Intervention Technique to Increase Awareness of Maternity Competency Standards among Intern Students

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Abstract: A maternity nursing staff that performs according to global occupational and professional standards can offer safe care service for women and newborn. This study aimed at identifying the effectiveness of an intervention technique to increase awareness of the maternity competency standards among intern students. A quasi-experimental research design was utilized (time-series one group). A purposive sample of 70 female intern students in the Faculty of Nursing at El-Minia University participated in this study. Data were collected through three tools (1) Personal Data Sheet, (2) Maternity Competency Standards Checklist (MCSC); this is a structured or closed questionnaire and (3) Knowledge Test. Procedures included a pretest wherein the MCSC and the Knowledge Test were administered to the sample of the study, followed by an intervention for 12 weeks, posttest occurred 1 immediately after the intervention, and posttest 2 occurred one month after posttest 1. The study revealed that there were significant differences in students' overall competence ($p < 0.05$) between the pretest and the posttest1. There were non-significant differences in students' overall competence ($p > 0.05$) between postest1 and posttest 2 nor between posttest 1 and posttest 3 ($p > 0.05$). It was concluded that using an intervention technique increased awareness of the maternity competency standards among intern students and thus the conclusion of the research findings supported the research hypotheses. The researcher recommended that maternal competency standards should be part of the academic and professional preparation of intern students and the evaluation plan at the Faculty of Nursing.

Keywords: Intervention technique, maternal competency standards, Awareness, Intern Students

Introduction

Competency is defined as specific characteristics that a person needs to demonstrate to be effective in a job. These characteristics involve work-related behavior (i.e., job performance), motivation (i.e., feeling, emotions, and value of the job), and technical knowledge/skills (i.e., professional knowledge related to the job). This definition highlights that competency is a multi-faceted construct. It is a complex combination of knowledge, performance, skills, values, and attitudes. (1)

The achievement of maternity competency standards is of first priority to ensure the delivery of a safe maternity care. The latest statistics published by the annual report of World Health Organization (WHO) highlights that maternal death worldwide has decreased by 56% since 2010. However, a total of 7000 women still die each year in Africa because of some preventable causes before, during, and after the time of giving birth. In North Africa, 2000 women die each year and 80% of these women were not suffering serious pregnancy or delivery problems. It was remarkable that the WHO annual report highlighted that nurses' professional skills were often held responsible for these deaths because 66% of nurses who handled these cases were not aware of maternity competency standards and that 54% of those nurses did not practice these competency standards in real life situations (2).

Standards are a central component of quality assessment programs in associations that offer maternity care service. They act as independent validated and well-established criteria of "best practice" to which the performance of health staff can be compared. They may also serve as benchmarks to the high level of performance. In order to ensure that women and newborn are receiving a professional safe care service, it is important to ensure that maternity nursing staff is able to perform according to global well-established occupational and professional standards. (3).

Furthermore, an important factor to consider when discussing maternity competency standards is the assessment of health personnel's awareness of these standards. Awareness and attitudes are two different psychological constructs. Awareness is measured in terms of knowledge and performance. Attitude on the other hand is measured as an emotional disposition that expresses what one's like or dislike (4).

A maternity nurse is a nursing professional who provides care to expectant mothers before, during and after childbirth. Most maternity nurses will focus on supporting women during the labor and delivery process – working at the patient's side to monitor both mother and baby, and to encourage, coach, educate and support. Others may care for women who are experiencing complications before birth or provide postpartum (after delivery) care, at the university level; the focus is on intern students' awareness of maternity competency standards. This includes both knowledge and practice of global maternity competency standards of practice in order to ensure that those students are able to deliver a safe maternity care when they graduate (5).

One study in South Africa examined the effect of maternity academic training and experiences on students' knowledge and practice of international maternity competence standards. The sample of the study included 112 students enrolled in a maternity bachelor program. Findings of the study showed that about 75% of the students were not aware of these standards and that 90% of the students were not applying these standards in their clinical practices. After training, there was a significant improvement in students' knowledge and practice of these standards (6).

