teaching Competencies and Its Effect on Nursing Student Achievement

educators (7 items) and documentation on clinical assignment (6 items).

Scoring system:

The nursing students' responses were evaluated by using a three-point Likert Scale as follows; (3) always, (2) sometimes, and (1) never. The range of scores is from 31:93 cutoff point was done at 60% which equals 56 points. Accordingly, clinical evaluation achievement level was categorized as the following;

- Good level $\geq 75\%$ equals ≥ 70 points.
- Average level from 60% to less than 75% equals 56 to 69 points
- Poor level $< 60\%$ that equals from < 56 points.

Content validity:

The study tools were revised and ascertained by seven Experts from different Nursing Faculties in the field of Nursing Administration; three Professors at Menoufia University, two Assistant Professors at Cairo University, and two Assistant professors at Benha University. The validity of the tools aimed to judge their clarity, comprehensiveness, relevance, simplicity, and accuracy. Based on the Experts' perspective, minor modifications were done based on their comments such as (the level of education modified to educational qualifications and demographic characteristics modified to personal characteristics) and the researcher developed the final validated form of the tools. This phase took two months starting from September 2021 to the end of October 2021.

Reliability of tools

The reliability of the tools was examined by using Cronbach's Alpha Coefficient test to measure the internal consistency for all tools; the Clinical teaching competencies knowledge questionnaire was 0.86, the Observational checklist for clinical teaching competencies was 0.92, and the Observational checklist for

nursing students' clinical evaluation achievement was 0.79 that reflect accepted internal consistency of the tools.

Ethical considerations:

Before conducting the study, the researcher explained the nature and aim of the study to nursing educators and nursing students and informed them that participation in the study was voluntary. Oral consent was obtained from each nursing educator and nursing student in the study. The confidentiality of data obtained was protected by the allocation of a code number to questionnaire sheets. Nursing educators and nursing students were informed that the obtained data will be used for the study purpose only and have the right to withdraw from the study at any time with no consequences ascertained.

Pilot study:

A pilot study was carried out on 6 nursing educators (one from every school and two from Sers Elyan school which included the biggest number of nursing students) and 13 nursing students (two from Menouf, and Elbagour, and three from Sers Elyan, Shibin Elkom, and Ashmon according to the number of the nursing students), who represent about 10% of the study subjects at the previously mentioned setting to test the applicability and clarity of the constructed tools; it also served for estimating the time needed to fill data collection tools and to identify obstacles and problems that may be encountered during data collection. No modification was done and nursing educators and nursing students involved in the pilot study were included in the main study subjects. This phase is done in November 2021.

Field work:

The following phases were adopted to achieve the aim of the current study: assessment, planning, implementation, and evaluation phases. These phases took seven

months; starting from December 2022 to the end of June 2022.

Phase 1: Preparatory phase

Reviewing the national and international related literature using journals, periodicals, textbooks, the internet, and theoretical knowledge of various aspects concerning the topic of the study to develop the tools for data collection. This phase took about three months, extended from the beginning of June, 2021 to the end of August, 2021.

Phase 2: Interviewing and Assessment phase

This phase involved meeting with nursing educators and nursing students; the researcher went to the previously mentioned settings three days weekly (Sunday, Tuesday, and Thursday) in the morning from 8 am to 2 pm by rotation in the school and training setting (hospital). In the beginning, the researcher welcomed the nursing educators and nursing students and gave a brief idea about the aim and activity of the training program. Then, the researcher collected baseline data from the subject using **Tools I, II, and III**. The time required for finishing each questionnaire was around; 25-30 minutes for the clinical teaching competence knowledge questionnaire, the observational checklist for clinical teaching competencies 20-30 minutes, and the observational checklist for nursing students' clinical evaluation achievement 15-20 minutes. The data collection process was carried out in, December 2021, and the average number collected was 5 nursing educators and nursing students 10-11 per day.

Phase 3: Planning phase

The training program construction is in a form of an Arabic booklet to improve nursing educators' clinical teaching competencies the training program was developed by the researcher in January 2022. Based on baseline data obtained from pre-

test assessment and relevant literature review also, needs assessment.

