

## A Comparative Study of Caregivers Burden in Psychiatric Illness and Chronic Medical Illness

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### Abstract

**BACKGROUND:** Chronic medical and psychiatric patients need assistance or supervision in their daily activities and this often places a major burden on their caregivers, there by placing the caregiver at a great risk of mental and physical health problems.

**AIM:** To compare the caregiver burden in psychiatric illness [Schizophrenia] and chronic medical illness [Stroke].

**MATERIAL AND METHODS:** The sample included caregivers of Schizophrenia and caregivers of Stroke. The caregivers were classified as group 1 (G1) consisting of 60 caregivers of psychiatric patients and group 2 (G2) consisting of appropriately matched caregivers of patients suffering from chronic medical illness.

**RESULTS:** Majority of patients with schizophrenia are between 31-40 years, and patients with stroke are between the age group of 51-60 years. The caregivers of patients with schizophrenia with mean value of 14.97 when compare to caregivers of patients with stroke with mean value of 11.25 experienced more of objective burden with significant p-value of 0.000.

**CONCLUSION:** finally the present study concludes that in group 1 caregivers perceived more burden than group 2. The various means to reduce OB are to improve home care, adult day care, routine friendly visits and use of assistive equipment

**Keywords:** Care giver's burden Schizophrenia Stroke Borgatta Caregiver Burden scale.

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### I. Introduction:

Recent years have seen increasing awareness of the role of caregivers in the long-term management of psychiatric patients, and there is growing body of literature on the caregiver burden, poor caregiver outcomes, lack of caregiver support, and equivocal success, with interventions aimed at alleviating the care-giving burden.

The term caregiver burden is used to describe the physical, emotional and financial toll of providing care. As the disease progresses, it carries with it a tremendous increase of burden on the caregiver who does the caregiving<sup>1</sup>. The burden perceived by caregivers of patients with psychiatric illness is a fundamental prognostic aspect as the caregiver burden is reportedly a critical determinant for negative care giving outcomes.

Caring role is not an easy task and that may have impact on their personal life. Individuals with schizophrenia are less likely to gain employment and to marry, which produces grater amount of burden on caregivers<sup>2</sup>. As a consequence, the remaining family members need to undertake the care of the ill person.

Family burden in care giving of severe mental illness includes missed work, domestic routine disturbance, financial strain, effect on social and leisure activities, and decreased caring role to the other family member. The high prevalence and chronic evolution of schizophrenia are responsible for a major social cost. According to Treudley (1946) burden on the family refers to the consequences for those in close contact with a severely disturbed psychiatric patient<sup>3</sup>.

The burden upon caregivers for a mentally ill patient living at home was first acknowledged by Grad and Sainbury in the early 1960s<sup>4,5</sup>. Studies conducted showed that caregivers reported burden in different areas including effects on family functioning, social isolation, financial problems, and health. Most of the notable community-based studies proved that 18–47% of caregivers land in depression<sup>4</sup>.

It is also known that caring for someone with psychiatric illness is associated with a higher level of stress than caring for someone with functional impairment from other chronic medical illnesses. Many authors opine that the level of burden does not correlate with the duration of illness, but has enough variability with age, gender and educational status<sup>6</sup>. A previous study concluded that poor social support and severity of illness have major role in determining the amount of burden on a caregiver<sup>7</sup>.

The burden perceived by caregivers of patients with psychiatric illness is a fundamental prognostic aspect in the history of the disease, and the caregiver burden is reportedly a critical determinant for negative care giving outcomes.

After a stroke, patients may become dependent on others to function in daily life and some may even need long-term care<sup>8</sup>

The care provided by the patients' family members is not limited to a single type of help but includes health care, administering medication, personal care (bathing, feeding, toilet care, dressing), planning social services, shopping and doing housework, financial management, assistance with finances, and sharing the same house. Although providing care to a family member afflicted by stroke may have its positive side, the caregiver often experiences difficulties related to the many responsibilities involved in care giving<sup>9</sup>.

