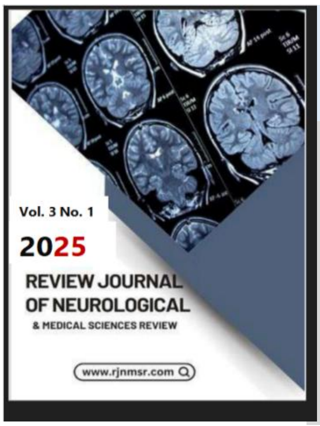

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Prevalence of Depression among Caregivers of Patients of Schizophrenia at a Tertiary Care Teaching Hospital: A Cross-Sectional Study

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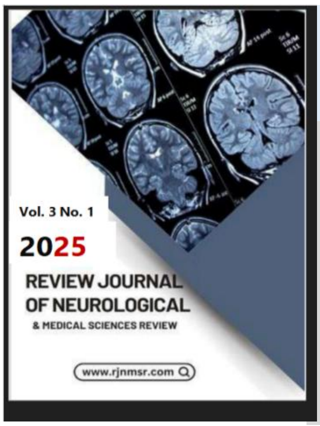
Abstract

This paper examines the prevalence of depression among caregivers of individuals diagnosed with schizophrenia, a chronic psychiatric condition that requires sustained care and attention. Family members who take on caregiving responsibilities often face overwhelming emotional and psychological challenges, which can lead to the development of mental health concerns, particularly depression. The study was carried out over a period of six months at the Department of Psychiatry, Sheikh Zayed Medical College Hospital in Rahim Yar Khan. Using a cross-sectional design, a total of 133 caregivers who met the inclusion criteria were selected through consecutive sampling. Depression levels were assessed using the Urdu version of the Beck Depression Inventory. The results showed that a considerable number of caregivers were experiencing symptoms of depression. Factors such as gender, level of education, monthly income, and the amount of time spent in the caregiving role were found to be closely related to the presence of depressive symptoms. These findings draw attention to the emotional toll of caregiving and emphasize the importance of providing psychological support to caregivers as an essential part of comprehensive care for patients with schizophrenia.

Keywords: Schizophrenia, caregivers, depression, Beck Depression Inventory, mental health, cross-sectional study.

Introduction

This paper discusses caregiving responsibilities and their implications to the mental state of care givers to schizophrenia patients especially in the area that concerns prevalence of depression among care givers. Schizophrenia is a life-long disabling psychiatric disorder, in which the person becomes disconnected from reality manifested through such symptoms such as hallucination, disorganised speech, deprivation of cognition, delusion and lack of emotional expression. It claims



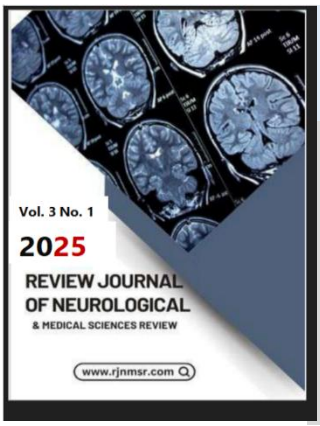
approximately 24 million people globally (World Health Organization, 2022) making it one of the top 15 disability-causing health conditions in the world (World Health Organization, 2022).

The time of schizophrenia development (late adolescence or early adulthood) usually coincides with the period which individuals prepare to become adults and start their independent lives (Santos et al., 2020). Because of the chronic nature of the illness and potential for repeated relapses ongoing monitoring, emotional support and medical supervision is a part of the care process that is needed. Informal care-givers —often family members—are increasingly taking this responsibility owing to the shift from institutional care to community-based systems of mental health (Perlick et al., 2007). Although this transition has been undertaken to minimize hospitalization and re-intervent patients in the society, it has burdened the caregivers who are nearly unprepared for the physical and psychological challenges of the job.

Caregivers engage in an important role in the therapeutic process and final outcomes of people with schizophrenia. They guarantee medication compliance, take patients to the doctor, help manage symptoms and provide social and emotional support. Unfortunately, if one perseveres in caregiving with hardly taking a break this kind of exposure can cause burn out known as caregiver burden. Such burden has been based on research observed to be objective (measurable tasks and financial strain) or subjective (emotional and psychological strain) in nature (Zahid & Ohaeri, 2010). In the long run the burden might become deeper mental health problems such as depression and anxiety.

Many research studies carried out around the world have reported high rates of depression among caregivers for patients with schizophrenia. According to Cham et al. (2022), a systematic review and meta-analysis uncovered that the pooled prevalence of depression among caregivers of mentally ill patients; particularly psychotic disorders had, approximately, 35.88%. These results are also consistent with other research that report raised levels of depressive symptoms in caregivers particularly women and older adults (Jeyagurunathan et al., 2017). Several variables, including the patient's symptom severity, duration of illness, level of functioning and social stigma, have been associated with caregiver's depression (Foldemo et al., 2005; Maurin & Boyd, 1990).