Another study in Egypt investigated nurses' levels of knowledge and practice of infection control procedures when offering maternity care service at governmental versus

private hospitals. A non-purposive sample of 125 nurses from governmental hospitals and 125 nurses from private hospitals participated in the study. They found that 42% of nurses in governmental hospitals did not know about accurate infection control procedures compared to 11% in private hospitals. They also found that 45% of nurses in governmental hospitals did not practice these infection control procedures in real clinic situations compared to 14% in private hospitals (7).

Justification of the problem:

The largest health discrepancy in the world is maternal mortality with most deaths occurring around the labor, delivery and postpartum period. The latest statistics published by the World Health Organization (WHO) revealed that approximately 830 women die every day from preventable causes related to pregnancy and childbirth and that 99% of all maternal deaths occur in developing countries. The maternal mortality ratio in developing countries in 2015 is 239 per 100 000 live births versus 12 per 100 000 live births in developed countries (8). The presence of skilled qualified competent nurses and awareness of high quality maternity care is a leading factor in averting maternal death and disability. Thus, there are demands for the intern students to acquire and maintain necessary knowledge, a professional approach to action (attitudes and ethical behaviors) and a set of skills that enable them to practice as a competent and caring nurse clinician and consequently deliver a safe maternity care service according to global standards. The application of maternal competency standards can make the difference between life and death for both the mother and the baby. So the purpose of this study is to evaluate the effect of an intervention technique to increase awareness of the maternity competency standards among intern students.

Aim of the Study

This study aims at identifying the effectiveness of an intervention technique to increase awareness of the maternity competency standards among intern students.

Research hypothesis:

Using of an intervention technique will increase awareness of the maternity competency standards among intern students.

Methodology

The methodology for this study was presented under the following three main categories:
1. Technical design
2. Operational design
3. Administrative design

1. Technical design

The technical design used in the present study covers four main headings:
(A) Sample and Method, (B) Setting, and (C) Tools and data collection

(A) Sample and Methods

This study utilizes a quasi-experimental time-series one group, pre-test, post-test research design such that the effect of an independent variable (the intervention) on the dependent variable (maternity competencies skills and knowledge test) is examined. A purposive sample of 70 intern students participated in the study, All sample participants were assigned to one group because this was a quasi-experimental time-series one group, pre-test, post-test research design.

(B) Setting

The present study was conducted at the Obstetric and Genecology Department in the Obstetric and Genecology Hospital at El-Minia University in El-Minia governorate. The hospital is located at the North East of El-Minia University campus and it was established in 2005. The hospital has its own independent entry gate that leads to the Upper Egypt agricultural Highway. The capacity of the hospital is 110 beds

(C) Tools of data collection

(1) **Socio-demographic data sheet**

The researcher constructed a questionnaire to collect data such as age, residency, and number of competency training sessions attended.

(2) **Maternity Competency Standards Checklist (MCSC)**

The Maternity Competency Standard Checklist is a behavioral checklist that aims at measuring intern students level of performance in real life maternity nursing situations according to four maternity competency standards. MCSC has 110 items that are divided over four competency standards. These standards are (9):

Standard 1: Antenatal history, physical examination, and basic care

This standard describes that intern students provide high quality antenatal services by taking comprehensive antenatal history, conduct high quality physical examination, and provide help with care provision. It includes 34 items (Items 1-34) divided over 4 sub-standards.

Standard 2: Normal labor, childbirth, and immediate newborn care
This standard describes that the intern students provide high quality, culturally sensitive care during labor, conduct a clean and safe birth and handle selected emergency situations to maximize the health of women and their newborns. It includes 24 items (Items 35-59) divided over 5 sub-standards.

Standard 3: Postpartum care
This standard describes that intern students provide comprehensive, high quality, culturally sensitive postpartum care for women and for the essentially healthy infant from birth to two months of age. It includes 39 items (Items 60-96) divided over 5 sub-standards .

Standard 4: Family planning
This standard describes the intern students provide high quality, culturally sensitive health education and services to all in the community in order to promote healthy family life, planned pregnancies and positive parenting. It

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includes 13 items (Items 97- 110) divided over 4 sub-standards.

