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Resilience among family caregivers managing schizophrenia

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Abstract:
Schizophrenia places substantial psychological, social and economic demands on family caregivers, yet their resilience remains inadequately understood. Therefore, it is of interest to assess the resilience among 60 family caregivers and explore the lived experiences of six caregivers through phenomenological interviews. Overall, 78.56% of caregivers had high resilience, while resilience was significantly associated with age ($p = 0.001$), gender ($p = 0.05$), education ($p = 0.001$) and later illness onset ($p = 0.01$). Qualitative analysis identified five themes: caregiving burden, emotional distress, financial hardship, social stigma and hope-driven resilience. Thus, data shows that combining resilience assessment with caregiver experiences can inform culturally appropriate, family-centered schizophrenia care.

Keywords: Schizophrenia, family resilience, caregiver experience, mixed methods, phenomenology, psychiatric nursing, South India

Background:
Schizophrenia affects approximately 24 million people worldwide about 0.32% of the global population and remains among the top contributors to long-term disability and premature mortality. Prevalence studies from India estimate the lifetime prevalence at 1.41% and the current prevalence at 0.41%, with urban populations and lower-income groups disproportionately affected **[1].** The psychosocial toll of this caregiving role is well-documented. A systematic review found that caregivers commonly report financial strain, interpersonal conflict, social withdrawal and moral distress arising from ethical dilemmas in treatment decisions **[2].** Emotional burden, encompassing anxiety, depression and burnout are reported in the majority of caregivers globally. In India, these challenges are compounded by persistent stigma, limited public health literacy and inadequate family-centered services at the primary care level **[3].** However, caregiving is not exclusively characterized by burden. Emerging evidence highlights family resilience, the collective capacity of a family unit to adapt, recover and sustain its functioning under prolonged stress, as a critical protective factor. Resilience enables caregivers to maintain emotional stability, negotiate role boundaries and preserve their own health while fulfilling caregiving obligations **[4].** Research found that though 40.9% of caregivers lack resilience overall, family-based social support remained the strongest predictor of adaptive functioning **[5].** Similarly, emotion regulation training has been shown to significantly improve caregiver resilience, reducing stress, anxiety and depression in randomized controlled trials **[6, 7].** The quantitative determinants of resilience are increasingly understood - younger age, higher education and stronger social networks consistently predict greater resilience across cultures **[8].** Yet the qualitative texture of resilience in caregiving contexts what it feels like, how it is sustained day-to-day and what motivates families to persist despite overwhelming adversity remains sparsely explored, particularly in South Asian settings. Qualitative studies from Turkey and China illuminate the relational, communicative and spiritual mechanisms through which family resilience is built and maintained **[4, 9],** but equivalent data from India are scarce. Therefore, it is of interest to assess family caregivers' resilience and describe their lived experiences in managing individuals with schizophrenia using a mixed-methods approach.

Materials and Methods:
This study adopted an explanatory sequential mixed-methods design. The quantitative phase was conducted first to establish resilience levels and demographic associations; the qualitative phase subsequently deepened understanding of caregivers' lived experiences.

Quantitative phase:
A descriptive cross-sectional design was employed to assess the resilience among the family caregivers of individuals diagnosed with schizophrenia at the Institute of Mental Health, Kilpauk and Chennai. Using a previous study that reported a caregiver resilience rate of 76% ($p = 0.76$), with a 10% margin of error and 95% confidence interval ($Z = 1.96$), the calculated sample size was 70 caregivers; a final sample of 60 was achieved through non-probability convenience sampling after applying inclusion/exclusion criteria. Primary caregivers aged 18–60 years who had been providing direct care for at least one year and were willing to provide informed consent were included in the study. Caregivers with known mental health diagnoses or those who declined participation were excluded. Data was collected using a structured socio-demographic and clinical proforma which includes caregiver age, gender, education, occupation, relationship to patient, income, duration of caregiving and illness-related clinical variables; and the Family Resilience Scale-16 (FRS-16). Scores classified resilience as low (<40), moderate (40–55), or high (>55). Data were analysed using SPSS version 25; descriptive statistics (frequencies, percentages) and inferential statistics (Chi-square test) were used to

determine associations. Following quantitative data analysis, six caregivers were purposively selected to represent diverse demographic profiles, resilience levels and caregiving durations. In-depth, semi-structured, one-on-one interviews were conducted in Tamil and English, audio-recorded with consent and transcribed verbatim. The interview guide explored caregiving challenges, coping strategies, emotional responses, stigma and sources of strength. Thematic analysis was conducted following Braun and Clarke's six-phase framework. Trustworthiness was ensured through member-checking, peer debriefing, reflexivity and data saturation (confirmed after six interviews). Ethical clearance was obtained from Madras Medical College, Chennai. All participants provided written informed consent.

