

Effect of Awareness Program regarding Motherhood Preparation on First-Time Mothers' Knowledge, Practices, and Emotional Status

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Abstract:

Background: Becoming a mother is one of the principal transitions in a woman's life. which brings along the responsibility of caring for and maintaining life. Physical and psychological healthiness is changed leaving profound impacts on the quality of mothers' lives, especially those of first-time mothers, and making this postnatal period, in a way, unbearable to them. So, **the study aimed** to determine the effect of awareness program regarding motherhood preparation on first-time mothers' knowledge, practices, and emotional status. **Subjects and method: Design:** Quasi-experimental research design pre-post-test was utilized to achieve this study. **Setting:** The study was conducted at the postnatal department, postnatal outpatient clinic at Sohag University Hospital, followed by a telephone interview at 2 weeks after birth. **Subjects:** A convenience sample of 100 postnatal women **was enrolled.** **Four tools** were used for data collection: Tool (I): Structured interview questionnaire, Tool (II): Mother's knowledge, regarding self-care and their newborn care during the post-partum period (pre and post-test format), Tool (III): Mother's reporting practice regarding self-care and their newborn care during post-partum period (pre and post-test format), and Tool (IV): Depression, Anxiety, and Stress Scale (DASS) (pre and post-test format). **The results:** the present study revealed that there were highly statistically significant differences between mothers' knowledge, reporting practice, and their depression, anxiety, and stress levels regarding motherhood preparation pre and post-implementation of the awareness program. **Conclusions:** Awareness program regarding motherhood preparation application has a positive effect on improving first-time mothers' Knowledge, Practices, and emotional status pre-intervention than post-intervention. **The study recommended** conducting an awareness program for first-time mothers during pregnancy to inform them about self-care and their newborn care during the postpartum period to reduce their depression, anxiety, and stress levels.

Keywords: Awareness program, Emotional Status, Knowledge, Motherhood Preparation, Practices, First time mother.

Introduction

Choosing to become a mother can be accomplished by an unanticipated or unwanted gestation, or it can be done through a thoughtful and purposeful planning process. "Becoming a Mother," a theory put forth by Ramona Mercer, is among the most current explanations of parenthood as a transformation. According to the author, women go through four phases: preparing for motherhood, learning and physical restoration, commitment, attachment, and acquaintance;

eventually, they move towards a new normal and attain their maternal identity. Initially, women employ two approaches: getting ready and addressing the situation, but there is no conceptual growth, There is no conceptual analysis of what preparation entails, and no connections between it and other theory notions are put out (Meighan et al., 2019).

For women, the postpartum period is stressful and challenging but also characterized by a sense of happiness and joy. Numerous research conducted in areas associated with this experience shows that being a mother is associated with

significant physical, social, and psychological changes that can impact the mother's overall psychological well-being as well as all other facets of her personal and familial life. At this time, the mother's perceptions of her own identity and her roles in the family and society change. As she should be taking care of the infant while adjusting to the new circumstances, she has several difficulties in the process of adapting. As mothers' gender roles rise, they experience a strain on their duties which is the mother's emotional reactions to her postnatal experiences (Groer et al., 2020).

Motherhood has always been seen as the most important job for women in all countries. Maternity is largely inevitable, even though some women choose not to have children or put off having them. Although a joyful occasion, the mother experiences a crisis and a great deal of stress after giving birth to her first child, along with new tasks and responsibilities. First-time mothers' abilities to adapt to their new duties as mothers are put to the test during this crucial year following childbirth, which is also a critical time for their physical, emotional, and psychological development (Deave et al., 2018). A woman experiences a phase of transformation, unpredictability, and life rearranging when she becomes a mother. In addition to her psychological state, a woman's outlooks, beliefs, social and economic circumstances, level of preparedness and situational awareness, and individual circumstances can all have an impact on this psychological shift (Mercer, 2020).

The idea that becoming a mother requires preparation during the gestation period is becoming increasingly important because, in the eyes and experiences of expectant mothers, motherhood comes without adequate preparation. This could be due to several factors, including a discrepancy between knowledge and experience or inaccurate information from professionals that do not align with realistic expectations of motherhood as a way of life and approach to living. The literature study

provides evidence of a conceptual analysis of the process of preparing for motherhood; however, it only takes this preparation into account when a desired and planned pregnancy and a relationship are present. This conceptual analysis extends to the first year of the child's life. For example, these factors make it less likely that the notion should be applied when there is no significant other or when the pregnancy is unexpected or undesired (Mercer, 2020).

Similar to this, the majority of the scientific literature on preparing for motherhood is focused on the delivery phase, and while preparation can be viewed as a continuum even after gestation, there may be differences in requirements, resources, and outcomes during this time. It also remains largely ambiguous when considering the constituent elements (Tostes et al., 2020).

Furthermore, in many Latin American countries, prenatal care focuses specifically on managing morbid events and physiological changes, ignoring the psychological and social changes that women go through during pregnancy (Maldonado et al., 2018). This is even though this stage poses a greater challenge to the woman's psychological and social functioning through tasks related to development, such as learning to relate to the fetus as a part of her and coming to terms with her role as a mother. As such, it is essential to not only differentiate its application from scientific knowledge within the nursing discipline, particularly in the area of maternal-perinatal nursing, but also to identify the characteristics that make up the concept and allow for understanding that facilitates the development and validation of an instrument that has implications for practice, reorientation of prenatal care, and prescription of nursing interventions that allow pregnant women to get the profession (Seefatvan et al., 2019).

The role strain theory states that as everyone has a limited amount of time and energy, an increase in the number of social roles they play could expose them to an increased number of role conflicts, endangering their physical and mental well-being. These modifications have a significant negative influence on women's quality of life, particularly for first-time mothers, and make the postpartum period nearly intolerable for many (McVeigh, 2020). Mothers' distress during this phase puts their psychological well-being and the

integration of their role as mothers at risk; it also makes it harder for them to handle their affairs, degrades the quality of their relationships, and makes them less socially engaged. Mothers also experience feelings of anxiety, incompetence, and loneliness, on top of a sense of losing their independence, time, appearance, and sense of identity as workers (Nicolson, 2019).

Most new moms find that becoming a mother is not what they had anticipated or how they had thought of it. Reluctant to discuss their difficulties, new moms typically have this hesitation because they have been taught by society and the media that motherhood is a simple, rewarding experience (Miller, 2020). Several features of this stressful stage remain unclear, despite the numerous surveys conducted about maternal experiences across various nations. The reason for this could be that they don't have a suitable and secure way to communicate their worries about this encounter. The postnatal difficult experiences that new moms have, along with the circumstances and causes that lead to them, broaden our understanding of the manner distinguishing the variations and intricacies of such experiences; this understanding could not be attained without investigating other groups and communities (Squire, 2019).

