# Journal of Pharmaceutical and Scientific Innovation



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**Research Article** 

# **BURDEN IN CARE OF PATIENTS WITH SCHIZOPHRENIA: TO WHICH EXTENT CAREGIVER SUFFERS** Prashant Kumar Sharma\*

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Received on: 15/10/14 Revised on: 08/11/14 Accepted on: 04/12/14

### ABSTRACT

Family is an important social agency that takes care of various needs of its members. Families with mentally ill persons certainly face many challenges as people with mental illness face a broad range of problems. Being a caregiver of a schizophrenic patient involves a significant burden. Several studies have outlined the components of this burden, which include disturbance of domestic routine, constraints of social and leisure activities, added financial responsibilities and reduced attention to other family members, but similar studies in India are scarce. The present study aims to assess burden on caregiver of the patients with schizophrenia and its relation to various socio-demographic variables. This is a prospective, observational, epidemiological single sitting study. In tools, DSM-IV-TR, Burden assessments schedule and socio-demographic data sheet were used in the study. The data were analyzed by Student-t-Test using Graph Pad Prism v 5.01software. This study showed that quite a high degree of burden of care exists. Significant burden (p<0.05) and (p<0.001) were noticed among caregivers when compared between age group, gender, residence, family income, occupation, education and relation to the patient. The present study has shown a significant amount of burden experienced by caregivers of patients with schizophrenia. Less education and low income cause more burden beside being residence in rural areas. This analysis provide basic data required for making decisions, future research and generation of interventional strategies, all geared to promote holistic caring.

Key words: Caregivers, Burden of care, Burden Assessment Schedule, Schizophrenia

### INTRODUCTION

Schizophrenia is a mental disorder characterized by a breakdown of thought processes and by poor emotional responsiveness. It most commonly manifests itself as auditory hallucinations, paranoid or bizarre delusions, or disorganized speech and thinking, and it is accompanied by significant social or occupational dysfunction. DSM-IV-TR and Holmes stated that there are five types of Schizophrenia, namely, catatonic, disorganized, paranoid, residual and undifferentiated. Each subtype has its own traits. Schizophrenia is a disabling, chronic psychiatric disorder that poses numerous challenges in its management and consequences. 'Deinstitutionalization movement'' which was started in the late 1950's, the mental health services have moved away from providing institutional care to community based care results in feeling of burden or stress on cargivers that in turn diminish their quality of life. It is evident from several studies that caregivers do experience burden. Families are affected in a number of ways; family life is disorganized, household routines are upset, family members face physical and mental health problems. Assessment of burden on the people providing care to mentally ill thus becomes an integral part of management of psychiatric illnesses. The success of any community psychiatric care program well as the introduction of coping strategies before the family reduces the burden on the caregivers, simultaneously improves the chances of schizophrenics being accepted in the family<sup>1</sup>. It also improves the way families cope with the burden which in turn have beneficial effect on the course of schizophrenia<sup>2</sup>.

# AIMS

In this study, it was aimed by standardized means to assess the burden of care on caregivers of patients with chronic schizophrenia living in the community.

# MATERIAL AND METHODS

The approval for the study was obtained from the institution's Ethics Committee of M.P.Shah Medical College, Jamnagar, Guirat. The study sample represents the local population of regions in and around Jamnagar district of Gujarat. This was a 12 months prospective, observational, epidemiological and behavioral study, conducted between year 2011 &2012 in the Department of Psychiatry, M. P. Shah Medical College & G. G. Hospital, Jamnagar. Patients attended psychiatry OPD were screened first for schizophrenia. Sample selection was made from 134 primary caregivers regularly accompanying patients diagnosed as having chronic schizophrenia DSM IV-TR criteria. Caregivers of these 134 patients were assessed on selection criteria for caregivers. Thirteen of them did not satisfy the inclusion criteria as shown. Six were excluded on exclusion criteria having physical illnesses significantly interfering with care giving. Fourteen of the selected patients and caregivers did not report on appointed dates and one left interview incomplete as he had scarcity of time. Out of 137, total 100 patients and their caregivers who fulfilled inclusion and exclusion criteria, completed the study.

