

EMPOWERING NEW MOTHERS WELLNESS: NAVIGATING POSTPARTUM STRESS AND ANXIETY THROUGH PSYCHO-EDUCATIONAL PROGRAM

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Abstract: The first months after childbirth provide considerable challenges for new mothers, resulting in heightened manifestations of stress and anxiety. Consequently, mothers need to get psychological care aimed at mitigating their stress and anxiety levels. **The objective** of this research is to assess the effect of psycho-educational programs for new mothers to overcome postpartum stress and anxiety. **Design:** A quasi-experimental research design. **Setting.** The research was carried out in a Kafr El-Sheikh University Hospital outpatient clinic specializing in obstetrics and gynecology. **Sample:** A purposive sample for 100 new mothers, who obtained the setting mentioned above. **Tools:** Two tools were used for data collection in this study. The first tool is an interview questionnaire, to assess the demographic characteristics of mothers. Obstetric history and knowledge about postpartum stress and anxiety. Second tool: The Postpartum Specific Anxiety Scale (PSAS) is a standardized assessment tool designed to measure anxiety symptoms specifically related to the postpartum period. **Result:** The findings of this study indicate that before the implementation of the psycho-educational program, 80% of the participants had poor knowledge, 40% had average knowledge, and 20% had good knowledge regarding stress and anxiety. However, after the program was implemented, there was a significant improvement in knowledge levels, with 80% of participants demonstrating good knowledge, 60% demonstrating average knowledge, and 20% demonstrating poor knowledge (p-value = .000**). Furthermore, before the program implementation, 70% of participants experienced high levels of anxiety, while 30% experienced low levels of anxiety. Following the implementation of the psycho-educational program, there was a notable decrease in anxiety levels, with 80% of participants reporting low anxiety and 20% reporting high anxiety (p-value = .000**). **Conclusion:** The findings of this research indicate that the psycho-educational program had a significant positive effect on lowering stress and anxiety levels among new mothers throughout the postpartum period. **Recommendation:** It is recommended that the implementation of a psycho-educational program be considered as a potential solution to address the issue of reduced postpartum stress and anxiety. **Key words:** Psycho-educational program, new mothers, and postpartum stress and anxiety

Introduction:

Mothers with a new or additional baby also experience emotional changes related to breastfeeding demands, childcare stress, and problems relating to maternal dissonance and difficult infant temperament. The postpartum period is marked by intense physiological and psychological changes and increased

vulnerability to stress and anxiety. Anxiety and stress in the postpartum period are concerns about the care of children and how to maintain of child's health, Also, stressful life events such as unemployment or changes in social support. **Shorey, et al (2018).**

Mood changes during the Postpartum period are common, resulting from a combination of hormonal

changes and greater fatigue, as well as normal anxiety over body image, sexuality, finances, marriage roles, and impending parenthood. These minor disorders should be treated adequately as they may aggravate and become complicated and life-threatening. New mothers are more exposed to anxiety because of significantly more changes in life, anxiety is an all-too-common condition during pregnancy and the postpartum period. Fear of the unknown, stress, rootless feelings, and everyday issues associated with physical and hormonal changes can much of the time prompt anxiety. **Lamyian & , Hajizadeh. (2019)**

Possible causes of postpartum stress and anxiety: New mothers' moods and anxiety may be more affected by hormonal changes than those of non-new mothers. Sleep deprivation, the stress of caring for a tiny, fragile child, interpersonal changes, societal pressures, and perfectionism are common for new mothers. Hypersensitive or nervous mothers may have postpartum anxiety. Anxiety and panic attacks, mental problems, miscarriage, stillbirth, and preterm or sick babies are further risks. **Zaheri et al. (2019).**

After delivery or parenting, postpartum anxiety symptoms may be severe. These anxious symptoms can overwhelm one's thinking. A newborn often causes some worry in a household. However, postpartum anxiety sufferers may worry day and night. People often worry excessively about low-probability occurrences. Anxiety might be linked to a specific incident in one's past, or it can be more general and undefined. **Rai et al. (2019).**

Research findings indicate that postpartum anxiety has a prevalence ranging from 11% to 21% among individuals assigned female at birth. The absence of a dedicated screening tool for diagnosing postpartum anxiety poses challenges in accurately estimating the affected population. Typically, identification of this condition occurs within the context of an evaluation for postpartum depression. **Norhayati et al. (2018).**

Anxiety is a prevalent emotional reaction that individuals experience while transitioning into parenthood or upon having a child. Postpartum anxiety, characterized by an excessive and enduring state of concern, may arise as a consequence of childbirth. If a newly postpartum mother consistently has high levels of stress and tension, she may be experiencing symptoms of postpartum anxiety. This condition is characterized by an excessive and unjustified state of anxiety. Several indicators of postpartum anxiety may be seen, such as experiencing an accelerated heart rate while contemplating the prospect of departing from the residence or entrusting the newborn to a reliable caregiver or partner, even for a short duration. Additionally, individuals may exhibit insomnia as a

result of persistent concerns about the possibility of the baby ceasing to breathe. **Villegas et al. (2018).**