The majority of patients live in the community, frequently using long-term professional care. In the Indian culture, men are the bread winners and head of the family and women generally look after the family wellbeing at home. Considering the chronic nature of stroke, tending to an elderly family member at home will undoubtedly place enormous burden on the female care givers. Recovery of a stroke patient is enhanced by a supportive environment and healthy caregiver. There is evidence to suggest that care giver stress may impact the recovery and successful rehabilitation of stroke patients<sup>10</sup>. Few data are available on the specific care giving-related problems of stroke patient's caregivers and factors that influence the burden of these caregivers.

Most care, however, is provided by relatives, primarily partners. While these caregivers themselves have to cope with the devastating effects that stroke had on their partner, an increasing amount of demands is made on them. They need, for example, to provide emotional support or assist the patient in activities of daily living. Consequently, caregivers may experience unacceptably high levels of burden, leading to isolation and exhaustion. Bethoux et al.<sup>11</sup> found that nearly 70-80% of stroke patients live in their own home after discharge although they need the help of their families. Greveson et al.<sup>12</sup> determined that 76% of patients live in their own home, and 71% of these patients continue life with disability.

Different questionnaires and scales have been developed to quantify the caregiver burden. Caregiver burden is categorized in terms of objective burden (OB), subjective burden (SB) and demand burden (DB). OB is defined as the extent of disruptions or changes in various aspects of the caregivers' life and household. It measures the disruption of the caregiver's life. SB is defined as the caregivers' attitude or emotional reactions to the care giving experience. It measures emotional impact of care giving on the caregiver. DB measures the extent to which the caregiver feels the responsibilities are overly demanding. The assessment of burden has become a challenging overly demanding<sup>1</sup>. The assessment of burden has become a challenging task for most researchers because cultural, ethical, religious and other personal values may influence perceptions of meaning and consequences of burden. In India there are limited number of studies in the field of burden whereas it has been reported extensively in studies done abroad.

## **II. Aims And Objectives**

1.To study the association between demographic factors like age, gender, duration of care-giving and caregiver burden.

2.To compare the caregiver burden in psychiatric illness [Schizophrenia] and chronic medical illness [Stroke]. The objective of this study is to evaluate the contrast between the caregiver burden of psychiatric and chronic medical illness patients and to study the association between demographic factors like age, gender, duration of care-giving and caregiver burden.

In India there are limited number of studies in the field of burden whereas it has been reported extensively in studies done abroad.

## **III. Materials And Methods:**

The study sample consisted of caregivers of psychiatric out patients in the Tertiary Care Mental Care who were diagnosed as per the guidelines given in ICD-10 and stroke patients in the King George Hospital located in Visakhapatnam. The sample included caregivers of Schizophrenia and caregivers of Stroke. The caregivers were classified as group 1 (G1) consisting of 60 caregivers of psychiatric patients and group 2 (G2) consisting of appropriately matched caregivers of patients suffering from chronic medical illness. For every patient, a single caregiver was considered. Each caregiver included was explained about the study and informed consent was taken.

### **Inclusion criteria:**

Age of Caregivers more than 18 years.

Caregiver staying with the patient since the onset of illness.

Caregiver should be a blood relative or spouse.

Patient Illness duration is >2years.

**Exclusion criteria:**

The caregivers aged less than 18 years

Not willing to co-operative.

Caregivers having chronic physical illness other than stroke, with past/current psychiatric illness.

This is a case-control, analytical, hospital-based study. The caregivers were subjected to the Montgomery Borgatta Caregiver Burden scale which was applied as a self-administered questionnaire. This is a 14-item questionnaire which consists of Objective burden (OB): Is the extent of disruptions or changes in various aspects of the care givers life and household. It measures the disruption of the caregiver's life. Subjective burden (SB): Is the caregivers' attitude or emotional reactions to the care giving experience. It measures emotional impact of care giving on the care giver. Demanding burden (DB) measures the extent to which the caregiver feels the responsibilities are overly demanding.

Data was collected from 120 samples (Group-1 care givers of schizophrenia=60 and Group-2 care givers of stroke clients, N=60. The data were tabulated, analyzed and interpreted by using descriptive statistics, Levine's test for equality of variance and *t* test (SPSS software version 13.0.).