Phase 4: Implementation

The implementation phase was achieved through sessions from February 2022 to the end of March 2022. The researcher distributed educational training booklet to participants on the first day of the training program implementation. Daily feedback was given at the beginning of each session about the expectation and at the end of each session about the session and activity given to the participants. The training program had taken 10.30 to 13 hours for each group in each school distributed as 7 theoretical sessions with their application on 9 training sessions; every theoretical session has one training session except 4th and 6th session has two training sessions each session lasted 1.30- 2.0 hrs and was implemented according to work circumstances. The training program session took four days (Sunday for Ashmoun, Monday for Shibin Elkom, Wednesday for "Sers Elyan & Elbagour" and Thursday for Menouf) per week over eight weeks from 8.00 a.m. to 2.00 p.m.

- **First session:** The researcher explained the training program aim, objectives plan, content outlines, methods, evaluation, introduction, definition, clinical teaching aims, clinical teaching process, determinant of learning, and methods to assess learning needs training on (kinesthetic learning style)

- **Second session:** Definition, types of Professional competence, the role of nursing educator in (laboratory session-briefing session- practice session-debriefing session-clinical teaching), ethical responsibilities of the nursing educators training on (responsibility of the nursing educators in clinical teaching).

- **Third session:** Definition, the purpose of interpersonal competence, definition, importance process, principles, types, techniques of effective communication

Training Program for Improving Nursing Educators' Clinical Teaching Competencies and Its Effect on Nursing Student Achievement

training on (effective communication).

- **Fourth session:** Definition, characteristics of personal competence, definition, standard, advantage, indicators, barriers, and strategies of critical thinking training on (critical thinking, strategies of critical thinking).

- **Fifth session:** Definition of the component of teaching practice competence, definition, characteristics, component, types of educational objective training on (characteristics of the educational environment laboratory- hospital).

- **Sixth session:** Definition, characteristics of teaching method as ;(lecture, demonstration-re-demonstration, seminar, role-play, problem-solving, simulation, clinical teaching method as; bedside teaching, case study, nursing care conference and clinical assignment training on (steps of the problem-solving, case study).

- **Seventh session:** Definition, principles, types, characteristics, problems of evaluation, and classification of the assessment tool and techniques training on (the most important assessment tools).

Phase 5: Evaluation phase:

After the training program implementation, the immediate posttest was carried out to assess the knowledge and performance of nursing educators regarding clinical teaching competence and assess clinical evaluation achievement for nursing students by using the same tools as the pretest. This helped to evaluate the effect of the implemented training program. This was done immediately after the training program and also after three months (follow-up). The time of data collection lasted from the beginning of April 2022 to the end of June 2022.

Administrative Design:

Official permission was issued from the Dean of the Faculty of Nursing Benha University to the director of management training and mission in the Directorate of

Health Affairs in Menoufia Governorate to obtain official approval for data collection, then the researcher met the schools director, assured complete confidentiality of the obtained information to allow the researcher to collect data and give the training program content, this approval was given after the aim of the study was clarified.

Statistical analysis:

All data were collected, coded, tabulated, and subjected to statistical analysis. Statistical analysis was performed by Statistical Package for Social Science (SPSS version 26.0); also, Microsoft Office Excel is used for data handling and graphical presentation. Descriptive statistics were applied in the form of mean and standard deviation for quantitative variables and frequency and percentage for qualitative variables. Qualitative categorical variables were compared using the chi-square test, whenever the expected values in one or more of the cells in 2X2 tables were less than 5, Fisher Exact Test was used Pearson correlation coefficient was calculated between variables. Parametrical tests e.g., paired (t) test to compare mean scores between the same samples at different study phases. Statistical significance was considered at p-value $p \leq 0.05$ and considered highly statistical significance at p-value $p \leq 0.001$.

Results:

Table (1): Illustrates that, half (50.0%) of the nursing educators were aged from 30 to less than 35 years with a mean score of 31.60 ± 4.59 years with a range from 25 to 49 years and the majority (88.3%) of them were married. As far as, educational qualification less than two-thirds (61.7%) of nursing educators had a Bachelor of Nursing Science, and more than two-fifths (43.3%) of them had experience from 5 to less than 10 years with a mean score of 7.93 ± 4.87 years with a range from 1 to 24 years of experience. Also, more than three-quarters (78.3. %) of the nursing

educators hadn't attended a previous training program in clinical teaching competence.

