



Effect of Educational Intervention on Nurses' Attitudes Toward Postpartum Care

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Abstract

Background: Educational interventions play a crucial role in enhancing the quality of healthcare services, particularly in maternal and newborn care.

Aim: This study examined the effect of an educational program on nurses' attitudes toward postpartum care. The findings suggest that educational interventions can lead to more positive attitudes and better outcomes for postpartum care.

Design: A quasi-experimental design was adopted to achieve the study's aim. **Setting:** The study was conducted in the Postpartum Unit of the Obstetrics Department at Al-Ahrar Hospital.

Sample: A convenience sample of 20 nurses working in the postnatal ward participated in the study.

Tools: Data collection tools included: Part (A) – Personal characteristics of the nurses, and Part (B) – Nurses' attitudes toward postpartum care.

Results: The study revealed a strong positive correlation between the educational intervention and nurses' attitudes regarding postpartum care. A statistically significant difference was observed in nurses' attitudes following the intervention ($p < 0.000$).

Conclusion: Educational interventions have proven to be effective in enhancing nurses' attitudes toward various aspects of postpartum care, including postpartum depression, breastfeeding support, and neonatal care practices. These interventions not only improve clinical competencies but also foster a more empathetic and patient-centered approach to care. Continuous professional development through targeted educational programs is essential for equipping nurses with the necessary skills and knowledge to provide high-quality postpartum care.

Keywords: Attitudes, Educational Intervention, Postnatal Care, Maternal and Newborn Care



Introduction

The postpartum period is a critical time for mothers and their infants, with the World Health Organization (WHO) emphasizing the importance of providing quality postnatal care within the first 6 weeks after birth. Many maternal and newborn deaths occur during this period, often due to preventable causes such as postpartum hemorrhage, infections, and postpartum depression (**Miller et al., 2016**). Effective postpartum care, which includes regular monitoring, education, and emotional support, can help identify and prevent complications, ensuring better health outcomes for mothers and their babies (**Bohren et al., 2014**).

Nurses in the postpartum care setting are responsible for monitoring maternal recovery, providing breastfeeding support, educating mothers about newborn care, and identifying any signs of complications such as infections or postpartum depression. Their attitudes toward these tasks are crucial. Conversely, negative attitudes may result in less effective care, poorer patient outcomes, and decreased job satisfaction among healthcare workers (**Sarkadi et al., 2021**).

Educational interventions can significantly improve nurses' attitudes toward various aspects of postpartum care. These interventions often include structured training programs, workshops, and continuing education courses designed to address gaps in knowledge and provide up-to-date information on best practices. Such interventions have been shown to enhance nurses' understanding of the physiological and psychological changes during the postpartum period, as well as the significance of mental health support, breastfeeding, and family-centered care (**Reid et al., 2021**).

Nurses' attitude of postpartum care directly influences the quality of care they provide. Studies have indicated that educational programs focusing on postpartum complications, such as hemorrhage and infections, improve nurses' ability to detect and manage these conditions early. A study by **Lee et al. (2019)** found that nurses who participated in a postpartum care workshop demonstrated significantly improved knowledge of maternal health issues, including recognizing signs of postpartum depression and preventing breastfeeding difficulties.

Nurses' attitudes toward postpartum care often reflect the perceived importance of this phase. An educational intervention can help shift nurses' perceptions, making them more proactive and empathetic in their care (**LaRocco et al., 2017**). For instance, a study conducted in the United States showed that after a targeted educational intervention, nurses reported more positive attitudes towards postpartum care, with increased enthusiasm for engaging in home visits and follow-up care (**Taylor et al., 2020**).

Educational programs focusing on specific aspects of postpartum care such as mental health support, breastfeeding, or infection prevention—are particularly effective in improving nurses' attitudes. A study by **Kain et al. (2018)** demonstrated that a focused training program on postpartum depression and mental health led to greater empathy and better understanding of the psychological challenges faced by new mothers. Nurses in this study showed a significant improvement in their willingness to engage in mental health screening during routine postpartum visits.

While educational interventions have proven effective, several challenges can hinder their implementation. Time constraints, workload, and lack of institutional support for continuous professional development often limit the availability and uptake of these programs (**Taylor et al., 2020**). Additionally, the diverse backgrounds of nurses—such as varying levels of education, experience, and cultural perspectives—may affect how educational interventions are received and applied. Tailoring educational content to meet the specific needs of different groups of nurses can enhance the impact of these programs (**Beck, 2019**).

