BRIEF RESEARCH COMMUNICATION

Association between stress, caregiver burden, and social support among partners of women with and without postpartum psychosis: A cross-sectional study

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ABSTRACT

Background: Postpartum psychosis (PPP) not only affects mothers but also their partners.
Aim: To evaluate and compare levels of stress, caregiver burden, and perceived social support among partners of women with and without postpartum psychosis.
Methods: This hospital-based, cross-sectional study recruited 180 male partners of postpartum women through systematic random sampling. Sociodemographic details were recorded, and participants were assessed using the Kessler Psychological Distress Scale (K10), Zarit Burden Interview-12 (ZBI-12), and Multidimensional Scale of Perceived Social Support (MSPSS).
Results: Stress was significantly higher among partners of women with PPP compared with partners of women without PPP [$P = 0.004$]. Partners exhibited high caregiver burden [$P = 0.007$] if the wife is suffering from postpartum psychosis. Social support was significantly higher in partners from rural backgrounds ($P < 0.001$).
Conclusion: Compared with partners of women without PPP, partners of women with PPP suffer from significantly higher stress and caregiver burden.

Key words: Caregiver burden, partner mental health, postpartum psychosis, social support, stress

INTRODUCTION

The postpartum period involves rapid changes affecting not only the mother but also immediate family members. Postpartum psychosis, a rare but severe condition (0.89–2.6 per 1,000 births), typically arises within 2 weeks and requires urgent psychiatric care.[1,2]

Although maternal mental health is well-studied, the psychological impact on partners is often overlooked. They face increased stress and burden because of caregiving roles, emotional strain, stigma, and lack of support.[3,4]

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Emerging evidence shows that partners of women with severe postpartum mental illness often face significant distress and rely on maladaptive coping due to poor social support.[5-7] Yet, there remains a paucity of comparative studies assessing these psychological domains among partners of women with and without postpartum psychosis.

With growing focus on family-centered perinatal care, evaluating partners' mental health has become essential. However, studies in this area are scarce. Hence, this study is a sincere effort to assess and compare stress, caregiver burden, and stress among partners of women with and without postpartum psychosis.

MATERIALS AND METHODS

Settings

This hospital-based cross-sectional study was conducted over 1 year (June 2023 to May 2024) in a tertiary care hospital.

Ethical aspects

The study commenced after obtaining approval from the Institutional Ethics Committee (Human).

Participants and recruitment

Participants were selected using systematic random sampling, with every third partner of women admitted to the postnatal clinic in the Department of Obstetrics and Gynaecology being included. A total of 180 male partners of postpartum women were enrolled.

Then, the postpartum women were observed during their hospital stay regarding the development of postpartum psychosis. Stress, burden, and social support among the male partners were assessed and compared based on the development of postpartum psychosis in their wife.

Based on previous findings suggesting that approximately 50% of such partners experience significant psychological distress,[5] the sample size was calculated using a 95% confidence level and 15% relative precision and then rounded to 180.

Inclusion criteria

1. Eligible participants were male partners aged 21 years or older.
2. Female partners were at least 18 years of age.

Exclusion criteria

1. A history of psychiatric illness in either partner (husband or wife, based on history from the family members).
2. As well as partners involved in live-in relationships or those who were divorced or legally separated.

Written informed consent was obtained from all participants before enrollment. Data were analyzed using descriptive statistics, including frequencies, percentages, and counts.

Tools: "Informed consent form, sociodemographic proforma, Modified Kuppuswamy's socioeconomic status scale (2020, Kessler Psychological distress scale (K10), Zarit Caregiver Burden Interview Short Form (ZBI-12), and Multidimensional Scale of Perceived Social Support (MSPSS)."

Procedure

Every Friday, we reviewed the register in the postpartum ward and contacted the partners of newly admitted postpartum women. In most cases, the partner was present at the hospital. When the partner was not available, we contacted him through phone, obtained the relevant history, and administered the scale during his subsequent hospital visit. A total of 180 partners were included in the study. The modified Kuppuswamy scale was used to assess the socioeconomic status of each participant. The mothers were then monitored throughout their hospital stay, during which 44 women were diagnosed with postpartum psychosis (brief psychotic disorder with postpartum onset) based on the DSM-5 criteria.