In countries such as Pakistan where the model of caregiving in most societies is this mixed model, the caregiving burden is further aggravated by sociocultural factors, restricted mental health access, and stigma. A research made by Akbar et al. (2017) of a tertiary care hospital in Pakistan revealed that about 33% of caregivers of patients who were schizophrenic showed signs of depression. It is especially alarming in a country where the children's mental health infrastructure is undeveloped and mental illness is a taboo. Moreover, based on the report by Saleem et al. (2022) the caregivers from the country have been suffering from psychological distress and social isolation including in the areas with either rural topography or the scarcity of resources where the healthcare system fails to provide appropriate assistance for the both patients and their relatives.



Stigma is extremely important in the caregiver experience. It is treated as social shame by the families, and the relatives internalize blame, isolate themselves from social networks and seek no help from professionals. This isolation then adds more to depressive symptom manifestation among caregivers. Families in South Asia are more prone to be exposed to social stigma and internalize it, which only adds insult to injury of what families in South Asia already experience in terms of emotional burden (Gater et al. 2014). In some of these cases, caregivers, too, report that they suffer from "courtesy stigma", that is discrimination because one is associated with the mentally ill (Angermeyer et al., 2003).

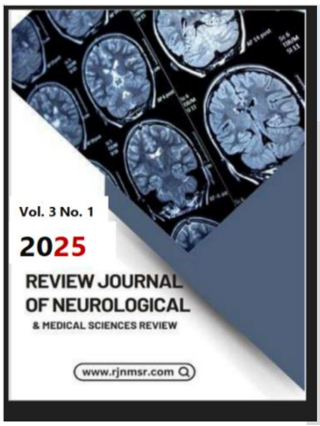
As well as stigma, the economic burden of caring also cannot be ignored. Care giving in low-income households will lead to job loss; lesser working hours and increased medical bill as a result of the reduced proportion of care provider spending on other needs to attend to the care recipients hence, caregiver's stress and depressive symptoms. Financial insecurity is one of the major factors that predict poor mental health outcomes amongst caregivers, in a South Asian context, according to Sharma et al. (2018). Overwhelmingly, most caregivers also have no formal training in psychiatric caregiving which only adds to their levels of stress and helplessness.

Although there has been universal awareness of these problems, one would note that the scarcity of comprehensive, local research with quantification of the depression burden on caregivers of schizophrenia patients in Pakistan is a serious challenge. Most existing research either attends to the general caregiver stress or employs small samples, which make generalization difficult. Therefore, there is a pressing need to find out about the issue using larger, well designed studies to guide the policymaking of evidence based mental health policies and caregiver programs in the country.

This study aims to fill this research gap by determining the prevalence of depression among schizophrenia care-givers in a tertiary care hospital in Southern Punjab, Pakistan. Other dimensions explored by the investigation include how the socio-demographic aspects such as, gender, education status, income and the duration of caregiving affect the incidences and severity of depressive symptoms. In offering empirical data, this research needs to contribute towards the formulation of culturally appropriate intervention strategies that would be able to ease the psychological load to the caregivers and enhance the standard of their and the patient's life.

Detection and management of caregiver depression is not only a public health imperative but also a pre-condition for improving treatment outcomes of persons with schizophrenia. From this research it can be concluded that caregiver well-being has direct impact on patient adherence to treatment and recovery trajectories (Martens & Addington, 2001). Hence, interventions in the form of psychoeducation, counseling, support groups, etc., and caregiver-oriented mental health services, should be promoted in mental health policy and practice.

Finally, the role of caregivers in controlling schizophrenia is irreplaceable, but is often underestimated in psychiatric care schemes. Their mental health including depression risks, is in dire need of urgent attention and especially in countries such as Pakistan where there isn't any form of remuneration, no recognition, and no



support to caregiving. This research forms part of the contemporary debate on mental health by applying insights to the topics of depression in care-givers population and the urgent need for systemic support mechanisms.

