

Quality of life among primary caregivers of individuals with mental illness in south Rajasthan: A Cross-Sectional Study

¹Sunit Kumar, Senior Resident, Department of Community Medicine, Balidani Yoddha Major Vikas Bhambhu Government Medical College and Hospital, Rajasthan, India.

²Nitesh Kumar Jha, Assistant Professor, Department of Community Medicine, CRK Medical College and Hospital, Hajipur, Bihar.

³Shakila Mulla, Senior Professor, Department of Community Medicine, Jhalawar Medical College and Hospital, Jhalawar Rajasthan India.

Corresponding Author: Sunit Kumar, Senior Resident, Department of Community Medicine, Balidani Yoddha Major Vikas Bhambhu Government Medical College and Hospital, Rajasthan, India.

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Abstract

Background: In India, families carry most of the responsibility when caring for a relative with mental illness. Looking after an unwell family member day after day can cause physical tiredness, emotional stress, and social difficulties. This study looks at the everyday well-being and living satisfaction of primary family caregivers in rural and semi-urban Rajasthan.

Objective: To assess quality of life among primary caregivers of individuals with mental illness and determine its association with selected socio-demographic characteristics.

Materials and Methods: An analytical cross-sectional study was conducted at Jhalawar Medical College and Hospital, Jhalawar, Rajasthan, during May 2024 to April 2025. Six hundred primary caregivers of adults with mental illness were recruited through complete enumeration of eligible registered psychiatric OPD patients between October 2024 and January 2025. Caregiver QoL was assessed during family visits using the Hindi version of the WHOQOL-BREF. Socio-demographic information was collected using a pre-designed proforma. Data were analyzed using Microsoft Excel and IBM SPSS Statistics version 29. Pearson’s Chi-square or adjusted Chi-square tests were used as

appropriate, with $p < 0.05$ considered statistically significant.

Results: Among 600 caregivers, 260 (43.4%) were aged 18–39 years, 248 (41.3%) were aged 40–59 years and 92 (15.3%) were aged above 60 years. Males constituted 510 (85.0%) caregivers and females 90 (15.0%). Overall QoL was classified as high in 573 (95.5%), moderate in 25 (4.2%) and low in 2 (0.3%) caregivers. High QoL was also observed across the physical (94.5%), psychological (89.2%), social-relationships (91.0%) and environment (87.2%) domains. Caregiver age was not significantly associated with overall QoL (adjusted $\chi^2 = 3.32$, $p = 0.505$). Gender showed a statistically significant association (adjusted $\chi^2 = 7.92$, $p = 0.019$), whereas marital status was not significantly associated with QoL (adjusted $\chi^2 = 6.73$, $p = 0.347$).

Conclusion: A very high proportion of caregivers in this study were classified as having high QoL across all WHOQOL-BREF domains. Caregiver gender showed a statistically significant association with QoL, while age and marital status did not. The unusually high caregiver QoL observed in this sample warrants cautious interpretation and further investigation using longitudinal and qualitative approaches.

Keywords: Primary Caregiver, Mental Illness, Quality of Life, WHOQOL-BREF, Family Caregiver, Psychiatric Illness, Cross-Sectional Study.

Introduction

Families frequently have an important role in supporting individuals with mental illness. Primary caregivers may assist with daily activities, treatment-related needs and ongoing family support. Consequently, caregiver well-being is an important component of comprehensive mental-health care.¹

Quality of life is multidimensional and includes physical, psychological, social and environmental aspects. The WHOQOL-BREF provides a brief instrument for assessment of these dimensions and has been used in different populations.²

Previous literature has described psychological distress and reduced QoL among some groups of family caregivers of people with psychiatric illness. At the same time, caregiver experiences can vary according to clinical, social and contextual circumstances.³

The present study assessed QoL among primary caregivers of individuals with mental illness residing in Jhalawar district. The specific objectives were to describe QoL across WHOQOL-BREF domains and examine its association with caregiver age, gender and marital status.³⁻⁴

Materials and Methods

Study design and setting

This community-based analytical cross-sectional study was conducted in Jhalawar district, situated in southeastern Rajasthan (Hadoti region), between May 2024 and April 2025. Initial clinical recruitment was carried out at the Psychiatry Outpatient Department (OPD) of Jhalawar Medical College and Hospital. Following hospital-based registration, home visits were conducted across the district between October 2024 and January 2025 to administer study questionnaires and directly assess living environments.