Mothers' preparation starts throughout pregnancy, as soon as parents realize they have a responsibility to help their child reach his or her full potential in terms of health. According to Cardoso and Marín (2018), parental behavior has a crucial role in maintaining healthy child development from the earliest stages of pregnancy. The postnatal period is a time frame that starts as soon as the baby is born and lasts for roughly six weeks. For both a mother and her child, the weeks after giving birth are crucial. She's getting over her delivery, adjusting to her fluctuating hormones, and learning how to nurse and look after her baby (Aber, 2019). First-time mothers may have psychological effects from the shift in their position from being nonparents who are only responsible for themselves to being parents who now have

additional responsibilities for caring for their infant if their expectations are not met (Harwood et al., 2020).

Particularly first-time mothers could experience anxiety over how they'll manage to care for their infant and themselves. It is required of childbearing moms to take care of both themselves and their newborns once they return home after giving birth. During the postpartum time, mothers are responsible for meeting not only their own physical and psychological needs but also those of their newborns. This includes maintaining proper hygiene, nourishment, good looks, and adequate sleep. The main function of nursing during the postpartum period is to support women in their initial transition to parenthood using planned and delivered care that centers on their recovery of both physical and psychological well-being, enabling them to take care of both themselves and their newborn (Yonemoto et al., 2017).

To preserve life, health, and well-being, self-care refers to a range of actions that people personally start and carry out on their own; this includes preventative measures of self-care and decision-making (Rotich and Wolvaardt, 2017). Every adult person is capable of meeting their needs for self-care; yet, when someone feels unable to do so because of limitations, they have a self-care deficit. When one's health prevents them from taking care of themselves or puts them in a situation where their talents are insufficient to take care of their health and wellness, they benefit from nursing assistance. Nursing interventions are centered on identifying deficiencies or limits and putting in place appropriate measures to satisfy the needs of the individual (Dennis, 2018).

For the new mother, the infant, and the family, the first few days after giving birth are crucial. A few basic demands and services are required for adjustment during the postnatal period. These essential requirements and basic services include evaluating the mother's and baby's physiological adaptation, preventing infection and bleeding, maintaining uterine tone, preventing bladder distention, encouraging rest, walking and exercise, and promoting normal bowel and bladder functions (Petiprin, 2015). Every infant requires basic care, which the mother must give at home. This includes providing basic hygiene, showing symptoms of danger, receiving affection and attention, and asking for help from medical professionals when needed (Dutta, 2014). Personal cleanliness, breastfeeding, perineal care, dental

treatment, and family planning services are all examples of post-partum self-care, nutrition, post-partum exercise, rest, relaxation techniques, and post-partum visits (*Ricci, 2019*).

During the nursing care plan's implementation, postpartum nurses take on a variety of duties. According to *Abd El-Razek (2019)*, nurses offer anticipatory guidance and counseling in addition to direct physical treatment and teaching mother care. The abbreviation BUBBLE-HE is often beneficial to nurses in helping them remember the key components of the postpartum examination and teaching topics: human' signs, emotions, lochia, bladder, bowel function, episiotomy/perineum, and breasts (*Varney, 2018*).

Among the materials for health education Positions for breastfeeding should be comfortable and efficient, with regular position changes. The cradle position, side laying position, and football position are the three most popular positions for breastfeeding. To encourage comfort and hygiene, give your breasts a little TLC both before and after feeding (*Sandra, 2020*). Apart from hygiene and attention to skin fissures, breast care is minimal for the nipples. In addition to making nursing unpleasant, fissured nipples can also impact milk production. These cracks can occur when a newborn fails to properly latch onto the breast (*Varney, 2018*).

Nutrition: To rebuild bodily tissues, advise your mother to up her protein and calorie intake. Eight to ten glasses of water should be consumed daily by a breastfeeding woman. Take in lots of warm liquids and eat a lot of fiber-rich meals to avoid constipation. The mother should also take iron and vitamin A supplements. For a minimum of three months following delivery, iron, and folic acid supplements must be given (*Sandra, 2020*).

When you void from front to back, change your pad, and have a bowel movement, give yourself perineal care. To ease the discomfort associated with typical postpartum diaphoresis, take a shower every day. Perineal pads should be disposed of in plastic bags (*Driscoll, 2022*). To reduce

medication-induced dizziness and fainting, engage in activity and exercise and ask for help getting out of bed during the first few hours after birth. As the newborn is sleeping, make sure you receive enough rest by napping during the day. When your doctor approves, start exercising gently and cautiously (*Lewis & Kennedy, 2019*).

Significance of the study:

For optimal postpartum care outcomes, the WHO recommends that services be administered 48 hours after delivery, 1-2 weeks later, and 6 weeks thereafter. According to *Law et al. (2018)*, one of the most important requirements for women who are pregnant to preserve and enhance their health during the postpartum period is their ability to afford self-care.

There is undoubtedly less time for teaching on a postpartum unit due to the brief hospital stay (*Fleck, 2019; Huggins, 2022*). It will be up to the mother to immediately become adept at caring for her new baby as well as herself. Teaching the woman all she needs to know to take care of herself and her child will be the nurse's challenge (*Black, 2019*). For moms who give birth in a hospital, the hospital is the first place they can go for postpartum care. This first meeting is an important opportunity to discuss health promotion messaging with new mothers.

Operational definition:

Motherhood preparation:

The cultural, social, and historical circumstances define this intermediary process of active and aware participation, which encourages lifestyle modifications to maximize health and whose characteristics are divided into physical and psychological categories. It is a strategy to promote the timely use of skilled maternal and neonatal care, especially during childbirth, based on the theory that preparing for childbirth and being ready for complications reduce delay in obtaining care.

Aim of the Study

The study aimed to determine the effect of an awareness program regarding motherhood preparation on first-time mothers' knowledge, practices, and emotional status through:

- Assessing first-time mothers' knowledge regarding to motherhood preparation.

- Defining first-time mothers' practices regarding to motherhood preparation.

- Assessing stress, anxiety, and depression levels regarding to motherhood preparation

- Designing and implementing first-time mothers' awareness program according to their needs.

- Evaluating the effect of awareness program regarding to motherhood preparation on first-time mothers' knowledge, practices, and emotional status.