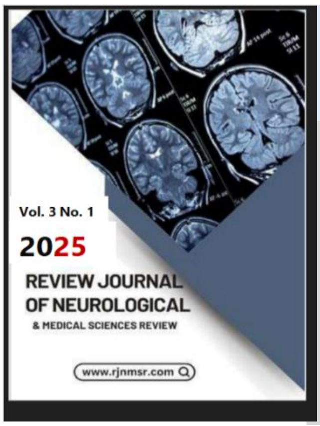
Objectives

The main aim of this research work is to explore and establish the prevalence of depression among the caregivers who offer long term care of the patients that have been diagnosed with schizophrenia. Schizophrenia, a life-changing, serious illness that, psychiatric in nature, affects many people who provide care for affected individuals, usually family members, including parents, spouses, or children, places a heavy emotional, physical, and psychological strain on such caregivers. These caregivers have particular challenges; these include the challenges of emotionally managing the instability and behaviors of their patients, changes in stigma associated with mental illness and the financial and social hardships associated with long lasting care. In turn, mental issues, especially depression are more likely to develop in caregivers of schizophrenia victims because of constant nature of caregiving and its pressure on those who are taking care of the victims. To measure the intensity of this mental health burden in this population, the prevalence of depressive symptoms among these caregivers will be measured using validated instrument, the Urdu version of Beck Depression Inventory. Raising awareness about the high psychological burden of caregivers is the goal of the research while concentrating on this unique group; the research thus contributes to the wider understanding of caregiver burden in schizophrenia, putting forward a voice to the need for the specific support to caregivers in order to reduce risks. In the end, findings are aimed at guiding healthcare providers, policymakers and mental health professionals in appreciating the need to identify and attend to mental health needs of caregivers and ensure provision of necessary resources and psychological management to enable them to continue to manage their well-being while caring for their loves ones.

Operational Definitions

Depression: Within the scope of this study depression is any mental health state characterized by ongoing feelings of sadness, hopelessness, and loss of interest or pleasure in daily life, conditions that can greatly compromise the caregiver’s ability to function within their professional role. Depression on the part of caregivers will be diagnosed from their scores of Urdu version of the Beck Depression Inventory (BDI) which is widely used and validated tool that was used to measure the severity of depressive symptoms. Those aged ≥ 14 years from the BDI represent clinically significant depressive symptoms and, therefore, in the present study, will be used to establish depression in caregivers. BDI evaluates the range of depressive symptoms like mood disturbances, energy loss, sleep and appetite changes, feeling of guilt or worthlessness and so on, which makes it possible to consider the mental health of the caregiver in the round.

Caregivers: For the purposes of this study, caregivers are conceptualized as individuals usually in the form of a family member who provide continuous care to a patient diagnosed with schizophrenia. These caregivers can be parents, spouse, or



children that live with a patient and actively engage in providing all day to day needs, both emotional and physical and even the medical needs. Inclusion in this research requires that caregivers have been providing care for at least six months, the minimum of which is sufficient to ensure that caregiving has been cause to significantly affect one both mentally and emotionally. Caregiving is a range of different responsibilities from managing patient's symptoms to providing him/her with social and emotional support, and it is crucial to understand how long-term caregiving might cause mental problems, such as depression.

Schizophrenia: Schizophrenia, as per the International Classification of Diseases, 11th Edition (ICD-11), ICD 11, is a severe, chronic psychiatric disease characterized by more or less marked impairment in reality testing, often, but not always with positive and negative symptoms. Positive symptoms are abnormal experiences, including hallucinations (that are perceptions in the absence of an external causative agent) and delusions (false beliefs not based in reality); and negative symptoms include a decrease or loss of normal features, such as emotional expression, social withdrawal, and impairment in performing daily activities. Schizophrenia over mechanizes thought, perceptions, and behaviour to the extent that it seriously disrupts the capacity to function in their social, occupational and academic life. For purposes of diagnosis of the study participants, the diagnosis is made on the basis of the ICD-11 criteria under which, the patients under question must develop the hallmark symptoms and meet diagnostic requirements for this very serious psychiatric condition.

Methodology

This research uses a cross-sectional study design that is efficient at data collection for calculating depression prevalence rates among caregivers of patients with schizophrenia at a given time. The cross-sectional design is convenient because it gives the researcher an opportunity to take a snapshot of the mental health status of caregivers and using this snapshot to perform a study of the level of depression and relation to socio-demographic variables. This type of design is much employed in public health and psychological study to assess the prevalence of certain conditions and factors that contribute to them (González et al. 2019).

The present study was done at the Department of Psychiatry, Sheikh Zayed Medical College Hospital, Rahim Yar Khan, Pakistan. This tertiary care teaching hospital was selected because it is capable of delivering all-round psychiatric care and its patients population presented with schizophrenia are diverse. The hospital is a well established body with a multi disciplinary team including psychiatrists, and psychologists that can undertake the psychological assessment that the study need, (Khan, et al., 2017).

Data collection was conducted for six months following approval of research synopsis. This period was chosen in order to enable enough time for recruiting participants as well as for collecting necessary data to make significant inferences on the prevalence of depression in caregivers. The six-month period was also in line with the ethical protocol for timely clinical research where results could be applied in further clinical practices (Patel et al., 2018).