### **Inclusion Criteria**

A random selection was made, if the following inclusion criteria were satisfied.

For patients

- >16 years old and <60 years
- Confirmed diagnosis of schizophrenia according to DSM-IV-TR criteria
- Continuous illness since last 1 year.

For caregivers

• Age not less than 18 years

• The primary caregiver was identified as an adult relative living with a patient, in the same environment, for at least 12 months and was involved directly in giving care to the patient and most supportive either emotionally or financially, i.e. felt most responsible for the patient

# **Exclusion Criteria**

• Patients with Axis-I diagnosis of other mental disorder like Schizophreniform disorder, schizoaffective disorder, Bipolar-1 Disorder etc.

• Relevant history of any significant and/or unstable cardiovascular, respiratory, neurologic, renal, hepatic disease and other organic condition in relatives significantly interfering with care giving.

Data collection: Over a period of 6 months, patients and corresponding caregivers who satisfied the criteria were interviewed after obtaining their written informed consent. The data were recorded and further aspects were studied.

# Tools

1. Semi structured socio-demographic performa for patients and caregivers

- 2. DSM IV-TR diagnostic criteria for schizophrenia
- 3. Burden assessments schedule  $(BAS)^3$

Burden assessments schedule is an instrument developed by THARA et.al, 1998 at Schizophrenia Research Foundation, Chennai to assess the burden of care on the caregiver of chronic mentally ill patients using the process of stepwise ethnographic exploration. It has a total of 40 items covering various domains of burden such as finance, occupation, health, emotional and psychosocial aspects, social relations, family, marital and sexual relations, external support, caregiver 's routine and strategies. Each item is rated on a 3 point scale. The responses are "not at all, to some extent or very much". It has been developed from the perspective of chronic mentally ill and consequently is most applicable to this group. The validity has been established by comparing it with the Family Burden Schedule of Pai and Kapur (1981). Correlation between two instruments was found to be good for most items. Its inter-rater reliability was also good. A Gujarati version of this instrument was prepared using translation-retranslation method by the investigator for the study.

Out of the forty items, which are rated on a three-point scale, four items were to be answered only by caregivers who were spouses also. Thus when the total burden was calculated for each patient, it was out of a maximum score of one hundred and twenty for those whose caregivers were spouses and out of one hundred and eight for those whose caregivers were family members other than spouse. To overcome this discrepancy an Adjusted Burden Score for each patient was calculated using the formula: Score obtained/ Maximum Score X 100. With this arrangement a score of 33.33 would mean no burden was experienced. A score of 66.67 would indicate moderate burden and a score of 100 would mean severe burden.

# Statistical analysis

Student-t-Test was applied to assess the relationship of various socio-demographic variables of the caregivers, the duration of illness of the patient and the relationship of patient to caregivers with the burden of care experienced by the caregivers.

# RESULTS

The main findings of this study were that caregivers of schizophrenics experience quite a high degree of burden of care. Caregivers in the age group 36-45 years perceived significantly less burden when compared to both the

caregivers in the age group 16-35 years (p<0.05) and in the age group 46-65 years (p<0.001). Statistically significant higher burden was observed in female caregivers when compared with male caregivers (p < 0.05). Statistically significant higher burden was observed in caregivers residing in rural areas (p<0.05) when compared with caregivers residing in urban area. Statistically significant higher total burden was recorded on caregivers living in low income families (up to each Rs. 2500/pm) when compared to caregivers living in higher income families (above Rs. 2500/pm) (p<0.01). Caregivers who had received less than primary education perceived more burden than the group educated between class VI and X (p<0.01). Housewives perceived significantly higher total burden when compared to service class caregivers (p < 0.001) and others group (p < 0.01). The spouse caregivers perceived statistically significant higher total burden (p<0.01) than the siblings. Parents feel significantly higher total burden (p<0.01) than the siblings. No significant difference was observed in total burden perceived by spouse caregivers and parents. A higher total burden was seen in those who belong to joint family but it was not statistically significant.