- Assessing the relationship between first-time mothers' knowledge and practice regarding to motherhood preparation and their personal data.

- Finding out the correlation between knowledge and practice among first-time mothers regarding motherhood preparation.

Research Hypotheses

H1: First-time mothers' knowledge and practices are expected to improve post-awareness program than the pre-program

H2: First-time mothers' levels of emotional disturbance as stress, anxiety, and depression are expected to be lower post-awareness program than pre-program.

Subjects & Methods

Research Design

A Quasi-experimental research design pre-post-test was utilized to achieve this study

Setting:

The study was conducted at the postnatal department, and postnatal outpatient clinic at Sohag University Hospital, followed by a telephone interview 2 weeks after birth

Subjects:

A convenience sample of 100 postnatal women **was enrolled.**

Tools of data collection:

Four tools were used for data collection:

Tool (I): Structured interview questionnaire, it included two parts:

Part (1) General characteristics of the studied sample; it was designed to assess first-time mothers' data such as demographic data of laboring women such as age, education, residence, and occupation.

Part (2) Obstetrical history, was designed to assess first-time mothers' obstetric history such as (last menstrual date, current gestational age, and several previous abortions).

Tool (II): Mother's knowledge, regarding self-care and their newborn care during the post-partum period (pre and post-test format):

This tool was developed by the researcher based on reviewing the recent related literature (Seefatvan et al., 2019; Tostes et al., 2020; Miller, 2020). It was developed and written in Arabic language. It is composed of open and closed-ended questions to assess mother's knowledge regarding their self-care and newborn care practices before and after awareness program related to the Definition of post-partum self-care, The components of post-partum self-care, The aim of post-partum self-care, Post-partum visits schedule, Diet, Sleep and rest, Ambulation and exercises, After Pain, and Perineal care.

Scoring system:

The following tool was used to grade the study **Mother's** knowledge: 0 for unknown answers, 1 for incomplete correct answers, and 2 for complete accurate answers. Every correct response, which varied depending on the question, had to be chosen by the students. Unsatisfactory knowledge was defined as less than 60% of the total knowledge score, while satisfactory knowledge was defined as more than 60% of the total knowledge score.

Tool (III): Mother's reporting practice regarding self-care and their newborn care during the post-partum period (pre and post-test format):

This tool was developed by the researcher based on reviewing the recent related literature (Ekambaram et al., 2020; Fleck, P., 2019; Lalitha, 2016). It was used to evaluate mothers' self-

care and newborn care reporting practice after an awareness program about breast care, perineal care, and newborn care.

Scoring system:

Mothers who participated in the study were given scores based on their knowledge: 0 for an incorrect response and 2 for a correct response. Every correct answer, which varied for every question, had to be chosen by the **Mother**. Adequate practices accounted for less than 60% of the total practice score, whereas inadequate practices equaled or more than 60% of the total practice score.

Tool (IV): Depression, Anxiety, and Stress Scale (DASS-21) (pre and post-test format).

The Depression, Anxiety, and Stress Scale, which was adapted from Lovibond & Lovibond (1995), was employed by the researchers. The 21-item measure had three self-report scales aiming to quantify the symptoms of emotional states such as stress, anxiety, and depression. The three DASS-21 subscales consist of seven items each. Hopelessness, dysphoria, life devaluation, lack of interest or involvement, self-deprecation, anhedonia, and lethargy are all evaluated using the depression scale. The autonomic arousal, skeletal muscle symptoms, situational anxiety, and the subjective perception of anxious affect are all measured by the anxiety scale. The chronic non-specific arousal levels can be detected using the stress scale. It evaluates nervous arousal, inability to calm down, proneness to being upset or agitated, irritable or overreactive, and impatience. The ratings on the scale went as follows: (3) applied to me very much or most of the time; (2) applied to me a good portion of the time or to a considerable degree; (1) applied to me partially or partially; and (zero) did not apply to me at all.

Scoring system for Depression, Anxiety, and Stress Scale (DASS):

The answers were classified using the stress, anxiety, and depression cutoff points established by Lovibond & Lovibond (1995). Consequently, the severity of the symptoms (very severe, severe, moderate,

mild, and not present) was as follows:

Levels of DASS symptoms		
Depression	Anxiety	Stress
	(no	symptoms)
0-9	0-7	0-14
	Mild	
10-13	8-9	15-18
	Moderate	
14-20	10-14	19-25
	Severe	
21-27	15-19	26-33
	Extremely	
28+	20+	34+
		Severe

Procedure:

The mother stayed in the post-partum ward for less than 12 hours after CS and less than 6 hours after normal labor, so the researcher collected her phone number and called her after two weeks to fill out the post-test questionnaire. However, this was not enough time. Each postnatal lady received an educational booklet in Arabic before being discharged, which served as a handout to aid in the learning process. The brochure was written straightforwardly and concisely. For every participant, the following time points were used to measure the outcomes: (1) right after delivery and before discharge, and immediately following the intervention (baseline data); (2) two weeks following the intervention.

The actual fieldwork was carried out starting from the beginning of September 2023 to the end of February 2024

Tool validity and reliability:

Five experts in obstetrics, gynecology, mental health nursing, and medicine evaluated the data-collecting tool's clearness, comprehensiveness, appropriateness, and relevance to determine its validity. In the current study, the internal consistency technique was used to evaluate the instruments' reliability. Cronbach alpha coefficients for the first tool were 0.96, the second tool was 0.88, the third tool was 0.79, and the DAS scale had a coefficient of 0.95, indicating strong reliability for both.

Pilot study:

To verify the tool's applicability and the amount of time required to complete it, this was tested on 10 postnatal women, or 10% of the overall sample population. Mothers who took part

in the pilot study were included in the main study sample; no changes were made.

Ethical considerations:

The Sohag University Faculty of Nursing's Scientific Research Ethics Committee gave its approval to the study protocol. Official permission was obtained through an issued letter from the Dean of the Faculty of Nursing; Sohag University to conduct this study, and an informed consent form was obtained from the studied women. The purpose of the study was explained to the postnatal women by the researcher who informed the participants that, the study was voluntary, they were allowed to refuse to participate and they had the right to withdraw from the study at any time, without giving any reason. Mothers were assured that their information would be confidential and utilized exclusively for research purposes.

Phases of initial assessment, planning, implementation, and evaluation were all involved in the study.

During the initial assessment stage, the researchers examined the literature from the past and present, including textbooks, papers, magazines, and online searches, in order to create the instruments for gathering data and to plan the awareness campaign.

