



Research article

The impact of posttraumatic stress symptoms on quality of life among battered wives in India amidst the COVID-19 pandemic

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ABSTRACT

Background: Battery against women has alarmingly escalated since the COVID-19 Pandemic, resulting in increase in post-traumatic stress disorder and negatively influenced their quality of life.

Purpose: The purpose of this research was to find the effect of PTSD on the quality of life among battered wives in Madhya Pradesh, India, during the said plague.

Method: Two hundred and seventy-seven battered wives, aged 20 years old to 49 years old participated in this study. Purposive sampling method was employed for data collection. The assessment instruments used were the respondents' demographic data, the Post-Traumatic Stress Disorder Symptom Scale-Interview version DSM-5, and World Health Organization Quality of Life. Whereas, for the quantitative data analysis, descriptive statistics, and regression analysis were used. Furthermore, the demographic details of the participants-age, education, duration of marriage, economic status, types of violence and number of children -severely impacted which added to the posttraumatic stress symptoms among domestically abused women.

Results: Findings revealed that posttraumatic stress symptoms were a strong predictor of poor quality of life among battered wives ($R^2 = 0.587$; $\beta = 0.766$). The study also has found that the demographic details of the participants-age, education, duration of marriage, economic status, types of violence and number of children were significantly related with vulnerability to post-traumatic stress symptoms among battered women.

Conclusion: Battered women's mental health conditions continued to be a major issue in India, and psychological interventions were strongly recommended.

1. Introduction

The novel COVID-19 pandemic has generated extraordinary circumstances that have affected almost every aspect of society, including women. Public safety measures, including physical distancing, self-quarantine, and "safer-at-home" mandates, have been widely implemented across India [1]. Violence against women has outrageously increased since the COVID-19 outbreak [2]. Battering has been considered a substantial public health consequence, including mental, physical, and the reproductive health. It adversely affects the general well-being among the women, who are victims of battering [3]. According to data from the World Health Organization, about one-third of married women have experienced physical and psychological abuse by their husbands [4]. As claimed by

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the National Family Health of India 2018–19 (National Statistical Office, 2019), 31.1% of married Indian women, aged 19 years old to 49 years old, experienced battering in India [5]. In 2019, out of 90,000 crimes against women registered in India, nearly one-third were related to cruelty by husbands [6]. Due to this atrocious violence, more than 1200 women committed suicide, yearly, in India [7]. Previous research showed that in Madhya Pradesh, India had the highest number of abused [1]. The given data by National Family Health Survey (2019–21) showed that a prevalence of 42% of women suffered from intimate partner violence in Madhya Pradesh which was above the national average. Madhya Pradesh ranked second in the list of states of battered women second to Bihar (Srivastava et al., 2014). A study conducted in Madhya Pradesh, India, even stated that the most common type of battering was a combination of physical and psychological violence (Srivastava et al., 2014). Studies showed that in order to address this abhorrent severe public health issue, it was imperative to create effective interventions and strategies [8]. Furthermore, it severely influenced women's ability to establish and maintain relationships, leading to social isolation and access to social support [9].

The World Health Organization defined the quality of life as: "an individual's perception of their position in life in and the context of the culture, value systems in which they live, and their goals, expectations, standards, and concerns" [4]. Various studies have noted that women experience intimate partner violence with a lower quality of life in health, social relationships, environment, and psychological health domains [10]. Findings indicate that as the mental health score has dropped from 40 to 20, while suicidal ideation has increased [11]. An Indian study noted in a coastal city of southern India had reduced quality of life. Among married women, physical and psychological domains, conditions in life were most adversely affected [10]. Violently victimized women were notably characterized with lower quality of life in all domains than women who had not experienced intimate partner violence [11].

Previous research showed that trauma victims have impaired Quality of Life regardless of whether they develop psychiatric disorders or not [12]. Further, a previous study showed that quality of life negatively correlates to PTSD among assaulted wives [13] and other results showed a low mean score for global quality of life (41.8) in functional domains, such as physical, social role, and emotional scales; below half of the total functioning [14]. The ability to adjust to the changing situations of life that emerged from the demands and restrictions of health conditions and likewise evident of adaptive psychological dealings as the consequences of illness [15]. The current study assumed that posttraumatic stress symptoms had a strong impact on battered wives' poor quality of life and it is imperative that this issue must be addressed, as soon as possible, at the communal and individual levels to develop an intervention to reduce the PTSD in humanity, especially, among battered wives.

