

ORIGINAL ARTICLE

EFFECT OF AGE, GENDER AND FAMILY TYPE ON CARE GIVING —A CROSS-SECTIONAL STUDY ON CAREGIVERS OF SCHIZOPHRENIC PATIENTS

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Background: Care giving is a fundamental issue in the rehabilitation process of mental illnesses. Most of the patients suffering from schizophrenia are dependent on their families to take care of them and help them out in their daily activities. Present study was planned to find out the effect of age, gender and family type on care giving burden in caregivers of schizophrenic patients. **Methods:** This cross-sectional comparative study was carried out at International Islamic University Islamabad from Jan to Sep 2017. Fifty informal caregivers of schizophrenic patients were included from psychiatry wards of Lady Reading Hospital, and Khyber Teaching Hospital, Peshawar through convenience sampling. Caregivers with any past history of psychiatrist illness were excluded from the study. Care giving burden was measured using 'Zarit Burden Interview' questionnaire. Alpha value was kept at 0.05. **Results:** There were 20 (40%) males and 30 (60%) females in the study. The mean age of participants was 31.76±9.13 years with a range of 19–55 years. Twenty-seven (65%) participants were from nuclear family whereas 23 (46%) were from extended family. Mean score of care giving burden was 42.98±13.80 with range of 11–64. Care giving burden was found to be affected by age ($p=0.001$) but not by gender and family type ($p=0.10$ and 0.72 respectively). **Conclusion:** Age was the strongest predictor of care giving burden. There was no effect of gender and family type on care giving burden.

Keywords: Caregivers, Schizophrenia, Care giving burden, Care taking, ZBI

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INTRODUCTION

Schizophrenia is one of the most common form of psychotic disorder. According to the World Health Organization approximately 24 million people ranging 15–20 years of age, experience schizophrenia, and overall, 450 million people worldwide are fighting with mental illness.¹ Most of such individuals are dependent on their families to take care of them and help them out in their daily activities of life. These people are called care recipients; whereas the family members who are involved in providing care and assistance are called informal care givers.

Research on family care givers of mentally ill relatives has been historically emphasized on negative aspects of care giving, commonly known as care giving burden. For the curing of mental disorders like schizophrenia or bipolar disorders a long-time treatment and care is needed. This long-term care puts the caregivers under tremendous psychological pressure. Instead of having a normal, happy and healthy family life, the environment of the house and family becomes stressful emotionally as well as physically for adults and children living in the house.^{2,3} The burden assumed in care giving by the family members can be categorized into subjective and objective burden.⁴ Objective burden may be categorized as disruption of the care giver's daily routine activities as well as social, financial and employment difficulties, whereas, subjective burden is defined as emotional strain experienced by the care givers. Burden of care giving is a triadic concept. It

reflects on the care givers interpersonal relationships, their expression of anxiety and personal impact of role of care giving.⁵ According to the Australian Bureau of Statistics, wellbeing of 30% of caregivers was impacted due to care giving burden and they also report worry and depression more often in their lives.⁶

In a study carried out in a tertiary care hospital to assess care giving burden of schizophrenia patients, Kumar showed that primary caregivers were both parents and spouses. Perceived burden was higher in the parent group and in female caregivers.⁷ Both the patient and the person who has a long-term responsibility of care-giving are involved in the energetic and dynamic procedure of care giving. It has been shown that burden of caregiver was affected when the patient and caregiver shared a same habitat or environment without any professional help.⁸ It was also observed that fulltime living with patient added to the burden.

The impact of care giving on caregivers' mental health is different for individual caregivers. Some caregivers experience a substantial negative impact while others are less affected by the caring role. This variation in the impact experienced is not simply related to the extent of care giving provided but the care giver's unique and personal factors.⁹ Personal attributes of the caregivers like age and gender have deep impact on the care giving burden.¹⁰ Majority of the studies failed to examine these contextual variables, such as life circumstances and demographic characteristics —that may strongly impact caregiver's mental health status.

These demographic characteristics may include the socioeconomic status, ethnicity, age, gender, and family type and composition of the caregiver.¹¹ The present study was planned to find out the effect of age, gender and family type on care giving burden in caregivers of schizophrenic patients.

