Effect of Implementing Educational Approach on Female Nursing Students′ Perception regarding Respectful Maternity Care

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Abstract

Background: Respectful maternity care (RMC) is emerging as a new and essential concept for ensuring the respect and safety of women, which is based on the principles of women's rights during maternity care. **The aim:** was to evaluate the effect of educational approach on nursing students′ perception regarding RMC. ***Research design:*** A quasi-experimental research design was utilized. ***Setting:*** The research was carried out at Faculty of Nursing, Tanta University. ***Subjects:*** A representative sample of 120 female nursing students was included from the total of 310 undergraduate female nursing students in the third year, who were enrolled in Maternal and Neonatal Health Nursing Clinical Course at the previously mentioned study setting. ***Four tools*** were utilized for data collection; **Tool (I):** Nursing students' knowledge regarding respectful maternity care, which included two parts**: part (1)**: Nursing students' personal profile, **part (2):** Nursing students' knowledge regarding respectful maternity care. **Tool (II):** Nursing students' attitudes toward respectful maternity care scale. **Tool (III):** Reported disrespect and abuse care scale. **Tool (IV):** Observational checklist for nursing students' practices regarding respectful maternity care. ***Results:*** A statistically significant improvement of studied female nursing students' knowledge, attitudes, as well as practices was demonstrated immediately and two weeks after implementation of the educational approach regarding RMC. ***Conclusion and recommendations:*** understand the concept of RMC and its approach during pregnancy, childbirth, and postpartum period, which should be revised, updated according to the evidence based researches and to be included in the curricula of basic and postgraduate nursing education.

Keywords: Educational Approach, Students′ Perception, Respectful Maternity Care.

Introduction

Maternity care encompasses a range of health services aimed at supporting women, newborns, and families throughout pregnancy, childbirth, and the postpartum period. **RMC** is one of the domains of the WHO quality framework and basic human rights which respect women's rights during maternity care **(Butler, Fullerton, & Aman, 2020).**

History of RMC traced back as a response to the increasing recognition of women's rights in healthcare, particularly during the late 20th century. Today, RMC is recognized not just as the absence of mistreatment but as a proactive approach to deliver respectful and inclusive care **(Habib, Mwaisaka, Torpey, Maya, & Ankomah, 2023).**

The most common barrier to implementing RMC is the lack of resources and staffing in healthcare facilities. Also, disrespectful practices may be normalized that making it difficult for healthcare providers to change their behaviors **(Mgawadere & Shuaibu, 2021). Egypt** faces several significant barriers toward RMC such as; financial, cultural, personal, and provider-related barriers that lead to disrespectful practices, poor communication and inadequate supportive care **(Tajvar, Shakibazadeh, Alipour, & Khaledian, 2022).**

Strategies for promotion of RMC involve, improving healthcare infrastructure, enhancing healthcare providers training, and fostering a supportive cultural environment for women when seeking maternity care **(Amri & Simbolon, 2023). The RMC Charter** is a powerful tool to advocate for better maternal health services globally. **The charter outlines the fundamental principles** of RMC which include; freedom from harm and mistreatment, right to information, informed consent, respect for choices**,** confidentiality and privacy, dignity and respect, and equitable care**.** Also, the charter addresses the issue of disrespect and abuse toward women who are utilizing maternity services **(Jolivet et al., 2020).**

Disrespectful maternity care is a significant issue affecting every woman globally. It encompasses of range of abusive practices that violates women's rights during maternity care. **Types of disrespectful care include;** physical, verbal abuse, abandonment, coercive payment demands and performing procedures without consent. In health services, disrespectful care adversely affects quality of care in addition neonatal and maternal outcomes **(Gebeyehu, Adella, & Tegegne, 2023).** Disrespectful and abusive care continues despite the global attention to respectful care**.** However many efforts to combat disrespectful care are underway, with organizations that advocating for RMC as a fundamental human right **(Adinew, Adella, & Tegegne, 2023).**

Nursing students play a crucial role in promoting RMC, as they are the future healthcare providers for women and can have a profound influence on their maternity care, they should understand the RMC concept and be motivated to improve their knowledge in various ways and apply it in their

future practices to enhance RMC **(Dhakal, Creedy, Gamble, Newnham, & McInnes, 2022).**

Significance of the study

Globally, the reported prevalence of abusive and disrespectful care during childbirth ranges from 15% in Nigeria to 98% in Ethiopia **(Bekele, Bayou, & Garedew, 2020). In Egypt** the prevalence of disrespected and abusive care through maternity care ranges from 30% to 60% **(Kamal, Abdel-Wahab, & Mansour, 2024).** While the exact prevalence varies across studies, disrespectful and abusive maternity care appears to be a significant issue **(Khalil, Carasso, & Kabakian, 2022).**

RMC is recognized as a pivotal human right, emphasizing the dignity and autonomy of women during maternity care. It aims at preventing disrespect and abuse, which can lead to adverse health outcomes for both women and their newborns **(Haghdoost, Iravani, Rahmani, & Montazeri, 2024).** Implementing RMC not only aligns with ethical healthcare practices but also contributes to achieving broader public health goals, involving reducing maternal mortality and morbidity rates globally **(Asefa, McPake, Langer, Bohren, & Morgan, 2020).**

Nursing students play a vital role in the implementation of RMC, as their understanding of maternal rights directly influences their future clinical practices. Therefore, it is important for nursing students to acquire the skills regarding RMC for achieving a key element for high quality maternity care **(Huang et al., 2024).**

This study aimed to: Evaluate the effect of the educational approach on nursing students′ perception regarding RMC.

Operational definition

Educational approach

It is an instructional method focuses on a particular topic, student-centered learning activities and culminates in a study for students to demonstrate their understanding.

Research hypotheses

- Nursing students' knowledge regarding respectful maternity care is expected to be improved after implementation of the educational approach.
- Nursing students' attitude regarding respectful maternity care is expected to be improved after implementation of the educational approach.
- Nursing students' practices regarding respectful maternity care is expected to be improved after implementation of the educational approach.

