



International Journal of Medicine

ISSN (P): 1468-3814; ISSN (e): 2667-7008

<https://www.theinternationalmedicine.com>

Volume: 2(1) 2020



Original Research

Life Events and Psychosocial Stressors in Obsessive Compulsive Disorder: Insights from two Tertiary Care Hospitals in Eastern India.

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Received: 28-11-2019 / Accepted: 20-04- 2020

Abstract

Background: Obsessive-compulsive disorder (OCD) is a chronic psychiatric condition characterised by intrusive thoughts and repetitive behaviours. While neurobiological models explain part of its aetiology, psychosocial stressors, particularly stressful life events, may significantly influence symptom severity. **Objective:** To examine the role of stressful life events in predicting OCD severity among patients attending the Department of Psychiatry, Dr. Bidhan Chandra Roy Hospital, Haldia, West Bengal and Modern Psychiatric Hospital, Narsinghar, Agartala, Tripura. **Methods:** A hospital-based cross-sectional study was conducted with 120 patients diagnosed with OCD according to the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) criteria. We collected sociodemographic and clinical data using a structured proforma. The Yale-Brown Obsessive Compulsive Scale (Y-BOCS) assessed symptom severity, while the Life Events Scale (LES) documented stressful events in the preceding 12 months. Statistical analyses included descriptive measures, independent t-tests, chi-square tests, and multiple regression. **Results:** Participants' mean age was 29.4 ± 8.6 years, with a slight male predominance (54.2%). Most patients (78.3%) reported at least one stressful life event. Family conflicts (32.5%) and academic/occupational stress (28.3%) were the most frequent categories. Patients with stressful life events had significantly higher Y-BOCS scores (28.9 ± 5.8) compared to those without (21.4 ± 4.9 , $p < 0.001$). Regression analysis revealed that family conflicts ($\beta = 0.42$, $p < 0.01$) and academic/occupational stress ($\beta = 0.35$, $p < 0.05$) were independent predictors of OCD severity, while financial difficulties and health-related stressors were not statistically significant. **Conclusion:** Stressful life events, particularly family conflicts and academic/occupational stress, significantly contribute to OCD severity in the Indian context. These findings highlight the importance of adopting a biopsychosocial approach to OCD management, integrating pharmacological treatment with psychosocial interventions. Future longitudinal studies are warranted to clarify causal pathways.

Keywords: Obsessive compulsive disorder; Stressful life events; Psychosocial stressors; Yale Brown Obsessive Compulsive Scale; Family conflicts; Academic stress; Biopsychosocial model; India; Cross sectional study; Psychiatric research.

INTRODUCTION

Obsessive compulsive disorder (OCD) is a chronic psychiatric illness characterised by intrusive, unwanted thoughts (obsessions) and repetitive behaviours (compulsions) that significantly impair social, occupational, and personal functioning.¹ Globally, OCD affects approximately 2-3% of the population, with onset typically occurring in adolescence or early adulthood.² Despite advances in neurobiological research, the disorder remains heterogeneous in its presentation and course, suggesting that psychosocial factors, particularly stressful life events, may play a critical role in its aetiology and progression.³

Stressful life events (SLEs) have long been implicated in the onset and exacerbation of psychiatric disorders, including depression, generalised anxiety disorder, and post traumatic stress disorder.⁴ In OCD, the relationship between life events and symptomatology has been debated. Some studies suggest that traumatic or stressful experiences act as triggers for symptom onset, while others propose that they primarily influence symptom severity and chronicity.⁵ This variability may reflect methodological differences, cultural contexts, and heterogeneity in patient populations. Nevertheless, the growing body of evidence underscores the importance of examining psychosocial stressors as potential modulators of OCD severity.⁶

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DOI: 10.61336/im/20-01-16

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Neurobiological models emphasise dysfunction in cortico-striato-thalamo-cortical (CSTC) circuits, particularly involving the orbitofrontal cortex and basal ganglia.⁷ Stressful life events may interact with these neural pathways, increasing vulnerability. Dysregulation of the hypothalamic-pituitary-adrenal (HPA) axis in response to stress can alter serotonin and dopamine neurotransmission, both of which are implicated in OCD pathophysiology.⁸ This biopsychosocial perspective suggests that life events may not only precipitate symptom onset but also amplify existing neurobiological vulnerabilities.

Cultural and contextual factors further shape how life events affect OCD. In collectivist societies such as India, family conflicts, marital stress, and academic pressures are frequently reported as significant stressors.⁹ Conversely, in individualistic cultures, occupational challenges and financial instability may play a more prominent role. Understanding these variations is essential for tailoring interventions that address both biological and psychosocial dimensions of OCD.

Earlier studies have highlighted that patients with OCD report a higher frequency of stressful life events compared to healthy controls, with correlations observed between event severity and symptom intensity.¹⁰ Regression analyses indicate that life events can predict obsessive and compulsive symptom scores, suggesting a dose-response relationship. These findings support the hypothesis that psychosocial stressors act as catalysts in the trajectory of OCD, warranting systematic exploration in diverse populations.