Scoring system of the MCSC

The MCSC can be completed by a staff member, a trained nurse, a researcher, or anyone who is familiar with these four maternity competency standards. Each of the items on the MCSC is rated on a two-point frequency scale (i.e., 0 = No, 1 = Yes). A score of zero means that the behavior described by the statement was not observed by the rater. A score of 1 means that the behavior described by the statement was observed by the rater. Scores of the four main standards can summed to obtain an overall total score that describes the maternity competency for a particular student. A high score indicates high level of competency of the maternity standards, whereas a low score indicates low level of competency of these standards.

(3) Knowledge assessment sheet

This test was designed to measure intern students' knowledge of the information embedded within the four standards of competency as described by the MCSC. This Knowledge Test contained 52 multiple choice questions distributed over the four tests as following: Test 1 for Standard 1 (10 questions), Test 2 for Standard 2 (20 questions), Test 3 for Standard 3 (10 questions), and Test 4 for Standard 4 (12 questions) (10). Every question has four options and the student is asked to choose the correct response. Standard 1 includes knowledge questions about antenatal care. For example

1. The information obtained from the antenatal history can help the provider
a. ____ Plan for childbirth
b. ____ Identify existing problems
c. ____ Identify health education and counseling needs
d. ____ All of the above

The scoring system of the knowledge assessment sheet

Knowledge questions were given a score zero (0) if the student answered the question incorrectly and a score of 1 if the student answered the question correctly. The scores of the correct answers of the questions for a test can be summed up to obtain a student's knowledge score of a specific standard. Scores of the four tests can be summed up to obtain a student's knowledge score of the four standards. A high score indicates high level of knowledge of the four standards, whereas a low score indicates low level of knowledge of the four standards.

Ethical considerations:

The study protocol was approved by pertinent research and ethics committees at the Faculty of Nursing in El-Minia University. Permissions to conduct the study were obtained from pertinent authorities. The aim of the study was explained to the participants, along with the benefits and any potential risks or discomforts. Oral consent was obtained from the students after the researcher explained the general aim of the study. Participation was volunteer and any student could deny participation at any time at no cost. Data was kept confidential and was used solely for research purposes.

2. Operational Design

This design involves description of the pilot study and fieldwork .

(1) Pilot study

After preparation of the MCSC and the Knowledge Test, they were pre-tested on 10% of the total study sample (7 students). The pilot study sample was excluded from the total sample. The purpose was to evaluate the applicability and clarity of the tools, assessment of feasibility of fieldwork, and detect any possible obstacles that might face the researcher and interfere with data collection. The pilot study also served to determine the time needed to complete the tools. Necessary modifications were done based upon the findings of the pilot study in order to strengthen the content or for more simplicity and clarity.

(2) Fieldwork description

An official written letter was obtained from the Dean of the Faculty of Nursing at Minia University as an approval for data collection to conduct the study. The letter explained the study purposes and its main procedure; the data for the present study was collected over a period of 7 months from early March 2016 to end of September 2016. The students were recruited to participate in the study during their internship in the study setting.

3. Administrative Design

(1) The Pretest phase

Data collection for the pre-test continued for two weeks; from early to mid-March, 2016. The researcher used two measurement tools as a pretest; the MCSC and the Knowledge Test. The researcher visited the study setting 4 days a week from 9:00 AM to 2:00 PM to administer the measurement tools. For the MCSC, the researcher observed the students as they work in groups during their internship at the study setting. The number of students in any group was above seven, but the researcher observed every student individually. It took the researcher 30 minutes on average to fill in the MCSC for each student. All data collection of the MCSC occurred in the Obstetric and Genecology Hospital. The researcher; therefore, administered the Knowledge Test in two groups. Group 1 included students who do their internship at Obstetric and Genecology Hospital, whereas group 2 included students who do their internship at Minia University Hospital. It took the students in each group 30 minutes on average to answer the questions of the Knowledge Test.