Subjects and method

Study Design: A quasi-experimental research design was used to conduct this study.

Setting: The study was carried out at Faculty of Nursing, Tanta University, which is affiliated to the Ministry of Higher Education and Scientific Research.

Subjects: A representative sample of 120 female nursing students from the total 310 undergraduate female nursing students in the third year, Faculty of Nursing, who were enrolled in Maternal and Neonatal Health Nursing Clinical Course. The sample size and power analysis were

calculated using Epi-Info software statistical package created by the WHO and center for Disease Control and Prevention, Atlanta, Georgia, USA version 2021.

Criteria used for the sample size calculation were as follows; Z confidence level at 95% with a margin of error at 5% and population proportion 50%.

Data collection tools: Four tools were used to achieve the aim of this study.

Tool I: Nursing students' knowledge regarding respectful maternity care: This tool was developed by the researcher after reviewing the recent related **(Camlibel, & Uludag, 2023; Dhakal et al., 2022; Hajizadeh, Vaezi, Meedya, Charandabi, & Mirghafourvand, 2020).** It involved two parts;

Part one: Nursing students' personal profile: This part was utilized to collect data about students' general characteristics which included; age in years, marital status, residence, and pre-university education.

Part two: Nursing students' knowledge regarding respectful maternity care: This part was utilized to measure students' knowledge regarding RMC. It included questions regarding the following items; meaning of RMC, disrespectful maternity care and human rights, also importance, objectives, advantages and consequences of RMC. In addition, disadvantages and effects of disrespectful maternity care.

The scoring system of knowledge was categorized as follows

- Correct and complete answers were scored as (2).
- Correct and incomplete answers were scored as (1).
- Incorrect answers or don't know were scored as (0).

The total score for knowledge was calculated as follows

- High level of knowledge 80% - 100%.
- Moderate level of knowledge 60% - < 80%.
- Low level of knowledge < 60%.

Tool II: Nursing students' attitudes toward respectful maternity care scale: This tool was adapted from (**Dhakal et al., 2022: Garcia, Torres, Olvera, & Hulme, 2021).** It was used to measure students' attitudes regarding RMC. It consisted of 24 statements. The scale was divided into three subscales. **The first one was respectful care subscale which included** statements such as; health care providers have the responsibility to help woman feel safe during maternity care and the laboring woman need a birth space free from unnecessary disturbance by others.

The second one referred to the safety and comfort subscale which included statements such as; greet woman and explain benefits and risks to the women before any procedure and keep the woman in a clean bed with safety side rails is from human rights. **Finally, the third supportive care subscale** included three statements; women should be encouraged to actively participate in their care, the healthcare providers should support woman during maternity care, and women can talk to

each other about their maternity experiences.

Scoring system: Nursing students' attitudes was measured on a 5-point Likert Scale ranging from 1 to 5 where; 1= strongly disagree, 2=disagree, 3=unsure, 4=agree, 5=strongly agree, with higher scores indicating higher perceptions.

The total score of students' attitudes was calculated as follows

- Positive attitudes ≥ 60%.
- Negative attitudes < 60%.

Tool III: **Reported disrespect and abuse care scale:** This tool was adapted from **(Dhakal et al., 2022; Afulani, Diamond, Golub, & Sudhinaraset, 2017).** It was used to assess nursing students' stated abusive or disrespectful care during their clinical placement in obstetrics and gynecological department. It included statements about disrespect and abuse care such as; shouting, slapping, and scolding the woman, also performing nursing procedures without explanation or consent of woman and without maintaining privacy.

Scoring system: Nursing students' reported disrespectful or abusive care was measured on response scale from 1 to 4 (1= No, never /2= Yes, a few times /3= Yes, most of the time/4= Yes, all the time). With higher scores indicating higher reported disrespectful or abusive care.

The total score was calculated as follows:

- High reported disrespect and abuse ≥ 75%.
- Moderate reported disrespect and abuse 50% - < 75%.
- Low reported disrespect and abuse < 50%.

Tool IV: Observational checklist for nursing students' practices regarding respectful maternity care: This tool was adapted from **(Esan, Maswime, & Blaauw, 2022; Rosen et al., 2015).** It was utilized to assess nursing students' practices regarding RMC. It included fifteen items concerning students-women interactions during providing maternity care such as; welcoming/greeting woman in a respectful manner, introduce themselves to the woman and encouraging her to have a supportive person during maternity care.

Scoring system:

- Done correctly and completely was scored as (2).
- Done correctly and incompletely was scored as (1).
- Done incorrectly or not done at all was scored as (0).

The total score of nursing students' practices was calculated as follows

- Satisfactory practices ≥ 80%.
- Unsatisfactory practices < 80%.

Method

The study was implemented according to the following steps

Administrative approval: An official permission was obtained from the Dean of Faculty of Nursing at Tanta University clarifying the purpose of the study to obtain their cooperation and approval for carrying out the study.

Ethical considerations: The approval of the Scientific Research Ethical Committee Faculty of Nursing was obtained code number (375-2-2024).

- Informed written consent was obtained by the researcher from all participants after being aware of

their right to withdraw at any moment.
- The researcher was responsible to making sure that the nature of the study wouldn't cause any harm or pain to the entire sample.
- Confidentiality and privacy were taken into consideration through data collection.
- The study tools were tested for face and content validity by **jury test of five experts** in the field of Maternal and Neonatal Health Nursing. The face validity of the questionnaire was calculated based on experts' opinion and it was 94% and the content validity index was 95% for knowledge questionnaire, 93% for attitudes questionnaire, 94% for reported disrespectful and abusive care questionnaire and 93% for questionnaire about practices regarding RMC and total questionnaire content validity index was 93.65%
- After development of tools, **a pilot study** was carried out on 10% (12) of the female nursing students (120 students) to test the clarity and feasibility, simplicity, and applicability of the developed tools. It was applicable and no modifications were done, accordingly data obtained from the pilot study were included in the current study sample, the pilot study was conducted before the actual data collection.
- The reliability of the study tools was tested by using suitable statistical test as Cronbach's Alpha test which indicated high reliability (0.812, 0.850, 0.84 and 0.864 respectively) for knowledge, attitude, reported disrespectful and abusive care and practices questionnaire regarding RMC and the total questionnaire Cronbach's Alpha was 0.848.
- Data was collected in a period of six months from March 2024 to August 2024.

