

Effect of Guided Clinical Observation Assignment on Nursing Students' Knowledge and Practices Regarding Patient Safety

Eman El- Sayed Taha, Assistant professor^{*}, Eman Nagy Mohamed ,
Nurse educator^{**}

^{*}Nursing Education Department, Faculty of Nursing, Alexandria University, Egypt

^{**}Technical Health Institute , Health Insurance Organization ., Alexandria , Egypt

Corresponding Author: Eman El- Sayed Taha

Background / Objectives: Guided clinical observation assignments are an integral part of the nursing educational experiences for nursing students. A nursing student's assignment is one of the crucial requirements that used to enhance the learning of the nursing students on the various aspects of nursing studies. Assignment tasks are used to help learners in coping up with the stressful life of a nursing practitioner and it requires from the students essential skills to complete. The aim of the study was to determine the effect of clinical assignment teaching strategy on nursing students' knowledge and practice related to patient safety measures. **Materials and Method :** The study was conducted at Gamal Abd El Nasser Technical Health Institute affiliated to Health Insurance Organization in Alexandria .The subjects of this study consisted of all second year students (N=48 students). They were divided randomly into two equal groups (24 nursing students for each) as follows: Group A (study group) was instructed about patient safety measures in the classroom through lectures then enrolled in clinical training in hospital using Safety Assessment Assignment Tool. Group B (control group) was instructed about patient safety measures in the classroom through lectures then enrolled in a traditional clinical teaching strategy. Three tools were used ;patient safety knowledge test ,safety measures observational checklist and safety assessment assignment tool. **Results :** Improvement in total knowledge regarding patient safety was noticed in both groups (the study and control group) after intervention without a statistically significant difference between study and control group. It was obviously noted that a statistically significant improvement in nursing students' The study results showed a statistically significant improvement in nursing students' knowledge and practice after implementation of assignment as a teaching method. **Conclusion and Recommendations :** Using guided observation assignment as a teaching method was statistically significant and effective in improving nursing students' practice more than knowledge. based on the results of this study , it was recommended that guided observation assignment can be used as a clinical teaching strategy to develop nursing students' skills in another field . A comparative study can be conducted to compare between guided observation assignment and simulation on nursing students' performance.

Date of Submission: 18-09-2018

Date of acceptance: 03-10-2018

I. Introduction

Clinical teaching is a hallmark of nursing education. It is important in the development of competency in clinical practice . It also plays an important role in undergraduate nursing education as it provides opportunities for nursing students to apply theory into practice , develop problem solving , critical thinking , decision making and communication skills . In addition , it is centered on transmitting nursing knowledge and assisting nursing students in acquiring the necessary skills and attitudes associated with the nursing practice.^(1,2)

So, nurse educators have a crucial role in preparing skillful, and competent graduate nurses. They should look for innovative methods to improve the preparation of nursing students.⁽³⁾

Several studies about clinical teaching showed that nursing students welcome any opportunity to choose among a variety of activities and to contribute their own suggestions. Some nursing students have a preference of clinical teaching approaches such as rounds, concept mapping, cooperative study assignments, patient simulations, conferences, role-plays, skill demonstrations, guided discussions, case studies, question and answer periods, and small group activities can engage interest.^(4,5) One of the teaching strategies that has been increasingly incorporated into the learning of practical skills is the guided clinical observation assignment.

Guided clinical observation assignments enable students to learn about concepts and theories relevant to clinical practice, develop critical thinking skills, and examine values and beliefs that may affect patient care. Written assignments about the clinical practice combined with feedback from nurse educators provide an effective means of developing students' writing abilities.^(6,7)

Clinical assignments provide an opportunity of self-learning for students. Assignments activities help learners to put knowledge to practice, develop skills, and cultivate professional values. Through assignments, nursing students preserve a better training in learning by doing aspects in the assignment, therefore it promotes students' self-confidence and self-respect.⁽⁸⁻¹⁰⁾ It can provide the individual learning attitude and speed in the learning process.^(11,12) This provides better feedback and gives exact solutions to the problems faced by the students in the learning process. Nurse educators act as a role of guide only.

Many types of assignments are appropriate for enhancing clinical learning; some of those assignments help nursing students to learn the content they are writing about but they do not necessarily improve writing skills, and other assignments promote competency in writing. For example, structured assignments such as care plans provide a minimal opportunity for

freedom of expression, originality, and creativity. Other assignments, such as term papers on clinical topics, promote the understanding of new content and its use in clinical practice as well as writing abilities. ⁽¹³⁻¹⁵⁾

AIM OF THE WORK

This study aims to:

Determine the effect of guided observation assignment on nursing students' knowledge and practices regarding patient safety

Research hypothesis:

1. The nursing students instructed by guided observation assignment exhibit high level of knowledge regarding patient safety measures than instructed by traditional teaching strategy.
2. The nursing students instructed by guided observation assignment exhibit high level of practices regarding patient safety measures than instructed by traditional teaching strategy.

