Scholars Journal of Applied Medical Sciences
Abbreviated Key Title: Sch J App Med Sci
ISSN 2347-954X (Print) | ISSN 2320-6691 (Online)
Journal homepage: www.saspublishers.com

OPEN ACCESS

Psychiatry

Family Burden in Patients with Schizophrenia and Bipolar Affective Disorder and Comparison

Dr. Srilakshmi Kollu[1], Dr. Tej Kumar[2], Dr. Tara[3*]

[1]Assistant ptofessor department of psychiatry, guntur medical college, guntur, AP, India
[2]Assistant ptofessor department of community medicine, siddhartha medical college, Vijayawada, AP, India
[3]Assistant ptofessor department of psychiatry, siddhartha medical college, Vijayawada, AP, India

***Corresponding author:** Dr. Tara

DOI: 10.36347/sjams.2019.v07i03.011

| **Received:** 15.02.2019 | **Accepted:** 27.02.2019 | **Published:** 30.03.2019

Abstract

Original Research Article

Background: Earlier studies indicate that family burden is higher in patients with chronic psychiatric disorders like schizophrenia when compared to episodic and relapsing nature of the bipolar disorder. ***Aims***: To compare the family burden in patients with schizophrenia and bipolar disorder. ***Methods:*** The present study was undertaken at department of psychiatry, sri venkateswara ramnarayana ruya hospital, tirupathi. Toal 80 patients diagnosed to be suffering from schizophrenia and bipolar disorder, 40 each from schizophrenia and bipolar disorder and their caregivers were enrolled in the study after obtaining verbal and written informed consent. The key relative or primary caregiver was administered with BAS and the burden scores were counted. Burden scores between schizophrenia and bipolar disorder were compared using the BAS score .The disability of the patients was assessed by WHO-DAS2 score. ***Results:*** There were no significant differences in the burden scores of schizophrenia and bipolar disorder. There was positive correlation between the burden scores obtained by BAS and the disability of patients assessed by WHO-DAS2 in both schizophrenia and bipolar disorder. ***Conclusion***: Burden scores obtained in patients with schizophrenia and bipolar disorder indicated that family burden in patients with schizophrenia is similar to bipolar disorder.

Keywords: schizophrenia, bipolar disorder, psychiatric.

INTRODUCTION

Schizophrenia is a chronic psychiatric disorder.It causes a significant cost to the patient in terms of personal suffering and on the care givers as a result of shift of burden of care from hospital to families, In addition there are significant direct and indirect costs that include frequent hospitalisations and the need for long term psychological and economic support as well as life time lost productivity. Bipolar disorder is a common mental illness characterised by recurrent episodes of mania/hypomania and depression. It is ranked among the top 10 causes of disability among adults by the WHO. Although it is typically described as illness characterised by remissions and recurrences, a substantial proportion of patients do not completely recover from mood episodes and continue to experience residual mood symptoms along with significant impairment in all areas of individual functioning. There are studies in the literature indicating that bipolar disorder has a significant care burden on patients' relatives.

BURDEN

The shift from hospital based care to community based care has resulted in emotional and financial burden and it affects the lives of significant others in the family. Treatment of chronic psychiatric patients are generally conducted at homes rather than institutions such as hospitals and care centres, so relatives of patients have to face with lifelong care demands of chronic patients which are due to multidimensional requirements and problems of them. When studies on burden experienced by caregivers are examined, variables causing care burden can be as follows

- Practical/household tasks.
- Atmosphere at home.
- Great incidents.
- Financial liabilities and emotional consequences.

Practical/ household tasks which are the first factor consist of leading some activities of patient, steering him/her towards using medications or accompanying him/her when going out. Another dimension of this factor is being carrying out the tasks which patient was previously able to by family members after the onset of disease. Atmosphere at home is divided into two as state of mind and chaos experienced.

Great incidents which are the third factor are problems due to incidents such as violent acts of patient, excessive noise, disruption of families' sleep, leaving home or threaten to leave home and disruption of communication with family.

