e-ISSN: 0976-822X, p-ISSN:2961-6042

Available online on http://www.ijcpr.com/

International Journal of Current Pharmaceutical Review and Research 2026; 18(8); 1178-1182

Original Research Article

Family Burden in Schizophrenic Patients: A Cross-Sectional Study

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Received: 01-05-2026 / Revised: 15-06-2026 / Accepted: 21-07-2026

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Conflict of interest: Nil

Abstract

Background: Schizophrenia is a chronic and disabling psychiatric disorder that affects patients as well as family caregivers. Its long-term course, recurrent relapses and functional impairment can impose substantial emotional, social and financial demands on families. In India, where families commonly provide long-term care, systematic assessment of caregiver burden is clinically important.

Aim: To assess the level of family burden among caregivers of patients with schizophrenia and to evaluate its association with socio-demographic and clinical variables.

Methods: This cross-sectional observational study was conducted at Krishna Mohan Medical College and Hospital, Mathura, Uttar Pradesh, from November 2023 to May 2026. A total of 161 caregivers of patients diagnosed with schizophrenia according to ICD-10 criteria were included. Socio-demographic and clinical information was collected using a structured proforma. Caregiver burden was assessed using FBIS-24 and patient functioning using GAF. Data were analysed using IBM SPSS; chi-square tests and one-way analysis of variance were used as appropriate, with $p<0.05$ considered statistically significant.

Results: Among 161 caregivers, 32.3% were aged 41–50 years and 64.0% were female. Parents constituted 46.0% and spouses 29.8% of caregivers. Low, moderate and high FBIS-24 burden were present in 25.5%, 45.3% and 29.2%, respectively. Significant associations were found with age, sex, educational status, duration of illness and relapse frequency. Mean GAF scores decreased from 68.4±7.6 in the low-burden group to 55.9±8.1 in the moderate-burden group and 42.7±6.9 in the high-burden group ($p<0.001$).

Conclusion: Caregiver burden was substantial and was associated with demographic, illness-duration, relapse and functional factors. Early identification of high-risk caregivers and family-focused interventions are important components of comprehensive schizophrenia management.

Keywords: Schizophrenia; Caregiver Burden; Family Burden; FBIS-24; GAF; Psychoeducation.

DOI: 10.25258/ijcpr.18.8.177

Introduction

Schizophrenia is a chronic, severe and disabling psychiatric disorder characterized by disturbances in thought, perception, emotion, cognition and behaviour. Its positive, negative and cognitive symptoms can produce marked impairment in personal, social and occupational functioning and often require long-term treatment and psychosocial support. [1] The disorder contributes substantially to global disability, with its early onset, chronic course and functional impairment creating consequences that extend beyond the patient to the family and wider health system. [2]

The shift from long-term institutional care toward community-based management has increased the role of families in medication supervision, monitoring of symptoms, management of behavioural disturbances, follow-up and social rehabilitation. In low- and middle-income settings, limited community resources can make family members the principal long-term caregivers. [3] Family burden is multidimensional and includes objective consequences such as financial strain, disruption of routine and occupational functioning, as well as subjective distress related to prolonged caregiving, uncertainty, stigma and emotional exhaustion. [4]

Previous research has demonstrated that caregiver burden is influenced by socio-environmental and clinical factors, including illness severity, duration of illness, relapse and patient functioning. Higher burden can also adversely affect caregiver well-being and family functioning. [5] The Family Burden Interview Schedule (FBIS), developed by Pai and Kapur, provides a structured assessment of

objective burden in families caring for patients with chronic psychiatric illness and has been widely used in the Indian context. [6] The present study was undertaken to quantify family burden among caregivers of patients with schizophrenia and to identify socio-demographic and clinical factors associated with higher burden. Identification of vulnerable caregivers may facilitate early psychosocial intervention and strengthen family-centred psychiatric care.

Aim and Objectives

Aim: To calculate family burden in persons with schizophrenia.

Objectives were to assess caregiver burden, determine its socio-demographic and clinical correlates, and facilitate early identification of caregivers at risk of stress and burden-related psychological morbidity.

Materials and Methods

Study design and setting: A cross-sectional observational study was conducted in the Department of Psychiatry, Krishna Mohan Medical College and Hospital, Mathura, Uttar Pradesh, India.

Study Period: November 2023 to May 2026.

Sample Size: The study included 161 caregivers. The dissertation protocol describes calculation using the Cochran formula, based on an expected prevalence/proportion of 0.42, 95% confidence level and the specified margin of error.

Participants: Caregivers were recruited from psychiatry OPD and IPD services who fulfilled the study criteria.

