

ORIGINAL ARTICLE

Psychological Distress, Shame, Guilt, and Self-Esteem in Women with Ectopic Pregnancy: A Cross-Sectional Study

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ABSTRACT

OBJECTIVE: To examine the associations among psychological distress, Shame, Guilt, and self-esteem in women with ectopic pregnancy.

METHODOLOGY: This cross-sectional study was conducted in Lahore using a non-probability purposive technique. The study was conducted from February to August 2024. The sample included N=50 individuals with an age range of 25 to 40 years. Women diagnosed with ectopic pregnancy were included; other types of miscarriage cases were excluded. Standardized scales: Psychological Distress Scale, State Shame and Guilt Scale and Self-Esteem Scale were used to collect data.

RESULTS: Descriptive statistics were used to examine participant demographics. Psychological distress showed strong positive correlations with Shame ($r = .73^{**}$) and Guilt ($r = .83^{**}$). Self-esteem had negligible correlations with Shame ($r = -0.02$) and Guilt ($r = -0.10$). Unstandardized coefficients revealed that Shame had a positive but statistically insignificant effect on psychological distress ($B = .72$, 95% CI: -0.36 to 1.8), while Guilt had a negative but also insignificant effect ($B = -0.26$, 95% CI: -1.06 to 0.53). Participants from joint families reported slightly higher psychological distress ($M = 32.96$, $SD = 11.65$) than those from nuclear families ($M = 28.95$, $SD = 9.59$). Shame levels were also higher in joint families ($M = 9.59$, $SD = 3.80$) compared to nuclear families ($M = 8.21$, $SD = 3.02$).

CONCLUSION: These findings suggest that while women may experience heightened emotional turmoil, including Shame and Guilt in response to ectopic pregnancy, these emotions may not strongly predict their overall self-esteem levels.

KEYWORDS: Distress, Guilt, family system, Self-esteem, ectopic pregnancy, Shame

INTRODUCTION

Pregnancy is a period characterized by psychological and physical challenges in women's lives. Loss in pregnancy causes grief and stress. Although numerous reasons may be involved in pregnancy loss, one of the important and escalating causes identified in women is ectopic pregnancy (EP)¹. Ectopic pregnancy is a medical condition in which a fertilized egg implants outside the uterus. Such pregnancies are often called "tubal pregnancies" but may also occur in the abdomen, cervix, or ovary. These positions cannot support fetal growth and may cause severe bleeding and even organ rupture. Symptoms include pain, vaginal bleeding, and pain in the pelvis, abdomen, or shoulder. According to the findings of studies, morbidity and mortality increase due to ectopic pregnancy if it's not treated timely². Contributing risk factors are history of ectopic pregnancy, age, smoking, intrauterine device (IUD) use, oral contraceptives (OCPs), female sterilization, pelvic surgery, and infertility³.

This condition causes psychological issues along with physical problems. Women with ectopic pregnancy (EP) experience deep emotional stress, feelings of Guilt, Shame, and low levels of self-esteem. These psychological conditions disturb the physical, social, and psychological life of women. Although physical problems are treated, psychological issues mainly remain ignored. The present study highlights the important but ignored problem related to the psychological distress of shame, Guilt, and self-esteem of ectopic pregnancy. Ectopic pregnancy accounts for 0.5–2% of all pregnancies globally. In Pakistan, its prevalence is reported as 11.5 per 1000 pregnancies⁴.

Mental distress is common among women with ectopic pregnancy. Various studies have shown that pregnancy loss, including ectopic pregnancy, can negatively affect the mental health of mothers. Ectopic pregnancy has a profound impact not only on physical health, often requiring urgent surgical treatment and carrying a risk of future infertility, but also on mental health, with research indicating a higher risk of post-traumatic stress disorder and suicide⁵. The American Psychological Association⁶ defines psychological distress as "a set of painful mental and physical symptoms that are associated with normal fluctuations of mood in most people". Psychological distress does not automatically signify the existence of a mental illness.

Guilt has been found to lead to repair action tendencies, such as apologizing and amending, whereas Shame appears to favor withdrawal and self-defensive reactions. Shame is a sensation of humiliation or embarrassment brought on by the belief that one has done something inappropriate, immoral, or dishonorable⁷.