II. Materials And Method

Materials

Research design:

A quasi-experimental research design was utilized.

Setting:

The present study was conducted at:

1. Gamal Abed El Nasser Technical Health Institute affiliated to Health Insurance Organization (Emergency and critical department) in Alexandria (Egypt).
2. Intensive care unit at Gamal Abed El Nasser Hospital affiliated to Health Insurance Organization at Alexandria (Egypt)

Subjects:

Subjects of this study comprised all nursing students enrolled in the second year (48 students). All of studied students were females. These students were assigned to the clinical training at Gamal Abd El Nasser Hospital in the intensive care unit. They were divided randomly into two equal groups (24 nursing students for each) as follows:

- ⇒ Group A (study group) was instructed about patient safety measures in the classroom through lectures then enrolled in clinical training in hospital using guided Safety Assessment Assignment Tool.
- ⇒ Group B (control group) was instructed about patient safety measures in the classroom through lectures then enrolled into a traditional clinical teaching strategy.

Tools:

In order to fulfill the aim of study; three tools were developed by the researcher in to collect the necessary data as follows:

Tool I: Patient Safety Knowledge Test:

Based on reviewing of the related literature ⁽¹⁶⁻¹⁹⁾ the researcher developed Knowledge test to assess students' knowledge related to patient safety measures. The researcher translated it into the Arabic language. This tool was divided into two parts:

Part I: included questions related to students' demographic data including age, area of residence, previous academic achievement, and previous patient safety experience.

Part II: Patient safety measures questionnaire, this part included a group of questions (38 statements) related to four main topics; environmental safety, infection control measures, patient fall prevention, and medication administration safety. Those questions were distributed in matching (8 items), multiple choice questions (MCQs)(10 items), and true or false (T/F) (20 items)

Nursing students' knowledge scores related to patient Safety measures were calculated as following: each question was present in a scale including (1) for each correct answer and (0) for each incorrect answer. Total scores which were summed up were 38 then converted into a percentage. The student knowledge is considered satisfactory if his / her scores level were more than 65% of the correct answer.

Tool II: Safety Measures Observational Checklist:

Based on the related literature ^(16,17,20,21) the researcher developed an observation checklist, to assess students' practices related to patient safety measures. It consisted of 69 items distributed in five parts:

Part one: hand washing practices included 7 items

Part two: waste disposal practices. included 8 items

Part three: included 17 items observing nursing students' practices regarding patient handling and fall prevention practices,

Part four: included 11 items observing nursing student' practices regarding using personal protective equipment; 5 statements for wearing gloves and 6 statements for wearing face mask.

Part five: included 26 items observing nursing students' practices regarding safety measures for medication administration.

Nursing students' practices scores related to patient safety measures were calculated as follows: each statement was present in a scale including (2) for done correctly, (1) for done incorrectly, and (0) for not done. Total scores summed up were 69 then converted into a percentage. The student knowledge considered satisfactory if scores level were more than 65% of correct practice.

Tool III; Safety Assessment Assignment Tool :

Safety Assessment Assignment Tool was used as a teaching tool to fulfill the objective of the study. This teaching tool was developed by the researcher based on reviewing of the related literature⁽²²⁻²⁵⁾, then translated into the Arabic language. This tool guided and helped nursing students in focusing their attention on observing safety issues in the clinical setting. It was designed for providing the students with the opportunities to develop their experience systematically and to make their learning by observation accurate and useful. The safety assessment assignment tool consisted of four parts including:

Part one: consisted of 36 statements concerned with patient assessment. This part included patient identification, level of consciousness, skin condition, attached tubes and lines, respiratory equipment, and patient records.

Part two: consisted of 28 statements observing the room/unit environment. Assessment included floors, walls, bed, commode, thermal or electrical equipment, medication or chemical solutions.

Part three: consisted of 5 areas focusing on nursing practice related to safety measures. The students observed the nursing staff performance regarding hand washing, waste disposing, sharps handling, patient handling, using personal protective equipment, and medication administration. Area 1 consisted of 8 items regarding hand washing, Area 2 consisted of 9 items regarding using personal protective equipment, Area 3 consisted of 9 items regarding waste disposing / sharps handling, Area 4 consisted of 34 items regarding medication administration.

Part four: it consisted of 7 guided points for students to reflect and report about patient safety, environment safety, and the nursing staff performance.

Method

1- Permission to conduct the study was obtained from administrative personnel of the chosen settings after explaining the aim of study.

2. Tools were developed by the researcher after reviewing the related literature. Then they were tested for content validity by ten experts' faculty nursing department members and then the modifications accordingly were done.

3. A pilot study was carried out on 20 nursing students enrolled in ICU clinical rotation to test feasibility, clarity, applicability of tools and the necessary modifications were done accordingly.