Inclusion Criteria: Caregivers aged ≥18 years who provided consent; caregivers of patients diagnosed with schizophrenia by a psychiatrist according to ICD-10 criteria; patient illness duration ≥1 year; and caregiver living with the patient for at least 6 months since diagnosis.

Exclusion Criteria: Age <18 years; refusal to consent; alleged history of substance abuse; not living with the patient; known psychiatric illness in the participant or another psychiatric illness in the family; and medical comorbidity likely to affect burden.

Procedure: After informed consent, a structured proforma was used to record socio-demographic characteristics of the patient and caregiver and relevant clinical information, including duration of illness, hospitalisation, medication and psychoactive substance use. The 24-item FBIS was then administered.

Family Burden Interview Schedule: FBIS-24 assesses objective family burden across six domains: financial burden; disruption of routine family activities; disruption of family leisure; disruption of family interaction; effect on physical health of family members; and effect on mental health of family members. Items are scored 0 (no burden), 1 (moderate burden) or 2 (severe burden), with higher total scores indicating greater burden.

Patient functioning: Global Assessment of Functioning (GAF) scores were recorded to assess overall psychological, social and occupational functioning.

Statistical Analysis: Data were analysed using Microsoft Excel and IBM SPSS version 22. Categorical variables were compared using chi-square testing. One-way analysis of variance was used to compare mean GAF scores across FBIS burden categories. A p-value <0.05 was considered statistically significant.

Ethical Considerations: The dissertation included an ethical-consideration section and an ethics certificate among the listed annexures. The dissertation text states that there were no conflicts of interest. The specific approval number/date was not available in the extracted text and has therefore not been added here.

Results

A total of 161 caregivers were included. The largest age group was 41–50 years (32.3%), followed by 31–40 years (28.0%); participants aged ≤30 years and >50 years each constituted 19.9%. Females constituted 64.0% of caregivers.

Most participants were married (82.0%). Parents were the most common caregivers (46.0%), followed by spouses (29.8%), siblings (16.8%) and other relatives (7.4%).

Secondary education was reported in 28.6%, primary education in 25.5%, illiteracy in 21.1%, higher secondary education in 14.3%, and graduate-level education or above in 10.6%. Homemakers constituted 42.2%, employed caregivers 38.5% and unemployed caregivers 19.3%.

Most caregivers had no past medical history (75.8%) and no addiction history (82.0%). On examination, most had normal systemic findings. Blood pressure was normal in 73.3%, pre-hypertension in 17.4% and hypertension in 9.3%.

Table 1: Selected socio-demographic characteristics of caregivers (n=161)

Characteristic	Category	n (%)
Age	≤30 years	32 (19.9)
Age	31–40 years	45 (28.0)
Age	41–50 years	52 (32.3)
Age	>50 years	32 (19.9)
Sex	Male	58 (36.0)
Sex	Female	103 (64.0)
Marital status	Married	132 (82.0)
Relationship	Parent	74 (46.0)
Relationship	Spouse	48 (29.8)
Relationship	Sibling	27 (16.8)
Relationship	Other	12 (7.4)
Occupation	Homemaker	68 (42.2)
Occupation	Employed	62 (38.5)
Occupation	Unemployed	31 (19.3)

FBIS-24 assessment showed that 41 caregivers (25.5%) had low burden, 73 (45.3%) had moderate burden and 47 (29.2%) had high burden. Thus, 74.5% of the caregivers had moderate or high burden.

Table 2: Distribution of family burden according to FBIS-24 (n=161)

FBIS category	n	%
Low burden	41	25.5
Moderate burden	73	45.3
High burden	47	29.2
Total	161	100.0

Family burden showed significant associations with age, sex, educational status, duration of illness and relapse frequency. Participants aged 41–50 years had the highest proportion of high burden (36.5%), whereas participants aged ≤30 years most commonly reported low burden (43.8%). Female caregivers had a higher proportion of high burden (34.0%) than male caregivers (20.7%). High burden was most frequent among illiterate caregivers (52.9%), whereas the proportion of high burden was lower among graduates and above (11.8%). Longer illness duration was strongly associated with higher burden: high burden occurred in 40.3% of caregivers of patients with illness duration >6 years compared with 14.0% among those with 1–3 years of illness. Similarly, high burden occurred in 40.3% of caregivers of patients with ≥3 relapses, whereas low burden predominated among caregivers of patients with no relapse (58.1%).

