A Correlational Study to Assess Family Burden and Perceived Stigma Among Caregivers of Psychiatric Patients in The Psychiatric OPD Of a Tertiary Care Hospital in Western Maharashtra

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Abstract—**Background: Mental illnesses are chronic and relapsing conditions that require long-term treatment, supervision, and emotional support.[1,3] In India, where mental health services remain limited, families serve as the primary caregivers for individuals with psychiatric disorders.[2] Caregiver burden is a multidimensional response to the stress associated with caring for individuals with chronic mental illness, and caregivers frequently experience emotional distress related to stigma and social judgment.[4,6] The relationship between caregiver burden and perceived stigma is reciprocal; higher stigma can intensify burden, and increased burden may further reinforce stigma.[6,7] Despite recognition of these issues, limited research in India has explored the correlation between family burden and perceived stigma among caregivers of psychiatric patients.[8]**

Aim: To assess the relationship between family burden and perceived stigma among caregivers of psychiatric patients attending the psychiatric outpatient department (OPD) of a tertiary care hospital in Western Maharashtra.

Methods: A quantitative, non-experimental descriptive correlational research design was adopted. The study included 100 family caregivers recruited using non-probability consecutive sampling. Family burden was assessed using the 12-item Zarit Burden Interview (ZBI-12), [26] and perceived stigma was assessed using the Family Interview Schedule (FIS) Stigma Scale.[27] Descriptive and inferential statistics were applied for data analysis.

Results: Most caregivers were middle-aged (mean age 46.83 ± 12.65 years), married (98%) males (94%) with secondary education (50%), and the majority were spouses (65%). Most caregivers (64%) had additional family support available. The Zarit Burden Scale revealed that 53% experienced no to mild burden, 38% mild to moderate, and 9% high burden. Hours spent caregiving showed a significant association with burden ($\chi^2 = 37.640$, $p < 0.001$). The FIS Stigma Scale indicated that 86% experienced low stigma and 14% high stigma. Correlation analysis demonstrated a strong positive relationship between burden and stigma (Spearman's $r = 0.757$, $p < 0.001$).

Conclusion: A strong positive correlation was observed between caregiver burden and perceived stigma. These findings underscore the need for routine assessment and targeted interventions addressing both constructs in psychiatric care settings.

Index Terms—**Family Burden; Perceived Stigma; Caregivers; Psychiatric Patients; Zarit Burden Interview; FIS Stigma Scale**

I. INTRODUCTION

Mental disorders are a major cause of disability worldwide, affecting not only patients but also their families.[1] In India, the National Mental Health Survey (2015–16) estimated that approximately 10.6% of the adult population suffers from mental disorders, yet the treatment gap remains as high as 83%.[2] In the Indian context, where mental health services remain limited and the family system is characteristically collectivistic, family members serve as the primary caregivers for individuals with psychiatric illnesses.[2,3]

Long-term caregiving for a person with a chronic psychiatric condition often results in significant emotional, financial, and social burden.[3,9] The concept of caregiver burden encompasses both objective demands such as disruption in daily

routines, financial strain, and limitations in social activities and subjective dimensions, including feelings of distress, anxiety, and hopelessness.[10,15]

In addition to the direct demands of caregiving, caregivers frequently face perceived stigma, encompassing feelings of shame, embarrassment, and social rejection arising from their association with a person diagnosed with mental illness.[4, 6] Mental illness remains highly stigmatized in India, and caregivers may internalize this stigma, leading to concealment of the patient's condition, avoidance of social interactions, and reluctance to seek professional help.[8, 19, 22]

The relationship between caregiver burden and perceived stigma appears to be reciprocal: higher stigma can intensify caregiver burden, and increased burden may further reinforce stigma.[6,7,24,25] However, limited research in India has specifically examined the correlation between family burden and perceived stigma among caregivers of psychiatric patients in an outpatient setting.[8] Understanding this relationship is important for developing culturally appropriate nursing interventions aimed at reducing caregiver distress and strengthening family support in mental health care.

II. OBJECTIVES

A. Primary Objectives

1. To assess the level of family burden among caregivers of psychiatric patients.
2. To assess the level of perceived stigma among caregivers of psychiatric patients.
3. To determine the correlation between family burden and perceived stigma.

B. Secondary Objectives

1. To establish association between family burden and selected demographic variables.
2. To establish association between perceived stigma and selected demographic variables.