Socio-demographic characteristic are presented in table 1 and relationship of caregiver with patient in table 2.

Table 3 depicts the mean scores along with standard deviation on various domains of burden assessment schedule which was administered to caregivers

# DISCUSSION

The present study was designed to assess the burden on caregivers of patients having schizophrenia and its relation to socio-demographic variables. In our study significant burden was perceived by caregivers that are in agreement with those of other studies.<sup>4</sup>

In our study significant lower burden (p<0.001) existed in the caregivers between 36 to 45 years of age when compared with age group 16 to 35 years and 46 to 65 years. The younger caregivers perceived more problems because most of them were starting their careers and were less patient, mature and resilient. On the other hand, caregivers in age group of 36 to 45 years were mature, financially better settled and physically more efficient and hence perceived lesser burden than the other two groups. As previously studied by others, our study shows that the age of caregiver was positive correlated to burden of caregiver. When caregiver becomes older, they are worried about who will take care of their ill family member in the future. Older caregiver also cannot provide care well to the ill member<sup>5</sup>. Female caregivers experienced significantly higher burdens (p<0.01) than the male caregivers. Female caregivers feels higher burden specifically in two areas caregiver's routines and other relations. Higher burden in area of caregiver's routine can be attributed to more caring nature of females who give their time for care of patient in addition to time spent in routine household work and in caring other family members and were left with little time to pursue their friendships and relationships outside the one with the patient. Other studies also showed that there was a significant difference in gender in term of their burden<sup>6</sup>.

On the other hand this is in contrast to the findings of other study, in which it was found that there was no significant difference in burden between the male and female caregivers of patients having Schizophrenia. In our study families residing in rural areas experienced statistically significant higher total burden (p<0.05) than those who are from urban background. Rural caregivers had less access to medical facilities and had to come to the city for medicines and advice. It was also difficult for them to bring the patient for follow up due to inadequate facilities of transportation. This finding is in agreement of many other studies<sup>7</sup>. This finding is in contrast to another study in which it was found that the burden perceived by relatives of a patient with chronic schizophrenia was the same in urban and rural families<sup>8</sup>.

In this study statistically significant higher total burden was recorded on caregivers living in low income families (up to each Rs. 2500/per month) when compared to caregivers living in higher income families (above Rs. 2500/per month) (p<0.01). Lower income was a stressor that influence stress feeling during providing care for ill family member. Beside caregivers providing care for ill member, they also had to solve financial problem and find out source of money. Like our study other researcher <sup>9</sup> also supported this finding but in that study the burden was mainly financial.

Significantly higher total burden (p<0.01) was observed in caregivers educated up to class V. This was because most of the caregivers in this group were labourers or housewives who had to work hard and were consequently not able to give adequate time to their other family members and friends. They also had problems in understanding the nature of illness, in following prescriptions, in identifying medicines, while interacting with health professionals and coping with the patient's illness in general. Previous study also showed that the education level has negative correlation with caregiver's burden. The burden of care decreased with improvement in educational status. Most of the caregivers with less than primary education had more of physical work to do. Due to this they were unable to give adequate time to their relations with friends, relatives and family members other than the patients. Hence they perceived significantly higher burden in the area of other relations. Statistically significant higher burden (p<0.01)was also observed in areas of caregiver's routine and support of patient in caregivers with less than primary education when compared to caregivers educated above class X. Significantly more burden (p<0.001) on housewives as compared to other occupations was found in this study. Burden was higher in areas of physical and mental health, caregiver's routines and other relations and total score. This can be explained by the fact that housewives stayed at home 24 hours a day and were in continuous contact with the patient while caregivers in job went out and had a sort of regular daily break. Also, those in job had an assured monthly income in contrast to the housewives who had no source of income. Caregivers of service class group feel significantly less total burden (p<0.01), and also statistically significant less burden in areas of caregiver's routine and support of patient than the other

group who had generally limited financial resources. These findings get support by another studies<sup>10</sup> view about burden perceived by caregivers of different occupational background. Due to inadequate knowledge and skill, family caregivers belonging to laborer or agricultural occupation may be unfamiliar with the type of care they must provide or the amount of care needed<sup>11</sup>.