Results:

The study enrolled 60 family caregivers (quantitative) and 6 caregivers (qualitative). Key demographic findings are presented in **Table 1 and 2.** The quantitative phase found that the majority of caregivers (78.56%) showed high resilience on the FRS-16, with the remaining 21.42% showing moderate resilience. No caregiver recorded a low resilience score **(Figure 1)**. Chi-square analysis revealed significant associations between resilience and age ($p = 0.001$), gender ($p = 0.05$) and educational level ($p = 0.001$). Younger caregivers, males and those with higher educational attainment exhibited significantly greater resilience. Clinically, a later age of illness onset (36–45 years or above) was significantly associated with higher caregiver resilience ($p = 0.01$), suggesting that a delayed diagnosis may allow more adaptive coping trajectories. In the qualitative phase, five major themes emerged from the thematic analysis **(Table 3).** The first theme, daily caregiving burden and physical strain, encompassed the exhausting routines of managing hygiene, meals, medications and crisis events, often at the expense of the caregiver's own rest and health. The second theme, emotional and mental anguish, reflected pervasive anxiety, helplessness and moral distress, particularly when patients refused treatment or exhibited unpredictable behaviour. The third theme, financial hardship, captured the reality of mounting medication costs, lost employment opportunities and strained household budgets. The fourth theme, social isolation and stigma, described how caregivers progressively withdrew from social life due to perceived community judgment and the emotional weight of explaining a mental illness to others. The fifth and perhaps most striking theme, hope, faith and resilience, revealed how caregivers sustained themselves through unwavering belief in recovery, trust in the treating team at IMH and deep spiritual conviction.

Table 1: Socio-demographic of the caregivers (n=60)

Demographic variables		Number of caregivers	%
Age of the Caregiver	18-25 years	0	0.00%
	26-35 years	17	24.29%
	36-45 years	19	27.14%
	46-55 years	20	28.57%
	56-60 years	14	20.00%
Gender of the Caregiver	Male	30	42.86%
	Female	40	57.14%
	Others	0	0.00%
Marital Status of the Caregiver	Single	4	5.71%
	Married	63	90.00%
	Widowed	3	4.29%
	Separated/Divorced	0	0.00%
Educational Qualification of the Caregiver	No formal education	5	7.14%
	Primary education	9	12.86%
	Secondary education	23	32.86%
	Higher secondary education	27	38.57%
	Graduate and above	6	8.57%
Occupation of the Caregiver	Unemployed	31	44.29%
	Self-employed	32	45.71%
	Government job	0	0.00%
	Private sector job	7	10.00%
	Student	0	0.00%
	Retired	0	0.00%
Caregiver's Relationship to the Patient	Parent	36	51.43%
	Sibling	8	11.43%
	Spouse	21	30.00%
	Child	5	7.14%
	Other (Specify)	0	0.00%
Monthly Income of the Caregiver (in INR)	Less than ₹15,000	54	77.14%
	₹15,000 - ₹30,000	16	22.86%
	₹30,001 - ₹50,000	0	0.00%
	₹50,001 and above	0	0.00%
Family Size	2-4 members	67	95.71%
	5-7 members	2	2.86%
	8 or more members	1	1.43%
Type of Family	Nuclear family	62	88.57%
	Joint family	8	11.43%

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	Extended family	0	0.00%
Residence Type	Urban	5	7.14%
	Semi-urban	17	24.29%
	Rural	48	68.57%
Duration of Caregiving	Less than 1 year	3	4.29%
	1-3 years	15	21.43%
	4-6 years	24	34.29%
	7-10 years	15	21.43%
	More than 10 years	13	18.57%
Previous Experience with Mental Health Conditions	Yes	1	1.43%
	No	69	98.57%

Table 2: Clinical variables of the patients with schizophrenia

Clinical variables		Number of patients	%
Age of Onset of Schizophrenia (in patient)	Less than 18 years	2	2.86%
	18-25 years	31	44.29%
	26-35 years	14	20.00%
	36-45 years	20	28.57%
	More than 45 years	3	4.29%
Duration of Schizophrenia (in years)	Less than 1 year	4	5.71%
	1-5 years	34	48.57%
	6-10 years	19	27.14%
	11-15 years	10	14.29%
	More than 15 years	3	4.29%
Hospitalization History	Never hospitalized	0	0.00%
	Once hospitalized	5	7.14%
	2-3 times hospitalized	10	14.29%
	More than 3 times hospitalized	55	78.57%
Insight into Illness (Patient's Awareness of Their Condition)	Full insight	0	0.00%
	Partial insight	70	100.00%
	No insight	0	0.00%

Table 3: Thematic map of caregiver experiences in managing schizophrenia

Theme 1: Daily Burden & Physical Strain	Theme 2: Emotional & Mental Anguish	Theme 3: Financial Hardship	Theme 4: Social Isolation & Stigma	Theme 5: Hope, Faith & Resilience
Exhaustive routines	Anxiety & stress	Medication & health care costs	Loss of social bonds	Trust in medical treatment
Physical burnout	Emotional coping	Impact on Work and Income	Community attitudes	Endurance and resilience