The educational approach was conducted through four phases **(assessment, planning, implementation and evaluation)** as follows:

Phase I: Assessment phase

During this phase, the researcher introduced herself to the participants, explained the aim of the study, asked the students to participate in the study after explaining the purpose of the study, obtained their consent to participate in the study and informed them that their participation is voluntary and wouldn't be included in their academic evaluation.

The researcher used **Tool I part (1)** to assess nursing students' personal profile and **Tool I part (2)** to assess nursing students' knowledge regarding RMC, **Tool II** to assess nursing students' attitudes regarding RMC, **Tool III** to evaluate nursing students' reported disrespect and abuse care and **Tool IV** to assess nursing students' practices regarding RMC before implementation of the educational approach.

Phase II: Planning phase

a. **Preparation of the educational approach sessions:** The educational approach included three sessions. The subjects (120 female students) were divided into 6 groups and each group included (20) students.

The educational approach sessions were conducted 3 days/week, 2 groups/ day, at the clinical obstetric skills lab by the researcher. The researcher ascertained that the subjects included completed two clinical rotations in the obstetrics and gynecological department to be sure that they had noticed the care provided to women. The time of each session ranged from 30 to 45 minutes.

b. Setting the goal and objectives of the educational approach

The goal of the educational approach

Improve the studied female nursing students' knowledge, attitudes and practices regarding RMC.

Objectives of the educational approach

After implementation of the educational approach the studied female nursing students will be able to identify objectives, importance, advantage and consequences of RMC. Also, explain the timeline of the RMC movement globally and in Egypt.

Prepare the content of the educational approach: An educational English booklet about RMC supplemented by photos and illustrations to help students understand the content was developed by the researcher based on female nursing students' pretest assessment and research goal, using recent relevant literatures available locally and internationally. The booklet was given to each student to be used as a guide for self-learning and retention of information.

Prepare the teaching strategy: The educational methods used were discussion, interactive lectures and role playing. Educational materials included PowerPoint presentation and videos.

Phase III: Implementation phase

- This phase was conducted in the clinical obstetric laboratory skills at Faculty of Nursing Tanta University, after completion of their daily course.
- The educational approach included three sessions as follows

First Session: It included assessment of female nursing students' knowledge about meaning, types of human rights, also definition, objectives, importance, advantage, domains, and consequences of RMC.

Second Session: It included orientation of the nursing students about common respectful and disrespectful maternity care practices, prevalence of disrespect and abuse globally, barrier of implementing RMC, also factors associated with disrespectful and abusive care and their effect.

Third Session: It included strategies required to promote RMC such as; respectful care policies, staff training, quality improvement initiatives, women's feedback mechanisms, supportive groups, technological strategies, as well as RMC educational approach for nursing students.

Phase IV: Evaluation phase

After implementing the educational approach sessions, the researcher used **(Tool I, part two)** to assess the effect of the educational approach on nursing students' knowledge regarding RMC, **(Tool II)** to evaluate the effect of the educational approach on nursing students' attitudes

regarding of RMC and **(Tool IV)** to assess nursing students' practices regarding RMC immediately after and two weeks after the sessions.

Statistical analysis

SPSS (Statistical Package for Social Science) version 25 (IBM Corporation, Armonk, NY, USA) was used to coded, entered, tabulated and analyzed collected data **(Dawson, & Trapp, 2001).**

Results

Table (1): Reveals that (49.2%) of studied female nursing student's age was 20 years old ranged from 20-22 years with mean age ± SD = 20.91± 0.94. Regarding their marital status, it was observed that (75%) of them were single, and (58.3%) of them were from rural areas. It is also observed that (79.1%) of studied female nursing students had pre-university education in higher secondary schools.

Figure (1): reveals that only (6.7%) of studied female nursing students had high level of knowledge before implementation of the educational approach, which increased to (96.7%) immediately after, then slightly decreased to (90.0%) two weeks later, with highly statistical significant difference (P<0.0001*).

Figure (2): Clarifies that (66.7%) of the studied students had a positive level of attitude regarding RMC before implementation of the educational approach which increased to the entire subjects (100%) immediately after, then slightly decreased to (97.5%) two weeks later, with high statistically significant difference(P <0.05).

Figure (3): Reveals that (53.4%) of the studied students reported high level of disrespectful and abusive maternity care, (45.8%) reported a moderate level of abusive and disrespectful maternity care and only (0.8%) reported low level of disrespectful and abusive maternity care.

Figure (4):- Displays that thirds (64.2%) of studied female nursing students had satisfactory practices before implementation of the educational approach which increased among vast majority of them (99%) immediately after, then slightly decreased to (98%) two weeks after the educational approach implementation, with high significance difference (χ^2 **value** = 75.596, p = 0.0001*).

Figure (5): Demonstrates a significance positive correlation was found between total knowledge scores and total attitudes scores of the studied female nursing students regarding RMC immediately after implementation of the educational approach where r = 0.367 and p= 0.0001*.

Figure (6): Represents that a significance positive correlation between total knowledge scores and total practices scores of the studied female nursing students regarding RMC was detected immediately after implementation of the educational approach where r = 0.434 and p= 0.0001*.

Table (2):- Represents the relationship between total knowledge mean scores of the studied nursing students regarding RMC and their personal profile before, immediately and two weeks after implementation of the educational approach, shows

that a significant relationship between total mean knowledge scores of studied female nursing students and their age, marital status, and residence was found before implementation of the educational approach (χ^2 **value** = 14.149, 5.150, and 3.735, respectively, **p** = 0.001*, 0.0001*, and 0.0001* respectively).

Also, a significant relationship between total mean knowledge scores of female nursing students and their marital status and residence was detected immediately after implementation of the educational approach (χ^2 **value** = 2.103 and 7.853 respectively , p = 0.035* and 0.005* respectively).