We contacted the partners after 4 weeks of their childbirth. A follow-up was conducted 4 weeks later for all 180 partners, during the mothers' routine visit to the immunization clinic. At this point, "the Kessler Psychological Distress Scale" was administered to the partners to assess their stress levels over the previous month, "the Zarit Caregiver Burden Interview Short Form (ZBI-12)" was used to evaluate their caregiver's burden, and "the Multidimensional Scale of Perceived Social Support (MSPSS)" was used to assess the partner's social support. The scales were administered to the partners in an interviewer-assisted format. The interviewer read out the items and response options to the participants and clarified the meaning in the participant's preferred language whenever required, without influencing the responses. Responses were recorded as reported by the participants.

Data were analyzed using "IBM SPSS Statistics for Windows version 24.0 (IBM Corp., Armonk, NY, USA) and Microsoft Excel 2020 (Microsoft Corporation, Redmond, WA, USA)." Statistical analyses included the "Mann–Whitney *U* test, Kruskal–Wallis test, and Fisher exact test."

RESULT

The results and observations are made as follows:

Demographic details are presented in Table 1. Demographic details are presented in Table 1. Predominantly, partners were Hindu by religion, hailing from upper lower socioeconomic status and in urban region.

Partners of women with postpartum psychosis suffering from significantly higher level of stress and caregiver burden compared with partners of women without postpartum psychosis [Table 2]. A significant positive correlation was observed between psychological distress and caregiver burden ($r = 0.51$, $P < 0.001$), as shown in Figure 1.

DISCUSSION

This hospital-based cross-sectional study examined the often-neglected psychological impact of postpartum psychosis on male partners by assessing stress, caregiver burden, and perceived social support. We found significantly higher psychological distress and caregiver burden among partners of women with postpartum psychosis compared with partners of women without postpartum psychosis, while overall perceived social support was comparable, although lower in specific subgroups, such as urban ($P < 0.001$) and nuclear families ($P < 0.01$).

This study sheds light on the often-neglected psychological challenges faced by male partners of women with postpartum psychosis (PPP), particularly in terms of stress, caregiver burden, and perceived social support. The results indicate markedly higher stress levels (median Kessler score: 21.00 vs. 17.00; $P = 0.004$) and greater caregiver burden (ZBI-12 score: 27.30 vs. 26.35; $P = 0.007$) among partners of women with PPP compared with those without. These findings underscore the pressing need for comprehensive, family-centered approaches in perinatal mental health care.

Our findings are consistent with earlier studies showing increased psychological distress in partners of women with severe postpartum disorders. Pradeep Kumar *et al*.[5] (2021) similarly reported higher stress and burden among caregivers, supporting the view that partners are often the "hidden victims" of maternal mental illness.

The higher stress levels seen in partners of women with PPP align with findings by Lever Taylor and Ramchandani, who reported that male partners often face emotional strain, anxiety, and helplessness during their spouse's postpartum illness.[8,9] This distress can hinder their caregiving ability, potentially worsening maternal outcomes and delaying recovery.[10]

Caregiver burden was significantly higher in partners of women with PPP, supporting findings by Figueiredo *et al*., who linked greater symptom severity with increased caregiver strain. Logsdon *et al*. attributed this burden to factors such as role overload, financial stress, and emotional strain. Our study also found higher burden among partners from nuclear families ($P = 0.03$), supporting the observation by Xie *et al.* that lack of extended family support increases caregiver stress.[11-13]

Table 1: Distribution of study subjects according to the sociodemographic variables

Characteristics	Divisions	Study subjects (*n*=180)	
		Number	Percentage
Age of Partner (years)	21-30	98	54.44
	31-40	72	40.00
	41-50	10	5.56
Domicile	Rural	79	43.89
	Urban	101	56.11
Religion	Hindu	171	95
	Islam	8	4.44
	Christianity	1	0.74
	Others	0	0.00
Socioeconomic status	Upper	1	0.6
	Upper middle	13	7.2
	Lower middle	42	23.3
	Upper lower	123	68.3
	Lower	1	0.6
Family	Joint family	108	60.00
	Nuclear family	72	40.00
Education	No formal education	16	8.89
	Primary School Certificate	21	11.67
	Middle school Certificate	97	53.89
	High School Certificate	37	20.5
	Diploma	3	1.6
	Graduate	5	2.7
	Profession or Honours	1	0.5
Occupation	Unemployed	4	2.2
	Elementary Occupation	87	48.3
	Plant & Machine Operators and Assemblers	0	
	Craft & Related Trade worker	12	6.6
	Skilled Agricultural & Fishery worker	27	15
	Skilled workers & Shop & Market Sales Workers	49	27.2
	Clerks	0	0.00
	Technician & Associate Professional	1	0.5