Table (2): Clarifies that, more than half (53.8%) of the nursing students had aged more than 17 years and most (81.5%) of them were female, and more than half (51.5%) of them were attached to nursing school as students' desire. Also, more than half (50.8 %) of nursing students help parent financially.

Figure (1): Shows that one quarter (25.0%) of the nursing educators were working at Menof school. Regarding the nursing students, more than one quarter (28.5 & 27.7%) of them were educating at Sers Elyan, and Shibin Elkom schools respectively while, 15.4% & 14.6% & 13.8% of the nursing students were educating at Ashmoun, Menof, and Elbagour schools respectively.

Figure (2): Describes that majority (80.0%) of the nursing educators had an unsatisfactory level of knowledge related to clinical teaching competencies at the pre-training program phase, which improved to be more than three-quarters (78.3%) of them had a satisfactory level knowledge in the immediate post-training program phase with a slight decrease to be three-quarters (75.0%) of them had a satisfactory level at follow up phase.

Figure (3): Indicates that the most (98.3%) of the nursing educators had incompetent performance levels at pre-training program phases, which improved to the most (95.0% & 90.0%) of them had competent performance levels respectively, at the immediate post and follow up phases of the training program.

Figure (4): Shows that the majority (88.5%) and about three quarters (74.6%) of the studied nursing students had good clinical evaluation achievement at the

immediate post and follow up phases of the training program compared with 7.0% of them had good clinical evaluation achievement at the pre-training program.

Table (3): Illustrates that, there was a highly statistically significant positive correlation between nursing educators' total knowledge, performance regarding clinical teaching competencies, and the nursing student clinical evaluation achievement at the immediate post-training program phase. Also, there was a statistically significant positive correlation between nursing educators' total knowledge, performance regarding clinical teaching competencies, and the nursing student clinical evaluation achievement at the follow-up training program phase. While, there was no statistically significant correlation at the pre-training program phase.

Training Program for Improving Nursing Educators' Clinical Teaching Competencies and Its Effect on Nursing Student Achievement

Table (1): Distribution of the studied nursing educators regarding their personal data (n=60)

Personal data	No.	%
Age (in years)		
25 - < 30	19	31.7
30-< 35	30	50.0
≥ 35	11	18.3
Mean ± SD	31.60 ± 4.59	
Range	(25 - 49) years	
Marital status		
Married	53	88.3
Unmarried	7	11.7
Educational qualifications		
Bachelor's degree in Nursing science	37	61.7
Master's degree in Nursing	19	31.7
Doctorate degree in Nursing	4	6.6
Years of experience		
< 5	14	23.3
5- < 10	26	43.3
≥ 10	20	33.4
Mean ± SD	7.93 ± 4.87	
Range	(1-24) years	
Previous attending training program about clinical teaching competence		
Yes	13	21.7
No	47	78.3

Table (2): Distribution of the studied nursing students regarding their personal data (n= 130)

Personal data	No.	%
Age (years)		
<17	60	46.2
≥ 17	70	53.8
Gender		
Male	24	18.5
Female	106	81.5
Reason for joining the school of nursing		
Student's desire	67	51.5
Desire of parents	45	34.7
A total score of preparatory school	18	13.8
If self-desire, the reason is (n=67)		
Respect the profession	9	13.4
Help parents financially	34	50.8