2. Methods

2.1. Study design

The current study used a predictive research design and was conducted shortly after the second wave of the COVID-19 pandemic in four districts for one month in Madhya Pradesh, India. Data was collected with the help of Social Work counselors in different self-help groups under the Catholic Social work center, Madhya Pradesh. Wives of those physically injured and those who are undergoing treatment were excluded from the study.

2.2. Participants

This cross-sectional study comprised of married Indian women, aged 20 years old to 49 years old, who were habitually abused by their husbands and had lived with them for more than a year. Data were collected using a purposive sampling method from four districts in Madhya Pradesh—Agar, Rajgarh, Shajapur, and Ujjain, through a self-help group in the diocese of Ujjain Social Work Center. Participants who have been reported to the Social Work center for battering by their husband, took part in this current study. According to the Cochran's formula for sample size determination [16], the current study needed a minimum sample size of 252 battered wives. However, we included 20% more sample size to the initial screening process for two analytical reasons: to obtain satisfactory precision and confidence interval widths, and to compensate for nonresponse [17]. On the basis of this statistical analysis, we approached 300 battered wives, but only 277 of them gave all the information needed for the study yielding 92% response rate and 23 persons declined to participate in the study, out of fear for their families, humiliation, and other personal reasons. To confirm the accuracy of the data, participants were interviewed at several social work centers.

2.3. Procedure

The current study's ethical clearance was approved by the University of Santo Tomas (UST) Nursing School Ethics Review Committee with the protocol code USTCON ERC - 2022-OR31. All participants were informed of the purpose and scope of the study prior to data collection, and their written consent was obtained. On top of this, the participants were informed that the research was entirely voluntary and that any given information was strictly confidential.

2.4. Study tools

Personal Data Sheet. The personal data sheet was a demographic questionnaire created by the researcher to ascertain the social-demographic profile of the respondents. It was used in this study to provide important information and to help with the inclusion and exclusion of participants. Name, age, educational status, duration of the marriage, religion, economic position, family type, types of abuse suffered by the spouse (physical violence, emotional violence, sexual violence), and the number of children were included.

Posttraumatic Symptom Scale Interview Version for DSM-5 (PSS-I-5). The severity of posttraumatic stress disorder (PTSD) symptoms was evaluated using the PTSD Symptom Scale-Interview for DSM-5 (PSS-I-5), a 24-item semi-structured interview [18]. Previous research showed that with the help of PSS-I-5, the most accurate and valid results of standard administration and scoring can be obtained [18]. The severity of PTSD symptoms was evaluated on a five-point scale: 0 = not at all; 1 = once per week or less/a little; 2 = indication of 3 times per week/somewhat; 3 = indication of 4–5 times per week/a lot; 4 = indication of 6 or more times a week/severe. PTSD diagnosis depended upon the number of symptoms endorsed per symptoms cluster. The first 20 items in the PSS-I-5 scale scores were added together to estimate the severity of PTSD symptoms which ranged from 0 to 80 and clinical recommendations for PTSD symptom intensity were as follows: 0–8 no symptoms; 9–18 mild symptoms; 19–30 moderate symptoms; 31–45 severe symptoms; and 46–80 extremely severe symptoms. The remaining four questions measured the duration and difficulties in everyday life. Good internal consistency of 0.89 and test-retest reliability of 0.87, and excellent interrater reliability for the total severity score that was the intra-class correlation of 0.98 and, interrater agreement for PTSD diagnosis was proved by PSS-I-5 [19]. With a Cronbach's alpha coefficient of 0.93, the current study found that this scale can be highly useful in Indian culture.

World Health Organization Quality of Life (WHO-QOL)-BREF It was a 26-item self-report questionnaire that evaluated subjective health, disability, and functional capability, as well as, how illness and impairment affected daily activities and behaviour. It considered four things: environment, social interactions, psychological health, and physical health [20]. The internal consistency values for the questionnaire and the domains had a Cronbach's alpha of .70. The overall score ranged from 26 to 156, with higher numbers indicating better levels of life quality. Examining the four domain scores yielded a quality-of-life profile. The responses of the respondents were recorded using a Likert scale with a range of 1–5, and the scores of each domain vary from 4 to 20. Due to its high reliability, such as 0.92, this scale was frequently employed. It was widely utilized by many scholars and medical professionals [21]. A Cronbach's alpha coefficient of 0.79 was found for the current research study.

2.5. Statistical tools

Data from the PSST and WHOQOL-BREF were compiled using descriptive statistics and regression analysis. IBM SPSS V.22 and Microsoft Excel sheet 2018 were used to analyze the data.