**IV. Results:**

**Table – 1:** Socio- demographic data of the patients

Socio- demographic data of the Patient	Schizophrenia Patients		Stroke Patients		Total Patients	
	Number	Percent	Number	Percent	Number	Percent
<b>Sex</b>						
Male	25	41.7	45	75.0	70	58.3
Female	35	58.3	15	25.0	50	41.7
<b>Age (Years)</b>						
20-30	10	16.7	0	0.0	10	8.3
31-40	33	55.0	9	15.0	42	35.0
41-50	9	15.0	17	28.3	26	21.7
51-60	8	33.3	23	38.3	31	25.8
>60	0	0.0	11	18.3	11	9.2
<b>Marital Status</b>						
Married	32	53.3	59	98.3	91	75.8
Unmarried	24	40.0	0	0.0	24	20.0
Widowed/Divorced	4	6.7	1	1.7	5	4.2

This table 1 shows that out of 120 patients 70 were males and 50 were females. About 53.3% in group1 98.3% in group 2 were married. About 40% unmarried and 6.7% were divorced in group1. Majority of patients with schizophrenia are between 31-40 years, and patients with stroke are between the age group of 51-60 years.

**Table-2** Duration of illness of the patients.

Socio- demographic data of the Patient	Schizophrenia Patients		Stroke Patients		Total Patients	
	Number	Percent	Number	Percent	Number	Percent
<b>Duration of illness</b>						
2 – 4 Years	3	5.0	28	46.7	31	25.8
5 – 8 years	13	21.7	23	38.3	36	30.0
9 – 12 Years	24	40.0	9	15.0	33	27.5
13– 16 years	11	18.3	0	0.0	11	9.2
> 16 Years	9	15.0	0	0.0	9	7.5

In Table 2 shows the duration of illness is longer in group 1 of about 9-12 years whereas in group 2 between 2-8 years.

**Table – 3:** Socio- demographic data of the Caregivers.

Socio- demographic data of the Caregivers	Schizophrenia Patients		Stroke Patients		Total Patients	
	Number	Percent	Number	Percent	Number	Percent
<b>Sex</b>						
Male	37	61.7	18	30.0	55	45.8
Female	23	38.3	42	70.0	65	54.2
<b>Age (Years)</b>						
20-30	6	10.0	4	6.7	10	8.3
31-40	8	13.3	19	31.7	27	22.5
41-50	26	43.3	27	45.0	53	44.2
51-60	8	13.3	10	16.7	18	15.0
>60	12	20.0	0	0.0	12	10.0
<b>Marital Status</b>						
Married	59	98.3	59	98.3	118	98.3
Unmarried	1	1.7	1	1.7	2	1.7

Majority of the caregivers in group 1 were males 61.7% whereas in group 2, 70% were females .Distribution of subjects according to age in both the groups about 43-45% of sample belongs to age group of 41-50years.Majority of caregivers in both groups were married of about 98.3%.

**Table : 4** Caregivers relationship with patients.

Relationship with the Patient	Group 1		Group 2		Total Patients	
	Number	Percent	Number	Percent	Number	Percent
Mother	17	28.3	0	0.0	17	14.2
Father	14	23.3	0	0.0	14	11.7
Husband	13	21.7	10	16.7	23	19.2
Wife	4	6.7	30	50.0	34	28.3
Others	12	20.0	20	33.3	32	26.7

Table 4 indicates that relationship of the caregiver to the patient, in group 1 N=17, 28.3% were mothers, N=14, 23.3% were fathers where as in group 2 N=10, 16.7% were husbands N=30 50% were wife’s were taking care of the patients and others in group 1 N=12, and in group 2 N=20 were taking care of the patients.