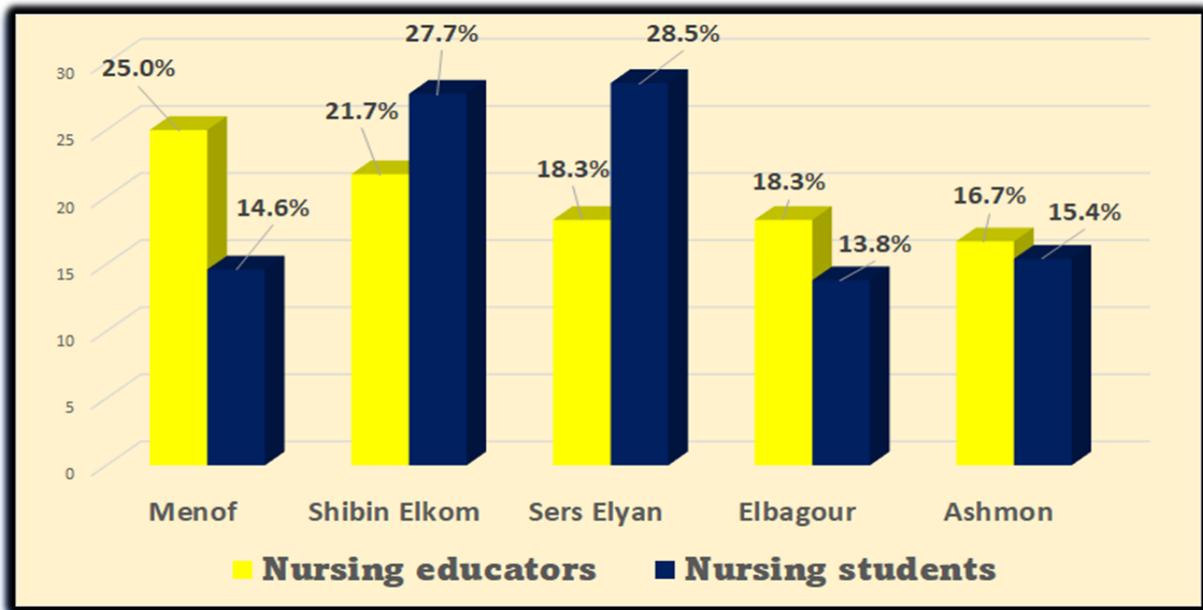


Figure (1): Distribution of studied nursing educators and nursing students according to their current school setting

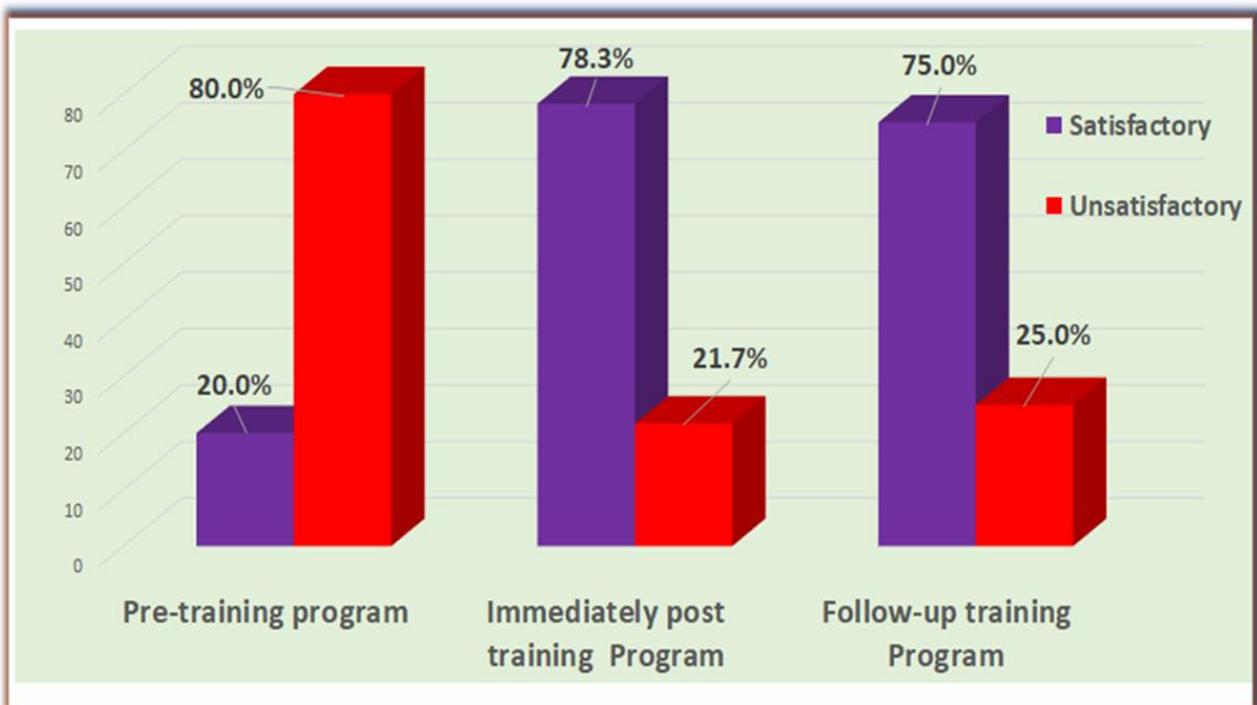


Figure (2): Total knowledge levels about clinical teaching competencies among the nursing educators throughout the training program phases