Educational interventions targeting nurses' knowledge and attitudes toward postpartum care have demonstrated significant positive effects on maternal and neonatal health outcomes. These interventions are particularly crucial in addressing postpartum depression (PPD), a prevalent condition affecting a substantial number of new mothers worldwide (**Khalil et al., 2024**).

A study conducted in Giza Governorate, Egypt, assessed the impact of an educational program on nurses' knowledge and attitudes regarding PPD. The intervention involved providing educational sessions to nurses working in family health care centers. Results indicated a significant increase in the mean



knowledge score from 13.2% to 56.6%, alongside a notable improvement in nurses' attitudes towards identifying and managing PPD. Additionally, the perceived barriers to diagnosing and managing PPD decreased significantly post-intervention (**Ibrahim & Sabry, 2024**).

Significance of the Study

Postpartum care is a critical phase in maternal and neonatal health, representing a vulnerable period for both the mother and the newborn. It includes monitoring for complications, promoting breastfeeding, addressing mental health concerns, and ensuring that both mother and child thrive after delivery. Nurses, especially those in maternal and child health settings, play a vital role in providing comprehensive postpartum care. However, the attitudes and knowledge of healthcare providers, particularly nurses, significantly influence the quality of care delivered during this phase.

Educational interventions are widely recognized as a key strategy to improve healthcare workers' knowledge, attitudes, and practices, ultimately enhancing patient outcomes. For nurses, continuous education and targeted interventions can promote positive shifts in attitudes and enhance their competence in providing high-quality postpartum care. This is essential not only for improving maternal health but also for reducing maternal and neonatal morbidity and mortality rates.

Objective of the Study:

This study aimed to evaluate the effect of an educational intervention on nurses' attitudes toward postpartum care.

Research Hypothesis

The educational intervention demonstrated a positive effect on nurses' attitudes. Furthermore, a significant relationship was observed between the educational intervention and nurses' attitudes regarding postpartum care.

Subjects and Method

Study Design:

A quasi-experimental design was adopted for this study.

Study Setting:

The study was conducted at the Postpartum Unit in the Obstetrics Department of Al-Ahrar Hospital.

Sample:

The study involved nurses working in postpartum care unit. A total of 20 nurses were selected using a convenience sampling method. This sampling approach was chosen based on the accessibility and availability of participants who met the inclusion criteria, allowing for the efficient collection of data within the study timeframe.

Data Collection Tools

The data collection tools used in this study were divided into two main parts:

Part I: Personal Characteristics of Nurses

This section collected demographic and professional background information to better understand the profile of the participating nurses. It included variables such as: age, marital status, level of education, occupation, job position, years of experience, and previous training on postnatal care.

Part II: Nurses' Attitudes Toward Postpartum Care

To assess nurses' attitudes before and after the educational intervention, a structured questionnaire was developed. This tool was designed to evaluate several key domains related to postpartum care, focusing on areas that are crucial for improving nursing practices and ensuring better outcomes for mothers and newborns. The questionnaire included the following domains: The importance of postpartum care, Attitudes toward the mother-infant relationship, Perceptions of postpartum complications and the nurse's role in managing them.

Scoring of Nurses' Attitudes

The questionnaire utilized a 5-point Likert scale to assess participants' attitudes toward postpartum care. Participants were asked to respond to statements using the following scale: 1 = Strongly Disagree, for 2 = Disagree, 3 for 3 = Neutral, 4 = Agree for 5 = Strongly Agree. Scores were summed to generate an overall attitude score for each participant. Higher scores indicated more positive attitudes toward



postpartum care. The questionnaire was administered both before and after the intervention to measure any change in attitudes resulting from the educational program.

Validity

The instruments were validated by a panel of three experts in the field of obstetrics and gynecology nursing, to assess their clarity, validity, time required, and necessary modifications to the instruments.

Reliability

The consistency of the tool used in this study was assessed by applying Cronbach's alpha. The results revealed a Cronbach's alpha coefficient of 0.916, indicating excellent internal consistency for the attitude section of the tool. It was ranging from 0 to 1 as following:

- $\alpha \geq 0.9$: Excellent reliability
- $0.8 \leq \alpha < 0.9$: Good reliability
- $0.7 \leq \alpha < 0.8$: Acceptable reliability
- $0.6 \leq \alpha < 0.7$: Questionable reliability
- $\alpha < 0.6$: Poor reliability

In this study, the Cronbach's alpha of 0.916 suggests that the tool used to assess nurses' attitudes toward postpartum care is highly reliable, meaning that the questions are consistent in measuring the underlying concept of attitudes toward postpartum care.