III. MATERIALS AND METHODS

A quantitative, non-experimental descriptive correlational research design was adopted. The study was conducted at the Psychiatric OPD of a tertiary care hospital in Western Maharashtra. A sample of 100 caregivers was recruited using a non-probability consecutive sampling technique.

- Inclusion criteria: Age ≥18 years; primary caregiver for ≥1 month; and willingness to participate with informed consent.
- Ethical considerations: Ethical approval was obtained from the institutional ethics committee. Written informed consent was obtained from all participants. Confidentiality and anonymity were maintained throughout the study.
- Data collection tools: Data were collected using: (a) a self-structured socio-demographic questionnaire; (b) the 12-item Zarit Burden Interview (ZBI-12),[26] measuring caregiver burden on a scale of 0–48 (0–10 = no to mild; 11–20 = mild to moderate; >20 = high burden); and (c) the Family Interview Schedule (FIS) Stigma Scale,[27] measuring perceived stigma on a scale of 0–42 (0 = zero; 1–14 = low; 15–42 = high stigma).
- Statistical analysis: Data were analyzed using descriptive statistics (frequency, percentage, mean, standard deviation) and inferential statistics (chi-square test for association, Spearman's rank correlation). The level of significance was set at $p \leq 0.05$.

A. Results

Section A: Demographic Profile of the Subjects (n = 100)

Table 1: Frequency and Percentage Distribution of Subjects According to Selected Demographic Variables

Variable	Category	Frequency (f)	Percentage (%)
Age (years)	≤30 Years	7	7%
	31–40 Years	32	32%
	41–50 Years	23	23%
	51–60 Years	22	22%
	61–70 Years	11	11%
	≥71 Years	5	5%

Gender	Male	94	94%
	Female	6	6%
Marital Status	Single	2	2%
	Married	98	98%
Education	Illiterate*	1	1%
	Primary	7	7%
	Secondary	50	50%
	Graduate	30	30%
	Above Graduate	12	12%
Monthly Income (₹)	< 10,000	1	1%
	10,001–20,000	1	1%
	30,001–40,000	2	2%
	> 40,000	96	96%
Relationship to Patient	Spouse	65	65%
	Parent	19	19%
	Child	15	15%
	Other	1	1%
Hours of Caregiving/Day	1–5 Hours	24	24%
	6–10 Hours	39	39%
	11–15 Hours	16	16%
	16–20 Hours	21	21%
Family Support Available	Yes	64	64%
	No	36	36%
Long-Term Illness	No	66	66%
	Yes	34	34%
Duration of Illness	≤5 Years	46	46%
	6–10 Years	30	30%
	11–15 Years	11	11%
	≥16 Years	13	13%

Subject O76: no education category recorded in the data collection instrument; classified as illiterate based on field notes.

The socio-demographic characteristics of caregivers are summarized in Table 1 and Figure 1. The mean age was 46.83 ± 12.65 years (range 25–81). The majority were males (94%), married (98%), with secondary or higher education (92%). Most caregivers (96%) reported monthly income above ₹40,000. Spouses constituted the largest caregiver group (65%), followed by parents (19%) and children (15%). Most caregivers (64%) reported having additional family support available, while 36% did not. About one-third (34%) had a chronic health condition.