4. The reliability of the tools was statistically tested using Cronbach Alpha Coefficient test, and its value (r) was 0.97, which indicates high correlation.

5. All nursing students (48 students) randomly were divided into four equal groups (12 nursing students), because the policy of the study setting (Intensive care unit at Gamal Abed El Nasser Hospital) does not accept a large group of students for training. (2 study groups and 2 control groups).

The actual study was done through a three phases as follows:

I. Assessment phase (first week)

II. Intervention phase (second and third week)

III. Evaluation phase (fourth week)

I. Assessment phase:(Pre-Test)

In the first week at the beginning of the clinical rotation in the conference room, the study and control groups were asked to complete Patient Safety knowledge test (tool I) in order to assess students' knowledge regarding patient safety measures. Then the researcher assessed students' practices regarding patient safety measures (4 students each day) using Safety Measures Observation Checklist (tool II).

After assessing knowledge and practices, the study group was instructed about patient safety measures in the classroom through two lectures. The lectures contained topics as definition of patient safety, importance of safety measures, factors affecting patient safety, safety environment, and infection control measures.

❖ **For The control group:**

The second and third weeks of clinical rotation, nursing students completed their traditional clinical training in the intensive care unit (ICU) without any intervention from the researcher.

❖ **For the study group :**

The clinical rotation in the intensive care unit (ICU) was 4 weeks (3days/ week) as following:

II. Intervention (conduction) phase:

At second and third week, the students were instructed using guided observation assignment tool as a teaching strategy as follows:

(1) Second week:

A. At the beginning of second week (pre clinical conference) the researcher explained to the students the objectives of using assignment, importance of observing the safety environment and practices, the items of the assignment sheet, how to accomplish the assignment sheet and how to carry out the observation of safety, how to describe/report a patient situation and staff nurse practices. The researcher informed students that at the end of the rotation every student presented at least four completed Assessment assignment sheets and the written reports.

B. The researcher informed students that observation of patient /environment safety is to be performed without the presence of the instructor. They were also instructed that if they found any hazard to a patient they must correct it; otherwise notify the instructor or the staff of the issues that could not be handled. The researcher informs the students that observation of patient /environment safety was conducted for up to 10 minutes while reviewing the following questions in their mind:

- What data leads to believing there is a problem?

- Is the problem urgent/non-urgent?
- What clinical data would indicate that the situation needs immediate action and why?
- What about the environment that could lead to a problem for this patient?
- How would you manage this problem?
- What further assessment needs to be done?

C. The researcher informed the study group to complete the safety assignment tool (tool III) for every patient (assigned for a different patient each day). The students were informed that Assignment sheets would be completed and typically turned to the instructor after each clinical day.

D. At the end of clinical day, the researcher carried out a post clinical conference to discuss with students assignment completion difficulties. Then the students reflected on the finding. After that the students were asked to write a report about safety and errors that may be found.

(2) On the Second day of **week 2**, the students used the clinical assignment assessment tool to assess the patient himself, room environment, and the staff nurse in the presence of the researcher in order to evaluate, reflect on student, and help student to discover patient problems and hazards.

(3) From the third day of **week 2** up to the end of **week 3**, the students performed the clinical assignment assessment tool to assess patient himself, the room environment, and the staff nurse without the presence of the researcher to improve students' autonomy. The researchers followed and helped only weak students in discovering patient problems and hazards.

After each clinical day, in post-clinical conference discussions, the students were divided randomly into 3 equal groups (4students /day). Every student performed a presentation only for 5-10 minutes about patients focusing on safety measures. Students organized the hazards together under 7 issues: electrical hazards, chemical hazards, bacteriological hazards, radiology hazards, psychological hazards, thermal hazards, and mechanical hazards. Then the student discussed the role of the nurse to prevent and control those hazards. Feedback was done by the researcher to the students after each presentation

III. Evaluation phase (Post -Test):

1. In the **fourth week**, the evaluation post- test for both the study and control groups was done as follows:

- (a) Students' knowledge was assessed at the end of the clinical rotation, the students were asked to complete a patient safety knowledge test (tool I)
- (b) Students' practices were observed using Safety Measure Observation Checklist (tool II) to assess practices regarding patient safety measure. The researcher observed four students on each clinical day.

Ethical considerations:

- a. Permission to conduct the study was obtained from the administrative personnel of the chosen settings after explaining the aim of the study.
- b. An informed written consent was obtained from the students who participated in the study. The students were informed that the study is for educational purposes only, and taking part in the study is voluntary. The students were informed that their information and responses would be treated anonymously and confidentially and will be used for the research purpose only.

Statistical analysis

After data were collected and transferred into specially design formats to be suitable for computer feeding. Data were analyzed using a PC with the statistical package for social sciences (SPSS) version 18.