The stage of planning:

The researcher provided a thorough explanation of the awareness campaign. The researcher came at the following conclusions during this period.

1-Structure of the sessions:

The researcher designed the awareness program based on initial assessment information and pertinent literature. The awareness program addressed definition, Definition of post-partum self-care, The components of post-partum self-care, The aim of post-partum self-care, Post-partum visits schedule, Diet, Sleep and rest, Ambulation and exercises, After Pain, Perineal care, breast care, perineal care, and newborn care after awareness program.

2-Relaxation technique:

A pamphlet outlining the steps of relaxation techniques was included, along with images and videos showing progressive muscle relaxation for stress management.

The implementation phase:

It took the mother, on average, thirty minutes to complete the DASS scale and the questionnaire. The aim of the study, the components of the instruments, and the methodology for completing the questionnaire and scale were explained to each postnatal woman who took part in the research.

Individuals who took part in the pre-test received the pamphlet. To aid postnatal women in understanding the subject, the researchers employed relevant films, PowerPoint presentations, and posters. Moreover, the researchers produced audio and video outlines of the booklet's contents to increase postnatal women's awareness of how to prepare for motherhood preparation.

Awareness program:

It was designed by the researcher and focused on the following sessions:

Session 1: Introduction to the aim of the awareness program.

Session 2: Give knowledge about motherhood preparation.

Session 3: Overview of practices of motherhood preparation:-

Session 4: Effect of motherhood preparation on mothers' emotional status.

Session 5: Practice relaxation training as a progressive muscle relaxation technique

The evaluation phase:

The effect of the awareness program was reassessed through a posttest using the same tools to determine the effect of the awareness program regarding motherhood preparation on first-time mothers' knowledge, practices, and emotional status

The sessions for the awareness program were:

Session 1: Introduction and orientation:

1. The researcher introduces herself and explains the nature and purpose of the study and the possibility of convincing the mothers that awareness program are very important.

3. Orienting the mothers about awareness program (4 sessions, one session every week, for

60-90 minutes).

4. The pretest questionnaire, mother's knowledge, regarding self-care and their newborn care during the post-partum period (pre and post-test format), mothers' reporting practice regarding self-care and their newborn care during the post-partum period, and DASS Scale were given to them (pre-intervention assessment).

Session 2: Overview of motherhood preparation:-

The researcher thanked the mothers for participating and welcomed each one of them at the start of the session. Participants were asked to fill out the tools that had been prepared. Definition of post-partum self-care, The components of post-partum self-care, The aim of post-partum self-care, Post-partum visits schedule, Diet, Sleep and rest, Ambulation and exercises, After Pain.

Session 3: Overview of practices of motherhood preparation:-

It includes practices about breast care, perineal care, and newborn care.

Session (4): Overview of the effect of motherhood preparation on mothers' emotional status:-

This session concerned with what is the effect of motherhood preparation on mothers' emotional status? and the researcher provides a detailed explanation of the effect of motherhood preparation on mothers' emotional status.

What impact does motherhood preparation have on mothers' emotional status? The researcher offers a thorough explanation of the effect of motherhood preparation on mothers' emotional status.

Session (5): Relaxation training: -

Mothers were invited to observe progressive muscle relaxation by the researcher. Mothers are sent films and images by the researcher demonstrating progressive muscular relaxation through Facebook groups and Whats app.

Statistical analysis:

Data entry and analyses were done using the Statistical Package for the Social Sciences (SPSS Version 20.0). Descriptive data were analyzed by calculation of mean value and SD for quantitative data, whereas frequency and percentage were used for qualitative data, which were analyzed using the Chi-square test used to compare qualitative variables. T-test was used for comparison between 2 paired within one group. Significance: $p < 0.05$ was considered statistically significant. Highly Significance: $p < 0.001$.

Results:

Table 1 illustrates that 68% of mothers' age was < 30 years, with a mean of 27.76 ± 7.6 years, (63%) of them were basic/intermediate education. Concerning working status, about two-thirds of them were housewives (67%), and (59%) of them lived in urban areas. **Table (2):** Illustrated that 65% of the **first-time** mothers were 39 weeks of gestation and (90%) had never had an abortion.

Figure (1): Reveals that all (93%) of the studied mothers have not attended previous awareness programs.

Figure (2) highlighted that half of the studied **first-time** mothers reported that the main source of knowledge regarding **motherhood preparation** was doctors (50%).

Table (3) illustrates that a highly statistically significant difference was found between the mother's knowledge regarding awareness program implementation at ($P < 0.001$).

Figure (3) shows that most of the studied mothers (85%) had an unsatisfactory level of knowledge regarding motherhood preparation in the pretest but post-awareness program implementation, (90%) of them had a satisfactory level of knowledge.

Table 4 shows that there was a highly statistically significant improvement in the practice means scores of the **First-time Mother practice scores regarding motherhood preparation pre and post-awareness program implementation** at ($P < 0.001$).

Figure (4): Demonstrates that most of the studied first-time mothers (89%) had an inadequate level of **practice** regarding motherhood preparation in the pretest but post-awareness

program implementation, (81%) of them had an adequate level of **practice**.

Table 5 revealed that, with relation to the mother's total scores of sadness, anxiety, and stress related to getting ready for motherhood preparation, the mother's total scores were higher before the awareness program and lower following it. Furthermore, improvements in the mother's total levels of stress, anxiety, and sadness related to preparing for motherhood were seen at ($P < 0.001$) with improvements highly statistically significant.

Figure (5) presents that 70% of the studied mothers' pre-awareness program implementation had a severe level of stress, (60 %) of them had severe anxiety, and (49%) had severe depression moreover

these percentages decreased to moderate among more than half of the studied mothers' post-awareness program implementation.

Table (6): Shows a correlation between the knowledge and educational level of the first-time mothers in the study. Additionally, there was a weak negative correlation at ($P\text{-value} < .001$) between first-time mothers' residence, occupation, and practice.

Table 7, As described in the table, there was a highly statistically significant positive correlation between the studied first-time mother's knowledge and practice before the awareness program implementation at $p < 0.001$. Besides, a statistically significant positive correlation was detected between the studied first-time mothers' total practice and knowledge post-awareness program implementation at $p < 0.05$.