(2) The intervention Phase

The application of the intervention technique continued for almost 12 weeks; from mid-March to mid-June, 2016. The intervention technique consisted of 14 sessions: one introductory session, 12 sessions to increase students" awareness of maternity competency standards, and one conclusion session. There were three training sessions for every standard (4 standards x 3 sessions = 12 sessions) and each session run for two hours. The number of sessions held per week varied depending on students' workload, the researcher applied the intervention technique in two groups. The total number of hours of the intervention technique for

each group was 28 hours (2 hours x 14 sessions) of which 60% (17 hours) were as training practice.

(3) The Posttest and follow-up phase
The researcher administered to the post-test (Postetst1) immediately after the end of the intervention technique. To capture possible changes in students' awareness of maternity competency over time, the researcher re-administered posttest 2 occurred one month after posttest 1.

Limitations of the study:
(1) Small sample size (70 students) may limit the power of the data statistical analyses.
(2) All participants were female. This may undermine the generalizability of the findings of to a male population.
(3) The MCSC was filled in by the researcher for each student. This was not without error including subjectivity, leniency, severity, and halo effect.
(4) There is high risk for cheating in the Knowledge Test that used multiple choice questions only

Results
Table 1: Distribution of the students according to their demographic characteristics (N=70)

Variables	No	%
1-Age		
< 22	14	20
22 - 23	41	58.6
> 23	15	21.4
X+SD	22.5 ± 0.9 years	
2-Qualifications:		
- Enrolled in Faculty of Nursing	57	81.4
- Enrolled in Institute of Nursing	13	18.6
3-Training sessions attended		
Yes	20	28.6
No	50	71.4
4-Residency:		
Rural	38	54.3
Urban	32	45.7

Table 1 shows that the mean age of all students was 22.5 and that the majority of students (58.6%) were in the age range of 22-23 years. Most of students (81.4%) were enrolled in the Faculty of Nursing. Slightly less than three quarters of the students (71.4%) didn't attend any training sessions on maternal competency. A total of 54.3% of the students lived rural areas and 45.7% lived in urban areas.

Table 2: Percentage distribution of the students according to their overall maternal competency in antenatal care over four measures (Pretest, Posttest 1,Posttest 2, Posttest 3) (N=70)

Level of students' overall maternal competency in antenatal care (score=0-44)	No	%
Pretest		
Poor <22 (<50%)	44	63.5
Average 22 – 30.8(50-70 %)	24	33.5
Good >30.8-31 (>70-70.6 %)	2	3.0
Posttest 1		
Poor <22 (<50%)	7	9.2
Average 22 – 30.8(50-70 %)	34	47.9
Good >30.8-31 (>70-70.6 %)	30	42.9
Posttest 2		
Poor <22 (<50%)	6	7.8
Average 22 – 30.8(50-70 %)	34	49.3
Good >30.8-31 (>70-70.6 %)	30	42.9
Posttest 3		
Poor <22 (<50%)	7	9.2
Average 22 – 30.8(50-70 %)	33	47.9
Good >30.8-31 (>70-70.6 %)	30	42.9

Table shows that in posttest 1, the percentage of poor students decreased (9.2%), the percentages of both average (47.9%) and good (30%) students increased. In both posttest 2, the percentage of poor students decreased slightly (7.8%) compared to posttest 1 but in posttest 3, it was similar to that of posttest 1. The percentage of average students increased slightly in posttest 2 (49.3%) compared to posttest1 and it was the same in posttest 3 compared to posttest 1 (47.9%) compared to posttest1. The percentage of good students was the same (42.9%) in posttest 2 and posttest 3 compared to posttest 1.

