RESEARCH PAPER

Psychological Effects of Recurrent Pregnancy Loss in Women - Evaluating the Impact of Social and Clinical Factors: A Prospective Study

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ABSTRACT

Introduction

Recurrent pregnancy loss (RPL) is a distressing condition affecting 2–5% of women worldwide, with significant psychological consequences. Women in Tamil Nadu, where societal expectations of motherhood are high, experience increased emotional distress due to RPL. Despite medical advancements, psychological support remains inadequate.

Objectives

This study aims to assess the psychological effect of RPL among women in Tamil Nadu and the impact of its associated factors.

Methods

A prospective observational study was conducted over six months at a private medical institution in Chennai. Using purposive sampling, 100 women with a history of RPL were recruited. Psychological distress was assessed using the Depression, Anxiety, and Stress Scale-21 (DASS-21). Statistical analysis was performed using SPSS, employing chi-square tests to examine associations between psychological distress and demographic/clinical factors.

Results

Among participants, 62% experienced depression, 59% anxiety, and 55% stress. Social support was significantly associated with lower psychological distress ($p < 0.05$), whereas demographic and clinical factors showed no significant correlation. Despite the high prevalence of distress, only 15% of women sought psychological support.

Conclusion

RPL significantly impacts mental health, with inadequate psychological support exacerbating distress. Strengthening social support systems and integrating mental health interventions into routine care can improve outcomes for affected women. Future research should explore long-term psychological effects and evaluate intervention strategies.

Keywords: Recurrent pregnancy loss, psychological distress, depression, anxiety, social support.

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INTRODUCTION:

Recurrent pregnancy loss (RPL) is defined as a difficult experience that involves consecutive loss of more than two pregnancies (1). This condition affects 2 to 5% of women around the world and can have a deep impact on their mental well-being (2). Women experiencing recurrent pregnancy loss often face profound emotional challenges, including anxiety, depression, grief, and feelings of inadequacy. These emotional challenges can linger even after the immediate loss and affect the upcoming pregnancy (3). While the medical aspects of RPL have been

extensively studied, the psychological effects, particularly within the sociocultural context of Tamil Nadu, have not been given the attention they deserve. Tamil Nadu, known for its strong emphasis on family and motherhood, creates significant societal pressures for women who experience pregnancy loss. Research indicates that around 10 to 20% of recognized pregnancies end in loss, and some of these instances involve repeated losses (4,5). Although there are sophisticated medical methods to identify and address the root causes of RPL, the psychological impacts frequently receive insufficient attention in standard care practices. This oversight raises significant concerns, particularly in light of the established links between lacking mental health and adverse reproductive outcomes (3,6).

This study seeks to assess the prevalence and severity of psychological effects (depression, anxiety, and stress) among women with recurrent pregnancy loss (RPL) in Tamil Nadu and to examine the role of social and clinical factors in mitigating emotional distress.

METHODOLOGY:

This study was set up as a prospective observational study. It took place over six months at the Obstetrics and Gynecology Outpatient Department of Sree Balaji Medical College & Hospital, Chennai, Tamil Nadu. The study centered on women who faced the challenges of RPL in the early stages of their pregnancies. Selection criteria for women having two or more consecutive pregnancy losses were included. To maintain the study's accuracy and focus, we excluded women who had at least one live child, those who experienced recurrent loss, and those whose losses happened in the third trimester or as intrauterine death. We used a purposive sampling method to choose 100 participants.

We gathered data by reviewing patient medical records and conducting structured interviews. The information encompassed demographic details, reproductive history, lifestyle factors, and mental health history. The Depression, Anxiety, and Stress Scale-21 (DASS-21) was utilized to assess psychological distress. Participants were grouped according to their scores into levels of normal, mild, moderate, severe, or extremely severe depression, anxiety, and stress. To assess social support, the Oslo Social Support Scale (OSSS-3) was used.

The Institutional Human Ethics Committee (IHEC) has approved this study. All participants willingly shared their written consent, and we ensured their privacy by anonymizing the data we collected. We analyzed the collected data using SPSS software. We used descriptive statistics to provide a clear overview of the demographic and clinical characteristics. As part of our inferential statistics approach, we conducted chi-square tests to explore the connections between psychological distress and important demographic or clinical factors. Statistical significance is specified as a p-value < 0.05.