Finally, financial liability brought to family patient and emotional problems of family members due to disease make up burden variables experienced by family.

When different characteristics requiring care are examined, it is possible to divide factors affecting burden of caregiver into factors belonging to caregiver and factors belonging to patient.

- Factors belonging to patient can be collected under three different topics: cognitive impairment, functional impairment and behavioral problems.
- Factors belonging to caregiver are age, ethnical origin and gender of caregiver, relationship with patient, volunteering status to give care, educational level, and economical status, presence of a chronic disease, coping skills, beliefs, social support and cultural characteristics of the society.

Family burden has been adopted to identify the objective and subjective difficulties experienced by relatives of people with mental disorder.

Burden is considered to have 2 components
1) Objective and 2) subjective.

Objective burden relates to the practical problems experienced by relatives such as disruption of family relationships, constraints in social, leisure and work activities, financial difficulties, and negative impact on their own physical health.

Subjective burden relates to the psychological reactions which relatives experience. eg: a feeling of loss, sadness anxiety and embarrassment in social situations , the stress of coping with disturbing behaviour and frustration caused by changing relationships

Some of the factors that care givers ranked as significant in contributing to their perception of burden include the following

- Noncompliance and adherence illness
- Lack of motivation and poor self-care
- Co-morbid substance abuse
- Disrupted family dynamics
- Inadequate social and economic support
- Access to crisis psychiatric care and hospitalisation when required
- Access to information and support network

Risk for carers psychological distress are related to age, gender, ethnic, health status, and cultural affiliation, lack of social as well as certain other characteristics related to caregivers. Some of the patient factors are behavioural disturbances, functional impairment and the fear that their relative may attempt suicide. Caring for a relative with mental health problem is not a static process since the needs of the care recipient alter as their condition changes.

Over the past few decades, research into the impact of care giving has led to an improved understanding of the subject including the interventions that help. It has now been realised that developing constructive working relationships with carers and considering their needs is an essential part of service provision for people with mental disorder who require and receive care from their relatives.

Most studies of family burden have been undertaken in developed countries. It is important to test the generalizability of this research in context where social conditions and family involvement may be different. The number of different scales in different studies made it difficult to compare data from diverse studies. Very few studies from India have compared the burden perceived by care givers of schizophrenia and bipolar affective disorder those that have been largely inconclusive. The lack of consistent findings with respect to burden experienced by caregivers of schizophrenia and bipolar affective disorder and the limitations of the concept ofburden prompted us to undertake this investigation. It was thought that comparing the 'experience of care giving' will provide useful information that will be helpful in understanding and reducing the distress of caregivers and improving outcome of both the disorders.

Hence the present study aims to compare the family burden in patients with schizophrenia and bipolar disorder.

Objectives

- To study the caregiver burden of persons with schizophrenia and bipolar affective disorders.
- To compare the caregiver burden of persons with schizophrenia and bipolar affective
- To assess the disability of patients with schizophrenia and bipolar affective disorder
- To study the determinants that contributes to the caregivers perception of burden of care

MATERIALS AND METHODS

This study was Hospital based non randomised cross sectional study conducted in the department of psychiatry at SVRR GGH Tirupathi. This cross sectional study will be performed on key relatives of patients with schizophrenia and bipolar affective disorders.

Subjects for the study were selected from outpatient and inpatient of the psychiatric unit of department of psychiatry at sri venkateshwara medical college, which is a tertiary care teaching hospital in tirupathi.80 subjects who are meeting the inclusion and exclusion criteria were chosen from outpatient and inpatient units.

An informed consent was obtained from those who were willing to participate in the study. The purpose of study was explained to the participants in their own language and they were informed that refusal to participate, would not affect the ongoing treatment or outcome of their patient adversely.