**Table 5:** Duration of care giving

Duration of Staying with the Patient	Group1		Group2		Total Patients	
	Number	Percent	Number	Percent	Number	Percent
2 – 8 Years	4	6.7	17	28.3	21	17.5
9 – 12 Years	22	36.7	26	43.3	48	40.0
13– 16 years	16	26.7	16	26.7	32	26.7
>16 years	18	30.0	1	1.7	19	15.8

This table 5 indicates that caregiver of group 1(schizophrenia) who are taking care for duration of 9-12 years are N=22 followed by caring of patient of duration more than13 years N=18 and compared with caregiver of group 2 were experiencing more burden caring between 9-12 years followed by N=16 between 13-16 years. Duration of caring more in group 1 of more than 16 years N=18, (30.0%) when compared to group 2.

**Table 6:** Caregiver Burden Scale

Type of Burden	Range	Remarks	Percent with High Score		
			Schizophrenia	Stroke	Total Patients
Objective Burden (OB)	11 – 27	>23 (High Score)	11.7	1.7	6.7
Subjective Burden (SB)	7 – 20	>13.5 (High Score)	80.0	11.7	45.8
Demand Burden (DB)	6 – 18	>15 (High Score)	13.3	1.7	7.5

This table 6 shows that high scores obtained in all categories of burden in both groups

Type of Burden	Diagnosis Type	Mean Score	Standard Deviation	t-Value/ P-value
Subjective Burden (SB)	Schizophrenia (N=60)	14.97	1.832	t - 10.853 P - 0.000
	Stroke (N=60)	11.25	1.919	
Objective burden(OB)	Schizophrenia (N=60)	20.50	2.620	t - 10.282 P - 0.000
	Stroke (N=60)	14.83	3.371	
Demand Burden (DB)	Schizophrenia (N=60)	11.53	3.316	t - 1.854 P - 0.066
	Stroke (N=60)	10.62	1.914	

**Table 7 :** Comparison of Various Caregiver Burden Categories

This table shows that comparison of various caregiver burdens.

**Subjective burden** – The caregivers of patients with schizophrenia with mean value of 14.97 when compare to caregivers of patients with stroke with mean value of 11.25 experienced more of objective burden with significant p-value of 0.000.

**Objective burden** – The caregivers of patients with schizophrenia with mean value of 20.50 when compare to caregivers of patients with stroke with mean value of 14.83 experienced more of subjective burden with significant p-value of 0.000.

**Demanding burden** – The caregivers of patients with schizophrenia with mean value of 11.53 when compare to caregivers of patients with stroke with mean value of 10.62 experienced more of demanding burden.

**Table: 8** Association of caregiver burden with gender.

Gender of caregiver	Mean Burden Score			Standard Deviation			t- value/P-Value		
	SB	OB	DB	SB	OB	DB	SB	OB	DB
Male: Schizophrenia (N=37) Stroke (N=18)	14.70	19.97	10.84	1.762	2.651	3.228	10.462/ 0.000	11.003/ 0.000	1.899/ 0.063
Female: Schizophrenia (N=23) Stroke (N=42)	9.61	12.67	9.33	1.539	1.328	1.283	7.687/ 0.000	6.731/ 0.000	2.353/ 0.022
	11.95	15.76	11.17	1.622	3.560	1.886			

This table shows that association of caregiver burden with gender of care givers, in group 1 majority of caregivers were males N=37 experienced objective burden with mean value 19.97, subjective burden with mean value 14.70 with significant p-value 0.000 and demanding burden with mean value of 10.84 was not significant . In group 2 they were experienced less burden than group 1 with mean values of 12.67, 9.61 and 9.33 respectively. Where as in group 2 majority of caregivers were females N=42 but in group 1 they were N=23 experienced more burden with mean values of OB 21.35 SB 15.39 with significant p value 0.000 and DB with mean value of 12.65 than group 2.