RESULT:

Table 1: Distribution of demographic and clinical factors of study participants

Factors	Frequency (n)	Percentage (%)
Age group (years)		
20 - 25	25	25
26 - 30	39	39
31 - 35	21	21
> 35	15	15
Number of pregnancy losses		
2	48	48
3	39	39
≥4	13	13
Duration of marriage (years)		
<5	57	57
5 - 10	25	25
>10	18	18
Smoking		
Yes	5	5
No	95	95
Alcohol consumption		
Yes	7	7
No	93	93
Mode of the last conception		
Spontaneous	74	74
Induced	26	26
Occupation		
Housewife	59	59
Employed	41	41
Education		
Secondary	12	12
Higher Secondary	38	38
Graduate	43	43
Postgraduate	7	7
Treatment Seeking Behaviour		
Therapy	5	5
Counselling	10	10
Medication	12	12
None	73	73

Past Mental Illness		
Yes	8	8
No	92	92
Social Support		
Strong	21	21
Moderate	33	33
Weak	46	46

The study involved a diverse group of participants across different age ranges. Most of them, about 39%, were between 26 and 30 years old, while 25% fell within the 20 to 25 age group. 48% of individuals said they had lost two pregnancies, 39% said they had lost three, and 13% said they had lost four or more. With 57% of the total, the average length of marriage was less than five years. Among the individuals' stated lifestyle habits, 5% smoked and 7% drank alcohol.

Table 2: Psychological Effects Measured Using DASS-21 (n = 100)

Characteristics		Frequency (n)	Percentage (%)
Depression	**Normal**	38	38
	Mild	26	26
	Moderate	16	16
	Severe	13	13
	Extremely severe	7	7
Anxiety	**Normal**	41	41
	Mild	22	22
	Moderate	17	17
	Severe	14	14
	Extremely severe	6	6
Stress	**Normal**	45	45
	Mild	18	18
	Moderate	12	12
	Severe	16	16
	Extremely severe	9	9

The Depression, Anxiety, and Stress Scale-21 assessed psychological discomfort. 26% reported mild depression, 16% moderate, 13% severe, and 7% very severe depression. Same pattern: 41% reported normal anxiety, 22% mild, 17% moderate, 14% severe, and 6% very severe. Only 45% of subjects experienced normal, while 18% had mild, 12% moderate, 16% severe, and 9% very severe.

Figure 1: Distribution of DASS-21 scores

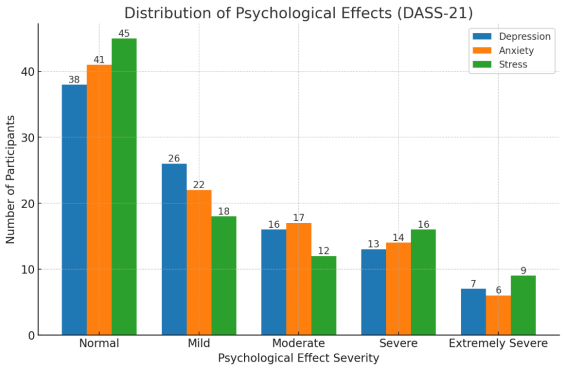

Table 3: Association between Depression and demographic and clinical factors

Factors		Normal (n=38)	Depression (n=62)	Chi-Square (P value)
Age group (years)	20 - 25	11	14	0.593 (0.89)
	26 - 30	14	25	
	31 - 35	8	13	
	>35	5	10	
Number of pregnancy losses	2	20	28	1.506 (0.47)
	3	15	24	
	≥4	3	10	
Duration of marriage (years)	<5	22	35	0.217 (0.89)
	5-10	10	15	
	>10	6	12	
Smoking	Yes	2	3	0.008 (0.92)
	No	36	59	
Alcohol consumption	Yes	3	4	0.075 (0.78)
	No	35	58	
Mode of the last conception	Spontaneous	28	46	0.003 (0.95)
	Induced	10	16	
Occupation	Housewife	19	40	2.052 (0.15)
	Employed	19	22	
Education	Secondary	8	4	7.487 (0.057)
	Higher Secondary	10	28	
	Graduate	16	27	