Key relative or primary caregiver

The term key relative for the present study was operationally defined as someone living with the subject in the same house hold spending time with him or her and shouldering responsibilities of caring of him/her for majority of time. The decision as to who were key relatives will be made based on information obtained from the patient or accompanying persons. A one year duration of care was required as criteria as entry to the study. Key relatives with a history of or currently under treatment for chronic medical conditions or psychiatric disorders were not included as these may have impact on care giving and burden. If more than one key relative is available the immediate family members who spent maximum time with the patient will be included in the study.

Procedure

A semi quantitative proforma will be used to collect information on demographic variables. They were informed of the confidentiality of their information and their acceptance or refusal to participate has no impact on clinical treatment. Written and verbal consent was obtained from the key relatives.

Scales

Scales used for this study are BAS (Burden assessment schedule), WHO DAS 2 (WHO disability assessment schedule)
Period of study: one year
Number of subjects: 80

Burden assessment schedule

The schizophrenia Research foundation (SCARF), a voluntary organisation devoted to the care of the chronic mentally disabled for over a decade has effectively integrated the role of the family in the management of the mentally ill. To further this objective, SCARF in collaboration with the regional office for South East Asia of WHO took up the development of an instrument to measure the subjective component of burden in families (Thara *et al.*). It serves a number of purposes. The most will be the evaluation of the impact of various support measures to caregiving families on perceived burden. A second will be the correlation between various aspects of psychopathology and perceived burden. In BAS, burden is assessed mainly on five factors. They are impact on well-being, impact on marital relationships, appreciation for caring, impact on relation with others andperceived severity of the disease. BAS is a 40 item scale. It is a very popular and widely used scale to assess both objective and subjective burden experienced by caregivers. The internal consistency for this scale was 0.8 as measured by alpha coefficient. Each item has 3 responses not at all, to some extent, very much. Scores range from 40-120 with higher scores indicating greater burden. Of the 40 items rated, 4 were to be answered only by the key relatives who were spouses. Total burden was calculated for each patient in this study with a maximum score of 120 for spouses and 108 for others. A total adjusted burden score was calculated using the formula

Score obtained/maximum score ×100

Who disability assessment schedule

WHO –DAS: Information on disability is an important component of health information, as it shows how well the individual is able to function in general areas of life, definig and measuring disability however has been challenging. The WHO international classification scheme known as International Classification of Functioning, disability and Health. To address the need for a standardised cross-cultural measurement of health status and in response to calls for improving the scope and cultural adaptability of original WHODAS WHO developed a second version (who das2.0) as a general measure of functioning and disability in major life domains. In the current study 36 item version is selected. Internal consistency a measure of correlation between items in a proposed scale was very good for WHO DAS. The overall correlation coefficient was 0.98

Inclusion criteria for the caregivers were as follows

- Age between 18-65 (both inclusive)
- Confirmed primary diagnosis of schizophrenia and bipolar affective disorder in the relatives
- Illness duration of 2 years or more.

Exclusion criteria

- Families with another family member (other than the patient) with a psychiatric or chronic physical illness.
- Presence of chronic physical disease / organic syndrome / mental retardation

Data Analysis

Data analyzed by “SPSS 15.0 for Windows” software. Descriptive statistics were performed to evaluate demographic characteristics of cases and results were expressed as frequency, percent, mean and standard deviation. Chi-square test was used to analyze the difference between groups and variables. p values less than 0.05 were accepted as statistically significant.T test,ANOVA test and Pearson correlation coefficient are also used.

RESULTS

Patient age

Regarding the age distribution of patients 57.5% (46 cases) were below 30 years and 28.8% (23 cases) were between 31-39 years and 13.8%(11 cases) were above 40 years .There is no statistically significant difference in age wise distribution of patients. Majority of the patients are in less than 30 years group. Followed by 31-39 years and more than 40 years. In both schizophrenia and BPAD majority of patients are in the age group of less than 30 years followed by 31-39 years. Only a small proportion of patients are above 40 years age.