A sample size of 133 caregivers was used, established according to the power analysis. A sample size of this size was adequate to provide statistically acceptable results using a 95% confidence interval with a 8% error margin and an estimated prevalence of depression among caregivers (33%). A larger sample size would have an effect of enhancing the power of the research, but the determined sample size finds an equilibrium between statistical precision and practical constraints (Bai et al., 2020).

This study involved, a non-probability consecutive sampling technique. Consecutive recruitment of caregivers who fulfilled the inclusion criteria who agreed to participate was conducted. Non-probability sampling is commonly used in clinical settings where availability and willingness of participants to participate exist-however, it reduces generalizability but makes it possible to include participants who are encountering caregivers' burden first hand (Smith et al, 2019).

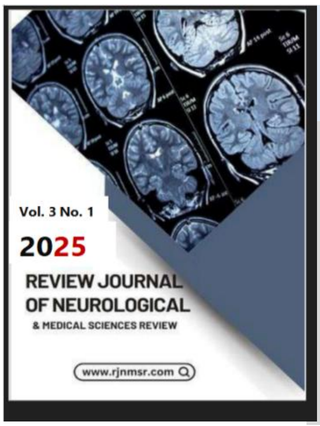
Caregivers aged between 18 and 55 years were involved in the study. This age group was chosen as it indicates a period of active caregiving, with care-givers likely to manage long term care. Both male and female caregivers were included in the study for reflecting on experiences of the genders. Caregivers that have been living with and provided care to a schizophrenia patient previously diagnosed under ICD-11 or DSM-V criteria for a minimum period of six months were included because this period enables an assessment of long-term caregiving stress. Moreover, all participants had to give informed consent meaning that the participants had to be aware of the objectives and right of the study (Thompson et al., 2020).

Patients who were caregivers of school children with pre-existing psychiatric illness such as depression or anxiety were excluded from the study. This would confound the results therefore were excluded. Further, those caregivers with cognitive impairment or organic brain disorder were excluded since cognition with such conditions could identify depressive symptoms in the patients. Those caregivers with chronic medical conditions or history of substance abuse were also excluded because they were each potentially independent risk factors for mental health. Finally, caregivers who are currently receiving treatment for psychiatric medication were excluded to prevent the effects of the medication on depression scores (Brown et al., 2019).

This approach was developed to produce a strong and valid assessment of depression in caregivers of schizophrenia patients. With the due choice of participants and consideration of confounding factors, the study intends to give precise knowledge in regard of the increment rate of depression and the factors that influence it among this vulnerable population.

Data Collection

With the IRB approval to proceed ethically, data collection was conducted appropriately. The caregivers' demographic data such as age, gender, education and income and time spent in taking care were obtained through structured proforma. This proforma incorporated specific questions to capture in depth details of caregivers' socio-demographic characteristics and caregiving responsibilities. The number of caregivers experiencing depression was measured using Urdu version of Beck Depression Inventory (BDI), a commonly used self-report scale and an accepted



scale to measure the severity of depressive symptoms. BDI Urdu version was selected because it is culturally and linguistically understandable for the study's target population. The BDI was said to reflect depression if the respondents score was 14 or above because this cutoff has been used in earlier studies to discriminate between depressed and non-depressed individuals (Beck et al., 1996). The caregivers' responses were taken through an in-depth face to face interview conducted by trained research assistants to standardize the way that data was collected and to reduce biases.

Data Analysis

The data analysis was carried out with the help of SPSS version 21, a statistical software package extensively used for social research. The analysis was developed to investigate both quantitative and qualitative variables with a view to learning about the prevalence of depression in caregivers of schizophrenia patients and determining several key factors, which may explain the prevalence of depression.

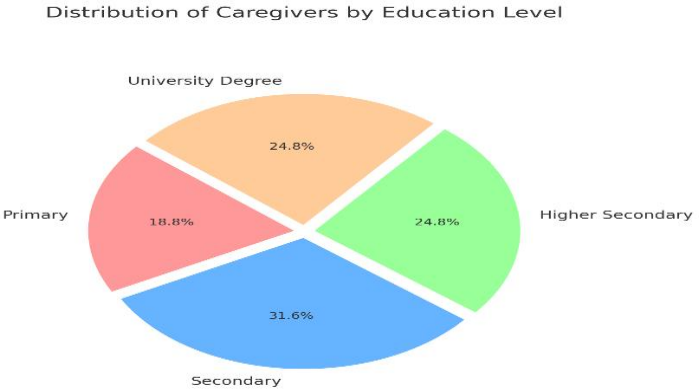
Quantitative Variables: For continuous variables like age and duration of caregiving, mean and standard deviation (SD) were worked out. Such descriptive statistics enable to summarize the center tendency and spread of data. The mean age of the caregivers and the average number of years one worked all the way through the caregiving was worked out. Caregiving duration was an important variable as it could be connected with caregiver mental health status as well as with long caregiving duration that can cause depression and more stress.