	Postgraduate	4	3	
Treatment Seeking Behaviour	Therapy	3	2	2.143 (0.54)
	Counselling	5	5	
	Medication	5	7	
	None	25	48	
Past Mental Illness	Yes	2	6	0.623 (0.42)
	No	36	56	
Social Support	Strong	14	7	14.73 (0.0006)*
	Moderate	15	18	
	Weak	9	37	
*Statistically significant				

Depression was not significantly associated with age, pregnancy losses, duration of marriage, smoking, alcohol consumption, conception method, employment, education, treatment-seeking behavior, or prior mental illness. There was a statistically significant association was found between social support and depression (p=0.0006). People who had insufficient social support were more likely to have greater rates of depression.

Table 4: Association between Anxiety and demographic and clinical factors

Factors		**Normal (n=41)**	**Anxiety (n=59)**	**Chi-Square (P value)**
Age group (years)	20 - 25	12	13	1.004 (0.80)
	26 - 30	15	24	
	31 - 35	9	12	
	>35	5	10	
Number of pregnancy losses	2	22	26	1.1229 (0.56)
	3	15	24	
	≥4	4	9	
Duration of marriage (years)	<5	22	35	0.317 (0.85)
	5-10	11	14	
	>10	8	10	
Smoking	Yes	3	2	0.785 (0.37)
	No	38	57	
Alcohol consumption	Yes	3	4	0.010 (0.91)
	No	38	55	
Mode of the last conception	Spontaneous	29	45	0.385 (0.53)
	Induced	12	14	
Occupation	Housewife	20	39	3.0002 (0.08)
	Employed	21	20	
Education	Secondary	8	4	5.454 (0.14)
	Higher Secondary	12	26	
	Graduate	17	26	
	Postgraduate	4	3	
Treatment Seeking Behaviour	Therapy	3	2	1.294 (0.73)
	Counselling	5	5	
	Medication	5	7	
	None	28	45	
Past Mental Illness	Yes	3	5	0.044 (0.83)
	No	38	54	
Social Support	Strong	14	7	14.28 (0.0007)*
	Moderate	17	16	
	Weak	10	36	
*Statistically significant				

Comparable to depression, anxiety did not show any statistically significant associations with any clinical or demographic variables. there was a significant association was found between anxiety and social support (p=0.0007), with lesser social support being linked with more anxiety.

Table 5: Association between Stress and demographic and clinical factors

Factors		**Normal (n=45)**	**Stress (n=55)**	**Chi-Square (P value)**
Age group (years)	20 - 25	13	12	0.953 (0.81)
	26 - 30	16	23	
	31 - 35	10	11	
	>35	6	9	
Number of	2	22	26	0.051 (0.97)
	3	17	22	
	≥4	6	7	

pregnancy losses				
Duration of marriage (years)	<5	23	34	1.174 (0.55)
	5-10	13	12	
	>10	9	9	
Smoking	Yes	3	2	0.478 (0.48)
	No	42	53	
Alcohol consumption	Yes	3	4	0.014 (0.90)
	No	42	51	
Mode of the last conception	Spontaneous	31	43	1.110 (0.29)
	Induced	14	12	
Occupation	Housewife	22	37	3.457 (0.06)
	Employed	23	18	
Education	Secondary	8	4	3.333 (0.34)
	Higher Secondary	15	23	
	Graduate	18	25	
	Postgraduate	4	3	
Treatment Seeking Behaviour	Therapy	3	2	0.866 (0.83)
	Counselling	5	5	
	Medication	6	6	
	None	31	42	
Past Mental Illness	Yes	4	4	0.087 (0.76)
	No	41	51	
Social Support	Strong	14	7	8.492 (0.01)*
	Moderate	17	16	
	Weak	14	32	
*Statistically significant				

Stress was not associated with most demographic or clinical factors. Stress levels were greater among individuals whose social support was weak, according to a statistically significant association between the two variables (p=0.01).