Table (3):- Displays the relationship between total attitudes mean scores of the studied nursing students regarding RMC and their personal profile before, immediate and two weeks after implementation of the educational approach, a significant relationship was presented between total mean attitude scores of studied female nursing students and their pre-university education before implementation of the educational approach (χ^2 **value**= 2.334, **p=** 0.020*).

Also, a significant relationship between total mean attitude scores of studied female nursing students and their age, marital status and pre-university education was found immediately after implementation of the educational approach (χ^2 **value**= 13.903, 2.747 and 4.712 respectively, p = 0.001*, 0.006*, 0.0001* respectively). Moreover, a significant relationship between total mean attitudes scores of studied female nursing students and their age, marital status and pre-university education was detected two weeks after implementation of the educational approach (χ^2 **value** = 12.469, 3.778 and 5.120 respectively, **p** = 0.002*, 0.0001* and 0.0001* respectively).

Table (4):- Reveals the relationship between total practices mean scores of the studied female nursing students regarding RMC and their personal profile before, immediate and two weeks after implementation of the educational approach, a significant relationship was found between total mean practices scores of studied female nursing students and their age, marital status, and pre-university education before implementation of the educational approach (χ^2 **value**= 9.796, 3.045, and 3.654 respectively, **p=** 0.007*, 0.002*, and 0.0001* respectively).

Also, a significant relationship between total mean practices scores of studied female nursing students and their age, marital status, residence and pre-university education was found immediately after implementation of the educational approach (χ^2 **value**= 29.125, 2.463, 8.244 and 4058 respectively, p = 0.0001*, 0.014*, 0.004* and 0.0001* respectively).

Table (1):- Personal profile of the studied female nursing students. (n=120)

Personal data	The studied female nursing students (n=120)	
	N	%
Age (years)		
20	59	49.2
21	13	10.8
22	48	40.0
Range	20-22	
Mean±SD	20.91± 0.94	
Marital status		
Married	30	25.0
Single	90	75.0
Residence		
Rural	70	58.3
Urban	50	41.7
Pre-university education		
Higher secondary school	95	79.1
Nursing Institute	25	20.9

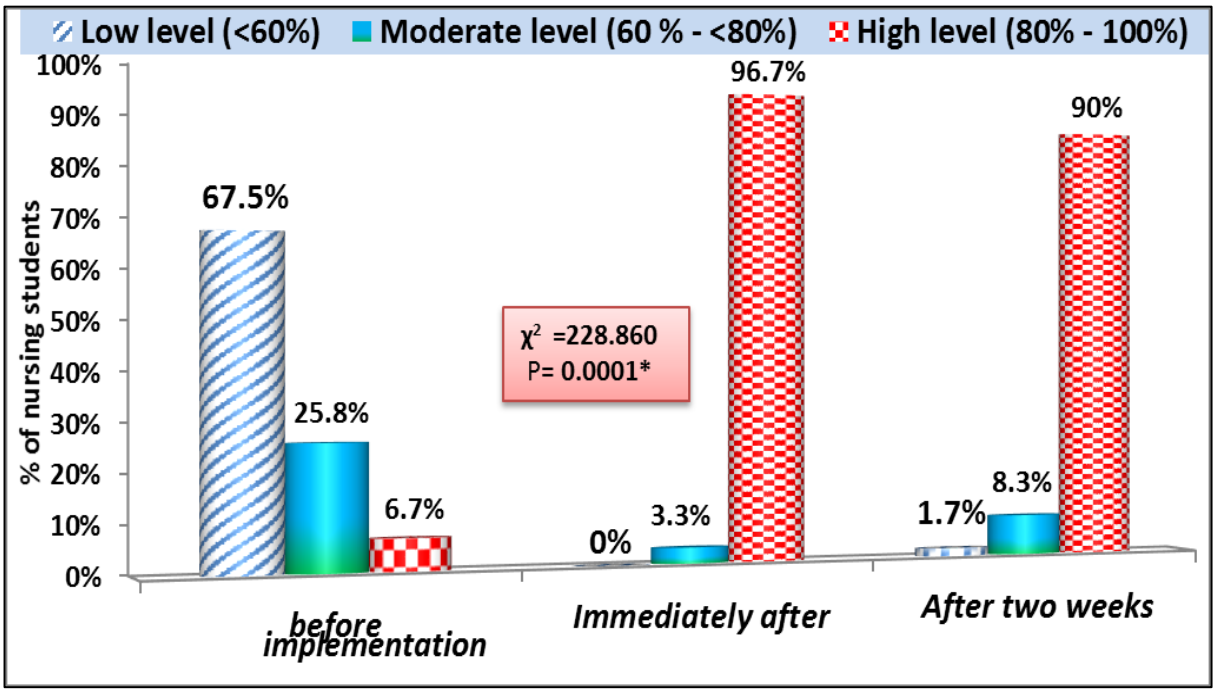

Figure (1): Total knowledge score level of the studied female nursing students about RMC before, immediate and two weeks after implementation of the educational approach.