3. Results

The participant's posttraumatic symptoms severity $M = 44.63$; $SD = 12.03$) and quality of life ($M = 58.30$; $SD = 13.40$) were evaluated. Results showed that the individuals had a high level of posttraumatic stress symptoms and a low quality of life. It indicated that battered wives suffered from significant symptoms of posttraumatic stress and experienced a low quality of life especially during the pandemic.

Table 1 showed the descriptive statistics and overall frequency of post-traumatic stress symptoms among battered women in terms of the PSS-I-5. The post-traumatic stress symptoms' mean score and standard deviation were 44.63 and 12.30, respectively. The overall prevalence of moderate to very severe post-traumatic stress symptoms was 265 or 95.66% of the participants. This findings indicated a significant increase in severity of post-traumatic stress symptom among battered women.

According to the Assessment of the Quality of life among battered wives, most participants have a poor quality of life in the physical, psychological, social, and environmental domains. This is supported by the findings, which showed in Table 2 that 74% physical, 67.14% psychological, 75.4% social, and 74.36% environmental domains had low Quality of life. An alarming fact of a significant portion of battered wives experienced a decline of Quality of life. Urgent care and attention were required to make them socially, physically, and psychologically ready for their future life.

Table 1

Mean, SD, frequency (f), and percentage (%) of post-traumatic stress symptoms among battered women according to the PSS-I-5 scale.

PSS-I-5	Mild		Moderate		Severe		Very Severe	
	f	%	f	%	F	%	f	%
Mean/SD 44.63/12.30	12	4.33	41	14.80	101	36.46	123	44.40

Legend: Total Score = 80; 0–8 = Low; 9–18 = Mild; 19–30 = Moderate; 31–45 = severe; 46–80 = very severe.

Table 2

Quality of Life of battered wives in Madhya Pradesh measured by World Health Organization Quality of Life Brief Version (WHOQOL-Bref).

Domains			High QOL		Low QOL	
	Mean	SD	N	%	N	%
Physical	17.37	4.40	70	25	207	74
Psychological	15.71	4.14	91	32.8	186	67.14
Social	7.28	2.13	68	24.5	209	75.4
Environmental	17.98	4.80	71	25.63	206	74.36
Total QOL	58.30	13.40	46	17	231	83

Legend: N = 277. The range of each domain's scores is 4–20. High scores show that the functional domain is doing better. Each domain with a score of more than 70% is regarded as high.

Table 3

Comparison between 4 districts in terms of frequency and percentage of Posttraumatic stress symptoms.

PSS-I-5	Mild		Moderate		Severe		Very Severe	
	F	%	F	%	f	%	f	%
Agar	1	8.33	13	31.70	28	27.72	32	26.01
Rajgarh	3	25	16	39.02	31	30.69	36	31.70
Shajapur	4	33.33	5	12.19	25	24.75	29	23.57
Ujjain	4	33.33	7	17.07	17	16.83	23	18.69

Table 4

Regression analysis of the study variables.

Variables	M	SD	B	R	r ²	β	SE	T	P
WHOQOL	58.35	13.40	-.834	.766		-.766	8.63	-19.75	.001
PTSD	44.63	12.03	95.59		.587			48.89	.001

Dependent variable: WHOQOL; A score of 8 or above is considered in the PSS-I-5.

Adj R² = 0.585; F = 390.30.

Table 3 provides the PSS-I-5's overall frequency and percentage of post-traumatic stress symptoms among battered women in of four districts. This research showed that exposure to posttraumatic symptoms among battered wives during the lockdown had remarkably increased in the Rajgarh district. A previous study observed that the district of Rajgarh had a considerably very low literacy rate of up to 50% and an economically poor district [22].

Table 4 explained the result of the regression analysis of quality of life and posttraumatic stress symptoms. It indicated that posttraumatic symptoms have a significant impact on the quality of life among battered wives, $F = 390.30$, $p < .05$, R^2 Adjusted = 0.587. It meant that 60% of the posttraumatic stress symptom was predicted by the quality of life among battered wives in India.

Table 5 showed that according to the description of the study of demographic factors, women between the ages of 40 and 49 were more susceptible to developing PTSD. It indicated that women with no education were more likely to experience post-traumatic stress symptoms with 68.50%. The majority of the battered wives (58.48%) were below the average economic status. Women who had been married longer than ten years (397.1%) were more likely to experience symptoms. Battered wives reported emotional violence (38.26%), physical violence (36.46%), and sexual violence (25.27%), according to the results. Additionally, the recent findings indicated that mothers with more than two children (76.17%) were vulnerable in experiencing posttraumatic stress symptoms.