DISCUSSION:

Experiencing recurrent pregnancy loss (RPL) can deeply affect the emotional health of women, often leading to heightened feelings of depression, anxiety, and stress. The research conducted in Tamil Nadu aligns with recent findings, showing that women who experience recurrent pregnancy loss go through significant emotional distress, highlighting the crucial role of social support in easing these psychological challenges.

The findings reveal that a notable portion of women who face recurrent pregnancy loss exhibit signs of depression (62%), anxiety (59%), and stress (55%), according to evaluations using the DASS-21 scale. The findings resonate with the research conducted by Kolte et al. (7), which highlighted that many women experiencing recurrent pregnancy loss often struggle with depression and emotional distress. Similarly, He et al. (8) found that women who go through recurrent pregnancy loss are at a greater risk for depression and anxiety, while their past experiences of pregnancy loss can make these mental health struggles even more intense. This study highlights that RPL can be a difficult experience, leaving lasting psychological impacts (6).

Previous studies have closely explored the connection between psychological distress and pregnancy loss, highlighting a direct relationship between the two. Studies by Wang et al. (9) and Issakhanova et al. (3) have shown that depression and anxiety play significant roles as risk factors for recurrent pregnancy loss. This suggests that persistent psychological distress may contribute to further challenges during pregnancy. Our study aligns with these findings, as nearly half of the individuals showed moderate to severe levels of anxiety and depression. The presence of these psychological disorders highlights how crucial it is to provide timely mental health support for women who have gone through recurrent pregnancy loss.

This study highlights an important link between the support we receive from others and our mental well-being. Women without strong social support experienced higher levels of depression, anxiety, and stress, which aligns with earlier research by Hedegaard et al. (10), emphasizing the importance of support systems for all genders dealing with RPL. The absence of emotional and social support can heighten feelings of isolation, grief, and helplessness, potentially worsening mental health symptoms (11). This highlights the importance of specific psychological strategies, including couple counselling and peer support groups, to alleviate distress in the women impacted.

Given the notable prevalence of emotional distress, our findings reveal that only a small number of participants sought psychological support, with just 5% pursuing therapy and 10% choosing counselling.

The low treatment-seeking behaviour we observed reflects the insights shared by Campillo et al. (12), who highlighted the gaps in psychological care and support for women experiencing pregnancy loss. In the same manner, Tavoli et al. (13) highlighted that women who face recurrent miscarriages frequently endure diminished quality of life and elevated psychological distress, issues that are often overlooked.

The emotional impact of recurrent pregnancy loss goes beyond the initial grief, frequently presenting as post-traumatic stress disorder (PTSD) and enduring anxiety (14). Individuals who undergo several instances of pregnancy loss may encounter profound fear, emotional detachment, and tendencies to avoid social gatherings and family festivals associated with pregnancy. The findings are consistent with what Farren et al. (15) observed, suggesting that women who have gone through previous miscarriages or ectopic pregnancies tend to experience higher levels of posttraumatic stress symptoms. This highlights the importance of comprehensive care that extends beyond just physical treatment to include the emotional impact of pregnancy loss.

LIMITATIONS:

While this research offers valuable insights, it does come with some limitations. Initially, it's important to note that the research was conducted by a single medical institution in Tamil Nadu, which could limit how broadly the findings can be applied. Secondly, surveys that rely on individuals to report their own experiences might not accurately reflect the true levels of psychological discomfort, either by downplaying or exaggerating their feelings. Additionally, we are unable to determine a cause-and-effect link between RPL and psychological distress due to the cross-sectional methodology.

CONCLUSION:

This study highlights the important need to include psychological support in the clinical care of women facing recurrent pregnancy loss. Healthcare practitioners need to be ready to recognize and address the emotional hurdles that come with recurrent pregnancy loss by conducting regular evaluations for depression, anxiety, and stress. Additionally, we should recognize the vital role of social support and work on creating strategies to strengthen support networks for women who are affected. To further understand the long-term effects, researchers in the future should conduct longitudinal studies psychological impacts of RPL and assess how effective various mental health therapies are in alleviating distress.

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