Table (1): First-time mother's personal data (n=100)

Personal data	Frequency	Percent
Age		
<30	70	70.0
> 30	30	30.0
Mean± SD	27.76±7.6	
Education		
Read/write education	20	20.0
Basic/intermediate education	63	63.0
University education	17	17.0
Working status:		
Housewife	67	67.0
Working	33	33.0
Residence:		
Urban	59	59.0
Rural	41	41.0

Table (2): Obstetrics history of studied first-time mothers (100)

Obstetrics history	No	%
Gestational age in weeks		
37-	35	35.0
39-	65	65.0
Mean ±SD	39.56±1.35	
History of previous abortion		
No	90	90.0
Yes	10	10.0

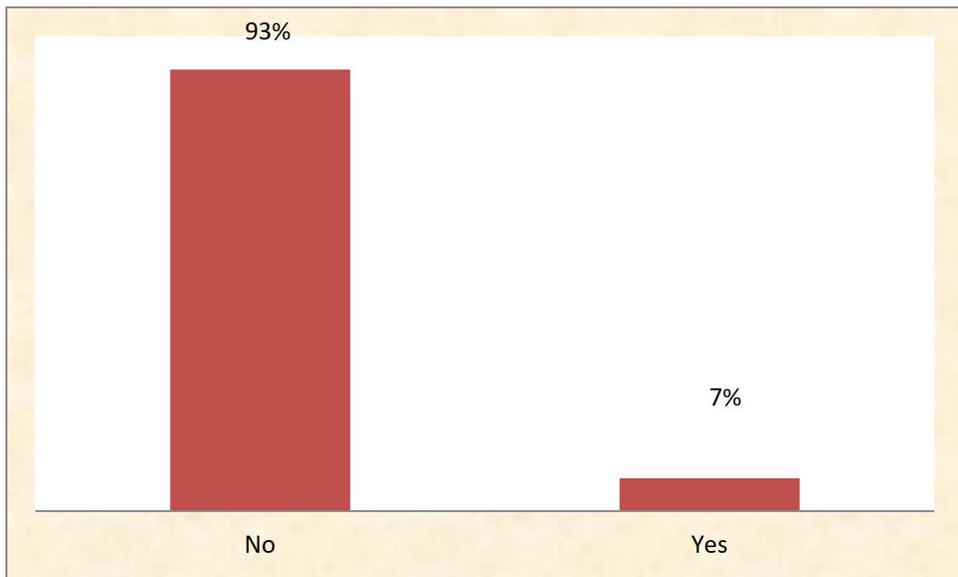


Figure (1): First-time mothers distribution regarding attendance previous about motherhood preparation.

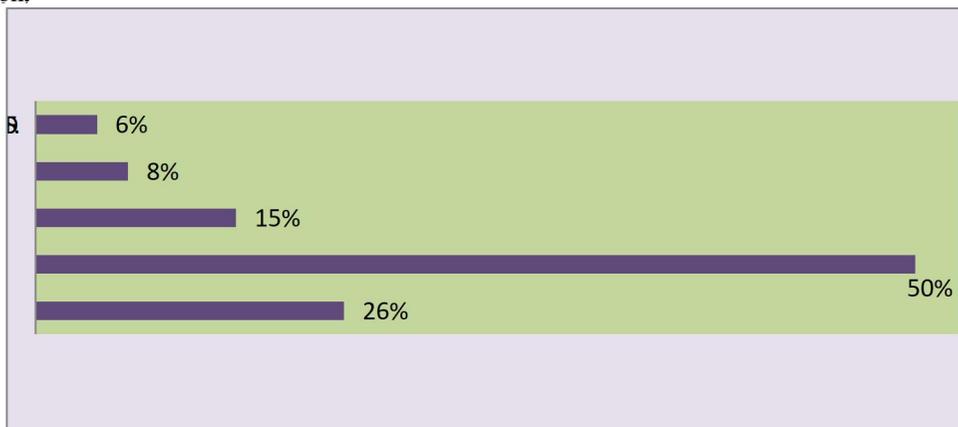
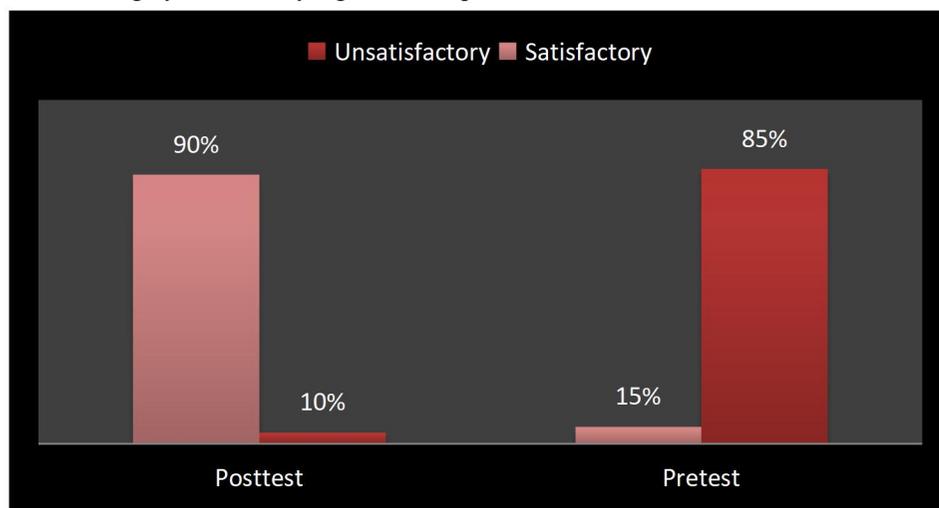


Figure (2): Source of knowledge regarding motherhood preparation among the studied first-time mothers (n=100)

Table (3): First-time mothers ' knowledge scores regarding motherhood preparation pre and post-awareness program implementation

Mother's knowledge	Pre-awareness program	Post-awareness program	Paired t-test	P value
Post-partum self-care Definition	.46±.55	1.86±.61	23.5	<0.001**
Post-partum self-care components	.74±.35	1.74±.57	34.6	<0.001**
Post-partum self-care aim	.49±.51	1.46±.34	27.7	<0.001**
Post-partum visits schedule	.71±.50	1.82±.46	37.8	<0.001**
Diet	.53±.49	1.53±.47	14.06	<0.001**
Sleep and rest	.64±.46	1.35±.42	19.6	<0.001**
Ambulation and exercises	.53±.42	1.72±.40	28.4	<0.001**
After pain	.39±.50	1.84±.33	25.8	<0.001**
The danger signs for mothers after birth	.47±.56	1.87±.58	22.6	<0.001**
Starting sexual relations after birth	.72±.35	1.65±.61	23.9	<0.001**
Family planning	.48±.49	1.37±.46	24.7	<0.001**
Total knowledge	10.78±2.77	27.56±2.64	-273.234	<0.001**