Significantly higher burden (p<0.05) is experienced by spouse caregivers as compared to sibling caregivers and although not significant but higher total burden than parents. This finding is in agreement with the finding of other study.<sup>12</sup> which reported that spouse caregivers felt more burdened than children. Spouses not only face illness-specific burdens but also burdens resulting from their partnership and family roles. At the centre of the spouses' problems are those relating to the partnership—such as challenging marital intimacy and commonality, reorganization of familial and partnership tasks, and redefinition of plans for mutual life.

For parents of schizophrenia patients, on the other hand, other problems and worries regarding the parent-child relation are of importance, such as the question of possibly being responsible for the illness because of poor parenting, the problem of a delayed or prevented detachment from the parents, and the dilemma of a permanent, possibly lifelong dependency of the patient<sup>13</sup>. In comparison to spouse caregivers the parents experienced more burdens (p<0.01) in the areas of physical and mental health, external support, and support of patient, taking responsibility, other relations and caregiver's strategy. Siblings in comparison to spouses felt more burden in the areas of caregiver's strategy. The parents perceived higher burden because of the age factor while siblings perceived a higher burden because they saw patients as a completely extra responsibility.

In present study no statistically significant difference was observed between burden experienced by caregivers residing in joint and nuclear families, although caregivers in nuclear families perceived more burden .As more people are available in joint families to care for the patient, so caregiver get some help in his/her job of caring the patient. So, as previously suggested by others<sup>14</sup>, traditional joint families allow for diffusion of burden in families caring for the mentally ill and could be responsible for mediating the good course and outcome of major mental disorders. It is observed that generally the caregivers living in nuclear families have to take the role of earning member in the family. In addition to take responsibility of work, and caring of other members of family, they have to fulfill all the requirement of the patient and have to spend enough time behind his care. There is no sharing of burden exist in nuclear family as occurs in joint families. The sources of variation across studies may be due to sample and/or statistical variations. Although our study shows clear existence of huge burden among caregivers of schizophrenics, but our findings cannot be generalized due to small sample size.

MADIA DI E	<b>N</b> <sup>1</sup>	0.(		N. 7	0 (
VARIABLE	N	%	VARIABLE	N	%
AGE (In years)			FAMILY		
18-25	2	2	STRUCTURE	59	59
26-35	17	17	Joint	41	41
36-45	30	30	Nuclear		
46-55	34	34			
56 and above	17	17			
SEX			MARITAL STATUS		
Male	62	62	Married	89	89
Female	38	38	Unmarried	2	2
			Divorced/Separated	0	0
			Widow/Widower	9	9
RELIGION			FAMILY INCOME		
Hindu	83	83	(Rs/month)		
Muslim	17	17			
			Up to 2500	26	26
			2501-5000	47	47
			5001-7500	18	18
			Above 7500	9	9
DOMICILE			EDUCATIONAL		
Rural	48	48	STATUS		
Urban	52	52	Up to Class V	50	50
			Class VI to X	41	41
			Above Class X	9	9

# Table 2: RELATIONSHIP OF CAREGIVERS WITH PATIENT(N=100)

RELATIVE		N	%
SPOUSE	HUSBAND	28	28
	WIFE	18	18
PARENT	MOTHER	22	22
	FATHER	17	17
SIBLING	BROTHER	10	10
OFFSPRING	SON	5	5

Table -3: BURDEN ASSESSMENT SCHEDULE SCORES(N=100)

SUBGROUP	MEAN	S.D.
SPOUSE RELATED	8.78	1.86
PHYSICAL & MENTAL HEALTH	9.92	3.23
EXTERNAL SUPPORT	8.5	1.97
CAREGIVER'S ROUTINES	7.53	1.25
SUPPORT OF PATIENT	7.29	1.40
TAKING RESPONSIBILITY	7.35	1.37
OTHER RELATIONS	6.64	1.61
PATIENT'S BEHAVIOUR	10.36	2.32
CAREGIVER'S STRATEGY	9.6	1.94
TOTAL ADJUSTED SCORE	62.70	5.98