Anxiety is a physiological response to perceived threats or danger. In the case of postpartum anxiety, individuals may experience a persistent sense of danger for themselves or their baby. The symptoms associated with postpartum anxiety are indicative of the body's reaction to this ongoing state of worry and fear. These symptoms include physical manifestations such as disrupted sleep, increased heart rate or palpitations, nausea, and stomach aches. Additionally, individuals may experience difficulty breathing or a sensation of breathlessness, loss of appetite, restlessness, and muscle tension. Emotionally, individuals may struggle to relax or maintain a sense of calm, experience racing thoughts focused on worst-case scenarios, obsess over irrational fears or unlikely events, have difficulty concentrating or remembering, exhibit irritability, and feel constantly on edge or fearful. Behaviorally, individuals may avoid certain activities, people, or places, display excessive caution in non-threatening situations, engage in repetitive checking behaviors, and exhibit controlling tendencies. **Mohd Arifin et al. (2018).**

Several risk factors associated with the development of postpartum stress and anxiety include a personal or family history of stress or anxiety, previous experience of pregnancy loss or loss of a child, having a baby or child with health conditions, a history of eating disorders, the responsibility of caring for multiple children, possessing a personality type characterized by excessive worrying, and lacking a supportive partner or a support network following childbirth. **Stewart et al. (2019).**

The role of nurses in the treatment of postpartum anxiety extends beyond the prescription of medication. Non-pharmacological interventions can be employed to address this condition. One such intervention involves the nurse guiding the mother on how to engage in a support group for new parents, which may be accessible through online platforms. This avenue allows individuals to connect with others who are experiencing similar challenges and provides an opportunity to share their emotions. Additionally, seeking assistance from family or friends can alleviate some of the burdens associated with postpartum anxiety. For instance, delegating household chores or arranging for childcare can help alleviate stress. Engaging in regular physical activity, such as taking walks or participating in exercise routines, can also contribute to the management of postpartum anxiety. Furthermore, incorporating relaxation techniques like yoga into one's routine can promote a sense of

calmness. Lastly, prioritizing self-care by maintaining a healthy diet and obtaining sufficient sleep can be beneficial in managing postpartum anxiety. **Teissedre & Chabrol, (2018)**

The significance of this study :

According to **Vigod et al. (2018)**, postpartum stress and anxiety is a prevalent psychological health issue that affects a significant proportion of women globally, with a prevalence rate ranging from 10% to 15%.

The study conducted by **Osama et al. (2019)** in Egypt examined the prevalence of postpartum stress and anxiety among females. The findings revealed that 1.6% of the participants experienced postpartum stress, while 10% reported symptoms of anxiety. Additionally, 21.2% of the participants experienced both postpartum stress and anxiety. In terms of severity, 8.6%, 10.2%, 3.4%, and 0.6% of the participants experienced mild, moderate, severe, and extremely severe levels of stress, respectively. Similarly, 11.8%, 8.0%, 7.2%, and 4.2% of the participants reported mild, moderate, severe, and extremely severe levels of postpartum anxiety, respectively.

Nurses have a crucial role in providing comprehensive care to new mothers, necessitating a deep comprehension and knowledge of their requirements. This understanding is essential in assisting mothers in adjusting to their new position, as they care for their newborns, while also offering psychological support to alleviate their stress and worry. **Cox et al., 2017).**

The objective of this research :

The objective of this study was to assess the effectiveness of a psycho-educational program for new mothers to overcome postpartum stress and anxiety through:

- 1 – Assessment of the level of knowledge among new mothers on postpartum stress and anxiety.
- 2 - Designing and implementing a psycho-educational program tailored to the specific requirements of new mothers
- 3- Evaluating the effect of psycho-educational programs for new mothers had the greatest impact on reducing their stress and anxiety during the postpartum period.

Hypothesis: The implementation of a psycho-educational program for new mothers had the greatest

impact on reducing their stress and anxiety during the postpartum period.

Subjects and Methods :

Design: A- quasi-experimental research design.

Setting: The present research was carried out in an outpatient clinic specializing in obstetrics and gynecology, at Kafr El-Sheikh University Hospital.

Samling: A purposive sample of 100 new mothers, who attended the outpatient clinic for obstetrics and gynecology at Kafr El-Sheikh University Hospital from 2022 to 2023. The total number of new mothers attending during this period was around 1000. A random selection method was used to choose 10% of the population, resulting in a sample size of 100 new mothers.