Pilot Study:

The pilot sample was applied to 10% (2 nurses) of the study sample, and no necessary modifications were made after analyzing the results of the pilot study. The pilot sample was included in the main study sample.

Procedure of the Study

The study was achieved through three phases:

A. An interviewing phase.

Data Collection Process

B. Pre-Intervention Phase:

Prior to the educational intervention, the researchers conducted individual interviews with each nurse. This qualitative step allowed the researchers to understand the nurses' baseline knowledge and attitudes regarding postpartum care. Each nurse was asked to complete the questionnaire (described earlier with the 5-point Likert scale) regarding their attitudes toward postpartum care, the importance of postpartum care, and their perceived roles in caring for postpartum mothers and newborns.

The responses from the pre-intervention interviews and questionnaires provided a baseline measure of each nurse's attitudes toward postpartum care, which was essential for comparing any changes after the intervention.

C. Implementation of the Intervention:

The researchers ensured educational environment and time of sessions that was most convenient to the studied subjects. They started the data collection for two days per week from 10.00 AM to 2.00 PM. The educational intervention included workshops, interactive discussions, and case studies to enhance learning and engagement. It consisted of a comprehensive training program that covered various aspects of postpartum care, including:

- Postpartum Health: The physiological and psychological changes in mothers after childbirth.
- Breastfeeding Support: The importance of encouraging and supporting breastfeeding practices.
- Postpartum Complications: Identifying and managing conditions such as postpartum depression, hemorrhage, and infections.
- Maternal-Newborn Bonding: Educating nurses on the importance of promoting bonding between mother and child during the early days.
- Patient-Centered Communication: Training nurses to improve their communication skills with postpartum mothers.

The educational intervention aimed to address knowledge gaps and reinforce best practices to improve the nurses' attitudes and practices regarding postpartum care.

D. Post-Intervention Assessment:

- Post-intervention interviews: After the educational intervention was completed, researchers conducted post-intervention interviews with each nurse. During these interviews, nurses were asked to reflect on the program and discuss how it may have influenced their views and practices related to postpartum care.
- Completion of the Questionnaire Again: Nurses were asked to complete the same questionnaire they filled out before the intervention to measure any changes in their attitudes toward postpartum care. The post-intervention scores would be compared to the pre-intervention scores to assess the impact of the educational program.



- Knowledge Re-assessment: Nurses' knowledge regarding postpartum care was reassessed. The same questions regarding maternal and newborn care were asked, and any changes in knowledge would be recorded. This helped to understand whether the educational intervention improved their knowledge in specific areas of postpartum care.

Data Analysis:

Ethical considerations:

An official approval letter was received from the Scientific Research Ethics Committee of the Faculty of Nursing at Zagazig University, endorsed by the Dean. Verbal consent was also obtained from the hospital director and participating nurses after explaining the study's purpose. Participants had the right to decline or withdraw from the study at any time without reason, and their data confidentiality and anonymity were ensured.

Statistical analysis:

Data Collection:

Before and after the intervention, data was collected using a structured questionnaire designed to assess nurses' attitudes toward postpartum care. The questionnaire included statements about the importance of postpartum care, attitudes towards the mother-infant relationship, and perceptions of postpartum complications. Nurses were asked to rate their level of agreement with these statements using a Likert scale.

Data Analysis:

Data were analyzed using both descriptive and inferential statistics, including a paired t-test to compare the attitudes before and after the intervention for the experimental group, and a chi-square test to evaluate differences between the experimental and control groups.