**Table:9** Association of Caregiver Burden with age.

Diagnosis by Socio- demographic data	Mean Burden Score			Standard Deviation			t- value/P-Value		
	SB	OB	DB	SB	OB	DB	SB	OB	DB
Age: 20-40 Years: Schizophrenia (N=14) Stroke (N=23)	15.64	20.50	10.79	1.823	3.057	3.577	6.326/ 0.000	3.861/ 0.000	0.325/ 0.747
41-50 Years: Schizophrenia (N=26) Stroke (N=27)	11.35	15.48	10.48	2.102	4.231	2.192	6.795/ 0.000	7.800/ 0.000	1.160/ 0.252
>50 Years: Schizophrenia (N=20) Stroke (N=10)	14.31	20.00	11.27	1.644	2.638	3.269	5.258/ 0.000	6.759/ 0.000	0.923/ 0.364
	11.04	14.22	10.44	1.850	2.750	1.695			
	15.35	21.15	12.40	1.872	2.231	3.169			
	11.60	15.00	11.40	1.776	2.582	1.776			

This table indicates that association of caregiver burden with age, caregivers in all age groups in group1 were experiencing more burden in terms of objective burden, subjective burden and demanding burden than group 2.

**Table: 10** Association of caregiver burden with education.

Education	Mean Burden Score			Standard Deviation			t- value/P-Value		
	SB	OB	DB	SB	OB	DB	SB	OB	DB
Up to Secondary: Schizophrenia(N=47) Stroke(N=48)	15.11	20.19	11.79	1.902	2.568	3.375	9.043/ 0.000	7.590/ 0.000	1.378/ 0.171
Graduate: Schizophrenia (N=13)	11.65	15.48	11.02	1.828	3.415	1.839	8.132/ 0.000	11.038/ 0.000	1.703/ 0.000
	14.46	21.62	10.62	1.506	2.599	3.042			

Stroke (N=12)	9.67	12.25	9.00	1.435	1.422	1.279	0.000	0.000	0.102
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This table 10 indicates that literacy of the caregivers, in group 1 who are studying up to secondary education and graduate were experiencing more burden than group 2 with a significant p-value 0.000 of objective burden and subjective burden.

**Table: 11** Association of Caregiver Burden with duration of care giving.

Duration of caring	Mean Burden Score			Standard Deviation			t- value/P-Value		
	SB	OB	DB	SB	OB	DB	SB	OB	DB
2 –8 Years:									
Schizophrenia (N=14)	15.75	21.00	10.25	1.708	1.414	4.717			
Stroke (N=17)	11.59	14.76	10.47	1.326	2.611	1.125	5.376/ 0.000	4.560/ 0.000	-0.186/ 0.855
9 –12Years:									
Schizophrenia (N=22)	15.18	20.32	11.95	2.108	2.533	3.658			
Stroke (N=26)	10.96	15.12	10.77	2.218	3.912	2.197	6.719/ 0.000	5.355/ 0.000	1.385/ 0.173
13– 16 Years:									
Schizophrenia (N=16)	14.75	20.12	11.25	1.291	2.918	2.864			
Stroke (N=16)	11.31	14.50	10.56	2.024	3.406	2.220	5.728/ 0.000	5.017/ 0.000	0.759/ 0.454

This table indicates of caregiver burden association with duration of caring who are taking care for duration of 9-12 years are experiencing more objective burden and subjective burden in group 1 when compared with caregivers of group 2 with a significant p value of 0.000 and demanding burden not significant with a p value of 0.173.

**V. Discussion:**

The present study aims to compare the caregiver burden in caregivers of patients with Schizophrenia and Stroke and also make an attempt to find the association of caregiver burden with demographic factors like age, gender, education, and duration of care giving. The study sample consists of 120 caregivers out of which 60 are caregivers of patients with Schizophrenia (Group1) and 60 are caregivers of patients with Stroke (Group 2). The inferences drawn out of these findings will be discussed under the following sections.

Section 1: Socio-demographic description of patients.

Section 2: Socio-demographic description of caregivers of patients with Group1 and Group2.

Section3: Description and comparison of caregiver burden scores of Group1 and Group2.

Section4: Association of caregiver burden with demographic factors.

**Section 1: Socio-demographic description of patients:**

Most of the patients in Group1 were females 58.8 % and males 41.7%. In Group 2 three fourth of patients 70% were males and females 30% .Most of the patients in Group 1 were in the a age group of 31-40 years Where as in Group 2 the patients were between age group of 51-60 years. There is significant difference between age group of patients. Onset of illness in schizophrenia is at an younger age, whereas stroke occurs above the middle age to older age.