Based on the specified criteria, the study includes mothers who have just given birth to children aged between birth and 12 weeks. The maternal age of these participants ranges from 18 to 30 years, and it is their first baby. Additionally, the participants do not reside in a family home and have willingly agreed to take part in the research.

The data collection technique used two tools:

Tool I, a questionnaire format for conducting interviews, was developed by the researchers based on a comprehensive examination of relevant literature. The questionnaire was structured into three parts :

Part I: assess the demographic characteristics of the study sample, such as age, educational levels, occupation, place of residence, and monthly income.

Part II: Obstetric History: This part focuses on the duration of the marriage, the number of abortions, the age of pregnancy, previous birth types, and any complications during the last labor.

Part III: The knowledge of new mothers regarding postpartum anxiety and stress, as well as the symptoms experienced during the postpartum period, including Physical, Emotional, and behavioral manifestations. Additionally, the assessment tools used before and after the implementation of a psycho-educational intervention program.

The scoring system: Mother knowledge items, in this study, were assigned(two points)for a correct and complete answer, one point for a correct but incomplete answer, and zero points for an incorrect answer or don't know.

Based on the responses provided by new mothers, their level of total knowledge was classified into three categories: "Good knowledge" for scores $\geq 75\%$, "Average knowledge" for scores $\geq 70\%$ - $<50\%$, and "Poor knowledge" $> 50\%$

Tools II: The Postpartum Specific Anxiety Scale (PSAS) is a tool used to assess anxiety specifically related to the postpartum period. The Postpartum Specific Anxiety Scale (PSAS) was developed and adapted by **Fallon et al. (2016)**.

The inventory comprises a set of 12 items, including concerns about the individual's relationship with their partner pre-child, worries about the baby's weight, apprehension regarding establishing a routine for the baby, anxiety about accidental harm befalling the child, feelings of incompetence in meeting the child's basic care needs, harboring negative thoughts about the relationship with the child, concerns about the child's breastfeeding, fear of the child ceasing to breathe during sleep, thoughts that the child would be better cared for by someone else, experiencing resentment towards the partner, engaging in repetitive checking on the sleeping baby, and persistently feeling fatigued despite sufficient rest. Each item is rated on a Likert scale ranging from 1 to 3, with 1 indicating disagreement, 2 denoting neutrality, and 3 representing agreement.

The scoring system: used in this study assessed the overall score of each new mother. The scores varied from 12 to 36 and were afterward characterized as either "low anxiety" or "high anxiety". Specifically, if a participant scored less than or equal to $< 50\%$ of the total score, they were classified as having "low anxiety". Conversely, if a participant achieved more than or equal to $> 50\%$ of the total score, they were classed as having "high anxiety".

Operational design refers to the systematic and deliberate process of developing and organizing military operations to achieve desired objectives.

The preparatory phase included doing a comprehensive evaluation of existing literature and theoretical knowledge of different elements of the research. This review encompassed current and previous sources, both local and worldwide, and used a range of resources including books, articles, online sources, journals, and magazines.

The validity of the tools :The content validity of the assessment was evaluated by consulting with five experts from the Obstetric Health Nursing Department and the Psychiatric Mental Health Nursing Department

Specialty. This was implemented to guarantee the pertinence and inclusiveness of the tools.

The reliability of the tools of the questionnaire questions by calculating reliability coefficients. The coefficient alpha for the knowledge items was found to be 0.76, indicating a moderate level of reliability. Additionally, the Postpartum Specific Anxiety Scale (PSAS) demonstrated a high level of reliability, with a value of 0.91.

A pilot study was undertaken, with a sample of 10% (10 mothers), to assess the clarity of the material and the time required to complete the pre-test tool. The results of the pilot study indicated that no modifications were necessary. Consequently, the participants from the pilot study were included in the overall study sample.

Ethical considerations were taken into account in this study. Before data collection, all new mothers were provided with information regarding the study's purpose and potential benefits. Oral consent was obtained from each participant before proceeding with data collection. To maintain confidentiality, strict measures were implemented throughout the study. Participants were assured that the collected data would be solely used for research purposes and were informed of their right to refuse participation or withdraw from the study at any time without facing any negative consequences.

Fieldwork: Following the acquisition of official permissions to conduct the study, the objectives of the research were communicated to the chosen participants. The study was conducted for six months, commencing in September 2022 and concluding in February 2023. On average, it took participants approximately 30 minutes to complete the tools. Researchers visited the setting on Saturdays and Thursdays from 10:00 a.m. to 2:00 p.m.

The psycho-educational program included four stages.:

Phase I: Assessment: This phase involved conducting interviews with recent postpartum women in the waiting area of an outpatient clinic specializing in obstetrics and gynecology. The purpose of these interviews was to gather baseline data. Before the interviews, the researchers greeted the participants and introduced themselves. The collection of baseline data was informed by a pre-program assessment and a comprehensive review of relevant literature from various sources, including textbooks, articles, and periodicals, both local and international, that addressed various challenges faced by recent postpartum women.