According to Rosenberg M 1965⁸, self-esteem is one's attitude toward oneself. A person with low self-esteem generally feels unworthy of themselves. Many elements—including identity, confidence, and belonging can contribute to low self-esteem. Low self-esteem frequently manifests as anxiety, fear of failure, and negative self-talk⁹.

Ren N et al.¹⁰ examined psychological distress in Chinese patients with ectopic pregnancy. Zamani M 2023¹¹ studied the psychological effects of continuing pregnancy, ectopic pregnancy, and miscarriage. Farren J et al.¹² identified predictors of PTSD, anxiety, and depression after early pregnancy loss. Hasani S 2021¹³ assessed self-esteem in ectopic pregnancy survivors.

Literature from Pakistan

Sultana S 2015⁴ studied risk factors for ectopic pregnancy in the Pakistani population. Also, Mehmood L 2025¹⁴ recently studied management and early diagnosis of ectopic pregnancy. Aftab A et al.¹⁵ described varied clinical presentations. Malik N 2024¹⁶ reported that bleeding and pain are the most important features observed in ectopic pregnancy.

Ectopic pregnancy (EP) has serious physical health consequences and can cause severe psychological distress, such as feelings of Shame and low self-esteem. Iqbal S et al.¹⁷ conducted a study in the six hospitals of Sialkot and described severe clinical presentations of ectopic pregnancy. Patients with ectopic pregnancy suffer from shame and Guilt. In other countries, some studies have reported psychological consequences of ectopic pregnancy like Ren et al¹⁸., conducted a study in China and described its severe psychological effects but in Pakistan such emotional responses are not well understood. Even in previous studies, psychological problems are discussed, but emotional experiences are not well studied. So, to fill the gap, this study aims to explore the links between psychological distress, Shame, Guilt, and self-esteem in women with EP. By examining the relationships among these variables, we hope to provide insights that can guide mental health support for women with this illness.

Objectives of the Study

1. To examine the relationship between psychological distress, Guilt and Shame in women with ectopic pregnancy.
2. To find out the relationship between Shame, Guilt, and self-esteem in women with ectopic pregnancy.
3. To study the predictive role of psychological distress, Shame, and Guilt on self-esteem among women with ectopic pregnancy.
4. To compare levels of psychological distress, Shame, and Guilt between women living in joint family systems and those in nuclear family systems.

Hypotheses

1. There will be a positive relationship among psychological distress, Shame, and Guilt in women with ectopic pregnancy.
2. There will be a negative relationship among Self-esteem and Shame, Guilt
3. Psychological distress, shame, and Guilt are likely to predict low self-esteem in women with ectopic pregnancy
4. Higher psychological distress, shame, and Guilt will be experienced by women living in a joint family system as compared to those who live in a nuclear family system

METHODOLOGY

This cross-sectional study was conducted in Lahore from February to August 2024. Data were gathered from two public hospitals of Lahore, Pakistan (Lady Aitchison Hospital and Lady Willingdon Hospital). A non-probability purposive sampling (because of specific criteria of sample-only women with understudied condition) technique was used to select participants. The final sample of 50 medically diagnosed Women aged 25–40 years receiving treatment at the selected hospitals was included. Women with normal pregnancies, a history of psychiatric illness, or those unwilling to participate were excluded from the study. Different instruments were used to collect data. All scales were used in the Urdu version. Authorities granted permission to translate the scales into Urdu. Sousa VD 2011¹⁹ method was used to translate the scale. The first instrument used was the Psychological Distress Scale (K10), developed by Sousa VD 2011¹⁹; this 10-item scale measures nonspecific psychological distress. It uses a 5-point Likert scale (1 = none of the time to 5 = all the time). The scale has a reported reliability of $\alpha = .88$. The second instrument was the State Shame and Guilt Scale (SSGS), developed by Tangney JP 2002²⁰; this scale consists of 10 items measuring Shame and Guilt across two subscales. It uses a 5-point Likert scale (1 = Not at all to 5 = Very strongly). The scale has reported reliabilities ranging from $\alpha = 0.77$ to 0.81. The third scale was the Rosenberg Self-Esteem Scale (RSE), created by Rosenberg M 1965⁸; this 10-item scale assesses self-esteem using a 4-point Likert format (1 = Strongly agree to 4 = Strongly disagree). The scale has an internal consistency of $\alpha = 0.92$. Along with these scales, a demographic information form was used to collect data on age, family system (joint/nuclear), prior abortion history, presence of diseases, contraceptive use, and abnormal zygote history.