Table 3: Associations between FBIS burden and key variables

Variable	Key finding	Test statistic	p-value
Age	41–50 years: highest high burden (36.5%)	χ^2=12.84, df=6	0.045
Sex	Female: high burden 34.0% vs male 20.7%	χ^2=8.92, df=2	0.012
Education	Illiterate: high burden 52.9%	χ^2=18.76, df=8	0.016
Duration of illness	>6 years: high burden 40.3%	χ^2=24.31, df=4	<0.001
Relapse frequency	≥3 relapses: high burden 40.3%	χ^2=29.87, df=4	<0.001

There was a clear inverse relationship between FBIS burden category and patient functioning. Mean GAF score was 68.4±7.6 in the low-burden group, 55.9±8.1 in the moderate-burden group and 42.7±6.9 in the high-burden group. One-way ANOVA showed a statistically significant difference (F=56.30, p<0.001).

Table 4: Comparison of mean GAF scores across FBIS burden categories

FBIS category	Mean GAF ± SD
Low burden	68.4 ± 7.6
Moderate burden	55.9 ± 8.1
High burden	42.7 ± 6.9
ANOVA	F=56.30; p<0.001

Discussion

The present study demonstrates that family burden is a substantial component of schizophrenia care. Nearly three-quarters of caregivers had moderate or high FBIS-24 burden. This is consistent with the broader literature describing substantial

psychosocial and economic consequences for families caring for people with schizophrenia.

The predominance of middle-aged caregivers in the present study is clinically relevant because individuals in this age range often carry concurrent occupational, financial and family responsibilities. The 41–50-year group had the highest proportion of high burden and the association with age was statistically significant. The dissertation discussion similarly attributes this pattern to cumulative responsibilities and reduced flexibility in managing stress.

Female caregivers comprised nearly two-thirds of the sample and had significantly higher burden than males. This finding is consistent with the literature cited in the dissertation, which describes greater caregiving involvement and emotional demands among women in many sociocultural settings. [6]

Lower educational status was associated with higher burden, with more than half of illiterate caregivers falling in the high-burden category. Education may facilitate understanding of illness, treatment and coping strategies and may improve access to support resources. Similar relationships have been described in previous caregiver studies. [12]

The strong association between longer illness duration and higher burden is consistent with the cumulative nature of caregiving. Caregivers of patients ill for more than six years had the highest proportion of high burden. Chronic caregiving can accumulate financial, emotional and social demands over time. [5] Likewise, relapse frequency was strongly associated with burden. Caregivers of patients with three or more relapses had the highest proportion of high burden. Recurrent episodes may increase uncertainty, treatment demands, hospitalisation and disruption of family routines. [5] The inverse relationship between GAF and caregiver burden was one of the strongest findings of the study. Lower patient functioning was associated with higher caregiver burden. This is clinically plausible because impaired social, occupational and daily functioning increases dependence on family members and may increase supervision requirements. [13] The relationship may also be bidirectional: high caregiver strain may impair the family's capacity to support treatment adherence and rehabilitation. Previous work has linked caregiver burden with family functioning and patient outcomes. [15]

The findings have practical implications for psychiatric services. Caregiver burden should be assessed routinely rather than treated as a secondary consequence of the patient's illness. Particular attention should be given to female and middle-aged caregivers, caregivers with lower educational attainment, and families dealing with prolonged illness or repeated relapses. Psychoeducation, family interventions, support groups, relapse-prevention education and stress-management strategies may help strengthen caregiver coping and family functioning. Family-focused psychosocial interventions are recommended in schizophrenia management, particularly where families carry a major share of long-term care responsibilities. [14]

Strengths and Limitations: Strengths included an adequate sample size of 161 caregivers, use of standardized FBIS-24 and GAF measures, assessment of socio-demographic and clinical variables, statistical testing of key associations, and real-world hospital-based data.

Limitations included the cross-sectional design, which limits causal inference; single-centre recruitment, which limits generalizability; possible reporting bias from self-reported information; absence of separate assessment of depression and anxiety; and lack of long-term follow-up of caregiver burden.

Conclusion

Family burden among caregivers of patients with schizophrenia was substantial in this hospital-based sample. Moderate burden was the most common category, and 29.2% of caregivers had high burden. Greater burden was significantly associated with middle age, female sex, lower educational status, longer duration of illness and higher relapse frequency. Poorer patient functioning, reflected by lower GAF scores, was strongly associated with greater caregiver burden.

These findings support a family-centred model of schizophrenia care in which caregiver burden is routinely assessed and addressed. Early identification of high-risk caregivers, psychoeducation, emotional and social support, stress-reduction strategies and relapse-prevention interventions should be integrated into routine psychiatric practice.

Acknowledgements: The author acknowledges the Department of Psychiatry, Krishna Mohan Medical College and Hospital, Mathura, and all patients and caregivers who participated in the study. The author also acknowledges the guidance and support received during the dissertation work.

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