Phase II: Planning Phase: The development of a psycho-educational program aimed at enhancing the implementation of a program for new mothers has been found to significantly reduce their levels of stress and anxiety during the postpartum period. This achievement was made possible through the implementation of a psycho-educational program. The program includes a series of phases, with the first session including the process of conducting interviews.

Phase III: Implementation: The psycho-educational program was executed over 6 months, consisting of 10 sessions. Each session had a duration ranging from 20 to 30 minutes. The psycho-educational program was administered either on an individual basis or in groups of 2 to 4 new mothers. Before commencing each session, the researchers provided a recapitulation of the material covered in the previous session, ensuring that the language used was simple and comprehensible to accommodate the educational level of the new mothers. Various instructional techniques were employed, including small group discussions, brainstorming, demonstrations, and subsequent re-demonstrations. Teaching materials included brochures, vivid posters, and laptop screen presentations. Participants were informed of the following session's subject and schedule after each session.

The objective of the program the implementation of a psycho-educational program for new mothers had the

greatest impact on reducing their stress and anxiety during the postpartum period.

The program content: to identify the meaning and causes of postpartum anxiety and stress , to assess signs of anxiety among new mothers follow general guidelines for controlling their anxiety. , to clarify how to cope with stress and anxiety. to the new mothers apply guidelines to detect and prevent stress and anxiety during the postpartum period. to list types of relaxation techniques, apply types of relaxation techniques, and use religious activity and social support to cope with postpartum stress. to parents' apply methods that overcome negative thoughts, to parents' practice deep breathing exercises, summarize the program and its objectives, and do post-evaluation.

Evaluation: included the evaluation of the psycho-educational program immediately after its execution. This evaluation was conducted utilizing the same pre-program approach.

The statistical design involved the utilization of the Statistical Package for Social Science (SPSS) version 25 for data entry and analysis. Descriptive statistics, such as frequency, percentages, means, and standard deviations, were employed to present the quantitative variables. Paired t-tests were used to compare qualitative categorical variables. Statistical significance was determined at a P-value less than 0.005.

The result :

Table (1): Frequency distribution of study sample regarding demographic data (n=100)

Demographic data	Newly mothers	
	No	%
Age		
18- <25	70	70.0
25- 30	30	30.0
Mean ±SD	20.4 ± 4.8	
Educational level:		
Illiterate	5	5.0
Read & write	10	10.0
Secondary education	75	75.0
University and more	10	10.0
Occupation:		
Housewife	15	15.0
Working	85	85.0
Residence:		

	Rural	45	45.0
Urban		55	55.0
Monthly income			
	Enough	10	10.0
	Not enough	85	85.0
	Enough and saved	5	5.0

Table (1) presents the demographic characteristics of the research sample. It reveals that 70.0% of the participants were aged between 18 < 25 years, with a mean age of 20.4 ± 4.8. Additionally, 75.0% of the participants had

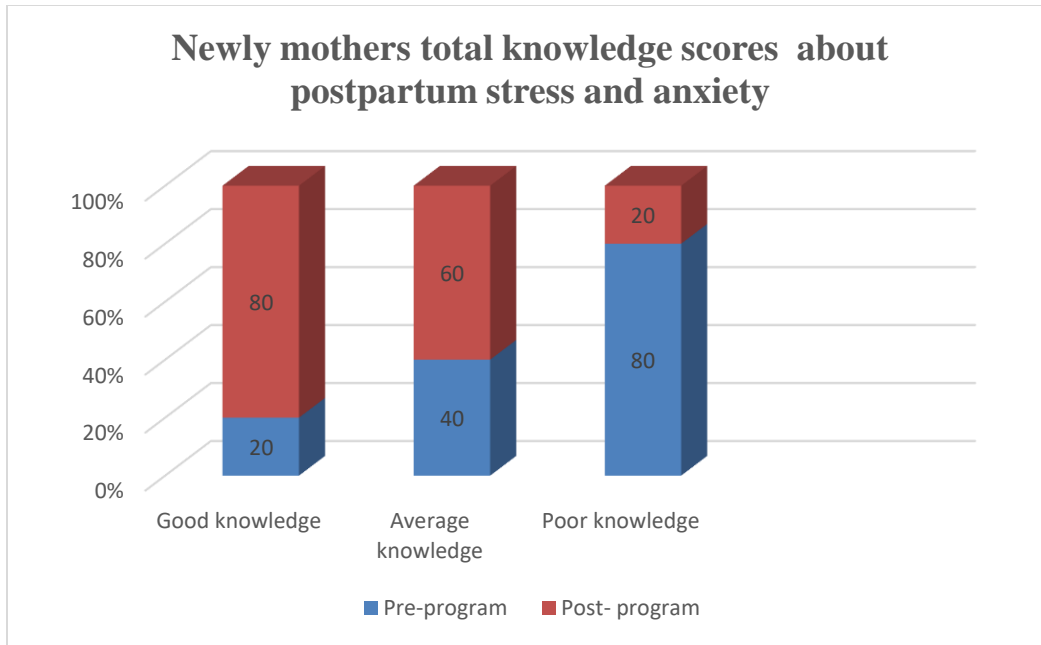
completed secondary education, while 85.0% were employed. Furthermore, 55.0% of the participants resided in urban areas, and 85.0% said that their monthly income was not enough.