Finally, for in-depth analysis, the study also explored the factors associated with vulnerability of PTSD symptoms. The multivariable regressions result for sociodemographic factors were presented in Table 6. The current research indicated these victim's education $F = 150.217$, $p < .05$, r^2 adjusted = 0.353. The study reveals that women's age $F = 96.616$, $p < .05$, r^2 adjusted = 0.260; marital

Table 5

The frequency and percentages of sociodemographic factors related to the vulnerability of PTSD symptoms.

Variables	Mean	SD	Frequency	Percentage (%)
Education	7.06	4.64		
No education			190	68.50%
Lower than secondary			68	24.54%
Greater than secondary			19	6.80%
Age				
Age between 20 and 29	26.40	1.80	72	25.99%
Age between 30 and 39	35.80	2.11	82	29.60%
Age between 40 and 49	45.11	1.80	123	44.40%
Length of Marriage				
1-5 years	2.3	.86	88	31.76%
6-10 years	7.37	1.06	79	28.51%
More than 10 years	17.03	1.66	110	39.71%
Number of children				
No			10	3.61%
One child			56	20.21%
More than two children	2.97	.66	211	76.17%
Type of violence				
Physical			101	36.46%
Emotional			106	38.25%
Sexual			70	25.27%
Economic Statuses (per Annual)				
Below average < Rs.50,000			162	58.48%
Average > Rs.25,000			85	30.68%
Above average >Rs.100,000			30	10.83%

Table 6
Multiple Regression analysis of sociodemographic factors associated with vulnerability of PTSD symptoms.

Variables	R	r ²	F-value	t-value	p-value	95%confidence Interval
Education	.594	.353	150.217	-12.256	.001	-1.826--.321
Age	.510	.260	96.616	3.691	.001	.369-1.211
Length of Marriage	.341	.116	36.076	-5.266	.001	-1.715--.782
Number of Children	.408	.167	55.013	-3.352	.001	-2.072-1.443
Types of Violence	.473	.224	79.311	-.448	.006	-11.947--2.045
Economic Status	.470	.221	77.910	-.220	.026	-7.443--.474

duration $F = 36.076$, $p < .05$, r^2 adjusted = 0.116; economic status $F = 77.910$, $p < .05$, r^2 adjusted = 0.221; types of violence $F = 79.311$, $p < .05$, r^2 adjusted = 0.224; and the number of children $F = 55.013$, $p > .05$, r^2 adjusted = 0.167 were all dominant predictors among battered women. These statistics showed that during the COVID-19 pandemic, battered wives' quality of life was significantly impacted by posttraumatic stress symptoms.

4. Discussion

The main focus of the present study was to examine the impact of posttraumatic stress symptoms severity and poor quality of life among battered wives during the COVID-19 pandemic. The results of this study were supported by previous studies that revealed that posttraumatic stress symptoms were a predictor of quality of life [13,14]. This present study all support our hypothesis that severe PTSS strongly impacted the impaired Quality of Life among battered wives in the physical, psychological, social and environmental aspects: with the COVID-19 pandemic aggravating the experiences of abused wives, as evidenced by the low levels of all domains of the quality of life. This current study discovered that physical experience among battered wives had a mean score of 17.37 and a standard deviation of 4.40. It revealed the effect of posttraumatic stress symptoms on their everyday life, including daily activities dependent on others. Battered wives' psychological experiences included feelings of depression and anxiety, and also the dependence on others had a mean score of 15.71, with a standard deviation of 4.14. Previous study found that PTSD negatively affected the physical and psychological domains [23]. With a mean score of 7.28 and a standard deviation of 2.13 among abused wives, posttraumatic stress symptoms affected their social life and included isolation from friends, neighbors, and the larger community. The current study found that women with lower levels of social support were more likely to have severe posttraumatic stress symptoms. These results were in line with earlier research on shelter samples [24-26]. According to other studies, the supportive networks may protect women from posttraumatic stress [27-31]. Among battered wives, the environment domain had a mean score of 17.98 and a standard deviation of 4.80. Findings of the present study were supported also on news stories in the media that reported positive aspects of the lockdown, such as educating individuals about the need of family reconnection and fostering better love, dating, and family relationships [32].