Training Program for Improving Nursing Educators' Clinical Teaching Competencies and Its Effect on Nursing Student Achievement

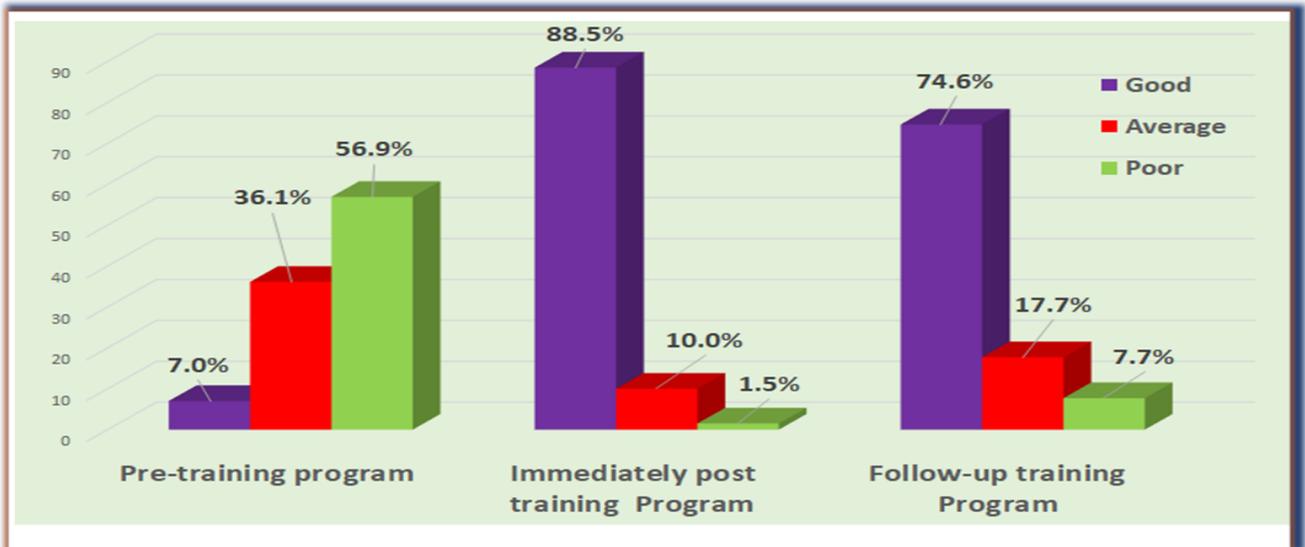


Figure (3): Total performance levels of clinical teaching competencies among the nursing educators throughout the training program phases