Table (2): frequency distribution of new mothers for their obstetric history. (n=100)

Obstetric history	No.	%
Duration of marriage :		
<5 years	65	65.0
6-10 years	30	30.0
>10 years	5	5.0
Number of abortion		
One	15	15.0
Two	60	60.0
Three and more	25	25.0
Age at pregnancy:		
18<25 years	30	40.0
25 -30 years	60	60.0
Previous birth type		
Normal vaginal delivery(NVD)	20	20.0
Normal vaginal delivery with episiotomy	10	10.0
Cesarean section	70	70.0
Problems during the last labor:		
Yes	80	80.0
No	20	20.0

Table (2) presents the findings indicating that 65.0% of new mothers had a duration of marriage < five years. Additionally, 60.0% of these mothers had pregnancies between the ages of 18 < 25. Furthermore, 60.0% of them

had two abortions, while 70.0% had previously given birth through cesarean section. and 80.0% of these mothers complain of problems during the last labor.



Figure(1) frequency distribution study sample regarding total knowledge scores about postpartum stress and anxiety before and after the implementation of a psycho-educational program. (n=100).

Figure(1) depicts the distribution of total knowledge levels among the study sample. Before the implementation of the psycho-educational program, 80% of the participants had poor knowledge, 40% had

average knowledge, and 20% had good knowledge. Following the program, there was a notable improvement in knowledge levels, with 80% of participants demonstrating good knowledge, 60% exhibiting average knowledge, and 20% still displaying poor knowledge. The statistical analysis revealed a significant association between the program implementation and the observed changes in knowledge levels ($p < .001$).

Table (3): frequency distribution study sample postpartum specific anxiety scale at pre and post-implementation of the psycho-educational program (No=100)

Items	Pre			Post			χ^2	p-value
	Disagree No (%)	Neutral No (%)	Agree No (%)	Disagree No (%)	Neutral No (%)	Agree No (%)		
After our child was born, I worried about my relationship with my partner.	0 (0.0)	20 (20%)	80 (80.0)	70 (70.0)	20 (20.0)	10 (10.0)	17.855	.0001**
I am worried about my baby's weight	10 (10.0)	30 (30.0)	60 (60.0)	60 (60.0)	30 (30.0)	10 (10.0)	16.482	.0001**
I have worried about getting my baby into a routine	10 (10.0)	40 (40.0)	50 (50.0)	80 (80.0)	20 (20.0)	0 (0.0)	14.432	.0001**
I have worried about my baby being accidentally harmed by someone or something	10 (10.0)	10 (10.0)	80 (80.0)	70 (70.0)	20 (20.0)	10 (10.0)	17.585	.0001**
I have felt unconfident or incapable of meeting my baby's basic care needs	0 (0.0)	40 (40.0)	60 (60.0)	65 (65.0)	30 (10)	260 (86.7)	17.536	.0001**
I have had negative thoughts about my relationship with my baby	10 (10.0)	20 (20.0)	70 (70.0)	70 (70.0)	20 (20.0)	10 (10.0)	18.087	.0001**

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I am worried about my baby's milk intake	20 (20.0)	30 (30.0)	50 (50.0)	60 (60.0)	30 (30.0)	10 (10.0)	14.732	.0001**
I have worried that my baby will stop breathing while sleeping	15 (15.0)	15 (15.0)	70 (70.0)	75 (75.0)	10 (10.0)	15 (15.0)	17.155	.000**
I have felt that my baby would be better cared for by someone else	10 (10.0)	20 (20.0)	70 (70.0)	70 (70.0)	20 (20.0)	10 (10.0)	16.066	.0001**
I have felt resentment towards my partner	40 (40.0)	40 (40.0)	20 (20.0)	60 (60.0)	40 (40.0)	0 (0.0)	19.431	.0001**
I have repeatedly checked on my sleeping baby and I have felt tired even after a good amount of rest	5 (5.0)	5 (5.0)	90 (90.0)	80 (80.0)	20 (20.0)	0 (0.0)	17.266	.0001**

highly statistically significant at $p < 0.001^{**}$.