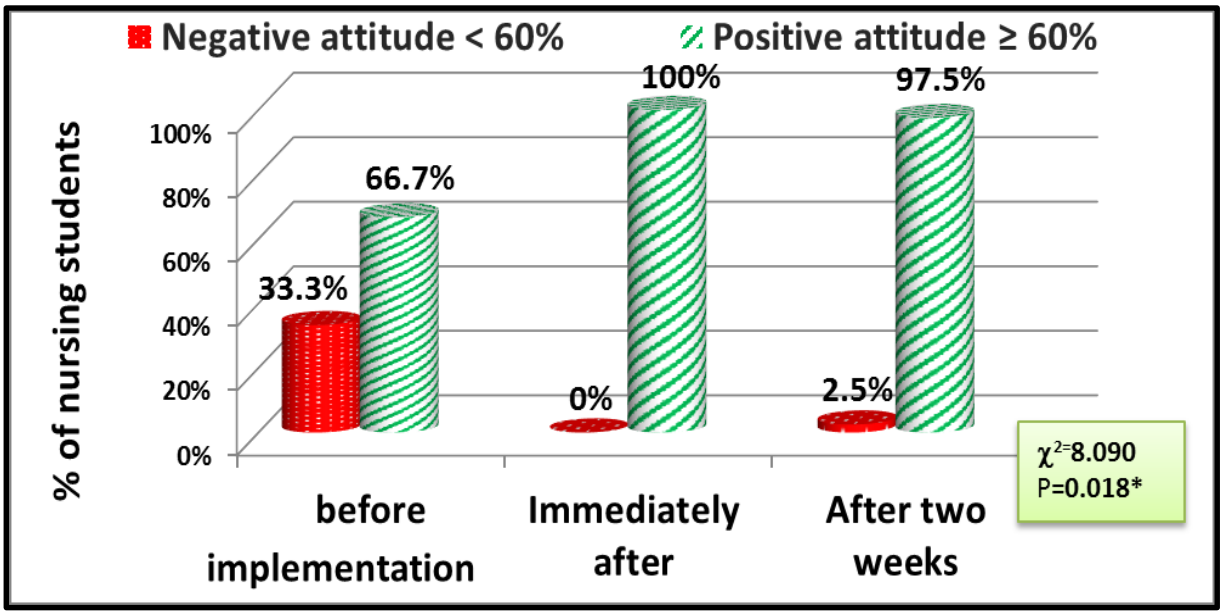

Figure (2): Total attitudes score level of the female nursing students towards RMC before, immediate and two weeks after implementation of the educational approach.

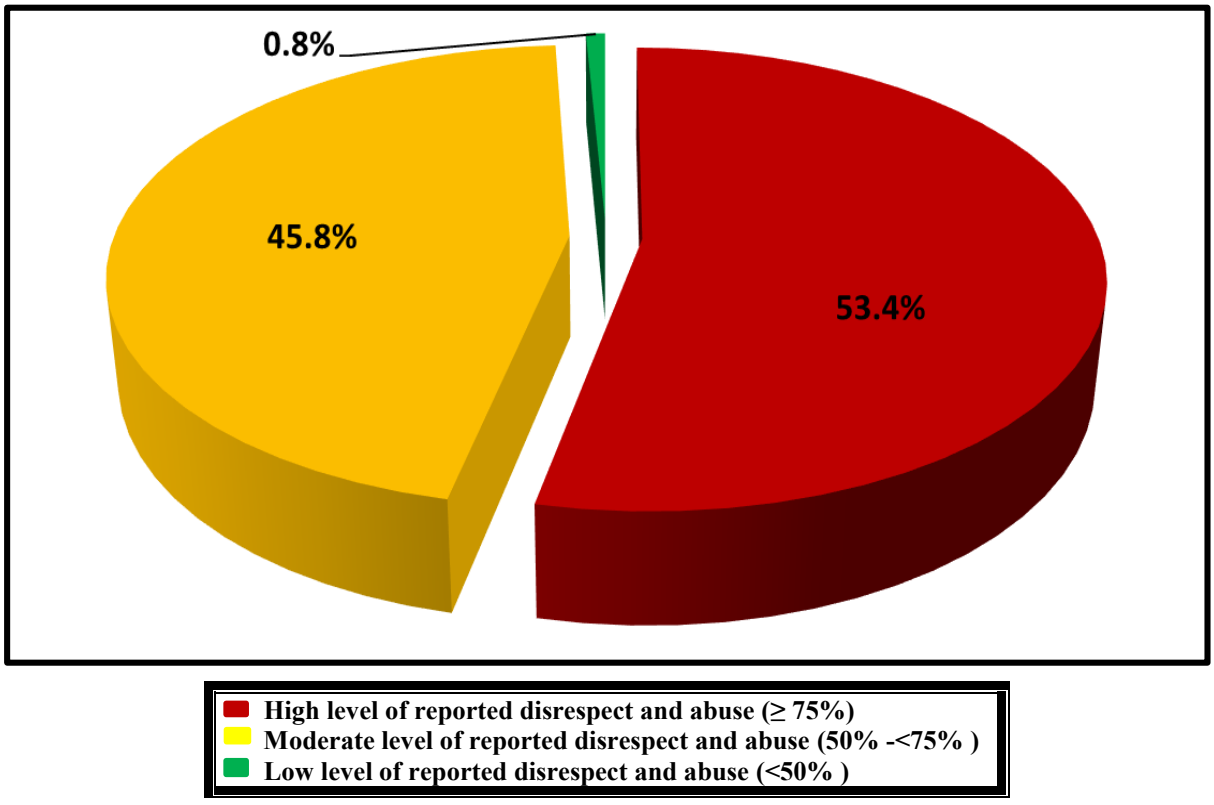

Figure (3): Total score level of reported disrespectful and abusive care by the female nursing students regarding maternity care before implementation of the educational approach.