METHODOLOGY

This cross-sectional comparative study was carried out at International Islamic University Islamabad from Jan to Sep 2017 after getting formal approval from Ethical Review Committee of the University. Sample size was calculated using the software G Power. Considering the values of effect size as 0.2, alpha as 0.05, power as 0.8 and number of predictor variables as 3, a sample size of 42 was calculated. We used a sample size of 50 in the current study. Non-probability convenience sampling technique was used to recruit the participants after taking written informed consent. Fifty informal caregivers of schizophrenic patients were included from psychiatry wards of Lady Reading Hospital, and Khyber Teaching Hospital, Peshawar. Care givers with any past history of psychiatrist illness were excluded from the study. The participants were approached and explained about the purpose and utilization of the research data. Nuclear family type was coded as 1 whereas extended family as 2. Coding for males and females was 1 and 2 respectively.

Care giving burden was measured using a validated and reliable (Cronbach's alpha 0.89) instrument 'Zarit Burden Interview (ZBI)¹¹'. It is a 22-item questionnaire with responses on 5-point Likert Scale from 0 to 4. The total score that ranges from 0 to 88 is categorized into 4 categories. No burden up to ZBI score 21, mild to moderate from 22 to 40, moderate to severe from 41 to 60, and severe with score over 60.

Data were entered into SPSS-25 for analysis. Frequency and percentages were calculated for categorical variables whereas mean and frequency for numerical variables. To find out effect of age, gender and family type multiple regression analysis was used. Mean age was compared between different categories of care giving burden using One-Way ANOVA and post-hoc analysis. Alpha value was kept at 0.05.

RESULTS

There were 20 (40%) males and 30 (60%) females in the study. The mean age of participants was 31.76±9.13 years with a range of 19–55 years. Twenty-seven (65%) participants were from nuclear family whereas 23 (46%) were from extended family.

Mean score of care giving burden was 42.98±13.80 with range of 11–64. Frequency and percentage of participants in different categories of care giving burden is shown in Table-1.

Table-2 shows results of multiple regression analysis for effects of age, gender and family type on care giving burden. The regression model was statistically significant $F(3, 46)=5.51$, $p=0.003$, and with an adjusted R square value of 0.22.

Tables-3 shows pair-wise comparison along with statistical significance, whereas Table-4 shows results of One-Way ANOVA and Post-hoc pair-wise analysis.

Table-1: Frequency distribution of participants in different categories of care giving burden

Care giving category	Frequency	Percentage
No burden	5	10
Mild to moderate	14	28
Moderate to severe	29	58
Severe	2	4

Table-2: Effect of age, gender and family type on care giving burden

Independent variables	Un-standardized coefficient (B)	95% CI	p
Age	0.79	0.39–1.20	<0.001*
Gender	6.12	-1.33–13.58	0.10
Family type	1.52	-5.79–8.30	0.72

*Significant

Table-3: Comparison of mean age across different care giving categories

Care giving category	Mean	p	Eta squared
No burden	28.80±6.57	0.002*	0.28
Mild to moderate	26.36±5.42		
Moderate to severe	33.72±9.20		
Severe	48.50±6.36		

*Significant

Table-4: Post-hoc pair wise comparison of age between different care giving categories

Pair-wise comparison		p
No burden	Mild to moderate	0.93
	Moderate to severe	0.58
	Severe	0.02*
Mild to moderate	Moderate to severe	0.03*
	Severe	0.004*
Moderate to severe	Severe	0.07

*Significant

DISCUSSION

The present study revealed that age was a strong predictor of care giving burden having a highly positive correlation. Gender and family type were not associated with the burden of care giving. Majority of the middle aged and older caregivers reported severe levels of care giving burden. With increasing age and physical demands of care giving, biological vulnerability and physiological functioning may increase the probability of perceived burden among older caregivers. Younger caregivers have fewer responsibilities due to their age and positions in their families. At the same time their physical endurance is far more than the older caregivers due to which their patience and tolerance is higher, therefore they are less prone to the stresses and

pressures during the care giving process. On the other hand, older caregivers have more social responsibilities. Such responsibilities along with care giving diversify their focus resultantly increasing their mental load. There is substantial evidence that older caregivers and people of low socioeconomic status with limited support report poorer psychological health than those who are younger and have more economic resources.¹² A study conducted on white Americans revealed a positive association of age with care giving burden.¹³ In another similar study prevalence of care giving burden was mostly higher among older people as they have to cope with their own declining health; therefore, they are at greater risk for burden.¹⁴

Although it has been noticed that majority of caregivers are themselves aged, numerous studies provide evidence regarding the percentage of people involved in care giving. A study revealed that majority of caregivers were above 51 years of age. It was observed that 14% caregivers were below 55 years, 53% were 55–64 years of age and 33% were older than 65 years.⁹ This too indicate that the responsibility of care giving lie generally with older members of the family.