Results

Table (1). Socio-demographic characteristics of nurses (n = 20)

Parameters	Frequency	Percent
Age(years)		
<30	11	55.0
30-40	8	40.0
more than 40	1	5.0
Residence		
Urban	9	45.0
Rural	11	55.0
Marital status		
Single	4	20.0
Married	15	75.0
Divorced	1	5.0
Educational Level		
Nursing diploma education	3	15.0
Technical nursing education	11	55.0
Bachelor in nursing	6	30.0
Job position		
Nurse	18	90.0
Supervisor	2	10.0
Years of experience		
Less than 5years	12	60.0
5–10years	7	35.0
More than 10years	1	5.0
Attended any educational interventions about postpartum care		
No	1	5.0
Yes	19	95.0



Table (1) shows that 55.0% of the sample was under 30 years. Regarding place of residence and marital status, 55.0% and 75.0% were rural residents and married. Concerning education level and job position, 55.0% and 90.0% had a technical nursing institute and were nurses, respectively. Moreover, 60.0% & 95.0% had less than 5 years of experience and attended educational intervention s, respectively.

Table (2). Nurses attitudes toward postpartum care (no = 20).

Item		Educational Intervention				Chi-square	P Value
		Pre		Post			
		no	%	no	%		
Have you ever received education on postpartum care from this facility?	No	19	95.0%	2	10.0%	1.000	.000*
	Yes	1	5.0%	18	90.0%		
Did you receive education on postpartum care in school?	No	18	90.0%	17	85.0%	.229	.633a
	Yes	2	10.0%	3	15.0%		
How often do you educate Labor and Birth mother regarding postpartum care?	No	19	95.0%	2	10.0%	28.972	.000*
	Yes	1	5.0%	18	90.0%		
How often do you educate mother regarding postpartum care?	No	20	100.0%	3	15.0%	29.565	.000*
	Yes	0	0.0%	17	85.0%		
How often do you provide mother with educational materials regarding postpartum care?	No	20	100.0%	4	20.0%	26.667	.000*
	Yes	0	0.0%	16	80.0%		
How often are you told by Supervisors to educate mother regarding postpartum care?	No	19	95.0%	6	30.0%	18.027	.000*
	Yes	1	5.0%	14	70.0%		
How often do you observe other nurses educate mother regarding postpartum care?	No	20	100.0%	2	10.0%	32.727	.000*
	Yes	0	0.0%	18	90.0%		
How often do you screen mother for postpartum care?	No	20	100.0%	8	40.0%	17.143 .000*	.000*
	Yes	0	0.0%	12	60.0%		
Do you feel confident educating mother on postpartum care?	No	10	50.0%	0	0.0%	13.333	.000*
	Yes	10	50.0%	20	100.0%		
Do you feel confident treating mother with postpartum care?	No	10	50.0%	0	0.0%	13.333	.000*
	Yes	10	50.0%	20	100.0%		
Do you feel confident educating mother on resources for postpartum care?	No	15	75.0%	0	0.0%	24.000	.000*
	Yes	5	25.0%	20	100.0%		
Do you feel confident educating mother on local support groups for postpartum care?	No	20	100.0%	4	20.0%	26.667	.000*
	Yes	0	0.0%	16	80.0%		
Are you aware of the facilities resources for postpartum care?	No	17	85.0%	5	25.0%	14.545	.000*
	Yes	3	15.0%	15	75.0%		
Are you familiar with online support groups for postpartum care?	No	15	75.0%	10	50.0%	2.667	.102
	Yes	5	25.0%	10	50.0%		
Are you familiar with in person support groups for postpartum care?	No	16	80.0%	4	20.0%	14.400	.000*
	Yes	4	20.0%	16	80.0%		
Are you familiar with the Postpartum Support?	No	15	75.0%	0	0.0%	24.000	.000*
	Yes	5	25.0%	20	100.0%		

*The Chi-square statistic is significant at the .05 level.



Table (2) indicates that 100.0% of nurses disagreed with the statements regarding educating mothers about postpartum care, providing educational materials on postpartum care, frequently observing other nurses educating mothers about postpartum care, screening mothers for postpartum care, and feeling confident in educating mothers about local support groups for postpartum care in compare to, 85.0%, 80.0%, 90.0%, 60.0%, and 80.0% of them agreed with these statements after the intervention, respectively. A statistically significant difference was observed in nurses' attitudes toward postpartum care before and after the intervention ($p < 0.05$).

Table 3: Nurses' Attitudes Level toward Postnatal Care Before and After Educational Intervention

Educational Intervention	Nurses with Negative Attitudes	Nurses with Positive Attitudes	Chi-square	P Value
Before Intervention	100.0%	0.0%	40.000	.000*
After Intervention	0.0%	100.0%		

P-value: <0.000 (highly statistically significant difference)

Table 3 indicates that all nurses (100%) had negative attitudes towards postnatal care. While, after the intervention: Following the educational intervention, there was a complete shift in attitudes. A statistically significant difference was observed in nurses' attitudes toward postpartum care before and after the intervention ($p < 0.05$).