About 53.3% subjects in group 1 were married, 40% were unmarried and 6.7% were divorced whereas in group 2 majority of patients that is about 98.3% were married.

Majority of patients in both groups were primary educated. Regarding duration of illness in group 1 40% of patients were between9-12 years whereas in group 2 46.7%between 2-8 years.

**Section 2: Socio-demographic description of caregivers.**

More than half of the caregivers that is 61.7% were male caregivers in group 1 whereas in group 2 -70% were female caregivers. Similar findings were obtained by T.Morimoto et al<sup>13</sup>and W.J.M.Scholte<sup>14</sup> OP Reimer et al in

their study. Majority of caregivers in group 1 were in the age group of 41-50 years, whereas in group 2 the caregivers between 31-50 years.

Caregivers in both groups were married (98.3%). With regard to education 78.3% and 65% were secondary educated, in group 1 and group 2 respectively. The present study demographic data was similar to John Silvy et al<sup>15</sup>. In group 1 parents were the primary caregivers that is 51.6% whereas in group 2 66.7% were spouses. According to kumar et al parents perceived higher burden in schizophrenia patients. W.J.M Scholte et al<sup>14</sup> perceived that Partners of stroke patients had most care giving burden in terms of the consequences of involvement in care for the personal life of the caregiver.

In both groups half of the caregivers have provided care for long duration 63.4% and 43.3% respectively. But overall in group 1 caregivers provided care to the patient for more than 16 years. The present study proved that longer duration of caring is required to provide care to the psychiatric illness than chronic medical illness.

### **Section 3: Description and comparison of caregiver burden scores of group 1 and group2.**

The results of this study comparing caregiver burden for caregivers of Schizophrenia patients and stroke patients are in agreement with those of other similar studies<sup>5</sup> and show more caregiver burden for caregivers of psychiatric illness patients. These observations may be due to the varied nature of psychiatric illness and the bizarre and inappropriate behaviour of the psychiatrically ill, as these factors disrupt the relation between the caregiver and the patient. In spite of the adequate care, affection and support given by the caregiver, the nature of illness may prevent the patient from understanding the caregiver. Moreover, in some cases, the patient may even suspect the motives of the caregiver. These aspects of psychiatric illness further take a toll and worsen the burden on the caregiver.

The varied mood swings, disturbed sleep pattern, aggressive and violent outbursts are some other aspects of illness that may further worsen the burden of caregiver. Lastly, the personal, social and occupational deterioration in the patient's life may reflect negatively on the burden experienced by the caregiver.

The following section describes the caregiver burden scores of each domain of Montgomery Borgatta caregiver burden scale developed by RJV Montgomery. In this scale which measures objective burden (OB) subjective burden(SB) and demanding burden (DB).The present study results shows in Group 1 is subjective burden 14.97% objective burden is 20.50% which is higher in group 1 than group 2 subjective burden 11.25%, objective burden 14.83%. Whereas demanding burden (DB) is less in both groups. Because of long duration of illness in both the groups could have affected objective and subjective burden, including the physical deterioration of family caregivers.

In a hospital based study done in Orissa<sup>16</sup> the burden among caregivers of in patients with mental illness was assessed. Both subjective, objective burden was found to be 53.3%. A study conducted in 2004 by Erie County Department of Senior Service Caregiver Resource Centre<sup>49</sup> showed very high values of burden similar to this study. These observations can be explained by the presence of intimate family relations and social support in the Indian culture. Prashanth.A et al<sup>1</sup> got little variance when compared to our analysis. According to his study they obtained less Objective burden and demanding burden whereas Subjective burden is high.

In a study done by kumar et al<sup>17</sup> in a tertiary hospital to assess burden among caregivers of patients of schizophrenia they showed that primary caregivers were either parents or spouses and both perceived burden was high 70% experienced moderate degree of burden and 30% experienced severe burden.

In the present study when compared to group 2 subjective burden and objective burden is less than that in group1. When caregivers are having difficulty with the care of the patient, and this affects the status of their daily life, caregivers experience a significant reduction in personal time to take care of their own life needs, at times they may feel unable to do a competent job in their caretaking activities.