Procedure

The Institutional Ethics Committee and the Board of Study provided ethical permission for the study. Permission was also obtained from the scale authors and hospital administrators. After providing informed consent, participants were assured of secrecy and anonymity. Participants were given a demographic questionnaire and three standardized psychological tests. Data collection took around 10-15 minutes per participant.

Statistical analysis

The data were analyzed with SPSS version 25.0. Demographic variables were analyzed using descriptive statistics. Pearson product-moment correlation was used to examine the relationships among variables. Linear regression analysis was used to determine the predictive effects of psychological distress, humiliation, and Guilt on self-esteem. Independent sample t-tests were used to compare groups (for example, combined vs nuclear family systems). All analyses were performed with a significance level of $p < 0.05$.

RESULTS

Table I shows descriptive statistics and reliability coefficients for study scales. Psychological Distress shows high reliability ($\alpha = .85$), while State Shame and Guilt show moderate reliability ($\alpha = .67$). Shame ($\alpha = .34$), Guilt ($\alpha = .55$), and Self-esteem ($\alpha = .36$) show low to moderate reliability.

Table I: Reliability Coefficient and Descriptive Statistics of Study Scales (N=50)

Scales	<i>K</i>	<i>M</i>	<i>SD</i>	α
Psychological distress	10	31.12	10.84	.85
State shame and Guilt	10	21.20	7.39	.67
Shame	5	8.96	3.50	.34
Guilt	5	12.24	4.79	.55
Self-esteem	10	24.08	4.30	.36

Table II displays strong positive correlations between Psychological Distress and Shame ($r = .73^{**}$) and Guilt ($r = .83^{**}$), with Shame and Guilt also positively related ($r = .50^{**}$).

Table II: Correlation among Psychological Distress and Shame, Guilt

Variables	1	2	3
Psychological distress	—	.73**	.83**
Shame			.50**
Guilt			—

Note, ** $p < .05$, *** $p < .01$

Table III shows negligible correlations of Self-esteem with Shame ($r = -.02$) and Guilt ($r = -.10$), while Shame and Guilt correlate positively ($r = .50^{**}$).

Table III: Correlation between Self- esteem and Shame, Guilt

Variables	1	2	3
Self- esteem	—	-.02	-.10
Shame			.50**
Guilt			—

Note: ** $p < .05$, *** $p < .01$

Table IV presents a multiple regression where Shame and Guilt predict only 3% of the variance in Psychological Distress among ectopic pregnant women. Neither predictor is statistically significant, indicating limited impact on self-esteem.

Table IV: Multiple regression analysis for psychological distress and Shame, Guilt among ectopic pregnant women

Predictors	B	B	R ²	ΔR^2	F	95%CI	
						LL	UL
Constant	27.82		.03	-.004	.90	18.34	37.32
Shame	.72	.23				-.36	1.8
Guilt	-.26	-.11				-1.06	.53

Table V suggests that, while psychological distress and Shame Vary Slightly between joint and nuclear family systems, these differences appear statistically significant.

Table V: Independent sample T- test in Nuclear and Joint family system

Variables	<i>Joint</i>		<i>Nuclear</i>		<i>T</i>	<i>p</i>	<i>Cohen's d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
Psychological distress	32.96	11.65	28.95	9.59	1.31	.215	0.37
Shame	9.59	3.80	8.21	3.02	1.39	.351	0.40
Guilt	12.48	5.25	11.95	4.29	.382	.209	0.06

DISCUSSION

The first hypothesis in the current study was: There will be a positive relationship among psychological distress, Shame, and Guilt in women with ectopic pregnancy. The findings revealed that psychological distress strongly correlated with both Shame and Guilt. Higher levels of psychological distress often correlate with increased feelings of Shame and Guilt. The findings are consistent with previous research conducted by Farren J et al.¹², which revealed a positive correlation between the incidence of PTSD, anxiety, and depression and the experience of pregnancy loss in the population studied. Women who experience pregnancy loss are at a higher risk of developing depression and anxiety compared to those who have not experienced pregnancy loss²¹. The majority of patients who have an ectopic pregnancy endure psychological distress that significantly impacts both their physical and mental well-being¹⁵. The relationship between suicide risk and symptoms of major depression, stress, and Guilt showed a statistically meaningful correlation⁷.