### Table - 4 ASSESSMENT OF BURDEN ON CAREGIVERS ACCORDING TO AGE OF KEY RELATIVES (N=100)

	A (n=19)	B (n=30)	C (n=51)			
SUBGROUP	16-35 yrs	36-45 yrs	46-65 yrs	V	VALUE OF t	
	Mean	Mean	Mean	A vs. B	B vs. C	A vs.C
	(SD)	(SD)	(SD)			
SPOUSE RELATED	8.36(1.02)n*=11	8.77(1.90)n*=22	9.15(2.34)n*=13	0.666	0.525	1.037
PHYSICAL & MENTAL HEALTH	11.10(3.26)	6.96(1.45)	11.21(2.85)	6.787***	7.596***	0.138
EXTERNAL SUPPORT	9.42(1.77)	6.9(1.06)	9.09(1.92)	6.247***	5.744***	0.653
CAREGIVER'S ROUTINES	7.63 (1.70)	7.6 (1.03)	7.45 (1.18)	0.077	0.578	0.501
SUPPORT OF PATIENT	7.15 (1.60)	7.46 (1.59)	7.23 (1.23)	0.663	0.728	0.222
TAKING RESPONSIBILITY	7.47 (1.50)	7.36 (1.18)	7.29 (1.44)	0.286	0.225	0.460
OTHER RELATIONS	6.21 (1.35)	6.66 (1.58)	6.78 (1.71)	1.026	0.314	1.307
PATIENT'S BEHAVIOUR	10.42 (2.71)	10.7 (2.45)	10.13 (2.10)	0.374	1.108	0.474
CAREGIVER'S STRATEGY	10.21 (1.47)	9.23 (2.07)	9.58 (2.00)	1.794	0.751	1.251
TOTAL ADJUSTED SCORE	64.52 (7.02)	59.31 (5.17)	64.02 (5.25)	2.988*	3.921***	0.322

Table – 5 ASSESSMENT OI	F BURDEN ON	CAREGIVERS ACC	ORDING TO SEX(N=100)
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	MALE	FEMALE		SIGNIFICANCE	
SUBGROUP	(n=62) Mean (SD)	(n= 38) Mean (SD)	Т	d.f.	Р
SPOUSE RELATED	8.71 (1.99) n*=28	8.88 (1.67)n*=18	0.300	44	0.7652
PHYSICAL & MENTAL HEALTH	9.56 (3.12)	10.5 (3.36)	1.420	98	0.1587
EXTERNAL SUPPORT	8.40 (2.01)	8.65 (1.92)	0.614	98	0.5407
CAREGIVER'S ROUTINES	7.22 (1.07)	8.02 (1.36)	3.269*	98	0.0015
SUPPORT OF PATIENT	7.22 (1.34)	7.39 (1.49)	0.590	98	0.5565
TAKING RESPONSIBILITY	7.20 (1.36)	7.57 (1.36)	1.321	98	0.1897
OTHER RELATIONS	6.29 (1.65)	7.21 (1.37)	2.881**	98	0.0049
PATIENT'S BEHAVIOUR	10.38 (2.21)	10.31 (2.52)	0.146	98	0.8845
CAREGIVER'S STRATEGY	9.40 (1.99)	9.92 (1.85)	1.302	98	0.1959
TOTAL ADJUSTED SCORE	61.38 (5.75)	64.86 (5.77)	2.934*	98	0.0042

n\*- number of key relatives who were spouse of the patient. \* p<0.05, \*\* p<0.01, \*\*\* p<0.001