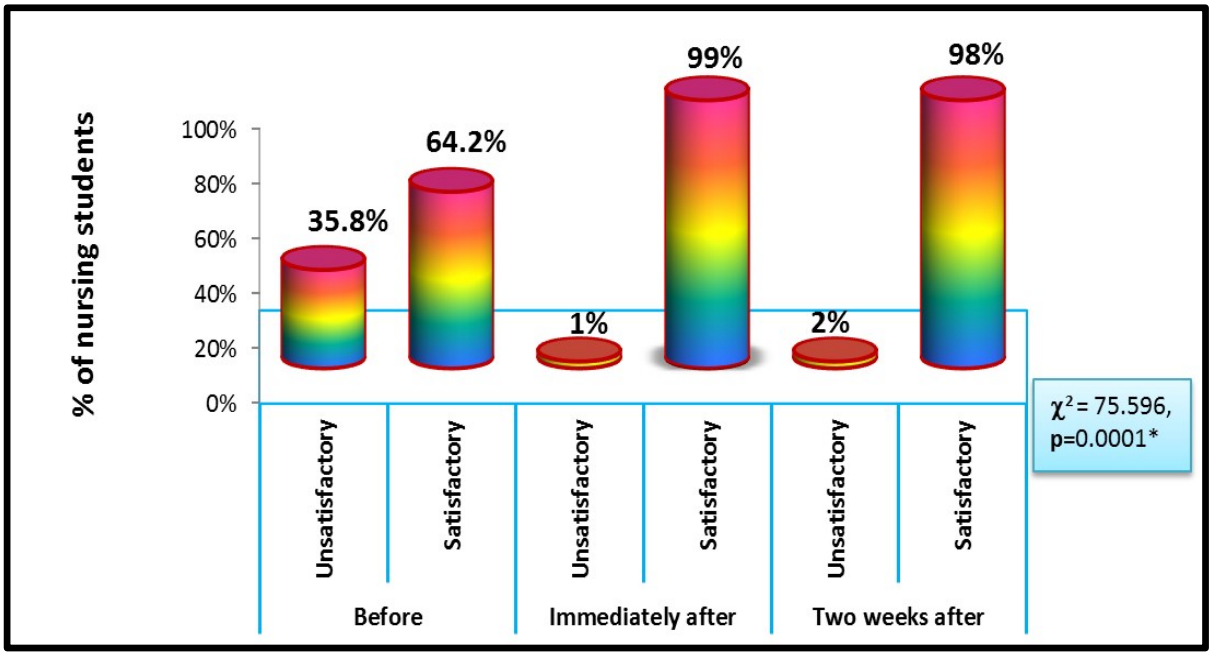

Figure (4): Total observed practices score level of the studied female nursing students regarding RMC before, immediate and two weeks after implementation of the educational approach.

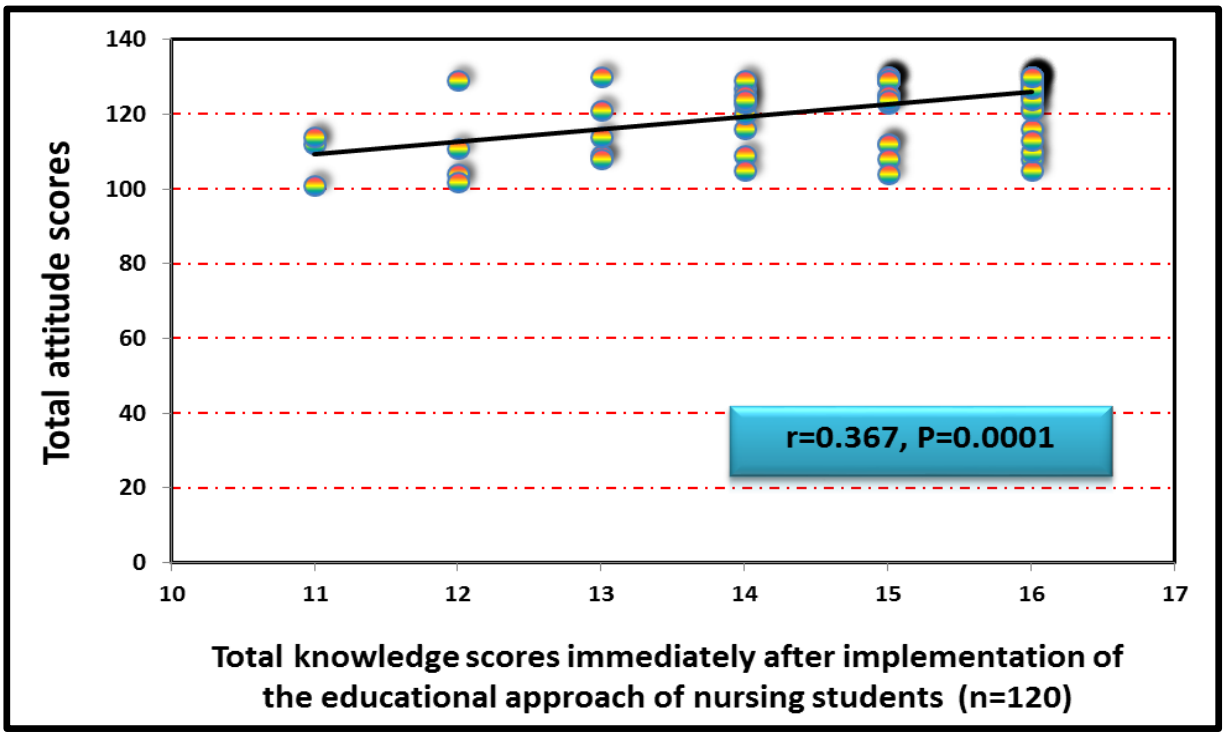

Figure (5): Correlation between total knowledge scores and total attitude scores of the studied female nursing students regarding RMC immediately after implementation of the educational approach. (n=120)

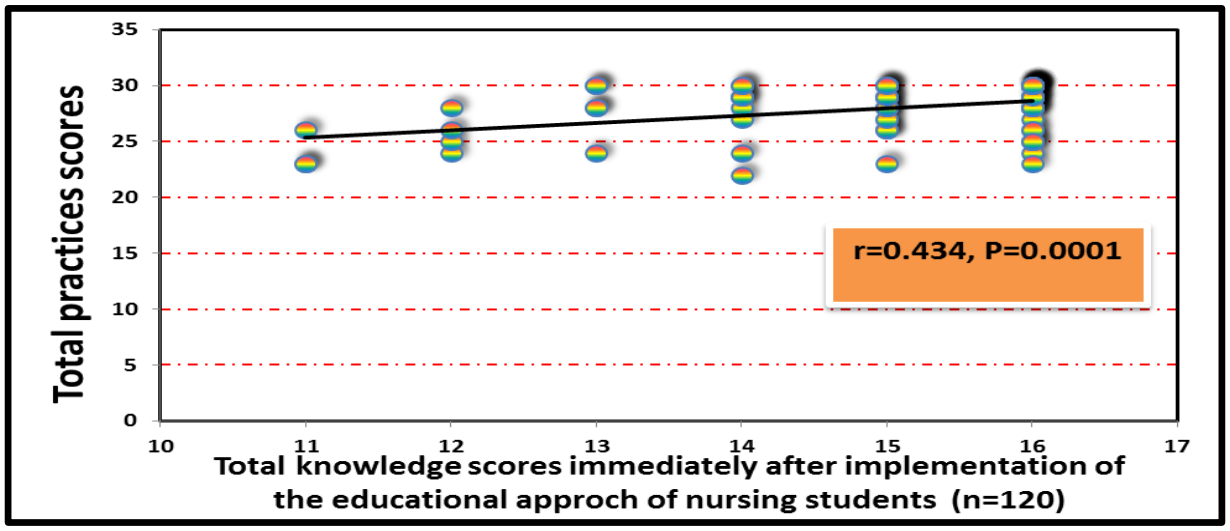

Figure (6): Correlation between total knowledge scores and total practices scores of the studied female nursing students regarding RMC immediately after implementation of the educational approach.