In comparison to women with lower levels of education, the current study indicated that educated wives were less likely to suffer from signs of posttraumatic stress disorder. Similar findings were found in Jabbi [33] where it was reported that women's lower education accelerated the likelihood of posttraumatic stress symptoms. Education enabled women to more effectively control their symptoms. Numerous psychological processes, including the development of psychiatric diseases, were influenced by age. The present study revealed that battered women between age range of 40-49 have experienced more symptoms of posttraumatic disorder. These results contributed to the growing body of evidence on the link between trauma and health issues in women past reproductive age, the transition to menopause [34]. A progressive shift from premenopausal to menopausal was a characteristic of the menopause transition [35] marking one of the most critical stages in a woman's life in middle age and it can influence the symptoms severity of posttraumatic stress disorder [36,37]. On the basis of these above-mentioned findings, it should be highlighted that during the pandemic, battered wives with menopause transition were unable to go out and talk to their friends and coworkers about their problems and as they were living in their own house, it intensified their symptoms of posttraumatic stress disorder. According to the previous studies, lower socioeconomic position was another dominant predictor to higher incidences of PTSD [38,39]. According to Jarl's and his colleagues' [40] research, the victim's poor mental health, particularly indications of posttraumatic stress disorder, was associated with poor economic outcomes. Our current analysis supports previous studies that found the majority of battered women with posttraumatic stress symptoms were poor. Our findings showed, as well, that as the number of children increase, the lower the risk of PTSD among women. Another study supported the fact that children were among the major force that kept battered women in good relationship at home. The more children an abused mother had, the less symptoms of PTSD [41]. Even more than the effects of physical abuse and emotional abuse, previous studies have shown that sexual abuse in intimate relationships can contribute to the severity of PTSD symptoms [42].

Due to the ongoing exposure of vulnerable people to abusive relationships and the difficulties in communicating due to social constraints, the victim found it difficult to deal with the situation or find support elsewhere. In this context, battering was frequently not reported or underreported and, and not adequately treated. It violates human rights and jeopardizes women's health, dignity, and safety. Although it can affect both men and women, this primarily focuses on women in a developing country like India with a patriarchal worldview. Due to their economic inequity and lack of social support, Indian women's ability to resist and disclose was limited. A mental response to stressful experiences called posttraumatic stress disorder (PTSD) can have long-term effects and reduce the quality of life [43]. Therefore, it is essential to improve and regain battered wives' social, physical, psychological, and environmental circumstances to sustain normal human and social growth. Our research supports the claim by significantly impacting quality-of-life dimensions and posttraumatic symptoms among battered wives.

4.1. Limitations

There were significant flaws in this study. This research relied on a self-report questionnaire. As a result, some responses may be biased. The study's sample size was limited, and participants were drawn from four districts in Madhya Pradesh, India. Consequently, it could not promise to benefit a large population and could not be generalized outside this context. As few studies have been carried out in Madhya Pradesh, India, there are a dearth of locally relevant literature. Furthermore, we can only speculate that the pandemic somehow increased the percentages of battering recorded because we lack comparative data. Finally, based on earlier research, this will be the first study on posttraumatic stress symptoms in battered wives in Madhya Pradesh.

4.2. Recommendation

A qualitative approach is advised to understand better the nature of posttraumatic stress symptoms and quality of life among battered women. The results unequivocally support the use of a person-centered approach in the treatment of battered wives as well as ongoing education for all medical professionals regarding the connection between physical, social, environmental, and psychological issues in their general health, with a focus on the impact of PTSD. Additionally, it is frequently recommended that battered wives receive psychiatric assistance to hopefully minimize their PTSD symptoms and will have a chance to enhance their quality of life. We did not address how PTSD is related to depression and anxiety in this study; however, we may do it in the future research.

4.3. Conclusion

These results are consistent with the overall pattern of expectation, which stated that increased posttraumatic stress symptoms lead to a lower quality of life. This current study indicated that PTSD-affected battered wives had an even lower quality of life during the COVID-19 pandemic, given that battered women's mental health continues to be a major issue in India. So, it is necessary to develop psychological intervention and health-care programs for this segment of the population, with particular emphasis on their quality of life.

Author contribution statement

Joji Joseph: Conceived and designed the experiments; Analyzed and interpreted the data; Contributed reagents, materials, analysis tools or data; Wrote the paper. Rodel P. Canlas: Performed the experiments; Contributed reagents, materials, analysis tools or data; wrote the paper.

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Data availability statement

Data will be made available on request.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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