Patient sex

In BPAD group females outnumber the males and in schizophrenia group males are slightly higher than females but there is no statistically significant difference the two groups regarding the patient sex. Gender distribution of bipolar and schizophrenia patients were 53.8% (43 cases) men and 46.3% (37 cases) women.

Patient education

Regarding education of patients 75% (60 caes) were literate and 25 %(20 cases) were illiterate. More patients are literate in BPAD group compared to the schizophrenia group but there is no statistically significant difference between the two groups

Patient marital status

Marital status was 68.8% (55 cases) were married and 26.3%(21 cases) were unmarried and divorced cases were 5%(4 cases).There is no statistically significant difference in marital status of the patients between the two groups

Caregiver age

The mean age of caregivers in BPAD group is 43.4 years and the mean age of caregivers in schizophrenia group is 44 years and there is no statistically significant difference in the mean ages of the two groups.

Age distribution of caregivers is as follows. Below 30years are 17.5%(14 cases). Between 31-39 years are 10%(8 cases) and 72.5%(58 cases) are 40 years and above.

Caregiver sex

When caregivers of study group are evaluated regarding gender, proportion of men was found higher 55.1%(44 cases) and proportion of women was 45%(36 cases).In the BPAD group 60% of the caregivers are males anf females constitute 40% and in schizophrenia group there is equal distribution of both males and females. However there is no statistically significant difference between the two groups regarding the caregiver sex

Table-1: Caregiver religion

	Christian	Hindu	Muslim	
Bpad	3(7.9)	34(84.2)	3(7.9)	40(100)
Schizophrenia	2(5)	36(90)	2(5)	40(100)
Total	5(6.4)	70(87.2)	5(6.4)	80(100)

(Figure in the paranthesis indicates percentage)
CHI-SQUARE=0.584,P=0.78466,NS

An expected value is less than 5, so chi-square is not valid. There is no statistically significant difference in the religion of both the schizophrenia and BPAD groups regarding the religion. Majority are Hindus and Christians and Muslims constitute only a small percentage.

Caregiver education

Regarding the education of caregivers only 51.3%(41 cases) are literate and 48.8% (39 cases) are illiterate.(P=1.2508).More percentage of caregivers in BPAD group are literate than the schizophrenia group but there is no statistically significant difference between the two groups. Regarding employment 75% (30 cases) are employed in schizophrenia group and 67.5%(27 cases) are employed in bipolar group

Caregiver marital status

In both the schizophrenia and BPAD groups more than 80% are married and there is no statistically significant difference between the two groups regarding the marital status. When marital status was examined 85% (68 cases) were found to be married. Proportion of unmarried cases is 1.3%(1 case) and proportion of widowed cases is 13.8%(11 cases).

Type of family

In both the schizophrenia and BPAD groups 67.5% caregivers and patients came from nuclear families and there is no statistically difference between the two groups

Caregiver relationship

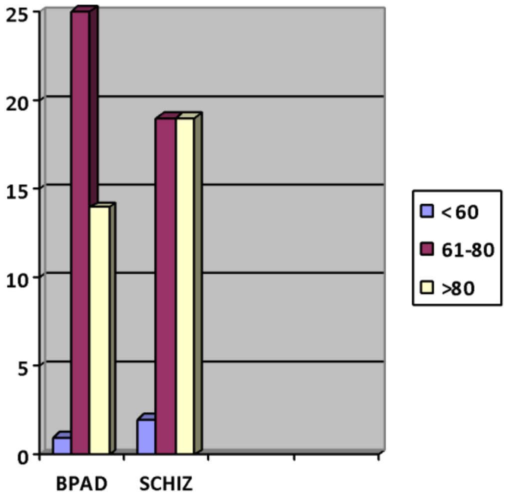
When relationship of caregivers to patient is examined husband became first in bipolar group 37.5% (15 cases) followed by mother 27.5% (11 cases) and father 22.5 %(9 cases). In the schizophrenia group mother came first, 35% (14 cases) followed by husband 32.5%(13 cases) and father 15%(6 cases