Descriptive statistics

- Cronbach Alpha Coefficient test was used to measure the internal consistency of the tools. Maximum reliability value (r) is 1.0 that indicates the highest correlation. The minimal accepted value is 0.65 were a value below indicates unreliability.
- Mean and standard deviation used for describing and summarizing data
- Spearman rank correlation coefficient test (r) was used to present the degree of correlation between nursing students knowledge score and practices score.
- A statistically significant test was at $P < 0.05$

III. Results.

Table (1) shows the distribution of the studied nursing students (study and control groups) according to their nursing students' socio-demographic characteristics.

No statistically significant differences were found between the study and control groups students in relation to all characteristics including age, residence, previous knowledge about patient safety, and previous academic achievement.

Table (2) illustrates the students' knowledge related to patient safety measures among study group before and after the implementation of assignment as a teaching strategy. In this table, a statistically significant improvement in nursing students' knowledge after the implementation of assignment as a teaching method was noted. The percentage of satisfactory level of total knowledge improved from 33.3% to 75% after implementation of assignment ($p=0.000^*$).

Concerning environmental safety measures, the percentage of students with satisfactory level was 37.5% and 79.2% after intervention ($p=0.000^*$). For Infection control measures, the percentage of satisfactory level was 37.5% and increased to 75% after intervention ($p=0.001^*$).

For patient fall prevention, the percentage of students with satisfactory levels before intervention was 29.2% and 79.2% after intervention ($p=0.000^*$). Regarding safe drug administration, the percentage of satisfactory level before intervention was 29.2% and 75.0% after intervention ($p=0.000^*$).

Table (3) shows nursing students' practice related to patient safety measures among the study group before and after implementation of assignment as a teaching strategy. This table shows a statistically significant improvement in nursing students' satisfactory level of practice related to patient safety measures. The percentage of student with satisfactory levels in the total practice related to patient safety measures was 9.3% before intervention and increased to 83.3 % after intervention (p= 0.000*).

For hand washing, the percentage of nursing students with satisfactory level increased from 4.2% to 70.8%. Satisfactory level of waste disposal practice was 12.5 % and increased to 91.7% after intervention. For using personal protective equipments: wearing gloves was 4.2% and increased to 75.0% after intervention. The practice of wearing masks did not improve as all of students were still with unsatisfactory level (p= 0.000*).

Regarding patient handling and fall prevention, the percentage of the satisfactory level of moving patient out of bed was 4.2% before intervention and increased to 83.3 % after intervention; handling patient in bed was 12.5% before intervention and increased to 87.5 % after intervention (p= 0.000*).

As regards medication administration, the percentage of the satisfactory level of practice before medication administration was 29.2% and increased to 83.3% after intervention; during medication administration it was 0% before intervention and increased to 87.5 % after intervention; and after medication administration it was 4.2% before intervention and increased to 62.5% after intervention (p= 0.000*).

Table (4) illustrates the nursing students' total knowledge related to patient safety measures among the study and control groups before and after implementation of assignment as a teaching strategy.

The percentage of nursing students with satisfactory levels of knowledge was increased post intervention in the study group with a statistically significant difference. Total knowledge was 33.3% before intervention and increased to 75.5 % after intervention (p=0.020*). In addition, the level of knowledge increased post intervention in control group with statistically significant difference. The total knowledge was 37.5% before intervention and increased to 41.7 % after intervention (p=0.002).

Table (5) presents the nursing students' total practices related to patient safety measures among study and control groups before and after implementation of assignment as teaching strategy. In this table, a statistically significant improvement was noted in nursing students' satisfactory level post intervention in the study group. The percentage of students with satisfactory level was 9.3% and 83.3% after implementation of assignment (p=0.000*).

Also, the table shows an improvement of the control group in total practice. However, the percentage of satisfactory level increased after intervention without a statistically significant difference, showing that the percentage of students was 4.2% and increased to 20.8% after intervention (p=0.958).

In addition , table results in addition show a statistically significant difference between the study and control groups in total practice after implementation of assignment as a teaching method. The percentage of nursing students with satisfactory levels in the study group was 83.3% and 20.8 % in the control group (p=0.000*).

Table (1): Distribution of the studied nursing students according to their nursing students' socio-demographic characteristics.

Demographic Data	Study (N=24)		Control (N=24)		X ²	P
	No	%	No	%		
Age (years)						
▪ 16-	23	95.8	21	87.5	0.0	1.000
▪ 20+	1	4.2	3	12.5		
Residence					0.0	1.000
▪ Urban	20	83.3	21	87.5		
▪ Rural	4	16.7	3	12.5		
Previous academic achievement					0.0	1.000
▪ Excellent	9	37.5	8	33.3		
▪ Very good	7	29.2	6	25.0		
▪ Good	8	33.3	10	41.7		
Previously Studies Regarding Safety					0.0	1.000
▪ Yes	7	29.2	9	37.5		
▪ No	17	70.8	15	62.5		

NA: Not Applicable X²_{mc} Mc-Nemar Test for Related Samples

* P < 0.05 (Significant)

Table (2): Nursing students' knowledge related to patient safety measures among study group before and after implementation of assignment as teaching strategy.