P:**: Highly Statistically significant at $p < 0.001$

**Figure (3): Total first-time mother's knowledge level regarding motherhood preparation pre and post-awareness program implementation (n=100).****Table (4) Comparison between the mean score of studied first-time mothers' practices level regarding motherhood preparation pre and post-awareness program implementation (n=100).**

Variable	Pre- motherhood preparation	Post-motherhood preparation	Paired t-test	P-value
	Mean ±SD	Mean ±SD		
Breast care	.69±.33	1.33±.54	56.4	<0.001
Perineal care	.68±.70	1.77±.49	63.9	<0.001
Newborn care	.62±.59	1.88±.70	57.5	<0.001

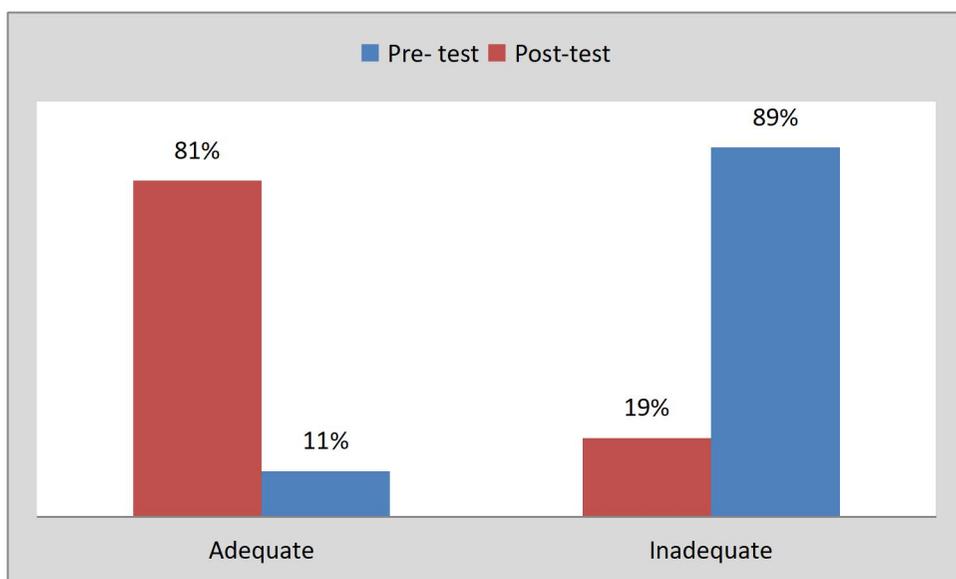


Figure (4): Total practice level regarding motherhood preparation pre and post-awareness program implementation among the studied first-time mothers (n=100)

Table (5): First-time mother's emotional status total mean scores (depression, anxiety, and stress) regarding motherhood preparation pre and post-awareness program implementation

DASS	No =(100)		T-test	P-value
	Pre-awareness program implementation	Post-awareness program implementation		
Depression	26.60 ± 2.52	13.45 ± 1.43	47.44	<0.001*
Anxiety	17.72 ± 1.14	10.75 ± 1.13	134.22	<0.001*
Stress	32.60 ± 2.73	21.34 ± 3.68	89.52	<0.001*

t: paired sample t-test

P: **: Highly statistically significant at p<0.001

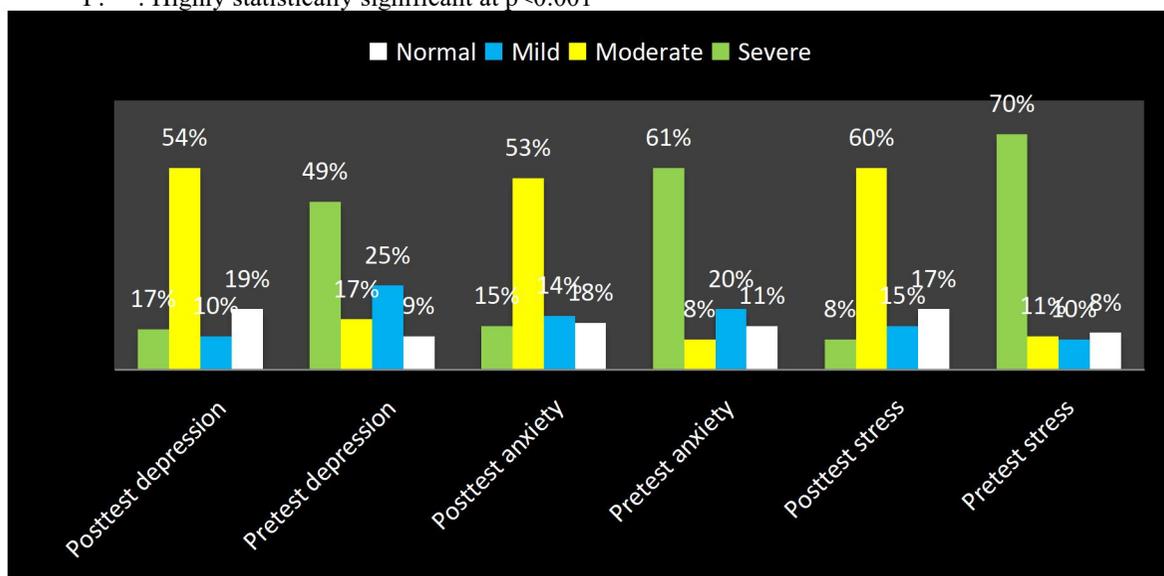


Figure (5): First-time mother's distribution regarding emotional status included (depression, anxiety, and stress level) regarding motherhood preparation pre and post-awareness program implementation.

Table (6): Correlation between total knowledge, practice, and their data among the studied first-time mothers (n= 100)

Items		Knowledge	Practice
Age	R	-.121-	-.101-
	P – value	.354	.449
Educational level	R	-.556	.022
	P – value	.001**	.883
Occupation	R	.067	-.353
	P – value	.613	.017*
Residence	R	.049	-.502
	P – value	.747	.001**

** : Correlation is significant at the 0.01 level* . Correlation is significant at the 0.05 level

Table (7): Correlation between total mean scores of knowledge and practice among the studied first-time mothers' pre and post-awareness program implementation (n=100).

Items	Practice			
	Pre-awareness program implementation		Post-awareness program implementation	
	R	P	R	P
Knowledge	0.242	0.000**	0.136	0.065*

r: Pearson coefficient.