Sociodemographic variables are described in numbers and percentages

Table 2: Level of stress, caregivers' burden, and social support in partners of women with and without postpartum psychosis

	Partners of women with Postpartum psychosis [median (IQR)]	Partners of women without Postpartum psychosis [median (IQR)]	*U*	*P*
Level of stress on Kessler scale	21.00 (4.00)	17.00 (8.00)	2128	0.004**
Average Burden score on ZBI 12 scale	27.30 (2.97)	26.35 (9.98)	2178	0.007**
Overall MSPSS score	44.0 (8.00)	44.6 (7.60)	3582	0.083

Variables are expressed in median (interquartile range) (IQR) in both the groups; the comparison between the two groups was done by applying Mann–Whitney *U* test. "(*P<0.05 signifies statistically significant,** P<0.01 signifies highly significant, ***P<0.001 signifies very highly significant)"

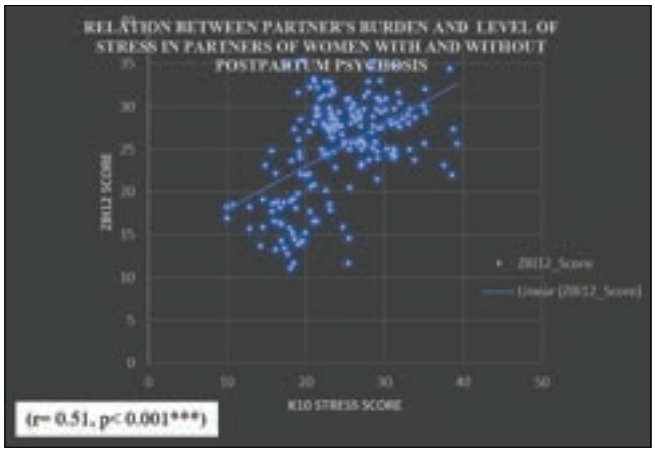


Figure 1: Relation between partner's burden and level of stress in partners of women with and without postpartum psychosis

Our analysis showed that social support was notably higher among partners from joint families ($P < 0.01$) and rural areas ($P < 0.001$). This aligns with studies by Dennis and Maybery, which found that joint family and collectivist structures provide protective support for caregivers.[14] By contrast, partners in urban nuclear families may face greater stress because of social isolation and heavier caregiving responsibilities.[2]

Burden and stress levels were also affected by education and occupation. Partners with lower educational backgrounds experienced greater stress and perceived less support, consistent with previous research indicating that limited education hinders coping abilities and access to mental health information.[15]

Notably, our study reveals a significant negative correlation between social support and caregiver burden ($r = -0.60$; $P < 0.000\,01$), as well as between social support and stress ($r = -0.75$; $P < 0.01$), indicating that support systems serve a protective function. These correlations validate the stress-buffering model proposed by Cohen and Wills.[16]

Furthermore, the gendered expectations around male emotional expression may inhibit help-seeking in affected partners. This has been highlighted by Baldwin *et al*.,[17] who found that male caregivers often suppress emotional needs due to societal norms, risking burnout and unresolved psychological symptoms.

Although much research emphasizes maternal outcomes, recent studies by Psouni *et al*. and Nath *et al*. highlight the importance of addressing paternal mental health due to its effect on family and child well-being.[18,19] Our study contributes to this by providing strong data from Northeast India, a region where caregiver mental health is often overlooked.

Strengths and limitations

A major strength of this study is its comparative design with clearly defined DSM-5 criteria for PPP and use of validated scales (K10, ZBI-12, MSPSS). The inclusion of sociodemographic modifiers enriches contextual understanding. However, it is limited by its cross-sectional nature, potential recall bias, and the lack of longitudinal follow-up to assess the evolution of distress or the effect of interventions. Further multicentric, longitudinal research is warranted.

CONCLUSION

Partners of women with postpartum psychosis demonstrated significantly greater stress and caregiving burden compared with partners of women without postpartum psychosis, with perceived social support being significantly diminished in select subgroups. Routine partner screening, brief psychoeducation, and linkage to family/community resources (including Mother–Baby units) are advised; confirmation in larger multicenter longitudinal cohorts is needed.

Disclosure of use of artificial intelligence (AI)-assistive or generative tools

The author (s) attest that there was no use of generative artificial intelligence (AI) technology in the generation of text, figures, or other informational content of this manuscript.

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Conflicts of interest

There are no conflicts of interest.

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