Knowledge related patient safety measurers	Before Intervention		Post Intervention		t	p
	No	%	No	%		
Environmental Safety Measures						
▪ Unsatisfactory	15	62.5	5	20.8	6.5	0.000*

▪ Satisfactory	9	37.5	19	79.2		
Infection Control						
▪ Unsatisfactory	15	62.5	6	25.0	3.8	0.001*
▪ Satisfactory	9	37.5	18	75.0		
Patient Fall Prevention						
▪ Unsatisfactory	17	70.8	5	20.8	4.2	0.000*
▪ Satisfactory	7	29.2	19	79.2		
Safe Drug Administration						
▪ Unsatisfactory	17	70.8	6	25.0	6.0	0.000*
▪ Satisfactory	7	29.2	18	75.0		
Total Knowledge						
▪ Unsatisfactory	16	66.5	6	25.0	6.9	0.000*
▪ Satisfactory	8	33.3	18	75.0		

t: Paired Samples t-Test * P < 0.05 (Significant)

Table (3): Nursing students' practices related to patient safety measures among study group before and after implementation of assignment as teaching strategy.

Practice related patient safety measurers	Before Intervention		Post Intervention		t	p
	No	%	No	%		
1. Hand Washing						
▪ Unsatisfactory	23	95.8	7	29.2	11.6	0.000*
▪ Satisfactory	1	4.2	17	70.8		
2. Waste Disposal						
▪ Unsatisfactory	21	87.5	2	8.3	12.7	0.000*
▪ Satisfactory	3	12.5	22	91.7		
3. Patient Handling - Fall Prevention						
Patient Moving out of bed						
▪ Unsatisfactory	23	95.8	4	16.7	13.2	0.000*
▪ Satisfactory	1	4.2	20	83.3		
Patient Handling in bed						
▪ Unsatisfactory	21	87.5	3	12.5	10.1	0.000*
▪ Satisfactory	3	12.5	21	87.5		
4. Using Personal Protective Equipment						
Wearing Gloves						
▪ Unsatisfactory	23	95.8	6	25.0	11.7	0.000*
▪ Satisfactory	1	4.2	18	75.0		
Wearing Facemask						
▪ Unsatisfactory	24	100.0	24	100.0	NA	NA
▪ Satisfactory	0	0.0	0	0.0		
5. Medication Administration						
Before Medication Administration						
▪ Unsatisfactory	17	70.8	4	16.7	9.5	0.000*
▪ Satisfactory	7	29.2	20	83.3		
During Medication Administration						
▪ Unsatisfactory	24	100.0	3	12.55	9.1	0.000*
▪ Satisfactory	0	0.0	21	87.5		
After Medication Administration						
▪ Unsatisfactory	23	95.8	9	37.5	8.1	0.000*
▪ Satisfactory	1	4.2	15	62.5		
Total Practice						
▪ Unsatisfactory	22	91.7	4	1.7	18.1	0.000*
▪ Satisfactory	2	9.3	20	83.3		

t: Paired Samples t-Test * P < 0.05 (Significant)

Table (4): Nursing students' total knowledge related to patient safety measures among study and control groups before and after implementation of assignment as teaching strategy.

Total Knowledge	Study		Control		X ² _{mc}	p
	No	%	No	%		
Before Implementation						
▪ Unsatisfactory	16	66.5	15	65.5	1.4	0.242
▪ Satisfactory	8	33.3	9	37.5		
After Implementation						
▪ Unsatisfactory	6	25.0	14	58.3	0.0	1.000
▪ Satisfactory	18	75.5	10	41.7		
X ² _{mc}	3.1		4.6			
P	0.020*		0.002*			

Mc-Nemar Test for Related Samples

X²_{mc} Mc-Nemar Test for Related Samples

* P < 0.05 (Significant)

Table (5): Nursing students' total practices related to patient safety measures among study and control groups before and after implementation of assignment as teaching strategy.

Total Practice	Study Group		Control Group		X ²	P
	No	%	No	%		
Before Implementation					0.0	1.000
▪ Unsatisfactory	22	91.7	23	95.8		
▪ Satisfactory	2	9.3	1	4.2		
After Implementation					18.1	0.000*
▪ Unsatisfactory	4	16.7	19	79.2		
▪ Satisfactory	20	83.3	5	20.8		
X ² _{mc}	5.3		0.05			
P	0.000*		0.958			

Mc-Nemar Test for Related Samples

X²_{mc} Mc-Nemar Test for Related Samples

* P < 0.05 (Significant)

IV. Discussion

Several studies showed the significant effect of utilizing clinical assignment as a method of teaching on improving students' skill or behavior. Nursing students' assignment is one of the crucial requirements that are used to enhance the learning of the nursing students on the various aspects of nursing studies. It also serves as the basis for performance assessment for students.⁽²⁶⁻³⁰⁾ Therefore, this study was carried out to determine the effect of clinical assignment as a teaching strategy on nursing students' knowledge and practice related to patient safety measures.