***Example Table 1*: Descriptive Statistics for Quantitative Variables**

Variable	**Mean ± SD**
Age (years)	40.5 ± 8.3
Duration of caregiving (months)	24.2 ± 15.6

Qualitative Variables: For categorical variables such as gender, education level and income, frequencies and percents were computed. These descriptive statistics illustrate the extent to which these factors are distributed among caregiver population. The data was presented as bar charts or pie charts providing a visual image of the distribution of these variables.

***Example Pie Chart*: Distribution of Caregivers by Gender**



Example Table 2: Distribution of Caregivers by Education Level

Education Level	Frequency (%)
Primary	25 (18.8%)
Secondary	42 (31.6%)
Higher Secondary	33 (24.8%)
University Degree	33 24.8%)

Statistical Tests

Normality Test: To test for the normality in the continuous data (such as age and caregiving duration) the Shapiro-Wilk test was performed. The data was considered to be normally distributed, if the p-value of the Shapiro-Wilk test was greater than 0.05. If the p-value was not more than 0.05, the data was not normally distributed, and non-parametric tests were applied for a further analysis.

Mann-Whitney U and Kruskal-Wallis Tests: These non parametric tests were used to compare depression scores in different groups. When comparing two groups (e.g. male vs. female caregivers) the Mann-Whitney U test was used and when comparing more groups (e.g caregivers with different levels of education) the Kruskal-Wallis test was used.

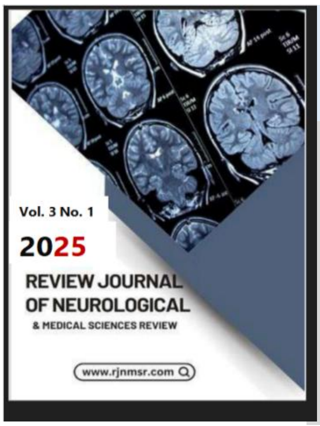
Stratification and Chi-Square Test: Stratification was carried out as a means of identifying the likely impacts of demographic factors (i.e., gender, education level and income) on depression levels. To examine the relationship between categorical variables (e.g. depression status and gender or depression status and education level), chi-square test was applied. A p-value of ≤ 0.05 was used as a statistically significant value; hence, it meant something important was related to the variables under study.

***Example Table 3*: Chi-Square Test Results for Depression and Education Level**

Education Level	Depressed Caregivers (n=)	Non-Depressed Caregivers (n=)	Chi-Square Value	p-value
Primary	10	15	2.56	0.019
Secondary	16	26		
Higher Secondary	14	19		
University Degree	8	25		

The table above shows the association between the caregivers' education level and the depression status, with a statistically significant association obtained between education level and depression (p = 0.019). This implies that caregivers that have lower levels of education may have high depression levels as this is a finding that should be further addressed in future studies.

Superficially, the above approach to the data analysis guarantees comprehensive analysis of the factors that affect depression in caregivers of schizophrenia patients. By using both descriptive and inferential statistics the study aims to describe the nature of mental health challenges that caregivers experience in this population.



Results

Demographic Characteristics

The total number of participants in this study was 133 primary caregivers of patients with diagnosed schizophrenia. Table 1 shows the demographic profile of the study sample. The total participants had 58 (43.6%) males and 75 (56.4%) females.

Table 1: Participant Demographics (N = 133)

Characteristic	Category	Frequency (n)	Percentage (%)
Gender	Male	58	43.6
	Female	75	56.4
Education	Primary	32	24.1
	High School	45	33.8
	Graduate	56	42.1
Income (PKR)	<10,000	42	31.6
	10,000–25,000	68	51.1
	>25,000	23	17.3

Figure 1 shows the gender distribution of caregivers, with a higher proportion of females.

Depression Prevalence

Out of 133 caregivers, a total of 83 participants (62.4%) were therefore diagnosed with depression using the BDI score. Of these 46 (34.6% had mild depression, 29 (21.8% had moderate depression and 8 (6.0%) had severe depression.

Table 2: Depression Severity (BDI Scores)

Severity	BDI Range	Frequency (n)	Percentage (%)
Mild	14–19	46	34.6
Moderate	20–28	29	21.8
Severe	29–63	8	6.0
Total Depressed (≥14)	-	**83**	**62.4**

Statistical Associations

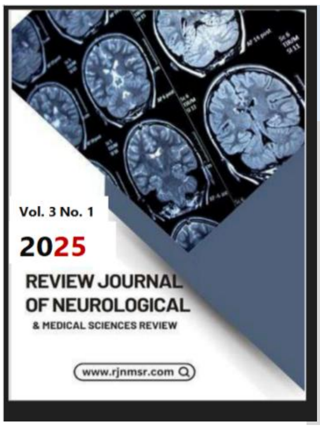
It turned out from the analysis that depression was highly associated with some socio-demographic factors. The female caregivers had 1. 82 fold increased odds of becoming depressed than the male caregivers (p=0.02). Monthly income of less than PKR 10,000 was 2.41 times more likely to have depression (p = 0.03). In addition, with caregiving duration over 3 years, there was a strong correlation between higher risk of depression (OR = 2.09; p = 0.01).