Table (3) demonstrates a considerable enhancement in postpartum anxiety among new mothers after the adoption of a psycho-educational program. The observed difference is highly statistically significant, with a p-value of 0.001^{**} .

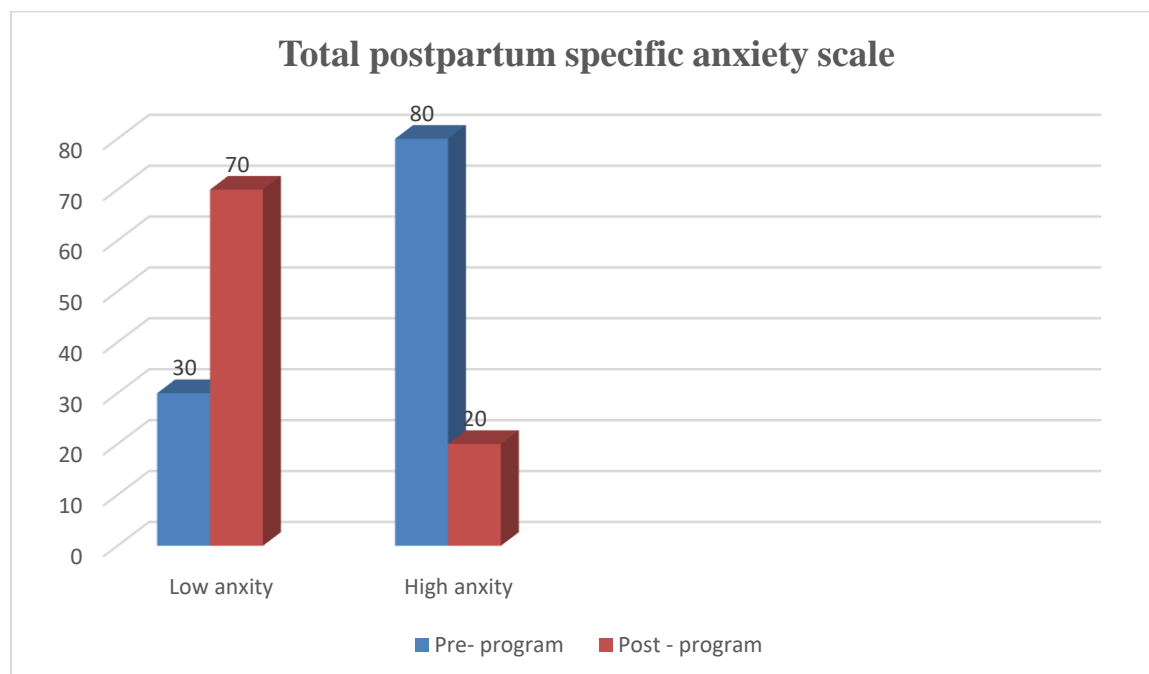


Figure (2): Newly mother's total postpartum specific anxiety scale pre and post-implementation of the psycho-educational program (No=100).

Figure (2) depicts the mother's anxiety levels. Before the implementation of the psycho-educational program, 70.0% of participants exhibited high anxiety, while 30.0% had low anxiety. Following the program, there was a notable improvement, with 80.0% of participants

experiencing low anxiety and 20.0% still reporting high anxiety. The statistical analysis revealed a significant difference between the pre and post-program implementation a p-value of $.0001^{**}$.

Table (4): Relation between new mothers' demographic characteristics and total knowledge scores about postpartum stress and anxiety at pre and post-implementation of psycho-educational program (No=100).

Item	Total knowledge score at Pre-program						χ^2 (P-Value)	Total knowledge score at Post-program						χ^2 (P-Value)
	Good (10)		Average (10)		Poor (80)			Good (70)		Average (20)		Poor (10)		
	No	%	No	%	No	%		No	%	No	%	No	%	
Mothers age :							6.221 (.012*)							13.08 (.0001**)
18<25	5	5.0	5	5.0	60	60.0		50	50.0	15	15.0	5	5.0	
25-30	5	5.0	5	5.0	20	20.0		20	20.0	10	10.0	0	0.0	
Levels of education :							34.60 (.000**)							56.30 (.0001**)
Illiterate	0	0.0	3	3.0	2	2.0		1	1.0	2	2.0	2	2.0	
Read & write	2	2.0	3	3.0	5	5.0		2	2.0	5	5.0	3	3.0	
Secondary education	6	6.0	3	3.0	66	66.0		60	60.0	10	10.0	5	5.0	
University or More	2	2.0	1	1.0	7	7.0		7	7.0	3	3.0	0	0.0	
Mothers occupation:							11.54 (.049*)							13.00 (.0001**)
Housewife	3	3.0	5	5.0	7	7.0		10	10.0	4	4.0	1	1.0	
Working	7	7.0	5	5.0	73	73.0		60	60.0	16	16.0	9	9.0	
Place of residence :							40.98 (.000**)							45.88 (.0001**)
Rural	3	3.0	2	2.0	40	40.0		30	30.0	10	10.0	5	5.0	
Urban	7	7.0	8	8.0	40	40.0		40	40.0	15	15.0	10	10.0	
Family income :							15.15 (.000**)							17.98 (.0001**)
Enough	2	2.0	3	3.0	5	5.0		5	5.0	5	5.0	0	0.0	
Not enough	5	5.0	4	4.0	1	1.0		63	63.0	13	13.0	9	9.0	
Enough and sa	3	3.0	3	3.0	74	74.0		2	2.0	2	2.0	1	1.0	