Regarding nursing students' knowledge after implementation of clinical assignment as a teaching strategy, the present study revealed an improvement in students' total knowledge in both studied groups **after** implementation of assignment, with a higher satisfactory level of knowledge in the study group than the control group without any statistically significant difference. The improvement in students' knowledge in both groups may be because they were instructed in the classroom through two interactive lectures about patient safety measures before enrollment in clinical setting. The lectures contained information about definition of patient safety, importance of safety measures, factors affecting patient safety, safety environment, and infection control measures.

In relation to students' practice related to patient safety measures among the **study and control groups before and after** implementation of **clinical assignment** as a teaching strategy, the present study results showed that pre implementation students in both groups (study and control) had an unsatisfactory level of total **practice** without any statistically significant difference. Where almost all of the studied students in both groups had an unsatisfactory level of practice related to hand washing practice, waste disposal measures, safe patient handling and fall prevention, using personal protective equipment, and safe medication administration.

This finding is supported by Cheung (2010) who found that nursing students had unsatisfactory practice and they were at high risk of hospital hazards such as blood borne pathogens and injuries due to students' unsafe practice. In addition, in this study poor practice was noticed in most common nursing procedures such as medication administration, blood sampling, isolation precautions, waste disposing, hand hygiene, or gloving.⁽³¹⁾ Similar unsatisfactory level of practice was found in Geller et al (2010) and Wu et al (2008) studies. They found that the majority of nursing students had an unsatisfactory level of practice concerning infection control measures including hand hygiene, breaks in the aseptic technique, waste disposing, gloving failures, isolation precautions, contamination of the environment or equipment, and occupational hazard prevention.^(32,33)

This finding is also supported by Celik and Kocasli (2008), who found according to students' self-reports that the rate of hand washing among nursing students was low. However, they inadequately and carelessly put their theoretical knowledge of the subject into practice.⁽³⁴⁾ Furthermore, their finding was in accordance with Wolf (2009) who found that nursing student' medication administration errors were high. Added nursing students' errors composed a 13 medication error types such as wrong patient, wrong time, wrong dose, omission error, and reporting and recording errors. Although nursing students' errors did not result in permanent harm or death, such errors must be regarded as serious mistakes.⁽³⁵⁾

Concerning nursing students' knowledge and practice related to patient safety measures among the **study group before and after implementation of safety assessment assignment** as a teaching strategy. The study results showed a statistically significant improvement in *nursing* students' knowledge and practice after implementation of assignment as a teaching method.

These study results are supported by Day and Smith (2007) who used the assessment tool as an assignment in order to integrate safety content into clinical teaching. Their study results showed a significant improvement in nursing students' skill and attitude related to safety measures after integrating safety content into clinical teaching using clinical teaching assignment. This finding reflected that providing students an assessment tool as a clinical teaching assignment was effective in improving students' learning including demonstrating skills in identifying gaps between practice in the unit and what has been identified as best practice. Also, assessment of safety practice and patient safety helped the student express opinions related to their education; students began to see themselves as nurses who take responsibility in some way for all patient care delivered in the unit. This method of learning encourages lifelong learners as the students are empowered to become active participants in their education due to their ability to make observations and explore topics where they have to communicate with others rather than merely follow directions.⁽²⁶⁾

In this respect, Hamilton (2010) concluded from his study that assignment as a teaching strategy promotes the students' skill to critique an existing base of knowledge for planning a research study clinical interaction, or a clinical guideline project.⁽²⁹⁾ Along with Neal-Boylan (2006), he used guided observation sheets to improve students' attitude and experience related to taking care of older adults. Students are assigned to interview and observe a patient then use Outcomes Assessment Information Data Set (OAIDS) in order to plan nursing care. That educational method helped students change their way of caring and paying attention to older adults and how to care for them in the community.⁽¹²⁾

Moreover, Mattila and Eriksson (2007) found that improving students' skill and behavior was significant when learning by assignment in relation to improving research skills and learning of nursing students in clinical practice. Utilizing learning assignment advances students' research practice in nursing care. In addition, the students stated that the assignment generated their ideas concerning the development of nursing care.⁽¹⁰⁾ Also, Marchigiano et al (2011) found that learning assignment improves nursing students' critical thinking skills because assignment focused on illuminating students' skills to analyze information, determine relevance, make connections, set priorities, select appropriate information, apply pertinent knowledge and evaluate outcomes. Their study provided evidence that nursing students were more confident and effective in utilizing their thinking skills when developing an assignment in the journal format.⁽²⁸⁾

