

# Psychiatric vulnerability, family burden and quality of life in caregivers of patients with schizophrenia

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## Abstract

**Title:** Psychiatric vulnerability, family burden and quality of life in caregivers of patients with schizophrenia.

**Background:** Due to focus on community based care, there is increased responsibility on caregivers. This shift from hospital to community care places increased demands on family caregivers. Families are now providing long-term care for chronically mentally ill people with a variety of conditions. As a result of which families experiences burden.

**Objective of the study:** To assess the family burden and examine its relationship with general mental health and quality of life in caregivers of patients with schizophrenia.

**Methodology:** Thirty caregivers of patients with Schizophrenia who allotted and 30 non-caregivers OPD of RINPAS, during study period were purposively chosen a sample of study. Both groups were compared on General Health Questionnaire (28 item), WHO- Quality of Life Scale and Family Burden Interview Schedule.

**Results:** Presence of patient of schizophrenia in the family was found to cause moderate to severe levels of family burden among the caregivers. The general mental health and quality of life was poor in schizophrenia caregivers as compared to the non-caregivers. Degree of disruption in family interactions due to patient's symptomatic behaviours was found to be related to poor social quality of life of schizophrenia caregivers.

Keywords: Schizophrenia, family burden,

## INTRODUCTION

In the care-giving literature, one of the most frequently used terms to describe the impact of mental illness on families is "family burden", which is further divided as objective burden and subjective burden. Literature suggests, the objective burden is including the day-to-day logistics of physical care, daily hassles, financial stressors, employment and stressors on social relationship. The impact of subject burden is less tangible rather personal and internal feelings (i.e. shame, guilt and anxiety) associated with caring for a patient with chronic illness (Miller et al.,1990). The few studies that have been conducted with Indian family caregivers have found that these caregivers experience burden and psychological distress at levels similar to those of European-American family caregivers (Singh et al., 2016).

## METHODOLOGY

- **Aim**

To assess the family burden and examine its relationship with general mental health and quality of life in caregivers of patients with schizophrenia.

### Hypotheses

1. There will be no significant difference in quality of life between caregivers of schizophrenia patients and normal participants.
2. There will be no significant difference in general mental health between caregivers of schizophrenia patients and normal participants.
3. There will be no significant relationship between family burden and quality of life of caregivers of schizophrenia patients.
4. There will be no significant relationship between general mental health and quality of life of caregivers of schizophrenia patients.

- **Study Design**

The samples were selected using purposive sampling method.

- **Venue of the Study**

Caregivers of patients with Schizophrenia who attended out-patient department of RINPAS during study period who met the inclusion and exclusion criteria and expressed willingness for study were chosen as participants of experimental group. Non-caregivers who met inclusion and exclusion criteria and who matched with the experimental group in socio-demographic variables were selected as participants of control group.

- **Sample Size**

The sample size consisted of a total of 60 participants, of which 30 were caregivers of patients with Schizophrenia (experimental group) and the remaining 30 were normal subjects (control group).

**Experimental group** (Caregivers of patients with Schizophrenia)

### ❑ TOOLS

- Socio-demographic and clinical data sheet
- General Health Questionnaire – 28 item version Goldberg in 1978
- WHO- Quality of Life Scale - Saxena et al., (1999).
- Family Burden Interview Schedule - Rai and Kapur in 1981

## Procedure

A total of 30 such caregivers were selected as participants of experimental group. An equal number of non-caregivers who matched with the socio-demographic variables of participants of experimental group and who met inclusion and exclusion criteria were selected as participants of the control group from various localities of Ranchi district. socio-demographic details and clinical details was collected by using socio-demographic and clinical data sheet. After that all the questioner was give. The questionnaires were then scored, the obtained data was tabulated, was subjected to relevant statistical analysis and inferences were drawn out.

## Statistical Analysis

- The data was entered into the profile scoring sheet initially and thereafter was entered into statistic software (SPSS version 21).
- Descriptive, parametric and nonparametric tests were employed wherever appropriate. Scores obtained by participants of experimental and control groups on various scales used in the study viz. Family burden interview schedule (FBIS), Quality of life scale (QOL) and General health questionnaire (GHQ) were described using mean and standard deviation.
- The scores obtained by participants of experimental group and control group on various scales used in the study were then compared using student 't' tests to find out if there is any significant difference between the groups with regarding to the variables of the study.