### Table -6: ASSESSMENT OF BURDEN ON CAREGIVERS ACCORDING TO DOMICILE(N=100)

	RURAL	URBAN	SIG	GNIFICAN	CE
SUBGROUP	(n=48) Mean (SD)	(n=52) Mean (SD)	Т	d.f.	Р
SPOUSE RELATED	9 (2.20) n*=15	8.67 (1.70) n*=31	0.560	44	0.5783
PHYSICAL & MENTAL HEALTH	10.43 (3.04)	9.44 (3.35)	1.543	98	0.1260
EXTERNAL SUPPORT	8.60 (2.23)	8.40 (1.70)	0.507	98	0.6135
CAREGIVER'S ROUTINES	7.62 (1.24)	7.44 (1.25)	0.722	98	0.4719
SUPPORT OF PATIENT	7.83 (1.49)	6.78 (1.10)	4.030***	98	0.0001
TAKING RESPONSIBILITY	7.75 (1.65)	6.98 (0.91)	2.919*	98	0.0044
OTHER RELATIONS	7.08 (1.52)	6.23 (1.59)	2.728	98	0.0076
PATIENT'S BEHAVIOUR	10.10 (2.13)	10.59 (2.48)	1.056	98	0.2937
CAREGIVER'S STRATEGY	9.5 (2.01)	9.69 (1.90)	0.486	98	0.6281
TOTAL ADJUSTED SCORE	64.14 (5.75)	61.38 (5.93)	2.359*	98	0.0203

n\*- number of key relatives who were spouse of the patient. \* p<0.05, \*\* p<0.01, \*\*\* p<0.001

# Table-7: ASSESSMENT OF BURDEN ON CAREGIVERS ACCORDING TO FAMILY INCOME(N=100)

	UPTO	ABOVE		SIGNIFICANCE	]
SUBGROUP	Rs. 2500	Rs.2500			
	(n=26)	(n=74)	+	d.f.	Р
	Mean (SD)	Mean (SD)	ι	u.1.	I
SPOUSE RELATED	8.45	8.88	0.665	44	0.5093
	(2.06) n*=11	(1.81) n*=35			
PHYSICAL & MENTAL HEALTH	10.38 (3.25)	9.75 (3.23)	0.854	98	0.3951
EXTERNAL SUPPORT	8.07 (1.76)	8.64 (2.03)	1.273	98	0.2062
CAREGIVER'S ROUTINES	7.80 (1.32)	7.43 (1.21)	1.310	98	0.1933
SUPPORT OF PATIENT	9 (1.41)	6.68 (0.75)	10.574***	98	< 0.0001
TAKING RESPONSIBILITY	8.92 (1.46)	6.79 (0.79)	9.303***	98	< 0.0001
OTHER RELATIONS	6.84 (1.59)	6.56 (1.62)	0.762	98	0.4481
PATIENT'S BEHAVIOUR	10.26 (2.34)	10.39 (2.33)	0.244	98	0.8074
CAREGIVER'S STRATEGY	9.53 (2.15)	9.62 (1.88)	0.202	98	0.8402
TOTAL ADJUSTED SCORE	65.75 (5.30)	61.63 (5.86)	3.158**	98	0.0021

n\*- number of caregivers who were spouse of the patient.