Table 3: Percentage distribution of the students according to their overall maternal competency in labor care over four measures (Pretest, Posttest 1,Posttest 2, Posttest 3) (N=70)

Level of students' overall maternal competency in labor care (score=0-44)	No	%
Pretest		
Poor < 22 (<50%)	42	60
Average 22 - <31.8 (50-<70 %)	26	37.14
Good 31.8– 35.20 (70 -80 %)	2	2.86
Posttest 1		
Poor < 22 (<50%)	4	5.7
Average 22 - <31.8 (50-<70 %)	51	72.8
Good 31.8– 35.20 (70 -80 %)	15	21.5
Posttest 2		
Poor < 22 (<50%)	3	4.2
Average 22 - <31.8 (50-<70 %)	51	72.8
Good 31.8– 35.20 (70 -80 %)	16	22.8
Posttest 3		
Poor < 22 (<50%)	3	4.2
Average 22 - <31.8 (50-<70 %)	51	72.8
Good 31.8– 35.20 (70 -80 %)	16	22.8

Table 3 shows that in posttest 1, the percentage of poor students decreased (5.7%), the percentages of both average (72.8%) and good (21.5%) students increased. In both posttest 2 and posttest 3, the percentage of poor students decreased slightly (4.2%) compared to posttest 1.

The percentage of average students was the same in posttest 2 (72.8%) and posttest 3 compared to posttest1. The percentage of good students increased slightly in both posttest 2 and posttest 3 (22.8%) compared to posttest 1.

Table 4: Percentage distribution of the students according to their overall maternal competency in postpartum care over four measures (Pretest, Posttest 1, Posttest 2, Posttest 3) (N=70)

Level of students' overall maternal competency in postpartum care (score=0-39)	No	%
Pretest		
Poor <19.5 (<50%)	33	47.1
Average 19.5 – <27.3(50-<70 %)	27	38.6
Good 27.3-29 (70 %)	10	14.3
Posttest 1		
Poor <19.5 (<50%)	5	7.2
Average 19.5 – <27.3(50-<70 %)	42	60.0
Good 27.3-29 (70 %)	23	32.8
Posttest 2		
Poor <19.5 (<50%)	3	4.3
Average 19.5 – <27.3(50-<70 %)	43	61.5
Good 27.3-29 (70 %)	24	34.2
Posttest 3		
Poor <19.5 (<50%)	4	5.7
Average 19.5 – <27.3(50-<70 %)	41	58.5
Good 27.3-29 (70 %)	25	35.8

Table 4 shows that in posttest 1, the percentage of poor students decreased (7.2%) compared to posttest 1, but the percentages of both average (60%) and good (32.8%) students increased compared to posttest 1. In posttest 2, the percentage of poor students decreased slightly (4.3%) compared to posttest 1 but it increased slightly in posttest 3 (5.7%). The percentage of average students increased slightly in posttest 2 (61.5%) but it decreased slightly in posttest 3 (58.5%) compared to posttest1. The percentage of good students increased slightly in both posttest 2 (34.2%) and posttest 3 (35.8%) compared to posttest 1.

Table 5: Percentage distribution of the students according to their overall maternal competency in family planning care over four measures (Pretest, Posttest 1,Posttest 2, Posttest 3) (N=70)

Level of students overall maternal competency in family planning care (score=0-26)	No	%
Pretest		
Poor <13 (<50%)	51	72.8
Average 7- <18.2 (50-70 %)	18	25.7
Good 18.2 -23.8 (70-91.6 %)	1	1.5

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Level of students overall maternal competency in family planning care (score=0-26)	No	%
Posttest 1		
Poor <13 (<50%)	4	5.7
Average 7- <18.2 (50-70 %)	38	54.3
Good 18.2 -23.8 (70-91.6 %)	28	40
Posttest 2		
Poor <13 (<50%)	4	5.7
Average 7- <18.2 (50-70 %)	39	56
Good 18.2 -23.8(70-91.6 %)	27	38.3
Posttest 3		
Poor <13 (<50%)	4	5.7
Average 7- <18.2 (50-70 %)	39	55
Good 18.2 -23.8 (70-91.6 %)	27	39.3

Table 5 shows In posttest 1, the percentage of poor students decreased (5.7%) compared to posttest 1, but the percentages of both average (54.3%) and good (40%) students increased compared to posttest 1. In posttest 2 and posttest 3, the percentage of poor students was the same as in posttest 1 (5.7%). The percentage of average students increased slightly in posttest 2 (56%) and posttest 3 (55%) compared to posttest 1. The percentage of good students decreased slightly in both posttest 2 (38.3%) and posttest 3 (39.3%) compared to posttest 1. Figure 21 displays the distribution of these percentages