Selection Criteria

Inclusion Criteria: Primary caregivers aged ≥ 18 years residing in Jhalawar district who had been providing unpaid care to an adult patient with a clinically confirmed mental illness of at least one-year duration, and who gave written informed consent.

Exclusion Criteria: Caregivers of patients suffering from acute psychiatric or medical emergencies, individuals who were non-cooperative

Sampling and Data collection

A complete enumeration approach was utilized to recruit all eligible consecutive caregiver-patient presenting to the Psychiatry OPD over a four-month window (October 2024 to January 2025). A total of 600 primary caregivers fulfilled all criteria and were enrolled.

Initial screening, clinical psychiatric verification, and illness severity scoring using the clinician-rated Clinical Global Impression-Severity (CGI-S) scale were completed at the Psychiatry OPD. Subsequently, home visits were conducted by the principal investigator to collect socio-demographic information, assess housing and environmental variables, and administer the Quality-of-Life questionnaire in a comfortable, domestic setting.

Sampling and Data collection

Following identification of eligible caregivers, the study objectives were explained in the local language and written informed consent was obtained. During family visits, socio-economic and environmental information was collected using a pre-designed proforma. The WHOQOL-BREF was administered to assess caregiver QoL.

Quality-of-life assessment

The Hindi version of WHOQOL-BREF contains 26 items. The first two items assess overall perception of QoL and general health. The remaining items form four domains: physical health, psychological health, social relationships and environment. Domain scores were transformed to a 0–100 scale, with higher scores representing better QoL.

The study classified overall QoL and individual domain QoL into low, moderate and high categories.

Socioeconomic status (SES) was determined using the Modified B.G. Prasad Socioeconomic Classification updated for February 2024 via the Consumer Price Index for Industrial Workers (CPI-IW)

Statistical analysis

Data were entered into Microsoft Excel and analyzed using IBM SPSS Statistics version 29. Categorical variables were expressed as frequencies and percentages. Pearson's Chi-square test was used to assess associations between socio-demographic variables and QoL. Adjusted Chi-square values were used where the assumptions for the Pearson Chi-square test were not adequately met. Statistical significance was defined as $p < 0.05$.

Ethical considerations

Prior to study initiation, ethical clearance was granted by the Institutional Ethical Committee of Jhalawar Medical College and Associated Group of Hospitals (DHR Registration No.: EC/NEW/INST/2022/RJ/0134, Reference Order No. 20, dated 21.02.2024). An official No Objection Certificate (NOC) was secured from the Head of the Department of Psychiatry on 14.02.2024. Written informed consent was obtained in Hindi from each participating caregiver and patient before enrolment. Participation was voluntary, and strict confidentiality was maintained.

Results & Discussion

Socio-Demographic Characteristics of Primary Caregivers

The socio-demographic profile of the 600 primary caregivers is presented in Table 1. The cohort was distributed primarily across working ages: 43.4% ($n = 260$) were 18–39 years old, 41.3% ($n = 248$) were 40–59 years old, and 15.3% ($n = 92$) were ≥ 60 years old

(age range: 18–65 years). This distribution is consistent with findings by Mathur et al., who reported that 48.3% of psychiatric caregivers were aged 41–60 years, and Bhat et al., who reported a caregiver mean age of 40.49 years.

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A significant male predominance was observed in this group: 85.0% (n = 510) were male and 15.0% (n = 90) were female. While Indian studies by Rao et al. (62.0% male) [91] and Mohanty et al. (63.3% male) [95] also noted male majorities among caregivers, other studies such as Jeyagurunathan et al. (67.6% female) [74] and Paul et al. (86.7% female) [94] reported a female predominance.⁷⁻¹⁰

Most caregivers were married (90.4%, n = 542), with 8.8% (n = 53) never married, 0.3% (n = 2)

divorced/separated, and 0.5% (n = 3) widowed. This matches data from Goit et al., where 98.4% of caregivers were married. Religious composition showed marked homogeneity, with 94.2% (n = 565) identifying as Hindu, 5.3% (n = 32) as Muslim, and 0.5% (n = 3) as Sikh or Jain, reflecting regional census patterns.¹¹

Most caregivers lived in nuclear households (76.5%, n = 459), while 19.8% lived in joint families and 3.7% in three-generation families. This prevalence of nuclear living arrangements is corroborated by Goit et al. (82.9%) and Paul et al. (66.7%). Nearly all participants owned their homes (95.8%), though overcrowding was identified in 49.7% of households.^{9,11}