Few studies in the literature have been designed that have permitted the researchers to find out gender and family type differences in care giving outcomes. The present study examined gender differences along with family type on care giving burden. However, the study revealed no significant family type and gender differences in care giving burden among the sample. The possible reason for the non-significant gender difference in care giving burden may be attributed to task similarities performed in such circumstances. These task similarities are more striking than the differences. As care giving itself is an exhaustive experience and no matter they were male or female, they were the primary caregivers who were similar with respect to the provision of care giving related tasks. In the present sample burden seems to be assumed equally by men and women. Nonetheless, these findings are supported by previous studies in which both male and female primary caregivers reported higher levels of care giving burden.¹⁵

Family type also did not significantly contribute in care giving in the present sample as the schizophrenic patients are generally being cared by their spouses. Therefore, burden assumed was equal and irrespective of whether living in a nuclear family or a joint family.

CONCLUSION

Age is the strongest predictor of care giving burden whereas gender and family type are not correlated with it. Aged caregivers who are generally the spouses are at high risk of developing psychological illnesses. Additional responsibilities of children, job, home etc. add to the burden of care giving. Provisions should be made for institutionalized care for such cases so as to remove the care giving burden from the caregivers.

REFERENCES

1. Mental health [Internet]. World Health Organization; 2018. URL: http://www.who.int/mental_health/management/en/
2. Chakraborty S, Kulhara P, Verma SK. Extent and determinants of burden among families of patients with affective disorders. *Acta Psychiatr Scand* 1992;86:247–52.
3. Jacob M, Frank E, Kupfer DJ, Carpenter, LL. Recurrent depression: An assessment of family burden and family attitudes. *J Clin Psychiat* 1987;48:395–400.
4. Agrawal GJ. Burden among caregivers of mentally-ill patients: A rural community-based study. *Int J Res Dev Health* 2013;1(2):29–34.
5. Browing JS, Schwirian PM. Spousal care giver burden: Impact of care recipient health problems and mental status. *J Gerontol Nurs* 1994;20(3):17–22.
6. Disability, Ageing and Carers, Australia: Summary of Findings, 2015 [Internet]. Australian Bureau of Statistics. URL: <http://www.abs.gov.au/ausstats/abs@nsf/mf/4430.0>.
7. Manish Kumar M. Family burden, coping and psychological wellbeing among caregivers of schizophrenia. [Internet] 2012. URL: <http://119.82.96.198:8080/jspui/bitstrm/123456789/1832/1/CDMPSYM00002.pdf>.
8. Kaur N. Caregiving, Burden and Social support among caregivers of Schizophrenic patients. *Delhi Psychiat J*. 2014;17(2):337-42
9. Bloch S. Family Caregivers: Disability, Illness and Ageing. Schofield H, Bloch S, (Eds). Allen & Unwin; 1998.
10. White CL, Lauson S, Yaffe MJ, Wood-Dauphinee S. Toward a model of quality of life for family caregivers of stroke survivors. *Qual Life Res* 2004;13:625–38.
11. Sales E. Family burden and quality of life. *Qual Life Res* 2003;12:33–41.
12. Pinquart M. Correlates of subjective health in older adults: a meta-analysis. *Psychol Aging* 2001;16:414–26.
13. Lawton MP, Rajagopal D, Brody E, Kleban MH. The dynamics of care giving for a demented elder among black and white families. *Gerontologist* 1992;47:156–64.
14. Lambert SD, Girgis A, Levesque J. The impact of cancer and chronic conditions on caregivers and family members. In: Koczwara B, (Ed). *Cancer and Chronic Conditions: Addressing the Problem of Multimorbidity in Cancer Patients and Survivors*. Singapore: Springer Science+Business Media; 2016.
15. Lai DW. Effect of Financial Costs on Caregiving Burden of Family Caregivers of Older Adults. *SAGE Open* [Internet] 2012. URL: <http://journals.sagepub.com/doi/pdf/10.1177/2158244012470467>

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