# Table - 8: ASSESSMENT OF BURDEN ON CAREGIVERS ACCORDING TO EDUCATIONAL STATUS(N=100)

	A (n=50)	B (n=41)	С	١	ALUE OF t	
SUBGROUP			( n=9)			
	Upto V	VI-X	Above X	A vs. B	B vs. C	A vs. C
	Mean (SD)	Mean (SD)	Mean (SD)			
SPOUSE RELATED	8.8	8.68	9.16	0.207	0.629	0.314
	(2.27) n*=15	(1.40) n*=25	(2.63) n*=6			
PHYSICAL & MENTAL HEALTH	10.52 (3.09)	9.46 (3.53)	8.66 (1.80)	1.527	0.658	1.745
EXTERNAL SUPPORT	8.62 (2.14)	8.19 (1.67)	9.22 (2.16)	1.050	1.589	0.773
CAREGIVER'S ROUTINES	7.8 (1.19)	7.43 (1.26)	6.44 (0.88)	1.437	2.232*	3.262**
SUPPORT OF PATIENT	7.5 (1.38)	7.21 (1.47)	6.44 (0.72)	0.969	1.523	2.239*
TAKING RESPONSIBILITY	7.48 (1.38)	7.26 (1.43)	7 (1.00)	0.744	0.516	0.994
OTHER RELATIONS	7.66 (1.02)	5.43 (1.24)	6.44 (2.00)	9.415***	1.966	2.792**
PATIENT'S BEHAVIOUR	10.16 (2.04)	10.46 (2.75)	11 (1.58)	0.597	0.566	1.171
CAREGIVER'S STRATEGY	9.92 (1.77)	9.24 (1.98)	9.44 (2.60)	1.728	0.259	0.695
TOTAL ADJUSTED SCORE	64.70 (5.54)	60.67 (5.90)	60.90 (5.50)	3.353**	0.107	1.896

n\*- number of caregivers who were spouse of the patient. \* p<0.05, \*\* p<0.01, \*\*\* p<0.001

### Table -9: ASSESSMENT OF BURDEN ON CAREGIVERS ACCORDING TO OCCUPATION(N=100)

	А	В	C (n=49)	D (n=8)		VALUE OF t	
SUBGROUP	(n=2)	( n=19)					
	H/W	Service	Other	Nil	A vs. B	B vs. C	A vs. C
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)			
Spouse Related	8.75 (1.57)	8.6 (2.31)	8.68 (1.70)	13 (0.00)	0.198	0.106	0.126
Physical & Mental Health	10.79 (3.45)	8.52 (3.16)	9.69 (2.95)	12 (3.11)	2.223*	1.439	1.415
External Support	8.83 (2.29)	8.26 (1.96)	8.14 (1.59)	10.25 (2.31)	0.863	0.261	1.500
Caregiver's Routines	8.41 (1.31)	6.52 (1.02)	7.44 (1.00)	7.75 (1.16)	5.166***	3.386**	3.508***
Support of Patient	7.12 (1.45)	6.57 (0.69)	7.67 (1.56)	7.12 (0.64)	1.520	2.953**	1.447
Taking Responsibility	7.37 (1.13)	7 (0.81)	7.59 (1.67)	6.62 (0.51)	1.202	1.469	0.582
Other Relations	7.33 (1.52)	5.78 (1.61)	6.42 (1.50)	7.87 (1.12)	3.235**	1.547	2.424*
Patient's Behaviour	10.66 (2.72)	10.10 (2.90)	10.30 (1.99)	10.37 (1.59)	0.651	0.325	0.641
Caregiver's Strategy	10 (1.95)	9.63 (2.06)	9.28 (1.93)	10.25 (1.66)	0.603	0.659	1.492
Total Adjusted Score	65.76 (6.54)	58.45 (5.61)	62.10 (4.75)	67.33 (4.58)	3.871***	2.702**	2.723**

n\*- number of caregivers who were spouse of the patient. \*p<0.05,\*\*p<0.01,\*\*\*p<0.001

	Α	В	С	D		VALUE OF t	
	(n=46)	( n=39)	(n=10)	(n=5)			
SUBGROUP	SP^	PAR^	SIB^	OFFS^			
	Mean	Mean	Mean	Mean	A vs. B	B vs. C	A vs. C
	(SD)	(SD)	(SD)	(SD)			
Spouse Related	8.78						
	(1.86)	-	-	-			
Physical & Mental Health	9.30	11.12	8.1	9.8	2.574*	3.136**	1.016
	(3.57)	(2.82)	(2.23)	(1.30)			
External Support	8.41	8.79	7.7	8.6	0.854	1.651	0.999
**	(2.13)	(1.94)	(1.49)	(1.14)			
Caregiver's Routines	7.67	7.56	7	7	0.391	1.388	1.458
-	(1.38)	(1.18)	(0.94)	(0.70)			
Support of Patient	7.36	7.41	6.7	6.8	0.160	1.458	1.377
	(1.43)	(1.44)	(1.05)	(1.30)			
Taking Responsibility	7.23	7.53	7	7.6	1.038	1.031	0.590
	(1.13)	(1.53)	(1.05)	(2.51)			
Other Relations	6.58	7.02	5.9	5.6	1.280	2.056*	1.173
	(1.65)	(1.49)	(1.72)	(1.14)			
Patient's Behaviour	11.5	9.30	9.8	9.2	5.062***	0.745	2.181*
	(2.19)	(1.74)	(2.44)	(2.95)			
Caregiver's Strategy	9.32	9.76	10.1	9.8	0.989	0.507	1.173
6 6	(2.04)	(2.05)	(0.99)	(1.64)			
Total Adjusted Score	63.49	63.46	57.68	59.62	0.023	3.338**	2.588**
-	(6.68)	(4.85)	(5.03)	(3.85)			