These study results are supported by Wolf et al (2008), who used the assignment strategy to teach students patient assessment from head-to-toe. Results of that study showed that after utilizing patient assessment assignment, nursing students became more quick at noticing patient abnormalities and patients at risk, it improved student assessment skills and assisted them in developing a good nursing care plan. In addition, clinical educators used that assignment tool as a framework for teaching, a study guide, and an evaluation tool.⁽²⁷⁾

Moreover, in the present study using assignment encouraged students to observe a qualified nurse while functioning with patients during routine ward rounds. These tasks aimed to promote studied students' ability to make the links between theory and practice. In addition, assignment tool helped the students communicate more with the patients and ICU staff and provided the necessary care.

Also, during implementing this phase, clinical conferences were conducted to examine the outcomes of guided observation assignment, further learning experiences were developed including a care plan, presentation, discussion, reflection, and reporting as students develop a care plan, for a change in practice that is sensitive to the patient needs. This is supported by Holland and Ulrich (2016) who emphasized that it is important to develop creative strategies to help students transfer classroom knowledge into the clinical setting. Also, creativity during clinical conference enhances critical thinking, clinical judgment and clinical reasoning which are essential for clinical decision-making and problem solving in the health care setting.⁽³⁶⁾ Moreover, a valuable learning activity was obtained through the group presentations. Practice of oral presentations for dissemination of findings was valuable. From this experience, students learned to communicate orally their ideas since the studied students were collected at the end of each clinical day for a discussion about the activities done during the clinical day and the researcher took their reflection. This was stated by Young and Seibenhener (2018) who reported that when the nurse educators use one clinical teaching strategy is not enough to meet their learning needs. So, the responsibility of educators is to integrate innovative teaching strategies to help students to be actively engaged in the learning experience.⁽³⁷⁾

V. Conclusion and recommendations

It can be concluded that guided observation assignment is valuable as a clinical teaching method that enhances nursing students' knowledge and clinical competences. Also, develops their critical thinking, group process skills and writing skills while reporting clinical actions.

Based on the results of this study, it was recommended that guided observation assignment can be used as a clinical teaching strategy to develop nursing students' skills in another field. The nurse educators must use varieties of clinical teaching strategies to enhance students' learning and stimulate their critical thinking and clinical judgment. A comparative study can be conducted to compare between the effect of guided observation assignment and simulation on nursing students' performance.

Limitation of the study: Few studies and recent references were done related to clinical assignment in general and specifically related to guided observation assignment

References

- [1]. Morsy S. Effect of bedside teaching on anxiety, self confidence and self efficacy of critical care nursing students. Unpublished Doctoral Dissertation. Faculty of Nursing: University Of Alexandria, 2011
- [2]. Ham K., O'Rourke E. Clinical preparation for beginning nursing students. *Nurse Educator* 2004;29(4):139-41
- [3]. Phillips J., Clinical nurse educators' adoption of socio-culturally based teaching strategies. Published Doctoral Dissertation, Indiana University, 2009
- [4]. Bradshaw M., Lowenstein A. Innovative teaching strategies in nursing and related health professions. 6th ed., United States of America: Jones & Bartlett Learning Co., 2014
- [5]. Tinnon E. Scavenger hunt: a creative teaching strategy to introduce pharmacological concepts and ethical concerns. *Teaching and Learning in Nursing* 2014;9(3):104-7
- [6]. Reilly D, Oerman H. Clinical teaching in nursing education. 2nd ed. New York: National League of Nurses, 1992.
- [7]. Reed J, Procter S. Nursing education: a reflective approach. London: Edward Arnold, 1993
- [8]. Sankaryan B, Sindhu B. Learning and teaching nursing. 4th ed., New Delhi: Jaypee Brothers Medical Publishers, 2012. 95-140.
- [9]. Lee S, Hoerr S, Weatherspoon L, Schiffman R. Nutrition students improve attitudes after a guided experiential assignment with older adults. *J Nutrition Education and Behavior* 2008; 40(5): 279-87.
- [10]. Mattila L, Eriksson E. Nursing students learning to utilize nursing research in clinical practice. *Nurse Education Today* 2007; 27(6): 568-76.