Table (2):- Relationship between total knowledge mean scores of the studied nursing students regarding RMC and their personal profile before, immediately and two weeks after implementation of the educational approach. (n=120)

Variables	No.	Total knowledge mean scores of the studied nursing students (n=120)					
		Before		Immediate after		Two weeks after	
		Mean± SD	Z or χ^2 P	Mean± SD	Z or χ P	Mean± SD	Z or χ^2 P
Age (years)							
20	59	7.15±2.30	14.149	15.41±1.02	5.086	14.72±1.42	0.231
21	13	9.97±1.80	0.001*	15.38±1.19	0.079	14.77±1.53	0.891
22	48	9.08±3.17		14.89±1.43		14.73±1.76	
Marital status							
Married	30	11.40±1.90	5.150	14.77±1.52	2.103	14.63±1.56	0.509
Single	90	8.61±2.44	0.0001*	15.34±1.09	0.035*	14.77±1.57	0.611
Residence							
Rural	70	9.98±2.63	3.735	15.44±1.04	7.853	14.78±1.41	0.045
Urban	50	8.36±2.29	0.0001*	14.86±1.40	0.005*	14.60±1.77	0.954
Pre-university Education							
Higher secondary School	95	9.13±2.44	1.194	15.22±1.22	0.298	14.65±1.60	1.201
Nursing Institute	25	10.00±3.15	0.232	15.12±1.30	0.766	15.04±1.43	0.230

*Statistically significant (P<0.05)

Table (3):- Relationship between total attitudes mean scores of the studied nursing students regarding RMC and their personal profile before, immediate and two weeks after implementation of the educational approach. (n=120)

Variables	No.	Total attitudes mean scores of the studied nursing students (n=120)					
		Before		Immediate after		Two weeks after	
		Mean±SD	Z or χ^2 P	Mean±SD	Z or χ^2 P	Mean±SD	Z or χ^2 P
Age (years)							
20	59	104.29±7.22	1.668	125.64±7.76	13.903	123.91±4.23	12.469
21	13	100.54±10.10	0.434	125.08±9.53	0.001*	121.15±7.39	0.002*
22	48	104.48±4.86		123.89±7.51		118.87±8.20	
Marital status							
Married	30	104.90±6.75	0.938	121.20±9.27	2.747	117.67±6.74	3.778
Single	90	103.64±6.85	0.348	126.11±6.93	0.006*	122.91±6.35	0.0001*
Residence							
Rural	70	103.48±7.40	0.656	125.46±7.35	1.112	122.78±4.79	0.561
Urban	50	104.62±5.91	0.512	124.08±8.49	0.292	119.94±8.69	0.575
Pre-university Education							
Higher secondary School	95	104.99±5.69	2.334	126.43±6.50	4.712	123.22±5.82	5.120
Nursing Institute	25	100.04±9.13	0.020*	119.00±9.68	0.0001*	115.44±6.90	0.0001*

*Statistically significant (P<0.05)

Table (4):- Relationship between total practices mean scores of the studied female nursing students regarding RMC and their personal profile before, immediate and two weeks after implementation of the educational approach. (n=120)

Variables	No.	Total practices mean scores of the studied nursing students (n=120)					
		Before		Immediate after		Two weeks after	
		Mean±SD	Z or χ^2 P	Mean±SD	Z or χ^2 P	Mean±SD	Z or χ^2 P
Age (years)							
20	59	20.23±5.32	9.796	29.29±1.49	29.125	27.69±1.76	4.155
21	13	25.00±5.50	0.007*	29.46±0.97	0.0001*	28.46±1.20	0.125
22	48	24.33±5.65		27.50±2.34		27.29±1.64	
Marital status							
Married	30	20.83±6.11	3.045	27.70±2.53	2.463	27.50±1.92	0.056
Single	90	25.34±5.08	0.002*	28.89±1.76	0.014*	27.65±1.78	0.956
Residence							
Rural	70	23.86±5.89	0.965	28.93±1.90	8.244	27.86±1.70	1.900
Urban	50	24.72±5.39	0.335	28.12±2.13	0.004*	27.28±1.93	0.057
Pre-university Education							
Higher School	95	25.34±5.02	3.654	28.96±1.72	4058	27.59±1.91	0.096
Nursing Institute	25	19.96±6.13	0.0001*	27.20±2.52	0.0001*	27.72±1.40	0.924

*Statistically significant (P<0.05)

Discussion

Concerning the personal profile of the studied female nursing students, nearly half of them were 20 years old and their age ranged from 20-22 years with mean age ± SD= 20.91± 0.94. Also, the majority of them were single and less than three fifths of them were from rural areas. In addition, more than three quarters of the studied female nursing students had pre-university education in higher secondary school.

Pertaining to total knowledge score level and total mean score of the studied female nursing students regarding RMC. The minority of them had high level of knowledge regarding RMC before implementation of the educational approach, which increased to the majority immediately and two weeks after implementation with highly statistical significant difference. These findings are matching with the result of **Dzomeku et al., (2021),** who assessed midwives' experiences after implementing four- days RMC training in daily maternity care practices. They stated that the training enhanced their rapport with women. Also, **Rana, (2024),** who determined the effectiveness of structured teaching program on knowledge regarding RMC among nurses working in maternity wards of selected hospital, in Bangalore. She revealed a considerable increase in the knowledge of her studied subjects regarding RMC after implementing the structured teaching program.