Table 1: Socio-demographic characteristics of primary caregivers (N=600)

Variable	Subcategory	Frequency(n)	Percentage (%)
Age Group (Years)	18-39	260	43.4%
	40-59	248	41.3%
	>60	92	15.3%
Gender	Male	510	85.0%
	Female	90	15.0%
Marital Status	Married	542	90.4%
	Never Married/Single	53	8.8%
	Divorced/Separated	2	0.3%
	Widowed	3	0.5%
Religion	Hindu	565	94.2%
	Muslim	32	5.3%
	Others (Jain, Sikh)	3	0.5%
Educational Status	Illiterate	241	40.2%
	Primary School	118	19.7%
	Secondary School	179	29.8%
	Graduate and above	62	10.3%
Family structure	Nuclear	459	76.5%
	Joint	119	19.8%
	Three-Generation	22	3.7%
Personal Addiction	Absent	485	80.8%
	Present	115	19.2%
Co-morbid Medical illness	Absent	591	98.5%
	Present	9	1.5%

Caregiver Quality of Life Across Domains

Caregiver QoL ratings across overall well-being and the four individual WHOQOL-BREF domains are summarized in Table 2.

An overwhelming majority of primary caregivers rated their overall QoL as High (95.5%, n = 573). Only 4.2% (n = 25) reported Moderate QoL, and 0.3% (n = 2) reported Low QoL. High satisfaction was maintained consistently across all four domains:

- **Physical Domain:** 94.5% (n = 567) scored High, 5.3% (n = 32) Moderate, and 0.2% (n = 1) Low. ¹²

Psychological Domain: 89.2% (n = 535) scored High, 10.5% (n = 63) Moderate, and 0.3% (n = 2) Low. ¹²

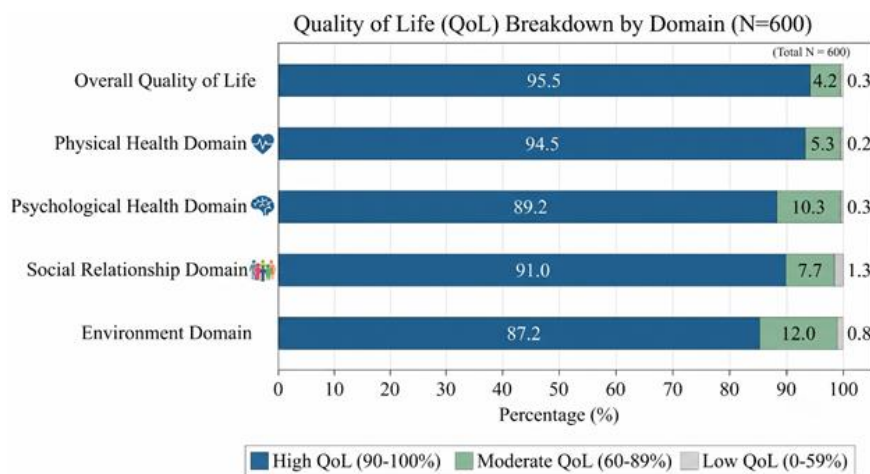
Social Relationships Domain: 91.0% (n = 546) scored High, 7.7% (n = 46) Moderate, and 1.3% (n = 8) Low. ¹²

Environmental Domain: 87.2% (n = 523) scored High, 12.0% (n = 72) Moderate, and 0.8% (n = 5) Low. ¹²

The high QoL observed across physical (94.5%), social (91.0%), and psychological (89.2%) domains.

Table 2: Domain-Wise Quality of Life Distributions Among Caregivers (N = 600)

Domain/ parameter	Low QoL n (%)	Moderate QoL n (%)	High QoL n (%)	Total
Overall Quality of Life	2(0.3)	25(4.2)	573(95.5)	600(100%)
Physical Health Domain	1(0.2)	32(5.3)	567(94.5)	600(100%)
Psychological Health Domain	2(0.3)	63(10.3)	535(89.2)	600(100%)
Social Relationship Domain	8(1.3)	46(7.7)	546(91.0)	600(100%)
Environment domain	5(0.8)	72(12.0)	523(87.2)	600(100%)