** : Highly statistical significant at P< 0.001.

Discussion:

Research indicates that being a mother starts throughout pregnancy, and that the process of acquiring a mother's identity and function continues for several months after childbirth. The process of assuming the role of a mother in the first year after giving birth has been the subject of fewer studies than the transition to motherhood. Internal tensions that arise after giving birth impair the mother's ability to adjust to her new position and interfere with her social and emotional health. A sense of imbalance and a distortion of the mother's previous notion of her "self" can be triggered by a number of causes, including feeling unprepared, insufficient to control the situation, incomplete maternal feelings, and unstable relationships (Mercer, 2019).

As a result, the mother gains control over her situation and a sense of self-satisfaction as the physical and emotional changes brought on by pregnancy return to normal, the baby transitions out of the infancy stage, and her fears and concerns about the child's survival and health are reduced. Because of these issues, the mother's initial days and weeks following giving birth

become difficult. Nystrom & Ohrling (2020) view the first year postpartum as a very trying time for parents. Therefore, the purpose of the study was to ascertain how an awareness program about maternity preparation affected the knowledge, behaviors, and emotional state of first-time mothers.

The result of the current study showed that almost all of the studied mothers do not attend previous awareness programs, from the researchers' point of view; this result reflected the critical need for developing an awareness program for the studied first-time mothers. New moms may become confused by the lack of appropriate training for what happens after childbirth and the variety and contradiction seen in the advice and instructions provided by both professional advisors and everyday individuals. Her family and society demand her to perform in a way for which she is unprepared, and neither gives her the space or time she needs to adjust to her new role as a mother. Consequently, she finds her real postnatal experience contrary to the happy scenario she used to imagine.

One of the main obstacles that mothers face during the motherhood process

is not having enough dominance and control over their affairs; feelings of hardship and discontentment stem from the overwhelming new situation, the temperament of the child, the mother's physical and mental tensions, and both a sense of loss and restriction play a role in causing stress and conflict. Numerous studies have linked postpartum depression and physical and mental exhaustion to an intense and overwhelming sense of exhaustion (George, 2020; Lupton, 2020)

The result of the current study showed that half of **first-time** mothers reported that the main source of knowledge regarding **motherhood preparation** was doctors. From the researchers' point of view, this result reflects that **first-time** mothers had the desire to seek information from health personnel.

The result of the current study illustrated that a highly statistically significant difference was found between the mother's knowledge regarding awareness program implementation. From the researchers' point of view, this result reflects the positive effect of an awareness program, which meets the studied mother's, needs and provides them with sufficient knowledge.

This result agreed with the study by **Fan et al., (2020)** about the "KAP theory" and reported that health behavior changes when gaining the right knowledge and adopting the practice. Also, a recent study by **Rana et al., (2020)** illustrated that sufficient individual knowledge is associated with effective prevention, control of disease, and promotion of a person's health. A study by **Ricardo et al., (2018)** supported that; a knowledge deficit is associated with poor health and maladaptive disease.

The present study findings indicated that the majority of mothers had an unsatisfactory level of knowledge regarding motherhood preparation in pre-awareness programs but in post-awareness programs, but almost all of them had a satisfactory level of knowledge. From the researchers' point of view, it reflected the positive effect of awareness programs and illustrated the importance of introducing awareness programs about motherhood preparation to mothers.

In the gravid-puerperal cycle, encouraging women to take care of themselves after giving birth is a part of the nursing care process. Nursing care therefore faces a challenge in organising the vital activities for these ladies. According to **Oliveira et al. (2019)**, this makes it imperative to promote the development and application of instructional technologies that can mediate care between nurses and women by disseminating information.

Regarding the mothers who were studied and their knowledge of postpartum self-care, it was found that most of the mothers had unsatisfactory preintervention knowledge about postpartum self-care, but all of the mothers had correct postintervention knowledge. This finding may have been caused by a lack of postpartum health education. In agreement with **He et al. (2018)**, who evaluated mothers' awareness of self-care practices in a postnatal unit at a particular maternity hospital, and found that almost three-quarters of primipara moms lacked postnatal self-care expertise. Furthermore, according to **Lalitha (2016)**, who assessed the efficiency and affordability of web-based and home-based postnatal educational interventions for first-time moms, there was a lack of awareness of self-care before the postnatal period.

The present study findings indicated that there was a highly statistically significant improvement in the practice means scores of the **First-time mother practice scores regarding motherhood preparation pre and post-awareness program implementation**. From the researchers' point of view, it confirmed the positive effect of awareness program implementation and illustrated the success of awareness program implementation for mothers.

Regarding the mother's intervention knowledge of breast care. According to the current study, the majority of study mothers were unaware that there had been a considerable change after the intervention. This result is consistent with **Elsherbeny's (2019)** conclusion that postpartum women lack information about self-care after giving

birth. In the same vein, **Finello (2018)** suggested that to raise mothers' understanding of breast care, adequate health education is required. It might be the result of parents not receiving enough information about reproductive health issues for their children, which affects how well-cared-for pregnant and postpartum female individuals are.

The results of this study about mothers' self-care habits during the postpartum period concerning breast care showed that most women performed breast care appropriately; this may be because the health team continuously provides health education about breast care in hospitals. In selected maternity centers in Madurai, **Darling & Bazil (2019)** evaluated the knowledge and attitude among 100 post-natal mothers regarding self-care post-childbirth. Their findings align with the previous study, which found that 34% of mothers performed breast care correctly.

On the other hand, the results of a prior study conducted by **Adam (2018)** in the obstetric unit and post-natal ward of National Ribat University Hospital revealed that nearly three-fourths of mothers perform breast care incorrectly. Adam assessed the knowledge and practice of (150) mothers regarding self-care during puerperium.

Additionally, the mothers showed a lack of understanding regarding typical vaccine reactions in the pre-educational session. After the training, all moms (100%) were knowledgeable about newborn care, including bathing, vaccinations, cord care, and eye care. This result is consistent with the findings of other investigations. According to a study (**Castilho et al., 2019**) evaluating pregnant women's knowledge of child health in Brazil one-quarter of the mothers knew when to start vaccinations, and none of them recognized which vaccines were recommended. Just 26% of the moms who took part in another Italian trial were aware of the vaccination schedule's vaccinations (**Vonasek et al., 2016**). Another study carried out in Singapore found that women receiving a home-based psycho-educational intervention saw improvements in their self-efficacy and a decrease in PND (**Shorey et**

al., 2018). They also need to learn new abilities to care for their newborn.