Table 6: Comparison of the intern students according to the mean of their maternal competency in the four standards (antenatal care, labor, postpartum, and family planning care) over four measures (Pretest, Posttest 1,Posttest 2, Posttest 3) (N=70)

Overall maternal competency	X±SD	t. test of Pretest vs. Posttest 1	t. test of Posttest 1 vs. Posttest 2	t. test of Posttest 2 vs. Posttest 3
Antenatal care				
Pretest	61.3±4.2	-		
Posttest 1	66.3±5.1	26.5 (p < .001)		
Posttest 2	65.9±4.8		1.17 (p > .05)	
Posttest 3	66.1±4.9			1.11(p > .05)
Labor care				
Pretest	47.8 ±5.9	-		
Posttest 1	55.3±7.8	32.2 (p < .001)		
Posttest 2	54.8±7.5		1.36 (p > .05)	
Posttest 3	55.2±7.4			1.26 (p > .05)
Postpartum care				
Pretest	70.4±4.6	-		
Posttest 1	75.6±7.6	24.3 (p < .001)		
Posttest 2	75.4 ±7.4		1.52 (p > .05)	
Posttest 3	75.7 ±7.3			1.40 (p > .05)
Family planning				
Pretest	64.2±6.8	-		
Posttest 1	68.9±9.5	19.8 (p < .001)		
Posttest 2	68.7±9.3		1.39 (p > .05)	
Posttest 3	68.6±9.2			1.54 (p > .05)

Table 6 illustrates that there were significant differences (p < .001) between the pretest and posttest 1 in students' maternal competency in the four areas; antenatal care, labor care, postpartum care, and family planning care. Specifically, students' mean scores of maternal competency in these four areas have increased significantly in the posttest 1 compared to the pretest. In contrast, there were nonsignificant differences (p > .05) between posttest 1 and posttest 2 in students' maternal competency in the four areas; antenatal care, labor, postpartum, and family planning care. Similarly, there were nonsignificant differences (p > .05) between posttest 2 and posttest 3 in students' maternal competency in the four areas; antenatal care, labor, postpartum, and family planning care.
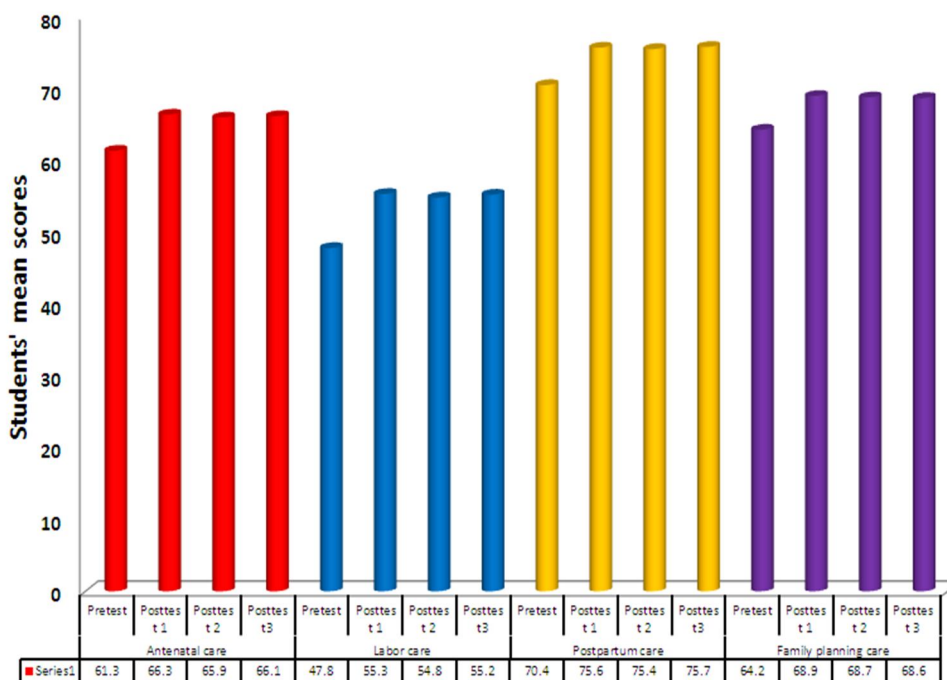
Figure 1. Students' mean scores of overall competency of the four maternal competency standards over Pretest, Posttest 1, Posttest 2, and Posttest