Graph 1

Socio-Demographic Determinants of Caregiver QoL

A statistically significant association was observed between caregiver gender and overall QoL ($\chi^2 =$

7.92, p = 0.019). Male caregivers had a higher proportion of High QoL (96.5%, n = 492) compared to female caregivers (90.0%, n = 81). Conversely, female

caregivers were almost three times more likely to experience moderate (8.9% vs. 3.3%) or low (1.1% vs. 0.2%) QoL. This finding aligns with wider epidemiological observations by Sharma et al. [68], Vadher et al. [80], and Mohanty et al. [95], which showed that female caregivers experience higher subjective burden, poorer sleep, and more psychological distress.^{8, 13-14}

Caregiver age did not exhibit a statistically significant correlation with overall QoL ($\chi^2 = 3.32, p = 0.505$). Although caregivers aged 18–39 years showed high QoL (97.0%, $n = 252$), followed by those aged 40–59 years (94.8%, $n = 235$) and ≥ 60 years (93.5%, $n = 86$).¹⁵⁻¹⁶

Caregiver marital status was not significantly associated with QoL ($\chi^2 = 6.73, p = 0.347$). High QoL was reported by 95.6% ($n = 518$) of married caregivers and 96.2% ($n = 51$).^{7,15}

Religion also showed no significant association with QoL ($\chi^2 = 0.612, p = 0.962$). QoL outcomes were uniformly positive across religious groups: 95.6% of Hindus, 93.8% of Muslims, and 100% of Sikhs/Jains reported High QoL. Religious homogeneity (94.2% Hindu) reflected local demographics, and spiritual activities were frequently cited by participants as a source of emotional resilience.

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Table 3: Association of Socio-Demographic Variables with Quality of Life Among Caregivers (N = 600)

Socio-demographic Variable	Low QoL (%)	Moderate QoL (%)	High QoL (%)	Total(N=600)	Chi-Square(χ^2)	p- value
Gender					7.92#	0.019*
Male	1(0.2%)	17(3.3%)	492(96.5%)	510(100%)		
Female	1(1.1%)	8(8.9%)	81(90.0%)	90(100%)		
Age group (Years)					3.32#	0.505
18-39	1(0.4%)	7(2.6%)	252(97.0%)	260(100%)		
40-59	1(0.4%)	12(4.8%)	235(94.8%)	248(100%)		
>60	0(0.0%)	6(6.5%)	86(93.5%)	92(100%)		
Marital status					6.73#	0.347
Married	2(0.4%)	22(4.0%)	518(95.6%)	542(100%)		
Never Married/Single	0(0.0%)	2(3.8%)	51(96.2%)	53(100%)		
Divorced/Separated	0(0.0%)	0(0.0%)	2(100%)	2(100%)		
Windowed	0(0.0%)	1(33.3%)	2(66.7%)	3(100%)		
Religion					0.612	0.962
Hindu	2(0.3%)	23(4.1%)	540(95.6%)	565(100%)		
Muslim	0(0.0%)	2(6.2%)	30(93.8%)	32(100%)		
Others (Jain, Sikh)	0(0.0%)	0(0.0%)	3(100%)	3(100%)		

* Statistically significant ($p < 0.05$); # Adjusted chi-square value applied.

Strengths and Limitations

Strengths: This study evaluated a large cohort of 600 primary caregivers using complete enumeration. In-person household visits allowed for direct assessment of domestic living conditions rather than relying solely on hospital-based interviews. A standardized, culturally validated instrument (WHOQOL-BREF Hindi) was utilized alongside verified institutional ethical clearance.

Limitations: The cross-sectional design prevents drawing conclusions regarding causality. The study was conducted in a single district (Jhalawar), which may limit generalizability to metropolitan centers with different social dynamics. Furthermore, because recruitment occurred through a tertiary hospital OPD, caregivers of individuals with severe illness who are unable to travel or access medical care may have been under-represented.

Conclusion

When we look back at what this study set out to do, we found that family caregivers of people with mental illness in South Rajasthan generally report a good overall quality of life. This shows that families are deeply resilient, view caregiving as a natural duty, and benefit from strong community support. However, we also found a clear difference between men and women: female caregivers face more challenges and report lower life satisfaction than male caregivers. Other personal details, like age, marital status, and religion, did not make much of a difference. Because of this, local health programs and public policies should focus on family-centered care—providing practical support, health education, and home counseling specifically designed to help female caregivers manage their daily responsibilities.

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