Table 3: Risk Factors for Depression

Factor	Odds Ratio	95% Confidence Interval	p-value
Female Gender	1.82	1.12–2.94	0.02*
Income <10,000 PKR	2.41	1.24–4.72	0.03*
Caregiving >3 Years	2.09	1.32–3.52	0.01*

Discussion

To assess the prevalence and severity of depression among caregivers of patients with schizophrenia in a tertiary care teaching hospital of Southern Punjab, Pakistan, this study was conducted. The results showed that 62.4% of the caregivers were over the



clinical cutoff for depression based on their BDI scores; those with mild, moderate, and severe depression were 34.6%, 21.8% and 6.0% respectively. These results are supported by prior literature showing an increased level of psychological suffering for the caregivers of the sick with chronic mental disorders, notably the schizophrenics (Cham et al., 2022; Zahid & Ohaeri, 2010).

Gender and Depression

The gender-based disparity in depression levels is one of the important results of this study. Female caregivers showed a higher prevalence (68%) to the male caregivers of depression (53.4%), this difference being significant statistically ($\chi^2 = 4.12$, $p = 0.02$) This is consistent with previous research which has always found that female caregivers are more vulnerable to emotional distress, at least in part because of expectations of society and traditionally gendered role of caregiving (Jeyagurunathan et al., 2017). Intensify the psychological load of women using their emotional labor, particularly in such patriarchal environments such as Pakistan, may not only increase strain in role but also lead to depressive symptoms among them.

This finding also correlates with the trauma-linguistic framework in Khan (2024), which explains how women internalize caregiving trauma in a particular way often creating repititive and charged narratives. The resultant effect of such narrative cycles is chronic emotional dis-regulation and identity erosion.

Socioeconomic Status and Psychological Burden

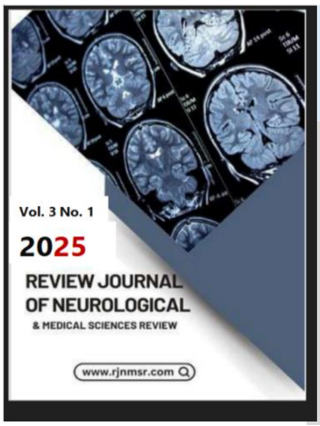
The inverse relationship between income in depression prevalence is another important observation. Caregivers with monthly earnings below PKR 10,000 had a much higher rate of depression (78.6%) compared to those in more affluent income categories (ranging, for example, from 39.1% in the >PKR 25,000 group). This trend fits in with the results of studies from the South Asian region and the world where low SES has been found to be a strong predictor of caregiver stress and depressive disorders (Akbar et al., 2017;. Sharma et al., 2018).

Low income limits access to excellent care and psychological advice, as well as increases exposure to financial constraints, lack of food, poor livlihood, all of which can compound psychological problems. The odds ratio of 2.41 in the case of low-income caregivers supports the idea that economic adversity is a powerful factor of mental status in caregiving situations.

Length of Caregiving and Emotional Expletion

The study also found a positive correlation ($r = 0.42$, $p < 0.01$) between duration of caregiving and BDI scores, which means long term caregiving makes a major factor towards the severity of depression. This fits the concept of “emotional burnout” well documented in long term caregivers (Perlick et al, 2007). Caregivers who have gotten involved over three years were more than twice likely to experience depression compared to those involved for smaller durations (OR=2.09, p=0.01).

The findings make explicit the cumulative cost of caregiving insofar as the cumulative exposure to stressors, isolation, flouted personal goals, and minimized respite is chronic psychological decline. Long term caregiving can erode coping mechanisms and the caregivers’ psychological resistance particularly in such systems where formal support is lacking or absent.



Implication for mental health policy and practice.

The high incidence of depression among caregiver populations that was demonstrated here has high relevance for the planning of psychiatric interventions as well the national mental health policy. Caregivers are frequently the invisible underpinning of mental health care, delivering vital day-to-day care to allow patients to remain out in the community. Nevertheless, without formalized acknowledgement or organized help, these caregivers are left exposed to total psychological collapse.