## RESULTS & DISCUSSION

**Table-1: Socio-demographic characteristics study sample**

Socio-demographic variables		Experimental group (N=30)		Control group (N = 30)		$\chi^2$
		No.	%	No.	%	
Age	20 to 40 Years	14	47%	16	53%	.267
	41 to 60 years	16	53%	14	47%	
Sex	Male	21	70%	18	60%	.659
	Female	9	30%	12	40%	
Education	Upto Std. IX	16	53%	16	53%	.164
	Matriculation	10	33%	9	30%	
	Intermediate & above	4	13%	5	16%	
Residence	Rural	25	83%	24	80%	.354

	<b>Semi-urban</b>	<b>1</b>	<b>3%</b>	<b>2</b>	<b>7%</b>	
	<b>Urban</b>	<b>4</b>	<b>13%</b>	<b>4</b>	<b>13%</b>	
<b>Occupation</b>	<b>Housewife</b>	<b>7</b>	<b>24%</b>	<b>6</b>	<b>20%</b>	<b>1.154</b>
	<b>Service</b>	<b>8</b>	<b>27%</b>	<b>8</b>	<b>27%</b>	
	<b>Business</b>	<b>7</b>	<b>23%</b>	<b>6</b>	<b>20%</b>	
	<b>Student</b>	<b>1</b>	<b>3%</b>	<b>3</b>	<b>10%</b>	
	<b>Farmer</b>	<b>7</b>	<b>24%</b>	<b>7</b>	<b>24%</b>	

The table -1 shows the socio - demographic characteristics of study sample. The age range of subject was 20-60 years. In experimental group 47% participants were between 20 to 40 years but in control group 53% participants were between 20 to 40 years. 53% participants in experimental group were between 41 to 60 years and in control group caregivers were 47% were between 41 to 60 years. Majority of the participants of study were male, with 70% and 60% in experimental group and control group respectively. Majority of the participants in both groups (53% each) had education level below IX<sup>th</sup> standard. Majority of the participants hailed from rural area both from experimental group (83%) and control group (80%). Participants in the experimental and control groups were employed in different areas. Equal number of participants (n=8, 27%) in both groups were employed in the service sector. 24% of the participants in the experimental group were housewives whereas 20% in the control group. An equal number of participants (n=7, 24%) of both groups were farmers. From Table 1 it is evident that both groups did not differed significantly with regard to any of the socio-demographic variables.

**Table-2: Participants of experimental group according to duration of patient's illness**

<b>Duration of illness</b>	<b>No. of participants</b>	<b>Percentage</b>
Less than 1 year	6	20%
1 to 5 years	20	67%
Above 5years	4	13%

Table-2 classifies the caregivers according to duration of illness of their patients whom which they provide care. Majority of the participants (67%) had their wards suffering from the illness for a duration between 1 to 5 years. One fifth (20%) were caregivers of patients suffering from illness for less than one year. There were only four participants who had their patients suffering from illness for more than 5 years.

**Table-3: Mean and standard deviation (SD) of scores obtained by participants of Experimental group on various subscales of family burden interview schedule.**

Subscales of FBIS	Mean	SD
Family Burden	50.50	13.43
Family Activity	59.00	21.87
Family Leisure	62.73	19.08
Family Interaction	60.00	21.17
Physical Health	51.66	21.71
Mental Health Of Other	70.66	23.18

Table- 3 shows, Mean and standard deviation (SD) of scores obtained by participants of experimental group (caregivers) on various subscale of family burden scale. In family Burden Score mean is 50.50 and Std. Deviation is 13.43. Family Activity Score mean is 59.00 and there SD is 21.86. The Family Leisure Score mean is 62.73 and SD is 19.07. Family Interaction Score mean is 60 and SD is 21.17. The Physical Health Score mean is 51.66 and SD is 21.70862. In Mental health of other score mean is 70.66 and SD is 23.18.

**Table-4: Showing comparison between control and experimental group on QOL tests.**

QOL Domains	Experimental group (N- 30)		Control group (N-30)		t- value (df-58)
	Mean	SD	Mean	SD	
QOL Physical	16.50	2.71	26.10	4.978	-9.274***
QOL Psychological	13.07	2.76	24.10	2.695	-15.647***

<b>QOL Social</b>	5.97	1.25	10.67	.844	-17.112***
<b>QOL Environmental</b>	15.80	2.75	27.97	6.62	-9.298***