The second hypothesis was that there would be a negative relationship among Shame, Guilt, and self-esteem. The results of the present study show that self-esteem was weakly correlated with Shame and Guilt. The findings are consistent with previous research, which shows that mental distress was common among women with ectopic pregnancy and lower self-esteem was significantly associated with overall mental distress²². Women who had experienced a miscarriage showed a noticeable decrease in self-esteem, even after accounting for background factors and variables related to maternal identity²³. Luo X 2023²⁴ conducted a survey on psychological suffering among women with pregnancy loss. The study added that psychological suffering is related to low self-esteem, which ultimately lowers the well-being of women. In a study conducted in 2024²⁵, it was found that there was a significant positive relationship between Shame and Guilt, while inverse relationship in psychological distress and self-esteem in women with ectopic pregnancy. These findings also support the study hypothesis.

The third hypothesis was: "Psychological distress, shame, and guilt will likely predict low self-esteem in women with ectopic pregnancy." In this study, it was found that self-esteem was negatively correlated with mental health. The hypothesis was accepted and supported by previous research. The link between self-esteem and conditions like depression and anxiety is widely recognized in existing research²⁰.

Cuenca²⁶ studied anxiety and depression in women with repeated miscarriages. It was observed that psychological distress is related to low self-esteem. The last hypothesis also showed significant differences. It was hypothesized that "higher psychological distress, shame and guilt will be experienced by women living in a joint family system as compared to those who live in a nuclear family system". Findings are supported by studies conducted by Ashfaq A 2024²⁷ and Abdullah T 2025²⁸. Findings of these studies suggest that the joint family system exerts more pressure and power. This is because different family members try to exercise power over women. In return, she experiences more distress in dealing with multiple issues, including ectopic pregnancy. A joint family does not provide support; it only demands and shows power.

CONCLUSION

In the current study examining psychological distress, Shame, Guilt, and self-esteem among women experiencing ectopic pregnancy, it was found that psychological distress, Shame, and Guilt are positively correlated. Still, their relationships with self-esteem are notably weak. These findings suggest that women experience heightened emotional turmoil including Shame and Guilt in response to ectopic pregnancy. These emotions may not strongly predict overall self-esteem. This understanding underscores the complex interplay of emotional responses in this population. Healthcare providers should remain attuned to these emotional dynamics to offer support. Future research could further identify additional factors influencing self-esteem in these contexts.

Implications of the Study

- This study will help organize workshops and spread knowledge to enhance empathy, communication skills, and awareness of psychological impacts related to ectopic pregnancies among healthcare professionals.
- Organize counseling services and peer support groups for women experiencing ectopic pregnancies to facilitate their emotional recovery.
- Integrate psychological assessments into care.
- Implement collaborative care models involving mental health professionals, obstetricians, and social workers to provide comprehensive, holistic support for affected women.

Limitations

Data collection was completed in a limited period. Some women were reluctant to share due to privacy concerns. This drawback can be addressed by using a larger sample size. This would allow the findings to be generalized.

Suggestions

These issues require more time for in-depth study. Qualitative and mixed-methods research will help identify these issues in more detail. Further, different risk factors of ectopic pregnancy can also be explored by conducting different studies on this topic.

Ethical Permission: Lahore College for Women University, Lahore, Pakistan approved the study protocol.

Conflict of interest: There is no conflict of interest between the authors.

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Data Sharing Statement: The corresponding author can provide the data proving the findings of this study on request. Privacy or ethical restrictions bound us from sharing the data publicly.

AUTHOR CONTRIBUTION

Shafique A: Collected the data and contributed to the writing of the manuscript.

Ahmad S: Conceived the research idea and developed the study design.

Anjum A: Analyzed the results and contributed to the writing of the manuscript.

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