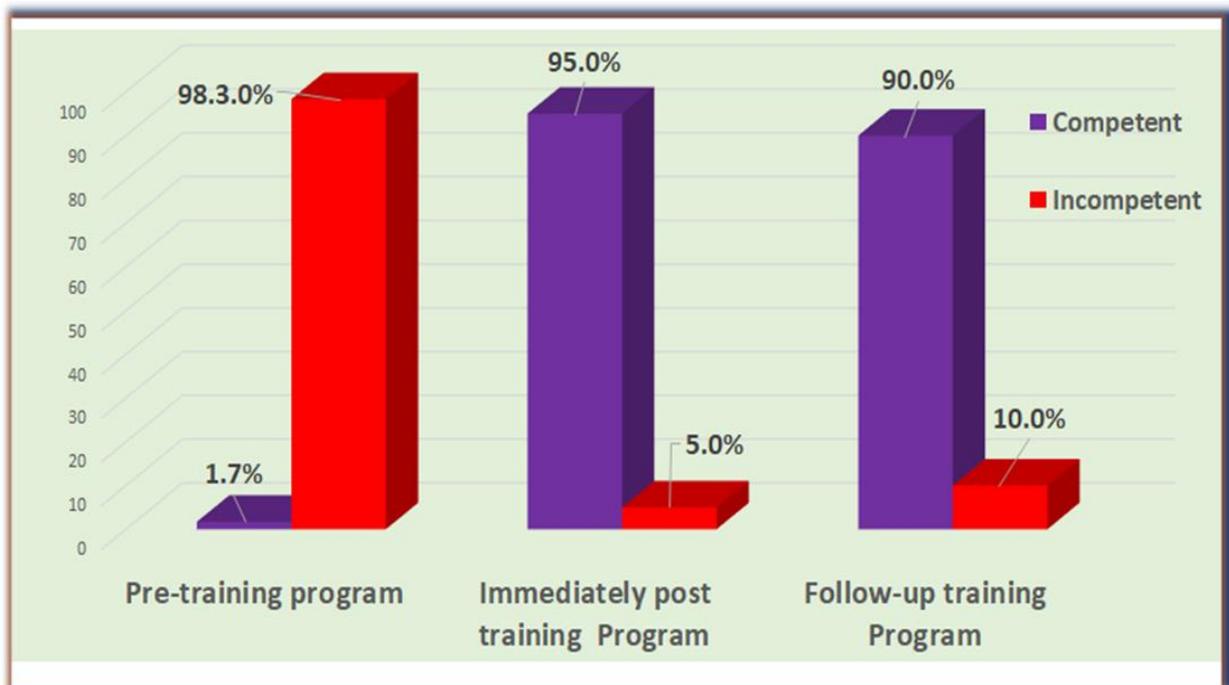


Figure (4): Total clinical evaluation achievement levels among nursing students throughout the training program phases.

Table (3): Correlation between total knowledge and performance of clinical teaching competencies among nursing educators' as well as students' clinical evaluation achievement throughout training program phases

Training program phases	Variables	Total educators' knowledge of clinical teaching competences		Total educators' performance of clinical teaching competence		Total students' clinical evaluation achievement	
		R	P value	R	P value	R	P value
Pre-training program	Total educators' knowledge of clinical teaching competences	0.0	0.0	0.028	0.830	0.008	0.949
	Total educators' performance of clinical teaching competences	0.28	0.830	0.0	0.0	0.227	0.082
	Total students' clinical evaluation achievement	0.008	0.949	0.227	0.082	0.0	0.0
Immediately post training program	Total educators' knowledge of clinical teaching competences	0.0	0.0	.537	0.000**	0.476	0.000**
	Total educators' performance of clinical teaching competences	.537	0.000**	0.0	0.0	0.762	0.000**
	Total students' clinical evaluation achievement	0.476	0.000**	0.762	0.000**	0.0	0.0
Post 3 months of the training program	Total educators' knowledge of clinical teaching competences	0.0	0.0	0.291	0.024*	0.227	0.047*
	Total educators' performance of clinical teaching competences	0.291	0.024*	0.0	0.0	0.226	0.048*
	Total students' clinical evaluation achievement	0.227	0.047*	0.226	0.048*	0.0	0.0

Training Program for Improving Nursing Educators' Clinical Teaching Competencies and Its Effect on Nursing Student Achievement

Discussion:

Clinical teaching competencies enhance the quality of education, helps to achieve the specific objectives in the classroom, develop the time management competency, provides an opportunity to have new education research, develops good leadership quality, enhances good interaction between nursing educator and nursing students, and motivates to design and organize the curricular and co-curricular activities (**Labrague et al., 2020**).

Nursing educators have an influential role in providing quality clinical teaching. It is believed that the quality of nursing care is directly related to nursing educators' level of competence. Competent nursing educators know how to function in clinical practice and can guide nursing students in developing clinical competencies. The phenomenon of competence within clinical teaching is a highly challenging and motivating issue. So, nursing educators must possess clinical teaching competencies including professional, personal, interpersonal, teaching practice, students' evaluation, and nursing educators' availability to student's competence (**Alyateem & Houriah, 2022**).

Therefore, the current study aimed to assess training program for improving nursing educators' clinical teaching competences and its effect on nursing student achievement and achieved through the following objectives; Assessing nursing educators' knowledge regarding clinical teaching competences thorough program, determining nursing educators' performance regarding clinical teaching competences thorough program, designing and implementing training program for improving nursing educators' clinical teaching competences, assessing the levels of nursing student achievement thorough program, evaluating the effect of implementing training program for improving nursing educators' clinical teaching competences on nursing student achievement.