- [11]. Montgomery M. Student attitudes regarding self-directed clinical assignments. *Teaching and Learning in Nursing* 2009; 4(2): 47-51.
- [12]. Neal-Boylan L. Optimizing undergraduate nursing education: care of older adults in the home setting. *Geriatr Nurs* 2006; 27(6): 355-61.
- [13]. Emerson R. *Nursing education in clinical setting*. St Louis: Mosby, Inc, 2007
- [14]. Meshref A. Perception of technical nursing students and their teacher toward clinical education experience. M.Sc. Thesis. Nursing Administration Department, Faculty of Nursing, Alexandria University. 2013.
- [15]. Ewan C, White R. *Teaching Nursing. a self instructional handbook*. 2nd ed. London, Weinheim: Chapman and Hall, 1996.
- [16]. Endacott R, Jevon P, Cooper S. *Clinical Nursing Skills: Core and Advanced*. Oxford, New York: University Press Inc, 2009.
- [17]. Daniels R, Grendell N, Wilkins F. *Nursing Fundamentals Caring and Clinical Decision Making*. 2nd ed. London: Chapman & Hall, 2010.
- [18]. Abo Jash YA. Nursing practices regarding the implementation of safety measures in the critical care units. M.Sc. Thesis. critical care nursing department, Faculty of Nursing, Alexandria University. 2008.
- [19]. Alewa A. Intensive care units risks that endanger patient safety at Manial university Hospital. Ph.D. Thesis. Nursing Administration Department, Faculty of Nursing, Cairo University. 2010.
- [20]. National Center for Patient Safety (NCPS). VHA National Patient Safety Improvement Handbook. Veterans Health Administration. 2004. Available at: <http://vawww.va.gov/publ/direc/health/handbook/1051-1hk1-30-02.pdf>
- [21]. Benzy P., Anant P., Durgesh K., Sujesh P. A study on knowledge , attitudes and practice of universal precaution s among medical and nursing students. *J App Med Science* 2014; 2(5E):1821-3
- [22]. Australian Commission on Safety and Quality in Health Care. National Patient Safety Education Framework (NPSEF). 2012. Available at: <http://www.safetyandquality.gov.au/former-publications/national-patient-safety-education-framework-pdf-1053-kb/>
- [23]. Aly NA. A Study of Health Hazard and Safety Measures Healthcare In General Medical/ Surgical Wards Units at Alexandria Main University. M.Sc. Thesis. Hospital Administration Department, High Institute of Public Health, Alexandria University. 2005.
- [24]. Katab MM. Development of Manual for Safety Measurers in General Critical Care Units at Alexandria Main University. Ph.D. Thesis. Nursing Administration Department, Faculty of Nursing, Alexandria University. 2005.
- [25]. Ginsburg LR. Self-reported patient safety competence among new graduates in medicine, nursing, and pharmacy. *BMJ Qual Saf* 2013; 22: 147-54.
- [26]. Day L, Smith E. Integrating quality and safety content into clinical teaching in the acute care setting. *Nursing Outlook* 2007; 55(3): 138-43.
- [27]. Wolf L, Fiscella E, Cunningham H. 10 minute assessment for patient safety: a teaching tool. *Nurse Educ* 2008; 33(6): 237-40.
- [28]. Marchigiano G, Eduljee N, Harvey K. Developing critical thinking skills from clinical assignments: a pilot study on nursing students self-reported perceptions. *J Nurs Manag* 2011; 19(1): 143-52.
- [29]. Hamilton J. Teaching Research To Graduate Nursing Students: A Strategy Using Clinically Based Research Projects. *Nurs Forum* 2010; 45: 261-5.
- [30]. Banning M. The use of structured assessments, practical skills and performance indicators to assess the ability of pre-registration nursing students to apply the principles of pharmacology and therapeutics to the medication management needs of patients. *Nurse Education in Practice* 2004; 4(2): 100-6.
- [31]. Cheung K., Ching S., Ching S. Analysis of needle stick injuries among nursing students in Hong Kong. *Accident Analysis and Prevention* 2010; 42(6): 1744-50.
- [32]. Geller N, Bakken S, Currie L, Schnall R, Larson E. Infection control hazards and nearmisses reported by nursing students. *Am J Infect Control* 2010; 38: 811-6.
- [33]. Wu C-J, Gardner G, Wolf Z, Chang A. Taiwanese nursing students' knowledge, application and confidence with standard and additional precautions in infection control. *J Clin Nurs* 2008; 18: 1105-12.
- [34]. Celik S, Kocasli S. Hygienic hand washing among nursing students in Turkey. *Applied Nursing Research* 2008; 21(4): 207-11.
- [35]. Wolf Z. Nursing student' medication errors involving tubing and catheters: A descriptive study. *Nurse Education Today* 2009; 29(6): 681-8.
- [36]. Holland C and Ulrich D. Critical thinking cards : an innovative teaching strategy to bridge classroom knowledge with clinical decision making . *Teaching and Learning in Nursing* 2016; 11(3) : 108-12
- [37]. Young D, Seibenhener S. Preferred teaching strategies for students in an associate of science nursing program . *Teaching and Learning in Nursing* 2018; 13(1): 41-5

Eman El- Sayed Taha. "Effect Of Guided Clinical Observation Assignment On Nursing Students' Knowledge And Practices Regarding Patient Safety". *IOSR Journal of Nursing and Health Science (IOSR-JNHS)* , vol. 7, no.5 , 2018, pp. 43-53.