Given the inconsistencies in prior research and the limited focus on cultural contexts, the present study aims to re-examine the role of life events in OCD using data from patients attending the Department of Psychiatry, Dr. Bidhan Chandra Roy Hospital, Haldia, West Bengal and Modern Psychiatric Hospital, Narsinghar, Agartala, Tripura. By manipulating existing datasets and applying rigorous statistical analyses, this research seeks to clarify whether stressful life events serve primarily as triggers, perpetuating factors, or both. Such insights are crucial for developing comprehensive treatment strategies that integrate pharmacological interventions with psychosocial support, thereby improving outcomes for patients in tertiary care settings.

MATERIALS AND METHODS

Study Design

This study employed a hospital-based, cross-sectional design to investigate the role of stressful life events in patients diagnosed with OCD. Data were collected over a six-month period (January 2018 - June 2018) from outpatient and inpatient services of the Department of Psychiatry, Dr. Bidhan Chandra Roy Hospital, Haldia, West Bengal and Modern Psychiatric Hospital, Narsinghar, Agartala, Tripura.

Participants

A total of 120 patients meeting the diagnostic criteria for OCD according to the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) were recruited. Inclusion criteria were:

- Age between 18 and 55 years
- Diagnosis of OCD confirmed by a consultant psychiatrist
- Ability to provide informed consent

Exclusion criteria included:

- Presence of comorbid psychotic disorders or intellectual disability
- Severe medical illness interfering with participation
- Current substance dependence

Ethical Considerations

The study protocol was reviewed and approved by the Institutional Ethics Committee of both hospitals. The researchers obtained written informed consent from all participants before data collection. The study maintained confidentiality and anonymity throughout.

Instruments

1. **Socio-demographic and Clinical Proforma** - to record age, gender, marital status, education, occupation, duration of illness, and family history of psychiatric disorders.
2. **Yale-Brown Obsessive Compulsive Scale (Y-BOCS)** - used to assess the severity of obsessions and compulsions.
3. **Life Events Scale (LES)** - a structured checklist adapted for the Indian population, documenting major stressful events in the preceding 12 months. Events were categorised into domains such as family, occupational, financial, and health-related stressors.

Data Collection Procedure

Participants were interviewed by trained psychiatry residents under the supervision of faculty members. Senior psychiatrists confirmed clinical diagnoses. The Y-BOCS was administered to quantify symptom severity, while the LES was used to identify and categorise stressful life events.

Data Analysis

Data were entered into SPSS version 25.0 for statistical analysis. Descriptive statistics (mean, standard deviation, frequency, percentage) summarised socio-demographic and clinical variables. Independent t-tests and chi-square tests were applied to examine associations between life events and OCD symptom severity. Multiple regression analysis was conducted to determine whether stressful life events predicted Y-BOCS scores after controlling for socio-demographic variables. A p-value <0.05 was considered statistically significant.

RESULTS

Socio-Demographic Profile

A total of 120 patients diagnosed with OCD were included in the study. The mean age of participants was 29.4 ± 8.6 years, with a slight male predominance (54.2%). Most participants were unmarried (61.7%) and belonged to urban backgrounds (68.3%) [Table 1].

Table 1. Socio-demographic characteristics of participants (N = 120)

Variable	Category	Frequency (n)	Percentage (%)
Age (years)	Mean $\pm$ SD	29.4 ± 8.6	-
Gender	Male	65	54.2
	Female	55	45.8
Marital Status	Unmarried	74	61.7
	Married	46	38.3
Residence	Urban	82	68.3
	Rural	38	31.7

Clinical Profile

The mean illness duration was 4.8 ± 2.1 years. Family history of psychiatric illness was present in 22.5% of cases. The mean Y-BOCS total score was 26.7 ± 6.4 , indicating moderate-to-severe symptomatology (Table 2).

Table 2. Clinical characteristics of participants

Variable	Mean $\pm$ SD / Frequency	Percentage (%)
Duration of illness (years)	4.8 $\pm$ 2.1	-
Family history of psychiatric illness	27	22.5
Y-BOCS total score	26.7 $\pm$ 6.4	-

Stressful Life Events

Among the participants, 78.3% reported at least one major stressful life event in the preceding 12 months. Family conflicts (32.5%), academic/occupational stress (28.3%), and financial difficulties (21.7%) were the most frequently reported categories (Table 3).

Table 3. Distribution of stressful life events (N = 120)

Life Event Category	Frequency (n)	Percentage (%)
Family conflicts	39	32.5
Academic/occupational	34	28.3
Financial difficulties	26	21.7
Health-related stressors	15	12.5
Other events	10	8.3

Association Between Life Events and OCD Severity

Independent t-tests showed that patients with ≥ 1 stressful life event had significantly higher mean Y-BOCS scores (28.9 $\pm$ 5.8) than those without stressful events (21.4 $\pm$ 4.9), with a statistically significant difference ($p < 0.001$) [Table 4].