Regarding their personal data of the studied nursing educators, illustrates that half of the nursing educators were aged from 30 to less than 35 years with a mean score of 31.60 ± 4.59 years with a range from 25 to 49 years and the majority of them were married. As far as, educational qualification less than two-thirds of nursing educators had a Bachelor of Nursing Science, and more than two-fifths of them had experience from 5 to less than 10 years with a mean score of 7.93 ± 4.87 years with a range from 1 to 24 years of experience. Also, more than three-quarters of the nursing educators hadn't attended a previous training program in clinical teaching competence.

Regarding their personal data of the studied nursing students, clarifies that more than half of the nursing students had aged more than 17 years and most of them were female, and more than half of them were attached to nursing school as students' desire. Also, more than half of nursing students help parent financially.

The present study clarified that, majority of the nursing educators had an unsatisfactory level of knowledge related to clinical teaching competencies at the pre-training program phase, which improved to be more than three-quarters of them had a satisfactory level of knowledge in the immediate post-training program phase with a slight decrease to be three-quarters of them had a satisfactory level at follow up phase.

From the researcher's point of view, this result might be due to the inadequacy of nursing educators' knowledge about clinical teaching competencies as the majority of them hadn't attended previous training courses about clinical teaching competencies. The nursing educators interested and internal motivate to acquire knowledge about their role in clinical teaching competencies.

The finding of the present study is similar to **Al-Rawajfah, et al., (2022)** whose study

pointed that; there was a highly statistically significant improvement in nursing educators' knowledge regarding clinical teaching competencies at post program and follow up than pre-program. This could be due to the training program focused on giving activities and exercises for nursing educators about how to apply different clinical teaching strategies.

This study indicates that; the most of the nursing educators had incompetent performance levels at pre-training program phases, which improved to the most of them had competent performance levels respectively, at the immediate post and follow up phases of the training program. From the researcher's point of view, this might be due to limited formal preparation in nursing educators' responsibilities for ensuring that their students learn theory, gain clinical experience, practice techniques, and develop into knowledgeable nurses.

The finding of present the study was consistent with **Mikkonen et al., (2019)** who showed that there was a highly significant improvement in educators' competencies after the program and found gradual decline in educators' knowledge and competencies two or three months after the program implementation.

The current study shows that; the majority and about three quarters of the studied nursing students had good clinical evaluation achievement at the immediate post and follow up phases of the training program compared of them at the pre-training program. From the researcher's point of view; this might be due to the majority of nursing educators had high mean score in general knowledge and performance at immediate post and follow up phases of the training program. No doubt, that nursing educator who have clinical teaching background will provide the nursing students with essential foundation of knowledge that help them to integrate theory and practice in clinical setting.

This finding agrees with **Rahiem et al., (2020)** who found that highly statistically significant improvement among students in total achievement scores increased from preprogram to post program intervention. In disagreement with **Im & Jang, (2019)** who pointed that; presence of many problems inhibit the educator and the students from achieving the goals of the course such lack of definite job descriptions for students and educator, mismatch consistency amongst the acquired material and their usage in the clinic, shortage of educational facilities and absence of the essential opportunity to implement standard procedures that negatively affect achievement of student.

The present study revealed that, there was a highly statistically significant positive correlation between nursing educators' total knowledge, performance regarding clinical teaching competencies, and the nursing student clinical evaluation achievement at the immediate post-training program phase. Also, there was a statistically significant positive correlation between nursing educators' total knowledge, performance regarding clinical teaching competencies, and the nursing student clinical evaluation achievement at the follow-up training program phase. While, there was no statistically significant correlation at the pre-training program phase.

The result is in the same line with **Ghadery, (2018)** whose study pointed that there was statistically significant correlation between nursing Demonstrators' total knowledge, performance regarding clinical teaching skills. Besides this result, **Mallek & El-Hosany (2020)** concluded that there is improvement of mean score of clinical instructors in relation to their performance at pre, post and follow up program. This confirm the research hypothesis which stated that after implementation of the training program there will be improvement in skills of clinical

Training Program for Improving Nursing Educators' Clinical Teaching Competencies and Its Effect on Nursing Student Achievement

instructors in clinical teaching skills at clinical setting.

The result is supported by **Rahiem et al., (2020)** whose study revealed that; highly statistically significant correlation among students in total achievement scores increased from preprogram to post program intervention. This due to the majority of clinical instructor had high mean score in general knowledge and skill post the program.