Discussion:

The findings of the present study showed that there was a notable decrease in the percentage of students with poor overall competency in this four areas in the posttest 1 compared to the pretest. There was a remarkable increase in the percentage of students with high overall competency in this four areas in the posttest 1 compared to the pretest. This pattern of increase in the percentage of students with high overall competency in these four areas did not change among posttest1, postest2, and posttest3. There were significant differences (p < .001) between the pretest and posttest 1 in students' overall competency in these four favoring the posttest

In a similar study, Paganini and Egry (2011) investigated the effect of an educational program on caring behavior and professional self-perception in nursing students using a controlled pre/pos test study design. The findings of the study supported the effect of the educational program because there was increased knowledge and understanding of caring theory and related concepts, a more holistic approach to care, enhanced caring practices, and improved self-perception in the study group compared to the control group during different phases of assessment (11).

Cheng, Tsai, Chang, and Liou (2014) investigated the effect of pre-graduation clinical training program on clinical competency of nurse students in Taiwan. They reported that students significantly increased their clinical competency after completing the training program. The preceptors generally rated the students with a high clinical competency score; however, the preceptors' scores were lower than the students' self-rated scores. The students' satisfaction with their preceptors positively influenced their decision to remain working in the hospital or unit where they received the practicum (12).

However, this finding did not agree with the findings of a study conducted by Bifftu, Dachew, Tiruneh, Kelkay, and Bayu (2016) that aimed at assessing perceived clinical competency among nursing students after a training program. They reported that more than half of the study participants still perceive themselves as incompetent after the intervention (13).

There are several factors that can account for the significant increase in students' overall competency on maternity competence standards after implementing the intervention technique. It is possible that students were highly motivated and strongly enthusiastic to learn and understand the material and activities offered during the intervention technique. Students might have found these material and activities interesting, challenging, useful, and updated. These positive feelings might have encouraged students to exert more effort, persist in learning, and achieve highly. From a psychological viewpoint, motivation can energize, directs, and support behavior. It also helps individuals move forward towards learning and understanding, and keeps them going (14).

In support of this interpretation, Yong (2011) conducted a quasi-experimental study that aimed at increasing first-time mothers' awareness of the advantages of breastfeeding in South Korea. He reported that motivated mothers were found to choose difficult learning tasks, exert more effort, pay attention, accept challenge, and persist in learning, attend training sessions punctually, and perform well up to their potentials. In contrast, unmotivated mothers were more likely to choose easy learning tasks, give up easily in face of challenges, and engage in avoidance and escaping strategies (15).

It is also possible that students find the intervention technique useful for mastering maternal competence standards and consequently supporting their academic career

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and future job opportunities. In support of this interpretation, the expectancy value theory proposes that the amount of effort that one exerts to perform a learning task is a product of the expectancy to succeed on that task and the degree of one values success on that task. This theory states that individuals are oriented towards their goals and that they behave according to their beliefs and values to achieve their goals (16).

Conclusions:
- There were significant differences ($p < .001$) between the pretest and posttest 1, 2, and 3.

Recommendations
(1) Intensive training program should be implemented to develop intern students' awareness of maternal competency standards in other areas such as labor complications.
(2) Within continuing health education, maternal competency standards should be part of the academic and professional preparation of intern students at the Faculty of Nursing.
(3) Maternal competency standards should be integrated in the evaluation plan of intern students.
(4) Further researches are needed to be conducted on maternal competency standards to: investigate the obstacles and hardships that hinder the development and/or implementation of maternal competency standards in maternal health care facilities, and to identify students' attitudes towards the applications of these standards.

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