### **Section 4: Association of caregiver burden with demographic factors.**

There was a minor caregiver burden variation with the gender of caregiver, with the burden being higher among females (N=65) for SB, OB and DB than males. In group 1 female's perceived 21.35% objective burden 15.39% subjective burden and 12.65% of demanding burden than group 2. Both objective burden and subjective burden were statistically significant with p-value 0.000.

Sartorius et al, Nippon et al (2004)<sup>18</sup> who reported that there are significant gender differences regarding the mode of care giving and experience of caregiver's distress. Studies indicated that women caregivers typically report more negative feelings, more physical symptoms, and higher levels of burden, greater strain and poorer morale than male caregivers. According to Surjeet Shoo et al<sup>16</sup> in mentally ill patients majority of sample (70%) were males showing less burden 65.47% in comparison to female caregivers where 30% of the sample were female indicating burden of 68.05%. In physical illness majority of sample (70%) were female showing burden of 30% and 30% of sample were male showing burden of 29.44%. Jenkins and Schumaker<sup>19</sup> contended that not only the patients' gender but also the gender of the caregivers must be

considered. There were little convincing evidence to support the relationship between socio- demographic characteristic of the patients and burden on the family.

In a study Trivedi<sup>20</sup> and colleagues stated that young relatives and those having the age of above 45 experienced more burden than the middle age group relatives. The present study revealed that caregivers age between 20-40 years in group 1 experiencing more burden in terms of objective burden with a mean value of 20.50(sd-3.05) subjective burden with a mean value of 15.64(sd-1.82) and Demanding burden with a mean value of 10.79(sd-3.57) when compared to group 2 with a mean value of objective burden 15.48 (sd-4.23) subjective burdens 11.35(sd-2.10) and demanding burden 10.48(sd-2.19).

There was a difference between subjective burden and objective burden with age of the caregiver with a significant p-value 0.000 but there is no difference between demanding burden with a p-value of not significant. In group 1 21% of sample belongs to age group of 41-50 years having maximum burden in terms of objective burden 20.00 subjective burden 14.31 and demanding burden 11.27, similarly in group 2 22% of the sample perceived burden with OB 14.22, SB11.04, DB10.44.

And in group 1, 16.6% of sample belongs to age group above 50 years having burden in terms of OB 21.15, SB 15.35 and DB12.40 respectively. Similarly in group 2, 8.3% perceived in terms of OB 15.00, SB 11.60, DB 11.40. The present study revealed that in both groups having in all categories of burden more in age above 50 years. But according to Surjeet Shoo et al<sup>16</sup> in Group-1(mentally ill caregivers) 20% of sample belongs to age group of 20-30yrs having maximum burden of 70.41%. Similarly in Group-2, (Diabetes) 20% of the samples above 50yrs have maximum burden. The level of burden had enough variability with the age of caregiver and duration of care giving. Duma Melva Ratnawati et al<sup>21</sup> revealed that significant differences related to age, sex, with family caregiver burden. There are no significant difference related employment, education and marital status with family caregivers burden

In group 1, number of sample N=47 that is 78.3% were qualified up to secondary education perceived burden in terms of OB 20.19, SB 15.11 and DB 11.79 with standard deviation of 2.56, 1.90, 3.37 respectively. In group 2 N=48 that is 80% were qualified up to secondary education perceived burden in terms of OB 15.48, SB 11.65, DB 11.02 with SD 3.41, 1.82, 1.83 respectively with significant p- value 0.000. And 21.6% in group 1 20% in group 2 were qualified up to graduate perceived 21.62 OB, 14.46 SB, 10.62 DB in group 1 where as in group 2 12.25, 9.67, 9.00 respectively. The present study revealed that in both groups higher the education perceived more burden in terms of OB, SB and DB. Gopinath and Chaturvedi et al<sup>22</sup> found that educated relatives expressed more distress.