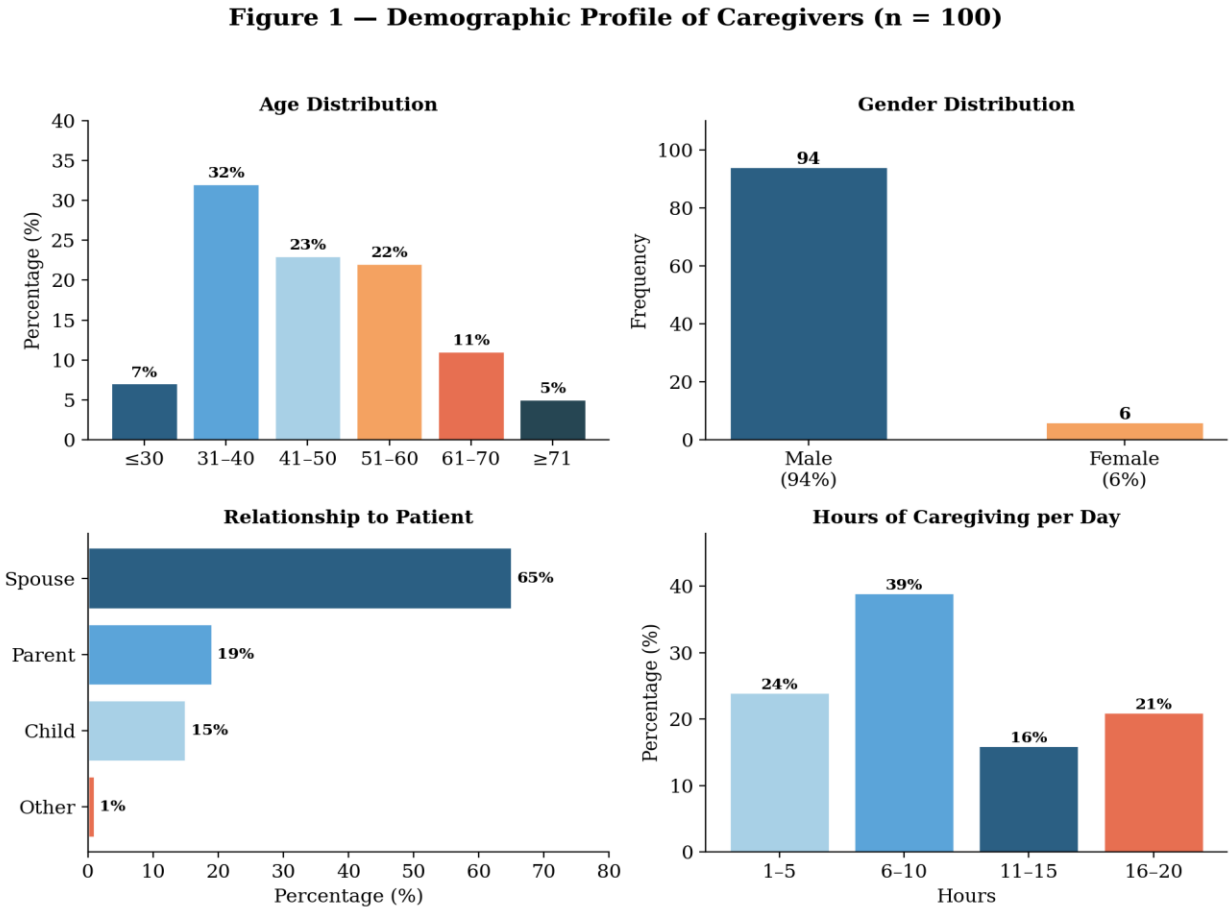

Figure 1: Demographic Profile of Caregivers: Age Distribution, Gender, Relationship to Patient, and Hours of Caregiving per Day (n = 100)

Section B: Zarit Burden Scale Scores (n = 100)

Table 2: Frequency and Percentage Distribution of Zarit Burden Scale Scores. Maximum Score = 48; Minimum Score = 0.

Category (Score Range)	Frequency (f)	Percentage (%)	Mean ± SD
No to Mild Burden (0–10)	53	53%	11.49 ± 7.767
Mild to Moderate Burden (11–20)	38	38%	
High Burden (>20)	9	9%	

The distribution of caregiver burden is presented in Table 2 and Figure 2. More than half (53%) experienced no to mild burden, 38% reported mild to moderate burden, and only 9% experienced high burden (mean = 11.49, SD = 7.767). These findings are consistent with Grover and Kate[10] and Ansari et al.[12] who reported varying degrees of burden in Indian caregivers.

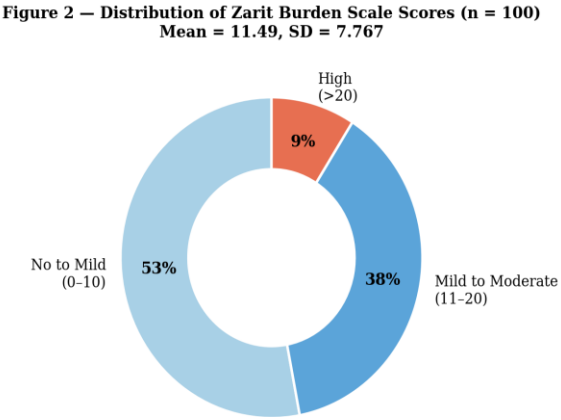

Figure 2: Percentage Distribution of Zarit Burden Scale Scores (n = 100)

Table 3: Association of Zarit Burden Scale Scores with Selected Demographic Variables