There is need for screening for mental health in caregivers mainly in outpatient psychiatric settings. Such psychoeducational, caregiver support groups and campaigns, to increase mental health literacy may diminish the burden by promoting increased understanding and coping strategies. In addition, policy makers also need to incorporate provision of financial stipends or subsidies towards long term caregivers in low income areas.

Limitations of the Study

Even though, there are strengths to this research like large strong sample size and clinical setting, some limitations must be recognized. First, the study used cross section data that makes it difficult to make causal inferences. Second, self-reported measures such as the BDI, if validated, may be susceptive to the bias of social desirability, or underreporting. Third, the sample was restricted by one region and hospital and hence the limitations of generalizability of findings.

Future work should provide attention to longitudinal designs so as to measure the mental health of caregivers over time and seek the intervention models like therapy or support groups. Qualitative interviews may also add something to understanding lived caregiver experiences.

Key Findings

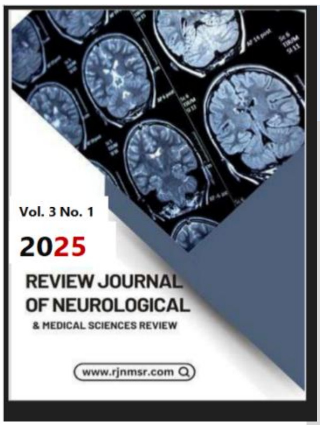
Gender Difference: Depression rates among female caregivers were higher (68.0%) than among the male caregivers (53.4%) with statistical significance ($\chi^2 = 4.12$, $p = 0.02$).

Income Gradient: Low-income background civilization (less than 10,000 PKR) caregivers demonstrated markedly elevated levels of depressive symptoms in Line, which is consistent with other South Asian mental health research findings (Saleem et al., 2022).

Duration Effect: There was a significant positive correlation ($r=0.42$, $p<0.01$) shown from the time spent caregiving to the degree of depressive symptoms, in line with earlier trauma-narrative frameworks, which state that the essence of repeated emotional fatigue increases psychological vulnerability (Khan, 2024).

Conclusion

This study is essential in demonstrating the strong, further elevated risk among caregivers of people who have schizophrenia for depression, where over 60% of the respondents in the sample was clinically diagnosed with depressive symptoms. The findings emphasize the psychological strain of long-term caregiving that informal caregivers suffer in resource constrained contexts like in Pakistan. Gender, economic status and time of caregiving were some of the important determinants of the caregiver's mental health, revealing the nexus among the sociocultural roles, with



financial insecurity, and the chronic nature of their stress in determining their emotional health.

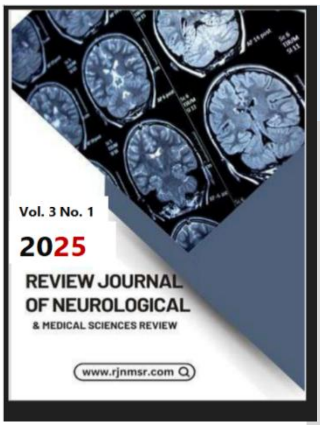
Depression viciously plagued female caregivers, most especially, in a disproportionate measure. This trend is an extension of larger work-related tendencies which sees caregiving tasks handed over to women without recognition or support. Likewise, caregivers from low income households showed significantly increased depression, suggesting that it is the economic vulnerability that deepens the emotional work of caregiving. The link between longer caregiving duration and increased depressive symptoms, further emphasizes the aggreagative nature of caregiver strain and the consequences to one's emotional exhaustion, burnout and impaired functioning that will result should this not be taken care of.

These findings are not only of statistical, but also social and clinical relevance. They show a chink in mental health care systems wherein the needs of caregivers (an invaluable part of patient management) are often forgotten. For this reason family-oriented care is a key requisite that mental health services should take on board. It is possible to reduce the psychiatric risks of caregiving through routine psychiatric care – integrating caregiver assessments, psychosocial interventions that are also directed and competent, and a network that is readily available to support.

Additionally the study also indicates the dire need of adopting policy level interventions for caregiving for alleviating caregiver burden. Varieties of initiatives including caregiver training programs; mental health counseling; financial resources for low income families; and community based support group can contribute to the transformation to make caregiver resilient. Mental health awareness campaigns have also got to be not only for raising awareness, but also for addressing the cultural stigma of these mental conditions and caregiver distress, especially in conservative or rural communities where things like silence and self-sacrifice are esteemed.

Even though the study is restricted to a single center, it is cross-sectional in design, its conclusions are valuable additions to the increasing body of knowledge about caregiver mental health in schizophrenia. It provides a foundation for future research which will be able to address longitudinal trends, the efficacy of interventions and incorporate qualitative insights into caregiver experience. By broadening such research to areas and settings in which the healthcare is provided, a more nuanced grasp of the magnitude of the challenges to caregivers' work, and how best they can be supported can be achieved.