\*\*\*p<0.001 highly significant

The table-4 shows comparison of scores obtained by experimental and control group on various subscales of QOL. A significant difference in scores was observed between the groups in all subscales of QOL. Participants of experimental group (Mean=16.50, SD=2.713) scored lower on QOL Physical subscale than participants of control group (Mean=26.10, SD=4.978) ( $t=-9.274$ ,  $p<0.01$ ) which indicated that. Participants of experimental group (Mean=13.07, SD=2.76) scored lower on QOL Psychological. Sub-scale than participants of control group (Mean=24.10, SD=2.695) ( $t=-15.647$ ,  $p<0.01$ ). Participants of experimental group (Mean=5.97, SD=1.245) scored lower on QOL Social subscale than participants of control group (Mean=10.67, SD=.844) ( $t=-17.112$ ,  $p<0.01$ ). Participants of experimental group (Mean=15.80, SD=2.746) scored lower on QOL Environmental. Sub-scale than participants of control group (Mean=27.97, SD=6.62) ( $t=-9.298$ ,  $p<0.01$ ). The results suggest that the physical, psychological, social and environmental quality of life of caregivers of schizophrenia (experimental group) was poorer comparing to the normal subjects.

**Table-5: Comparison of scores obtained by participants of experimental and control group on GHQ-28**

<b>GHQ Domains</b>	<b>Experimental group (N- 30)</b>		<b>Control group (N-30)</b>		<b>t- value (df-58)</b>
	<b>Mean</b>	<b>SD</b>	<b>Mean</b>	<b>SD</b>	
<b>GHQ Somatic Symptoms</b>	3.57	1.381	.633	.808	10.035***
<b>GHQ Anxiety/Insomnia</b>	3.47	1.195	.767	.678	10.755***
<b>GHQ Social dysfunction</b>	4.27	1.837	.633	.808	9.915***

<b>GHQ Severe Depression</b>	3.53	1.332	.433	.626	11.535***
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\*\*\* p< 0.001 highly significant

The table-5 shows comparison of scores obtained by experimental and control group on various subscales of GHQ-28. A significant difference between the groups was observed on scores all subscales of GHQ. Participants of experimental group (Mean=3.57, SD=1.38) scored higher on GHQ Somatic Symptoms subscale than participants of control group (Mean=0.633, SD=0.81) (t=10.04, p<0.01). Participants of experimental group (Mean=3.47, SD=1.195) scored higher on GHQ Anxiety / Insomnia subscale than participants of control group (Mean=.77.63, SD=.68) (t=10.76, p<0.01).

Participants of experimental group (Mean=4.27, SD=1.84) scored higher on GHQ Social Dysfunction subscale than participants of control group (Mean=0.633, SD=.808) (t=9.915, p<0.01). Participants of experimental group (Mean=3.53, SD=1.332) scored higher on GHQ Severe Depression subscale than participants of control group (Mean=0.433, SD=0.626) (t=11.535, p<0.01). The results suggest that the caregivers of schizophrenia (experimental group) had more somatic symptoms, increased anxiety, higher level of social dysfunction and more depression comparing to that to the normal subjects (control group).

**Table 6: Results of correlation analysis between various subscales of FBIS and QOL scale as obtained by the experimental group**

FBIS Domains		QOL Domains			
		QOL Physical	QOL Psychological	QOL Social	QOL Environmental
<b>FBIS Financial Burden</b>	<b>Pearson Correlation</b>	-.290	-.380*	-.114	-.383*
	<b>Significance</b>	.120	.038	.547	.037
<b>FBIS Family Activity</b>	<b>Pearson Correlation</b>	-.323	-.284	-.115	-.371*
	<b>Significance</b>	.082	.128	.544	.044
<b>FBIS Family Leisure</b>	<b>Pearson Correlation</b>	.039	-.069	-.311	-.142
	<b>Significance</b>	.839	.717	.094	.454

<b>FBIS Family Interaction</b>	<b>Pearson Correlation</b>	-.036	-.359	-.445*	-.403*
	<b>Significance</b>	.850	.051	.014	.027
<b>FBIS Physical Health</b>	<b>Pearson Correlation</b>	.146	-.461*	-.381*	-.254
	<b>Significance</b>	.440	.010	.038	.175
<b>FBIS Mental Health Of Other</b>	<b>Pearson Correlation</b>	-.137	-.210	-.125	-.320
	<b>Significance</b>	.470	.264	.512	.085

\* p< 0.05 Significant

The table 6 shows results of correlation analysis between various subscales of FBIS and QOL scale as obtained by the experimental group. Significant negative correlation was found between Financial subscale of FBIS and QOL Psychological subscale ( $r = -0.380$ ,  $p < 0.05$ ) which indicated that financial burden is associated with poor quality of life of the caregivers. Significant negative correlation was found between Financial burden subscale of FBIS and QOL Environmental subscale ( $r = -0.38$ ,  $p < 0.05$ ). There was significant negative correlation between Family activity subscale of FBIS and QOL Environmental subscale ( $r = -0.37$ ,  $p < 0.05$ ). Significant negative correlation between family interaction subscale of FBIS and QOL social subscale ( $r = -0.44$ ,  $p < 0.05$ ) which indicated that disturbances in family interaction due to the illness of the patient is associated with poor social quality of life of the caregiver.