The present study also revealed that caregiver burden varied with relationship to the patient. About N=31, 51.7% were parents, spouses N=17 and others N=12 in group 1 where as in group 2 spouses N=40, 66.7% and others N=20 were taking care of patients. According to T. Morimoto et al<sup>13</sup> in his study reveals that the majority of caregivers in stroke patients were women (74%) and/or spouses (71%). In a study Trivedi and colleagues<sup>20</sup> found that the parents and siblings of schizophrenic patients experienced more burden in comparison to spouses.

The average care giving duration in both groups between 9-12 years, they perceived objective burden with mean value of 20.32 subjective burden 15.18 and demanding burden 11.95 in group 1. Where as in group 2 perceived OB 15.12, SB 10.96 and DB 10.77 with a significant p- value 0.000. When the duration of care increased, the average score of the care giving burden increases.

The study of Macnamara et al also reported that when the hours devoted to daily care are extended care giving burden increases. Pin quart and Sorensen et al<sup>23</sup> have reported in their studies that the duration of the care giving role is very important. The longer a person remains in the role of caregiver, the more their burden increases.

The Bugge et al.<sup>24</sup> study reported that caregivers devoted 13.5 hours per day in care during the first month after a patient's stroke and 16.4 hours after 6 months. The present study supported the findings of the above studies, that longer the duration of care higher the care giver burden.

## **VI. Limitations**

- The study is limited to the outpatient settings.
- It is not a longitudinal follow-up study.
- The present study literates were included so possibly there was a bias.
- The sample was randomly selected.
- Chronic psychiatric illness with multiple medical illnesses could not be compared.
- The sample size is small.
- In the present study caregivers of socioeconomic status could not be compared.

## VII. Future Directions

- The study could be done by interviewing caregivers of both out and in patient settings.
- The study could include both the literates and illiterate Caregivers in to the study.
- It would be better if psychiatric illness could be compared with multiple medical illness.
- It would be better if all the socio demographic data like occupation, socioeconomic status could be compared to their burden levels.

## VIII. Conclusion:

In the present study we compared the caregiver burden on caregivers of both Psychiatric illness (Schizophrenia) and Chronic medical illness (Stroke) patients and also to study the association of caregiver burden with demographic factors like age, gender, education, duration of care giving by, using Montgomery Borgatta Caregiver Burden scale in terms of objective burden subjective burden and demanding burden.

Each group consisted of 60 care givers. Care givers of Schizophrenia patients perceived higher burden than stroke. There was a gender difference in both groups in group 1 majority of caregivers were males where as in group 2 females predominantly wives and with the same age ranges from 41 to 50 years in both groups taking care of the patients. All most all of the caregivers of the patients were married in both groups and parents were primary care givers in group 1 where as spouses in group 2.

Majority of the caregivers studied up to secondary education in both groups and duration of care giving in both groups between 9 to 12 years. 30 percent in group 1 caregivers taking care of the patients above 16 years, as schizophrenia is the chronic disorder so caregivers of group 1 perceived burden is longer.

In group 1 all categories of subjective burden objective burden and demanding burden increased than group 2 and also increased burden with all sociodemographic variables in group 1 than group 2. finally the present study concludes that in group 1 caregivers perceived more burden than group 2. The various means to reduce OB are to improve home care, adult day care, routine friendly visits and use of assistive equipment. SB can be reduced by professional counselling and by the assistance of support groups, while DB can be lowered by professional counselling and educating more about the disease.

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**WRITTEN INFORMED CONSENT**

, hereby given my consent in writing

for including myself in this study titled " A Comparative study of care giver burden in Psychiatric illness and chronic medical illness". The investigators explained me in detail about the study and I understood the following information.

- a) The aim of the study is to assess the Care giver burden in Care givers of Chronic Schizophrenia and Stroke patients.
- b) The investigator will take my demographic details like age, occupation, educational status, area of residence, marital status, family, past and medical histories.
- c) Personal details will not be revealed to any person without my written consent.
- d) Investigator will ask me few set of questions to choose one answer.
- e) I am giving this consent without under pressure and at my own risk and I will not be benefitted from it.

Patient Signature / Thumb impression  
Date:

Investigator Signature  
Date:

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