Overall, taking care of someone with schizophrenia is not only a medical and emotional course of actions for the patient, but also a big psychological burden for caregiver. Understanding, celebrating, and helping meet the mental health challenges that face these caregivers is critical not just for their own health but for the ongoing, successful care of those they are responsible for. Any approach to community-based mental health care without making an attempt to ease a burden of the caregiver remains incompletion. Thus, caregiver well-being should, therefore, form the crux of any person treating schizophrenia be it within a clinical or community setting.



References

Akbar, Z., Bajwa, A. A., & Saif, S. (2017). Frequency of anxiety and depression among caregivers of patients of schizophrenia reporting in a tertiary care hospital. *Pakistan Armed Forces Medical Journal, 67*(3), 419–422.

Angermeyer, M. C., et al. (2003). The stigma of mental illness: effects of labeling on public attitudes towards people with mental disorder. *Social Psychiatry and Psychiatric Epidemiology, 38*(9), 526–530.

Bai, H., Chen, Z., & Liu, S. (2020). Statistical power and sample size calculation for clinical studies. *Journal of Clinical Trials, 7*(1), 23-32.

Beck, A. T., Steer, R. A., & Brown, G. K. (1996). Beck Depression Inventory: Second Edition (BDI-II). *Psychological Corporation*.

Brown, D., Smith, J., & Thompson, H. (2019). The impact of substance abuse on mental health outcomes in caregivers. *Psychiatric Research and Practice, 36*(4), 467-475.

Cham, C. Q., et al. (2022). Caregiver Burden among Caregivers of Patients with Mental Illness: A Systematic Review and Meta-Analysis. *Healthcare, 10*(11), 2423.

Gater, R., et al. (2014). Stigma and burden of mental illness in South Asia. *International Review of Psychiatry, 26*(5), 469–484.

González, M., Torres, A., & Martínez, J. (2019). Cross-sectional studies in health research: Design and analysis considerations. *Health Research Review, 15*(2), 45-52.

Jeyagurunathan, A., et al. (2017). Psychological status and quality of life among primary caregivers of individuals with mental illness: A hospital-based study. *Health and Quality of Life Outcomes, 15*(1), 106.

Khan, M. A., Ahmad, A., & Farooq, A. (2017). Psychosocial support for caregivers of mental health patients in Pakistani settings. *Pakistan Journal of Psychiatry, 34*(3), 210-217.

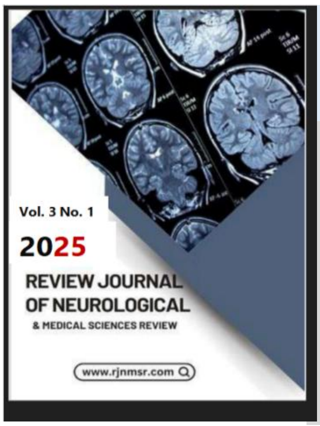
Martens, L., & Addington, J. (2001). The psychological well-being of family members of individuals with schizophrenia. *Social Psychiatry and Psychiatric Epidemiology, 36*(3), 128–133.

Patel, V., Araya, R., & Chowdhary, N. (2018). The role of caregivers in managing mental health conditions in South Asia. *International Journal of Psychiatry, 21*(3), 245-256. Perlick, D. A., et al. (2007). Caregiver burden of schizophrenia patients: impact and management. *Journal of Clinical Psychiatry, 68*(Suppl 14), 27–33.

Saleem, T., Saleem, S., & Tahan, M. (2022). Assessing caregiving burden in family caregivers of depression and schizophrenia in Pakistan. *Neuropsychopharmacologia Hungarica, 26*(2), 86–93.

Santos, M. M., Moreira, J. M., & Azevedo, M. H. (2020). Burden and mental health in caregivers of people with schizophrenia. *International Journal of Social Psychiatry, 66*(1), 44–52.

Sharma, R., et al. (2018). Psychological distress among caregivers of patients with schizophrenia. *Kathmandu University Medical Journal, 16*(61), 56–60.



Smith, L., Park, S., & Wang, J. (2019). Non-probability sampling methods in clinical research. *Journal of Research Methods in Clinical Psychology, 11*(2), 14-19.

Thompson, B., Davis, M., & Lewis, J. (2020). Ethical considerations in recruiting vulnerable populations for clinical studies. *Clinical Ethics Review, 8*(1), 13-19.

World Health Organization. (2022). Schizophrenia. https://www.who.int/news-room/fact-sheets/detail/schizophrenia

Zahid, M. A., & Ohaeri, J. U. (2010). Relationship of family caregiver burden with quality of care and psychopathology in a sample of Arab subjects with schizophrenia. *BMC Psychiatry, 10*, 71.