Demographic Variable	χ^2	p Value	df	Table Value	Result
Age (years)	9.792	0.459	10	18.307	Not Significant
Gender	1.125	0.570	2	5.991	Not Significant
Marital Status	0.264	0.876	2	5.991	Not Significant
Education	5.995	0.648	8	15.507	Not Significant
Monthly Income	7.072	0.314	6	12.592	Not Significant
Relationship to Patient	1.052	0.984	6	12.592	Not Significant
Hours of Caregiving/Day	37.640	<0.001	6	12.592	Significant
Family Support Available	0.832	0.660	2	5.991	Not Significant
Long-Term Illness	3.136	0.208	2	5.991	Not Significant
Duration of Illness	3.227	0.780	6	12.592	Not Significant

Level of significance: $p \leq 0.05$

Chi-square analysis (Table 3) revealed that only hours spent on caregiving per day showed a statistically significant association with caregiver burden ($\chi^2 = 37.640$, df = 6, $p < 0.001$). All other demographic variables were non-significant (all $p > 0.05$). The dose-response pattern is illustrated in Figure 3: caregivers spending 16–20 hours daily were predominantly in the mild to moderate (60%) and high burden (30%) categories, whereas those spending 1–5 hours were overwhelmingly in the no to mild category (87.5%). This finding is consistent with Ayalew et al.[11] and Shamsaei et al.[17]

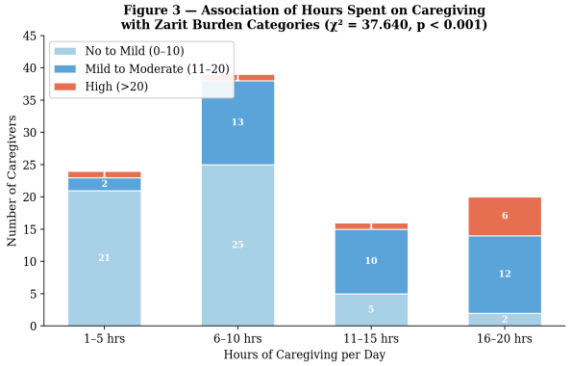

Figure 3: Association of Hours Spent on Caregiving per Day with Zarit Burden Categories ($\chi^2 = 37.640$, df = 6, $p < 0.001$)

Section C: FIS Stigma Scale Scores (n = 100)

Table 4: Frequency and Percentage Distribution of FIS Stigma Scale Scores. Maximum Score = 42; Minimum Score = 0.

Category (Score Range)	Frequency (f)	Percentage (%)	Mean ± SD
Zero Stigma (0)	0	0%	10.05 ± 6.009
Low Stigma (1–14)	86	86%	
High Stigma (15–42)	14	14%	

The distribution of perceived stigma is presented in Table 4 and Figure 4. The majority (86%) experienced low stigma, while 14% reported high stigma (mean = 10.05, SD = 6.009). No participant reported zero stigma. These findings are broadly consistent with Mukherjee and Mukhopadhyay[22] and Grover et al.[8] None of the selected demographic variables showed a statistically significant association with perceived stigma (all $p > 0.05$), suggesting that stigma in caregiving is pervasive across demographic subgroups.[20]

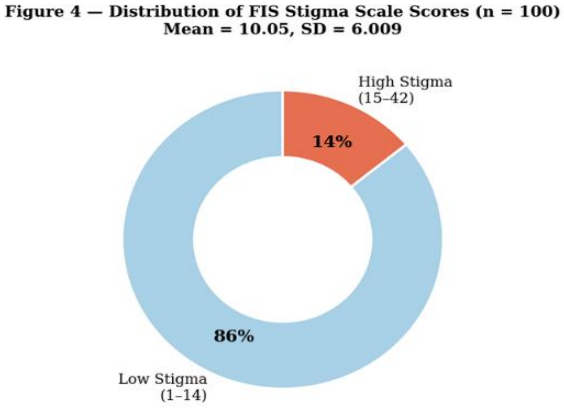

Figure 4: Percentage Distribution of FIS Stigma Scale Scores (n = 100)

Section D: Relationship Between Zarit Burden Scale and FIS Stigma Scale

Table 5: Correlation Between Zarit Burden Scale and FIS Stigma Scale Scores (Spearman's Rank Correlation)

Statistic	Zarit Burden Scale	FIS Stigma Scale
Mean	11.49	10.05
SD	7.767	6.009
N	100	100
Spearman's r	0.757	0.757
P Value	<0.001	<0.001
Result	Significant	Strong Positive Correlation

Spearman's rank correlation analysis (Table 5, Figure 5) demonstrated a strong positive and statistically significant relationship between caregiver burden and perceived stigma ($r = 0.757$, $p < 0.001$, $n = 100$). These findings are consistent with Chang et al.[24] in Taiwan, van der Sanden et al.[25] in the Netherlands, and Chadda and Deb[19] in India.