Table 4: Mean Scores of Nurses' Attitudes Toward Postnatal Care Before and After Educational Intervention

Educational Intervention	Mean Score	Standard Deviation	p-value
Before Intervention	2.53	1.53125	< 0.05
After Intervention	11.80	1.19649	

Table 4 indicates a marked improvement in nurses' attitudes toward postnatal care following the educational intervention. The mean score increased from 2.53 before the intervention to 11.8 after. The statistically significant difference ($p < 0.05$) between the pre- and post-intervention scores confirms that the educational program effectively improved nurses' attitudes.

Table 5: Correlation Between Educational Intervention and Nurses' Attitudes Toward Postpartum Care Before and After Educational Intervention

Variables	Correlation Coefficient(r)	Significance (p-value)
Educational Intervention & Nurses' Attitudes (Pre/Post)	0.962	<0.05

Table (5) indicates that perfect positive correlation between the intervention and changes in nurses' attitudes concerning postpartum care ($r = 0.962$).



Discussion

The postpartum period is indeed a critical time for both the mother and baby, as the risk of morbidity and mortality is significantly higher if proper care is not provided. Nurses play a key role in delivering effective postpartum care, and their attitudes towards this care are essential in reducing complications and improving health outcomes for both mothers and newborns. Nurses' perceptions and attitudes toward postpartum care can influence their practice, the quality of care they provide, and the overall health of the mother and infant. Positive attitudes towards postpartum care are crucial for timely intervention, emotional support, and promoting preventive health measures, ultimately leading to a reduction in complications such as infections, postpartum hemorrhage, and mental health issues like postpartum depression (Smith et al., 2020).

The study results highlight a significant shift in nurses' attitudes toward postnatal care after an educational intervention. Initially, all the nurses exhibited a negative attitude, which reflects the challenges they face in engaging with postnatal care. This could be attributed to gaps in knowledge or misconceptions about the importance of postpartum care. However, following the intervention, there was a complete transformation, with all nurses demonstrating positive attitudes. This study supports the argument that educational interventions can play a crucial role in improving the knowledge, attitudes, and ultimately the quality of care provided by nurses in the postpartum period.

The findings are in line with a quasi-experimental study by Khalil et al. (2024), which assessed the impact of an educational intervention on 120 maternity nurses' knowledge and attitudes toward postpartum care. Conducted at the Ministry of National Guard Hospital, the study found significant improvements in both the knowledge and attitudes of the nurses regarding postpartum care. They highlighted a positive association between nurses' attitudes and their understanding of postpartum risk factors and causes, emphasizing the importance of targeted educational programs in improving healthcare providers' perspectives on postpartum care.

The present study findings showed that the educational intervention had a substantial and highly positive effect on improving nurses' attitudes toward postpartum care. This result highlights the effectiveness of targeted educational programs in fostering more supportive and proactive approaches to providing care in the postpartum period. This is consistent with Taylor et al. (2020), who found that structured training programs significantly shifted nurses' attitudes towards postpartum care, improving their confidence and engagement in maternal health practices. These findings collectively emphasize the importance of targeted education in enhancing healthcare professionals' attitudes and ultimately improving the quality of care during the critical postpartum period.

Conclusion:

This study demonstrates the positive effect of educational interventions on nurses' attitudes toward postpartum care. By improving their knowledge and attitudes, such interventions can foster better clinical practices, ultimately contributing to better maternal and newborn health outcomes. These findings support the integration of regular, targeted educational programs in nursing curricula and ongoing professional development to ensure that postpartum care is delivered effectively and compassionately.

Recommendations:

1. Healthcare institutions should prioritize providing regular, updated training sessions on postpartum care for their nursing staff, ensuring that they stay informed about best practices and emerging issues in maternal and neonatal health.
2. To sustain positive changes in attitude and practice, healthcare systems should consider implementing policies that incentivize ongoing education and training for nurses.
3. Future studies could explore the long-term impact of educational interventions on nursing practices and patient outcomes, as well as gather feedback from patients to assess the effectiveness of these attitude shifts in real-world settings.

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Declaration of Conflicting Interests:

The author(s) have disclosed that they have no potential conflicts of interest, financial or personal.

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