Concerning the mother's total scores of depression, anxiety, and stress regarding motherhood preparation, the total mother's depression, anxiety, and stress scores were higher in pre- **awareness program** which reduced post- **awareness program** with highly statistically significant improvements observed in the mother's total scores of depression, anxiety, and stress scores regarding motherhood preparation. From the researchers' point of view, it indicated the good impact of **the awareness program** regarding motherhood preparation.

A number of research have confirmed a direct link between parents' worry and having a challenging-tempered child (**Gelfand et al., 2019, Östberg M, Hagekull, 2020**). In addition to the limitations and tasks imposed by their new state, new moms experience feelings of melancholy and regret as a result of feeling nostalgic about their past and all that has been lost. Maternal role achievement and self-confidence might be negatively impacted by inadequate control over affairs, also known as practical control (**Mercer, 2020**). Research has demonstrated that mothers' self-reliance may explain whether or not stress and anxiety are present in moms (**Goto et al., 2019**). Moms who possess greater self-assurance are better able to navigate the transition period, and their overall health is less concerning (**Ben-Ari et al., 2019**).

Mothers' emotional states are believed to change according on the developmental stage of their children (**Francis-Connolly, 2018**). The child becomes the focus of attention and the parents' top priority when a mother's connection to her child deepens and stabilises, and she eventually begins to see herself as belonging to him (**Sethi, 2019 and Ahlborg & Strandmark, 2021**). As per the Yerkes-Dodson rule, an average level of arousal encourages a gain in task performance, whereas a drop or increase in arousal at very high levels results in a decrease in performance (**Dipietro et al., 2021**).

Fewer research have been conducted on mothers' experiences within the first year postpartum, with the majority of inquiries

focusing on the idea of motherhood during the initial days and weeks following childbirth. The process of effectively applying knowledge, perspectives, and necessary skills for emotion recognition and control, along with increased awareness of others, responsible decision-making, building healthy relationships, and the capacity to take charge of difficult circumstances and adjust to them, is known as social-emotional development (**Zins & Elias, 2017**). Within the experiences of the study's participants, "development" refers to both improved social and emotional functioning and an improvement in their perceived self-image, leading them to feel as though "they have grown up and look like mothers"; this illustrates the extent of the internal changes mothers go through and the new definition of "self" that emerges as a result of adjusting to their new roles as mothers.

The study's findings demonstrate how unstable marriages, which exacerbate a mother's internal conflicts in the early weeks following childbirth, eventually stabilise and strengthen the foundation of the family as the mother's identity takes hold and she becomes more in charge of her life, better fulfilling her role as mother. Consequently, it can be deduced from the experiences of the participants that a further sign of appropriate maternal role accomplishment is the enhancement of marital relationships.

Concerning mothers' total scores of depression, anxiety, and stress regarding hemodialysis, the findings of the present study revealed that there were highly statistically significant improvements observed in mothers' total scores of depression, anxiety, and stress scores regarding motherhood preparation. From the researchers' point of view, the findings reflected the acceptance of the research hypothesis that indicating the effectiveness of **awareness programs** in alleviating mothers' anxiety and stress.

This success of the **awareness program** could be attributed to the

coping element of this **awareness program**, which focused on helping mothers select the most suitable strategy to be followed to relieve their anxiety as progressive muscle relaxation and meditation.

The current study's findings illustrated a statistically significant correlation between mothers' educational level and their knowledge of postpartum self-care; this could be because mothers with more education had more accurate knowledge than mothers with less education. The results of the earlier study were consistent with those of **Timilsina et al. (2019)**, who found a strong correlation between mothers' educational level and their degree of knowledge about postpartum self-care.

The current study's findings demonstrated a highly statistically significant correlation between a mother's age and her understanding of postpartum self-care. The results of the preceding study were consistent with those of **Lalitha (2016)**, who discovered a statistically significant relationship between mothers' age and their understanding of postpartum self-care.

About mothers' awareness of the significance of starting breastfeeding at a young age. The results of the current study showed that after the intervention, mothers' knowledge had significantly improved. The findings are consistent with **Rojana's (2019)** findings that almost all moms are aware of the benefits of starting breastfeeding at a young age. This study also contradicts the findings of **Ekambaram et al. (2020)**, in India who found that mothers' awareness was growing at a sufficient rate and that the percentage of mothers who started "colostrum feeding" at age 56% was enough. It is possible, in our opinion, that expectant mothers constantly look for information about breastfeeding to shield the infant from any health issues.

This result is consistent with the findings of **Aisha et al. (2019)**, who suggested that breastfeeding should be encouraged for the first hour following birth

without the use of any supplements, such as water, formula, or glucose in water. These results concur with **Bowles (2019)** as well. who discovered that at the beginning of breastfeeding, two-thirds of mothers commenced breastfeeding in the delivery room within an hour or less of giving birth, and this was encouraging. In a similar vein, 84% of **Ekambaram et al. (2020)** correctly identified the start of breastfeeding. Our differing opinions could be explained by the participants' educational backgrounds and the accessibility of messages from the media.

The current study's findings demonstrated that there was a highly statistically significant positive correlation between the studied first-time mothers' knowledge and practice before the awareness program implementation. Besides, a statistically significant positive correlation was detected between the studied first-time mothers' total practice and knowledge post-awareness program implementation. From the researchers' point of view, this reflects the importance and effectiveness of an **awareness program** that is commonly associated with improving knowledge and a better understanding among the studied mothers that help them learn and acquire good knowledge and apply it. This association is explained by that when the studied mothers had sufficient knowledge that can help them decrease their anxiety.

Conclusions:

Based on the current study's findings, it was concluded that an Awareness program regarding motherhood preparation application has a positive effect on improving first-time mothers' Knowledge, Practices, and emotional status pre-intervention than post-intervention.

Recommendations

The following recommendations are advised in light of the results of the current study:

- Providing informational workshops to first-time mothers about self-care and how to take care of their newborn in the postpartum phase to help them feel less stressed, depressed, and anxious.
- Giving mothers pamphlets and posters to help

them learn more about the importance of practicing self-care after giving birth.

- Within the first week following the mothers' hospital discharge, postnatal home visits may be explored.
- Intervention programs and psychological support should be provided to mothers in order to assist them adjust to motherhood and strengthen their resilience.
- Additional research is needed to conduct a comparable study with a bigger sample size in diverse scenarios to generalize the results.

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