Table 4. Comparison of Y-BOCS scores by presence of stressful life events

Group	Mean Y-BOCS $\pm$ SD	p value
With ≥ 1 life event (n=94)	28.9 $\pm$ 5.8	<0.001
Without life event (n=26)	21.4 $\pm$ 4.9	

Regression Analysis

Multiple regression analysis showed that family conflicts ($\beta = 0.42$, $p < 0.01$) and academic/occupational stress ($\beta = 0.35$, $p < 0.05$) significantly predicted Y-BOCS scores, even after controlling for age, gender, and duration of illness. Although financial difficulties ($\beta = 0.18$, $p = 0.09$) and health-related stressors ($\beta = 0.12$, $p = 0.15$) were positively associated with OCD severity, these predictors were not statistically significant (Table 5).

Table 5. Predictors of OCD severity (Y-BOCS scores)

Predictor Variable	β coefficient	p value
Family conflicts	0.42	<0.01
Academic/occupational stress	0.35	<0.05
Financial difficulties	0.18	0.09
Health-related stressors	0.12	0.15

DISCUSSION

The present study examined the role of stressful life events in the clinical presentation of OCD among patients attending the tertiary care hospitals in Eastern India. The findings showed that most participants reported at least one major stressful life event in the preceding year, with family conflicts and academic/occupational stress as the most frequent categories. Importantly, patients with stressful life events exhibited significantly higher Y-BOCS scores compared to those without, and regression analysis confirmed that family conflicts and academic/occupational stress independently predicted OCD severity.

These results are consistent with earlier research suggesting that psychosocial stressors act as catalysts in the trajectory of OCD. McKeon et al. (1984) reported that life events were closely associated with symptom exacerbation in obsessive-compulsive neurosis, highlighting the importance of psychosocial triggers in the disorder's course.⁵ Similarly, Rosso et al. (2012) found that stressful life events were linked to specific symptom dimensions, particularly contamination and checking behaviours, underscoring the heterogeneity of OCD presentations.⁶ Our findings extend this evidence by demonstrating that family and occupational stressors are particularly salient in the Indian context, reflecting cultural and societal pressures.

The significant role of family conflicts in predicting OCD severity aligns with studies conducted in collectivist societies, where interpersonal relationships and family dynamics exert a strong influence on mental health outcomes.⁹ In India, family expectations, marital discord, and intergenerational conflicts often serve as major stressors, potentially exacerbating obsessive and compulsive symptoms. Academic and occupational stress also emerged as a significant predictor, which may reflect the region's competitive educational environment and employment challenges.¹¹ These findings highlight the need for culturally sensitive interventions that address family and occupational domains alongside pharmacological treatment.

Neurobiological models of OCD emphasise dysfunction in CSTC circuits and dysregulation of the HPA axis.¹² Stressful life events may interact with these neural pathways, amplifying vulnerability to obsessive-compulsive symptoms.¹³ The observed association between psychosocial stressors and Y-BOCS scores supports a biopsychosocial model of OCD, wherein environmental stressors exacerbate underlying neurobiological predispositions. This integrative perspective underscores the importance of combining biological and psychosocial approaches in treatment planning.

Interestingly, financial difficulties and health-related stressors, although positively associated with OCD severity, did not reach statistical significance in our regression analysis. This may reflect the relative prioritisation of family and occupational stressors in the Indian sociocultural context. Alternatively, the lack of significance could reflect sample size limitations or variability in the subjective impact of these stressors. Future studies with larger samples and longitudinal designs may clarify the role of financial and health-related stressors in OCD.

These findings have important clinical implications. First, routine assessment of stressful life events should be incorporated into psychiatric evaluations of OCD patients. Identifying psychosocial triggers may facilitate individualised treatment plans that integrate cognitive-behavioural therapy (CBT) with family counselling and stress management interventions. Second, psychoeducation targeting families and workplaces may help reduce stressors that exacerbate OCD symptoms. Third, policy initiatives to reduce academic and occupational stress could indirectly improve mental health outcomes.

Our study contributes to the growing body of Indian research on OCD,⁹ emphasising the importance of contextualising findings within cultural frameworks. While Western studies often highlight occupational and financial stressors, our results suggest that family conflicts and academic pressures are particularly relevant in the Indian setting. This underscores the need for culturally tailored interventions that address the unique stressors patients face in collectivist societies.

Limitations

The study has certain limitations. The cross-sectional design precludes causal inferences regarding the relationship between life events and OCD severity. The reliance on self-reported life events may introduce recall bias. Despite these limitations, the study provides valuable insights into the role of psychosocial stressors in OCD and highlights avenues for future research.

CONCLUSION

In summary, the study demonstrates that stressful life events, particularly family conflicts and academic/occupational stress, significantly predict OCD severity among patients in Eastern India. These findings reinforce the importance of adopting a biopsychosocial approach to OCD management, integrating pharmacological treatment with psychosocial interventions. Future research should employ longitudinal designs and larger samples to further elucidate the causal pathways linking life events and OCD.

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