Significant negative correlation was found between Family interaction subscale of FBIS and QOL environment subscale ( $r = 0.403$ ,  $p < 0.05$ ). Significant negative correlation was found between physical health subscale of FBIS and QOL Psychological subscale ( $r = -0.461$ ,  $p < 0.05$ ) which indicated that increased physical health issues in family may have negatively impacted psychological quality of life of caregivers. Significant negative correlation was found between Mental health of other score and QOL social subscale ( $r = -0.381$ ,  $p < 0.01$ ) which indicated that the detrimental impact of schizophrenia illness on mental health of other members in the family have detrimental impact on social quality of life of the caregivers. No other significant correlations were observed between any other domains of FBIS and domains of QOL.



**Table-7: Results of correlation analysis between various subscales of GHQ and QOL scale as obtained by the experimental group**

QOL Domains		QOL Physical	QOL Psychological	QOL Social	QOL Environmental
GHQ Domains					
GHQ Somatic symptoms	Pearson Correlation	.179	-.028	-.069	-.005
	Significance	.343	.882	.718	.977
GHQ Anxiety /Insomnia	Pearson Correlation	-.287	-.364*	-.383*	-.275
	Significance	.124	.048	.037	.141
GHQ Social Dysfunction	Pearson Correlation	.083	-.282	-.177	-.139
	Significance	.663	.131	.350	.463
GHQ Severe Depression	Pearson Correlation	-.487**	-.375*	-.301	-.564**
	Significance	.006	.041	.106	.001

\* p< 0.05 significant,\*\* p< 0.01 highly significant

The table 7 shows result of correlation analysis between various subscales of GHQ and QOL scale as obtained by the experiment group. Significant negative correlation was found between GHQ Anxiety /Insomnia and QOL Psychological subscale ( $r = -0.364$ ,  $p < 0.05$ ) which indicated that anxiety is associated with poor psychological quality of life among the caregivers. Significant negative correlation found between GHQ Anxiety/Insomnia and social subscale QOL ( $r = -0.383$ ,  $p < 0.05$ ) indicated increased anxiety with poor social quality of life in caregivers.

## RESULT

- Presence of a family member having schizophrenia illness causes moderate to severe levels of family burden among the caregivers.
- The general mental health and quality of life was poor in schizophrenia caregivers comparing to the non-caregivers.

- Schizophrenia caregivers who experienced higher financial burden and more limitations in family activity due to illness of family member, tend to be more depressed and anxious.
- Higher levels of anxiety tend to be related to poor psychological and social quality of life of schizophrenia caregivers.

### CONCLUSION

From the results of the present study it can be concluded that caregivers of schizophrenia suffer from family burden of caregiving which impairs their general mental wellbeing and quality of life. It impairs the psychological, physical and social quality of life. Hence, mental health services should aim to assist key caregivers of people with chronic schizophrenic disorder to manage their stress and related mental difficulties such that they are able to exercise their caregiving role better and thereby enjoy a better general mental wellbeing and quality of life.

### LIMITATION

- Study was time bound and only small sample was taken; so the result obtained could not be generalized for the whole population.
- Variables pertaining to illness like number of hospitalizations, cost incurred for treatment, number of relapses, functional status of the patient etc. were not assessed in the study.
- Sampling strategy was purposive and hence study sample may not represent true population parameters.
- Duration of caregiving, mode of care provided, details of other caregivers involved in caregiving etc. were not assessed in the study.

### Future directions

- Similar study using same assessment technique can be replicated with a large sample.
- Comparative study on the male and female caregivers of schizophrenia patients can be done.
- Similar study can be conducted on the caregivers of other psychiatric disorders.
- Comparative study on caregivers of schizophrenia and psychiatric/ physical illness can be done to compare the burden due to various disorders.
- The study can be replicated in other institutions of the country
- Longitudinal case studies can be planned by which family dynamism in course Schizophrenia can be understood well.

### References

- Miller, D. R., & Borden, J. H. (1990).  $\beta$ -Phellandrene: kairomone for pine engraver, *Ips pini* (Say)(Coleoptera: Scolytidae). *Journal of Chemical Ecology*, 16 (8), 2519-2531.
- Singh, G. (2016). *Plant Systematics, 3/ed.: An Integrated Approach. CRC Press.*