highly significant at $p < 0.001^{**}$.

Table(4) presents the results indicating a high statistical significance between the mothers' age, educational level, occupational, place of residence,

family income, and total knowledge scores about postpartum stress and anxiety at pre and post-implementation of psycho-educational. a p-value of .0001**.

Table (5): Relation between new mothers' demographic characteristics and total postpartum specific anxiety scale at pre and post-implementation of the psycho-educational program (No=100).

Item	Total postpartum specific anxiety scale pre-program				χ^2 (P-Value)	Total postpartum specific anxiety scale post-program				χ^2 (P-Value)
	Low (30)		Hight (70)			Low (80)		Hight (20)		
	No	%	No	%		No	%	No	%	
Mothers age :					7.821 (.011*)					12.18 (.0001**)
18<25	10	10.0	70	70.0		60	60.0	10	10.0	
25-30	20	20.0	10	10.0		20	60.0	10	10.0	
Mothers qualification					26.80					55.40

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Illiterate	0	0.0	5	5.0	(.000**)	3	3.0	2	2.0	(.0001**)
Read & write	2	2.0	8	8.0		8	8.0	2	2.0	
Secondary education	20	20.0	55	55.0		61	61.0	14	14.0	
University or More	8	8.0	2	2.0		8	8.0	2	2.0	
Mothers occupation:					13.84 (.059*)					15.00 (.0001**)
Housewife	5	5.0	15	15.0		10	10.0	5	5.0	
Working	25	25.0	55	55.0		70	70.0	15	15.0	
Place of residence :					39.76 (.000**)					43.45 (.0001**)
Rural	10	10.0	35	35.0		30	30.0	15	15.0	
Urban	20	20.0	35	35.0		50	50.0	5	5.5	
Family income :					14.99 (.000**)					16.78 (.0001**)
Enough	2	2.0	8	8.0		8	8.0	2	2.0	
Not enough	25	25.0	60	60.0		68	68.0	17	17.0	
Enough and sa	3	3.0	2	2.0		4	4.0	1	1.0	

Table (5): presents the results indicating a high statistical significance between the mothers' age, educational level, occupation, place of residence, 70 family income, and total postpartum specific anxiety scale at pre and post-implementation of the psycho-educational program after the program. p-value of .0001**.

Discussion :

Postpartum stress and anxiety refer to the heightened levels of concern experienced after delivery or adoption. Individuals experiencing postpartum anxiety may exhibit symptoms characterized by excessive concern, persistent nervousness, or recurring episodes of panic. If an individual or an acquaintance exhibits symptoms indicative of postpartum stress and anxiety, it is essential to promptly seek assistance from a healthcare professional. The treatment options for postpartum stress and anxiety include behavioral therapy as well as pharmacological interventions. **Sohr-Preston and Scaramella (2016).**

Results of the current study reveal that new mothers' age was 18 < 25 years, and the mean age was 20.4 ± 4.8 years, the majority of their study had secondary education, the majority of new mothers were working, more than half of them live in an urban area and the majority of them the monthly income not enough. This result agrees with **Grace, et al. (2019).** Who study "The relationship between postnatal anxiety and depression, somatization and behavior in Malaysian women" and

found that 73.0% of the age between 18 < 25 years, 70.0% of their study were in secondary education 80.0% of mothers were working and 90.0% of them the monthly income was not enough. According to the investigator, Egypt's high standard of living requires new mothers to work to support their families.

Regarding new mothers' obstetric history, more than two-thirds of them have a duration of marriage <5 years, less than two-thirds of them have two abortions, less than two-thirds of them age pregnancy between 18< and 25 years, more than two-thirds of them the birth by cesarean section, the majority of them suffering from problems during last labor. This result agrees with **Azidah, et al. (2017)** Who studied "Postnatal anxiety and depression and sociocultural practices among postnatal mothers in Kota Bahru, Kelantan, Malaysia." and found that 70.0% of new mothers had a duration of marriage <7 years, 65.0% of them had age at pregnancy 20< 27years, 55.0% of them complained of problems before & during pregnancy 85.0% of them the birth by cesarean section and,75.0% of them suffered from problems during last labor. From the investigator's point of view, most of the mothers in the recent period in Egypt had a cesarean section, as the rate of cesarean section is very high in Egypt.