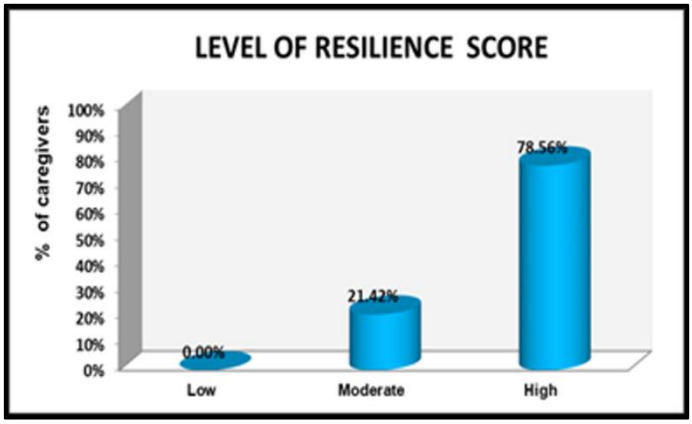

Figure 1: Level of resilience

Discussion:

This study offers important empirical insights into family resilience and caregiver experiences in a South India. The finding that nearly 79% of caregivers demonstrated high resilience, with none recording low resilience, is clinically significant. These findings align with Wu *et al.* **[8]** who, in a cross-sectional study showed that resilience significantly mediated the relationship between perceived social support and post-traumatic growth, accounting for 15.3% of the variance. Their use of the Connor-Davidson Resilience Scale (CD-RISC) yielded a mean score of 2.46 ± 0.66 - a finding conceptually consistent with our FRS-16 results, despite scale differences. Lök and Bademli **[3]** similarly found significant positive correlations between perceived social support and psychological resilience in caregivers reinforcing the cross-cultural relevance of social support as a resilience predictor. The significant association between caregiver resilience and demographic variables, particularly younger age, male gender and higher education echoes findings from Wang *et al.* **[10]** whose canonical correlation analysis identified education level and gender as significant predictors of psychological resilience ($p < 0.01$). These associations likely reflect differential access to health information, problem-solving resources and social capital. The association between later illness onset and higher resilience is particularly interesting: it may reflect the reality that when schizophrenia develops in an older patient (36 - 45 years), caregivers are often better equipped emotionally and socioeconomically to absorb the transition into caregiving roles. The qualitative findings extend and deepen these quantitative patterns. The five themes mirror those identified in comparable qualitative studies globally Pan *et al.* **[9]** in their phenomenological study, identified psychosocial distress,

adverse family impacts, coping strategies and future concerns as central experiences a framework closely paralleling our themes of emotional strain, social isolation and financial burden. Sari and Duman **[4]**, using Walsh's family resilience framework with schizophrenia-family caregiver, identified that positive cognitions, intra-family communication, structured routines, family support and love as a healing force were the key relational mechanisms of resilience all themes that resonated strongly in our qualitative narratives. The theme of hope, faith and resilience, while present in other studies, took on a particularly prominent character in our South Indian context. Caregivers frequently cited their trust in the treatment team, religious belief and the patient's gradual improvements as sources of sustained motivation. This spiritual dimension of resilience largely absent from Western psychometric scales but deeply embedded in South Asian caregiving culture deserves formal integration into caregiver support frameworks. Issac *et al.* **[2]** identified inadequate systemic guidance and poor access to community resources as major challenges, findings echoed in our caregivers' accounts of navigating the healthcare system without adequate information or psychoeducational support. The financial burden theme is particularly relevant to policy with 77.14% of caregivers earning less than ₹15,000 per month and 98.57% having no prior mental health caregiving experience, the economic and informational vulnerability of this population is stark. Behrouian *et al.*, Lök and Bademli **[6, 7]** showed through randomized controlled trials that structured emotion regulation training over eight weekly sessions produced significant improvements in both resilience and psychological symptoms among schizophrenia caregivers in Iran, evidence that targeted, time-limited interventions can meaningfully improve outcomes even in resource-limited settings. The field of social isolation and stigma **[11]** further demands attention, as caregivers' progressive social withdrawal often goes unaddressed in clinical encounters focused exclusively on patient care. The strengths of this study include its concurrent mixed-methods design, which allowed statistical patterns to inform and be enriched by qualitative narratives **[12]**. Limitations include the single-site design, relatively small sample size and the self-reported nature of data, which may introduce social desirability bias. The qualitative sample size of six, while consistent with phenomenological convention, limits transferability. Future studies should use larger, multi-center samples and longitudinal designs to track resilience trajectories over time.

Conclusion:
Family caregivers of individuals with schizophrenia showed predominantly high resilience despite substantial caregiving challenges. Caregiving was associated with physical exhaustion, emotional distress, financial strain and social isolation, alongside hope and family commitment. Caregiver-focused services should incorporate psychoeducation, emotion regulation training, social support and culturally responsive mental health policies.

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Conflict of interest:
The authors declare no conflict of interest.

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