Conclusion:

There was a highly statistically significant improvement in the nursing educators' knowledge and performance regarding clinical teaching competencies between pre and immediate post-training program phases and between pre-program and follow-up phases. Also, there was a highly statistically significant improvement in the nursing students' achievement regarding clinical evaluation achievement between pre and immediate post-training program phases and between pre-program and follow-up phases.

There was a highly statistically significant positive correlation between total knowledge, performance regarding clinical teaching competencies, and nursing students' clinical evaluation achievement at immediate post-training program phases. Also, there was a statistically significant positive correlation between total knowledge, performance regarding clinical teaching competencies, and nursing students' clinical evaluation achievement at follow-up phases.

Recommendations:

In light of the current findings obtained from the present study, the following recommendations are suggested.

For school administration:

- Establishing an orientation program for the preparation of new nursing educators about the principles and evidence-based practice of clinical teaching competencies for adult learning.

- Initiating in-service education and training programs for refreshing and increasing the nursing educators' knowledge, and performance, especially about clinical teaching competencies.
- Providing a guidance book about clinical teaching competencies for nursing educators to teach competently according to the clinical training area.

For hospital administration:

- Providing a clinical learning environment with policymakers to create collaboration with the other health team member to meet the need of the nursing student.
- Supporting the clinical staff to be socialized and helpful to nursing students in the clinical area.
- Affording the clinical learning environment with all needed teaching facilities, equipment, and suitable room for changing clothes for good working conditions.

For nursing educators:

- Providing ongoing feedback based on nursing student performance for strengthening their knowledge and skills.
- Guiding nursing students in private without belittling them in the presence of others.
- Creating a positive work environment by building team spirit and effective cooperation with the nursing students and their colleagues.

For further research:

- Reapplication of the study on the larger probability sample is highly recommended to achieve generalizable results.
- Conducting a study to determine the relationship between nursing educators' clinical teaching competence and professional development.
- Examining factors affecting the nursing students' self-esteem at Secondary Technical Nursing School.

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Training Program for Improving Nursing Educators' Clinical Teaching Competencies and Its Effect on Nursing Student Achievement

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برنامج تدريبي لتحسين الكفايات التدريسية الاكلينيكية لمعلمات التمريض وتأثيرها على تحصيل طلاب التمريض

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تظل كفايات التدريس الاكلينيكي مكوناً أساسياً وجزءاً مهماً من التعليم التمريض الذي يعتبر قلب الممارسة المهنية حيث يسد الفجوة بين الدراسه النظرية والممارسة العمليه وجودة التدريس للأكلينيكي الذي يتم تقديمه من خلال معلمى التمريض هو حجر الاساس لنجاح التعليم الأكلينيكي وله تأثير مباشر على تحصيل طلاب التمريض في البيئات العمليه وكذلك في الممارسة المستقبلية. لذا هدفت هذه الدراسة إلى تقييم البرنامج التدريبي لتحسين الكفاءات التدريسية الأكلينيكية لمعلمات التمريض وتأثيرها على تحصيل طلاب التمريض. وقد أجريت الدراسة الحالية في المدارس الثانوية الفنيه التمريض الفنية التابعة لمديرية الشؤون الصحية بمحافظة المنوفية. وقد كشفت النتائج انه هناك علاقة إيجابية ذات دلالة إحصائية عالية بين المعرفة الكلية لمعلمات التمريض والأداء فيما يتعلق بكفايات التدريس الأكلينيكي وإنجاز لطلاب التمريض في مرحلة ما بعد برنامج التدريب مباشرة كما توجد علاقة ارتباط موجبة ذات دلالة إحصائية بين المعرفة الكلية لمعلمي التمريض والأداء فيما يتعلق بكفاءات التدريس الاكلينيكي وإنجاز التقييم الأكلينيكي لطلاب التمريض في مرحلة برنامج التدريب. بينما لا توجد علاقة ارتباطية ذات دلالة إحصائية في مرحلة برنامج ما قبل التدريب. وقد أوصت الدراسة بإجراء برنامج توجيهي لإعداد معلمات التمريض الجدد حول المبادئ والممارسة القائمة على الأدلة لكفايات التدريس الاكلينيكي وتأثيرها على تحصيل طلاب التمريض.