At the same context **Devassy, & Sangeetha, (2023)**, who assessed the knowledge on RMC among nursing staff, they reported that a minority of their participants had enough knowledge on RMC. Also, **Ojong, Chukwudozie, Nsemo, & Enebeli, (2022)** evaluated midwives' perception and practices of RMC during pregnancy and childbirth in selected health facilities in Cross River State, Nigeria and discovered a general moderate level of knowledge of their participants regarding RMC. Moreover, **Salma, Samanta, & Jash, (2024)**, who assessed knowledge, practices and challenges regarding RMC among midwives in labor room of selected public healthcare facilities in West Bengal. They found that less than one quarter of their subjects had good knowledge regarding RMC. From the researcher's point of view, the improvement in the level of knowledge after implementation of the educational approach regarding RMC in the present study and in several other studies may be due to different educational program provided to them.

Regarding total attitudes score level of the studied female nursing students towards RMC, less than two thirds of them had positive attitudes regarding RMC before implementation of the educational approach which improved to the entire subjects immediately after and slightly decreased two weeks later with high statistically significant difference. These findings were in the same line with **Wilson-Mitchell, Robinson, & Sharpe, (2018)** who taught RMC using an intellectual partnership model in Tanzania, and emphasized the creativity, innovation, and context-specific social ideas

relating to RMC. They concluded that this model encourages critical thinking and fosters collaboration between educators and learners to co-create solutions for ethical challenges during maternity care.

These findings were also harmonized with **ElShora, Osman, Abd Elnabi, & Dwedar, (2023)** who revealed a highly statistical significant difference in the total students' perceptions of RMC scores in the pretest compared to the posttest after implementation of the educational program regarding RMC. From the researcher's point of view, these differences in the attitudes in the current study and other studies may be due to the fact that subjects may hold certain beliefs and after implementation of educational program regarding RMC can challenge these beliefs, resulting in a shift in attitudes as they reconcile their previous views with new experiences. Also, presence of role models and working in a team can inspire the students, increase their confidence, and commitment to high-quality care, then positively shape their attitudes.

Regarding the total scores level of reported disrespectful and abusive care by the female nursing students regarding maternity care, more than half of them reported high level of disrespectful and abusive maternity care. Contradictory **ElShora, et al., (2023)**, reported that the majority of their participants observed disrespectful behavior to women by health care providers during maternity care. **Yohannes, et al., (2024)** also determined the impact of disrespectful maternity care on childbirth complications in Ethiopia, stated that more than three quarters of their subjects reported being treated disrespectfully in their study. From the researcher's point of view, the difference in the reported disrespectful and abusive care may be due to difference the working condition, funding, resources, staff workforce, and communication skills of the healthcare providers. It may be also due to lack of knowledge about RMC contributing to unprofessional attitudes and behaviors, or lack of women's awareness about their rights regarding maternity care.

As regards, the total observed practices score level of the studied female nursing students regarding RMC, it was evident that less than two thirds of studied female nursing students had satisfactory practices before implementation of the educational approach regarding RMC which increased among the vast majority (99%) of them immediately after and slightly decreased two weeks after with high significance difference. This finding corresponds with **Salma, et al., (2024)**, who assessed knowledge, practices and challenges regarding RMC among midwives posted at labor room of selected public healthcare facilities, they presented that less than three quarters of their subjects had satisfactory practices regarding RMC. From the researcher's point of view, the significant improvement in practices among the studied nursing students may be due to the improvement in their knowledge regarding RMC principles and the training on the practical communication skills through the

educational program which resulted in enhanced respectful care practices during maternity care.

Concerning the correlation between total knowledge scores and total practices scores of the studied female nursing students, there was a positive correlation between total knowledge scores and total practices scores of the studied female nursing students regarding RMC immediately after implementation of the educational approach. This finding was in agreement with **Salma, et al., (2024),** who represented a significant positive correlation between knowledge and practices of midwives regarding RMC. In contrast, **Dzomeku, et al., (2020),** who explored midwives' understanding of RMC in Ghana, they depicted that there was negative correlation between knowledge and practices score. From the researcher's point of view, these differences may be due to the fact that some learners are capable to practice what they have learned more than others, while others may understand RMC concept but failed to practices it correctly.

Regarding relationship between total knowledge mean scores of the studied nursing students regarding RMC and their personal profile, a significant relationship between total mean knowledge scores of studied female nursing students and their personal profile was found before implementation of the educational approach. This finding not matched with **Rana, (2024),** who declared that there was no significant association between pretest knowledge of their participants regarding RMC and their socio-demographic variables**.**

Regarding the total attitudes mean scores of the studied female nursing students in relation to their personal profile, a significant relationship between total mean attitudes scores and personal profile of the students such as; age, marital status and pre- university education was detected immediately after implementation of the educational approach. According to, **Drake, et al., (2022)** who assessed the relationship between socio-demographic factors and attitudes of their participants, they noted that the attitude of their subjects apparently varied according to their socio-demographic characteristics.

Concerning total practices mean scores of the studied female nursing students in relations to their personal profile, a significant relationship between total mean practices scores and personal profile of the students such as; age, marital status, pre-university education was found before implementation of the educational approach. This finding was similar with **Kandasamy, Vasantha, & Pandiselvi, (2024)** who assessed the RMC practices during labor among nurses, they found a significant association between selected socio-demographic variables of their subjects as age, marital status, and RMC practices.

Conclusion

The research hypotheses had been supported and confirmed, where significant improvement of studied female nursing students' knowledge, attitudes as well as practices regarding RMC were achieved immediately and

two weeks after implementation of the educational approach regarding RMC.

Recommendations

- The concept of RMC should be included in the curricula of basic and postgraduate nursing education.
- Refreshing courses and in-service training programs regarding RMC should be provided to all healthcare providers. **Further studies are needed to assess** barriers that influence maternity nurses' compliance with RMC practices.

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