Table -10: ASSESSMENT OF BURDEN ON CAREGIVERS ACCORDING TO RELATIONSHIP OF PATIENT TO CAREGIVER (N=100)

^ SP-Spouse, PAR-Parent, SI B-Sibling, OFFS-Offspring \* p<0.05, \*\* p<0.01, \*\*\* p<0.001

# Table-11: ASSESSMENT OF BURDEN ON CAREGIVERS ACCORDING TO FAMILY STRUCTURE(N=100)

SUBGROUP	JOINT (n=59) Mean (SD)	NUCLEAR (n=41) Mean (SD)	SIGNIFICANCE		
			Т	d.f.	Р
SPOUSE RELATED	8.61 (2.35) n*=18	8.89 (1.49) n*=28	0.496	44	0.6226
PHYSICAL & MENTAL HEALTH	10.08 (3.20)	9.68 (3.29)	0.608	98	0.5448
EXTERNAL SUPPORT	8.76 (2.08)	8.12 (1.74)	1.616	98	0.1094
CAREGIVER'S ROUTINES	7.25 (0.99)	7.92 (1.47)	2.725	98	0.0076
SUPPORT OF PATIENT	7.40 (1.24)	7.12 (1.60)	0.985	98	0.3271
TAKING RESPONSIBILITY	7.50 (1.56)	7.12 (1.00)	1.375	98	0.1724
OTHER RELATIONS	6.74 (1.64)	6.48 (1.56)	0.795	98	0.4283
PATIENT'S BEHAVIOUR	10.18 (2.27)	10.60 (2.39)	0.890	98	0.3754
CAREGIVER'S STRATEGY	9.45 (2.02)	9.80 (1.83)	0.885	98	0.3782
TOTAL ADJUSTED SCORE	62.68 (6.01)	62.74 (6.00)	0.049	98	0.9609

n\*- number of caregivers who were spouse of the patient.

\* p<0.05, \*\* p<0.01, \*\*\* p<0.001

# LIMITATIONS

A prominent limitation is the small sample size and the study is restricted only to the OPD of psychiatry of a tertiary care hospital. This study may not completely reflect the exact picture of family burden in chronic schizophrenia in the community at large. Future studies should be replicated on a larger sample and longitudinal studies are needed to find out the pattern of burden over time.

# CONCLUSION

The present study has shown that there is a significant amount of burden experienced by caregivers of patients with schizophrenia. Caregivers having less education, belonging from low income families and residing in rural areas perceived more burdens. Among caregivers who were either spouse or parent, perceived more burden than the others. A high level of burden was perceived in the areas of taking responsibility, caregiver's strategy, other relations, caregiver's routine and physical and mental health. So, the aim of the treating psychiatrists must also be directed to the issues of burden of the disease too. The analysis of burden of family caregivers provide basic data required for making decisions, future research and generation of interventional strategies, all geared to promote holistic caring.<sup>15</sup>

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Source of support: Nil, Conflict of interest: None Declared



How to cite this article:

Prashant Kumar Sharma. Burden in care of patients with schizophrenia: to which extent caregiver suffers. J Pharm Sci Innov. 2014;3(6):522-528 http://dx.doi.org/10.7897/2277-4572.036209