Regarding new mothers' total knowledge scores about postpartum stress and anxiety, the majority of them had poor knowledge, about two-fifths of them had average knowledge, while, one-fourth of them had

good knowledge pre-program, improved too, the majority of them had good knowledge, more than half of them average knowledge and one-fourth of them had poor knowledge after implementation of the psycho-educational program p value =0.000**. This result agrees with **Wan Mahmud et al (2018)**. Who study” Postpartum depression: a survey of the incidence and associated risk factors among Malay women in Beris labor” found that 80% of the studied sample had poor knowledge, 40.0% had average knowledge, while 20% had good knowledge pre-program, improved to 80% good knowledge, 60% average knowledge and 20% poor knowledge after implementation of the psycho-educational program p value =.0001**. From the investigator's point of view, the majority of new mothers had poor knowledge before the implementation of the program but improved to good knowledge after the program implementation.

Regarding new mothers' specific anxiety scale, the current study revealed that the majority of them were high stress and anxiety regarding worried more about their relationship with their partner than before their baby was born, worried about their baby being accidentally harmed by someone or something and having repeatedly checked on my sleeping baby and have felt tired even after a good amount of rest pre-program implementation improved to the majority of them low stress and anxiety after implementation the psycho-educational program p value =0.000**. This result agrees with **Upadhyay, et al.(2017)**. Who study” Postpartum depression in India: A Systematic Review and Meta-analysis.” found that 80.0% of the study sample's high stress and anxiety before participating in the program improved to the majority of the low stress and anxiety after the program p value =.0001**. From the investigator's point of view, most of the new mothers who participated in the psycho-educational program had a great impact on reducing their stress, and anxiety and had a direct impact on taking care of their children and adapting to their new life after birth.

Regarding new mothers' postpartum total anxiety scale, the current study revealed that more than two-thirds of them had high anxiety, one-third of them had low anxiety pre-program implementation, improved to the majority of low anxiety, and one-fourth of them had high anxiety after implementation of the psycho-educational program with p -value =.0001**. This result agrees with **Biaggi, et al (2017)**. Who study” Identifying the women at risk of antenatal anxiety and depression: a systematic review.” found that 70.0% of the studied sample had high anxiety, 30.0% had low anxiety pre-program implementation, which improved to 80.0% of them had low anxiety, and 20% of them high anxiety after implementation of the psycho-educational program with p -value =.0001**. From the

investigator's point of view, applying psycho-educational programs for new mothers had the greatest impact on reducing their stress and anxiety during the postpartum period.

Regarding to newly mothers' relation between demographic characteristics and total knowledge scores about postpartum stress and anxiety, the current study revealed that, a high statistical significance was found between new mothers' age, educational level, mothers occupation, places of residence, and family income before the program. and total level of knowledge scores with p -value =.0001**after the program. This result agrees with **Roomruangwong, et al (2018)**. Who study” Antenatal and postnatal risk factors of postpartum depression symptoms in Thai women: a case-control study found that high statistical significance was found between new mothers' age, mother's qualification, mothers' occupation, places of residence, and family income before the program. and total level of knowledge scores with p -value =.0001**after the program. From the investigator's point of view, the result showed that the mothers who had a higher qualification had less anxiety and stress.

Regarding new mothers' relation between demographic characteristics and total postpartum specific anxiety scale at pre and post-implementation of the psycho-educational program, the current study revealed that high statistical significance was found between new mothers' age, mother qualification, mothers' occupation, places of residence and family income with before the program. and total postpartum specific anxiety scale with p -value =.0001** after the program. This result agrees with **de Paula Eduardo, et al (2019)** Who studied” Preterm birth as a risk factor for postpartum depression: a systematic review and meta-analysis “and found that a high statistical significance was found between new mothers' age, and mother qualification, mothers occupation, places of residence and family income with before the program. and total postpartum specific anxiety scale with p -value =.0001** after the program. From the investigator's point of view, It was observed that there is a relationship between the mother's age, level of education, occupation, and monthly income, and the reduction of her stress and anxiety after participating in the psycho-educational program.

Conclusion :

The study and research hypothesis concluded that applying psycho-educational programs for new mothers had the greatest impact on reducing their stress and anxiety during the postpartum period.

Recommendations :

Based on the findings of this study, the following recommendations were suggested:

1. Continuous implementation of psycho-educational programs for new mothers during the postpartum period to decrease stress and anxiety.
2. Dissemination posters and books in outpatient clinics educate new mothers on how to cope with stress and anxiety during the postpartum period.
3. Further research is needed in other areas especially rural areas, to implement a psycho-educational program for new mothers during the postpartum period

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