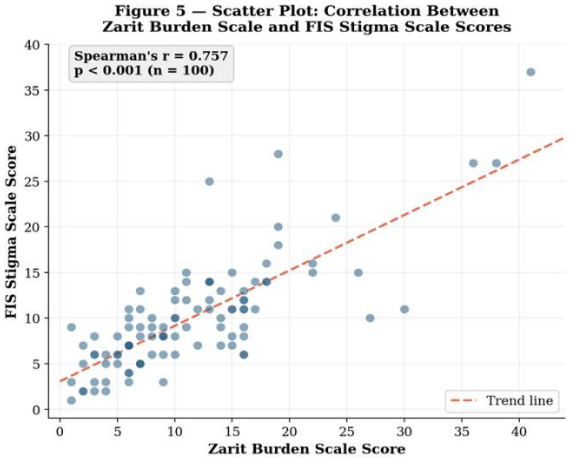

Figure 5: Scatter Plot Showing Correlation Between Zarit Burden Scale and FIS Stigma Scale Scores (Spearman's $r = 0.757$, $p < 0.001$)

IV. DISCUSSION

The present study assessed family burden and perceived stigma among 100 caregivers of psychiatric patients and examined the relationship between these two variables.

The socio-demographic profile revealed that most caregivers were middle-aged married males, predominantly spouses, with secondary or higher education and monthly income above ₹40,000. This pattern reflects the Indian sociocultural context wherein male family members, especially spouses, assume the primary caregiving role.[3,19] Notably, 64% of caregivers reported having additional family support available, reflecting the collectivistic family structure prevalent in Indian society,[2,3] while 36% managed caregiving responsibilities without such support, representing a potentially more vulnerable subgroup.

The Zarit Burden Scale findings (53% no to mild, 38% mild to moderate, 9% high burden; mean = 11.49) suggest that the majority managed caregiving with relatively low burden. The mean burden score is lower than that reported in studies from Ethiopia (Ayalew et al.)[11] and Iran (Shamsaei et al.), [17] possibly reflecting the relatively higher socioeconomic status and greater family support in the present sample. The significant association between caregiving hours and burden ($\chi^2 = 37.640$, $p < 0.001$) underscores the dose-response relationship between time investment and subjective burden, a finding replicated across multiple studies globally.[11, 15, 16] The FIS Stigma Scale findings indicated that while all caregivers experienced some degree of stigma (no zero scores), the majority (86%) experienced low levels. The absence of any significant association between demographic variables and stigma suggests that perceived stigma is deeply embedded in sociocultural attitudes rather than determined by individual characteristics.[4, 8]

The most noteworthy finding is the strong positive correlation between burden and stigma ($r = 0.757$, $p < 0.001$). This has been documented in Taiwan, [24] Sri Lanka, [21] Egypt, [23] and the Netherlands, [25] establishing this as a cross-culturally consistent phenomenon. The reciprocal nature suggests that interventions targeting either burden or stigma may produce benefits in both domains.[6, 7, 19]

V. CONCLUSION

The study found a significant positive relationship between family burden and perceived stigma among caregivers of psychiatric patients ($r = 0.757$, $p < 0.001$), with longer caregiving hours contributing to higher burden. Caregiver stress was multidimensional, influenced by both caregiving demands and societal stigma, and largely independent of demographic factors. The availability of family support in 64% of cases highlights the strength of the Indian family system, though the 36% without such support represent a particularly vulnerable subgroup. These findings underscore the need for routine assessment of caregiver burden and stigma, psychoeducational programmes to reduce stigma, and comprehensive support systems to promote caregiver well-being.

VI. RECOMMENDATIONS

1. Implement routine screening for caregiver burden and perceived stigma in psychiatric outpatient settings.

2. Conduct similar studies with larger sample sizes and multi-center designs to enhance generalizability.
3. Establish structured caregiver support programs, including peer support groups, counselling, and respite care.
4. Integrate caregiver-focused psychoeducation and anti-stigma interventions in psychiatric care protocols.
5. Explore socio-cultural factors influencing stigma across diverse regions and communities in India.

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