Duration of illness

Mean duration of illness is BPAD group is slightly higher (9.02) than schizophrenia (7.37) but there is no statistically significant difference between the two groups

Mean bas score

Mean BAS scores in both the schizophrenia and BPAD groups are similar and the no statistically significant difference between the two groups



Distribution of bas scores in bpad and schizophrenia caregiver

In WHO-DAS scoring of burden majority of patients scored between 81-100 followed by 61-80

Table-2: Correlation between bas scores of caregivers and who-das scores of patients in schizophrenia

	mean	standard deviation	number
Bas score	78.25	10.21	40
who-das score	84.05	13.11	40

Pearson correlation coefficient is 0.758 which means that as the disability of the patients increases burden felt by the caregivers also increases.(significance is 0.00)

Table-3: Correlation between bas scores of caregivers in bpad and who-das scores of patients in bpad

	Mean	Standard deviation	Number
Bas score	78.10	10.55	40
Who-das score	79.88	12.435	40

Pearson correlation coefficient is 0.739 which means that as the disability of patients increases burden felt by the caregivers also increases.

In BAS scoring meanburden scores in all age groups in both schizophrenia and BPAD are similar and there is no statistically significant difference between the two groups. There is also no statistically difference in mean burden scores of different age groups.

Table-4: Burden scores in different age groups of caregiver's bas scores

	Schizophrenia	BPAD	P value
<30years	78.88+/-11.40	78.5+/-4.18	0.934
31-40 years	74+/-14.14	77.3-/-9.97	0.572
>40 years	78.37-/-10.02	78.18+/-11.79	0.392
P value	0.83	0.98	

Table-5: Burden scorese depending on age of patient bas scores

	SCHIZOPHRENIA	BPAD	P VALUE
<30years	76.09+/-9.79	73.21+/-7.98	0.24
31-40 years	79.80+/-8.60	84.70+/-7.05	0.11
>40 years	86.60+/-13.31	86.67+/-13.98	0.728
P value	0.11	0.00	

There is no statistically significant difference between schizophrenia and BPAD when caring for patients of different age groups. In both schizophrenia and BPAD caregivers felt more burdens when age of patient is more than 40 years. And there is statistically significant difference in BPAD groups.

Table-6: Comparison of burden scores in different age groups of patients

	< 30 years	31 -39 years	>40 years	P value
BAS scores	74.59 ± 8.91	81.30 ± 8.36	86.64 ± 12.98	0..00

Caregivers felt significantly higher burden when caring for patients of > 40 years age.

Table-7: Comparison of burden scores in different in age groups of caregivers

	< 30 YEARS	31 -39 YEARS	>40 YEARS	P VALUE
BAS SCORES	78.71± 8.76	76.50 ± 10.10	78.28 ± 10.81	0.88

There is no statistically significant difference in the mean burden scores of caregivers belonging to different age groups.

There is no statistically significant difference between schizophrenia and BPAD in mean burden scores of caregivers of both male and female patients.Male caregivers in BPAD group felt more burden when compared to male caregivers in the schizophrenia group but there is no statistically significant difference between them.

Table-8: Burden scores depending on sex of caregivers

	Males	Females	P value
Schizophrenia	77.1	79.5	0.46
BPAD	80	75.3	0.16
P value	0.25	0.31	

Table-9: Burden scores depending on sex of patient's bas score

	Schizophrenia	BPAD	P value
Male	79.82 +/- 9.92	76.20 +/- 6.39	0.07
Female	76.33 +/- 10.50	79.24 +/- 12.31	0.32
P value	0.91	0.01	

There is no statistically significant difference between schizophrenia and BPAD when caring for their both male and female patients. In the schizophrenia group care givers felt similar burden when caring for patients of both sexes. But in BPAD group care givers felt higher burden when caring for female patients.

Table-10: Burden scores among differrent sexes of patients. Bas score

	male	female	p value
Bas score	78.35+/-8.75	78.02+/-11.49	0.88

Males and females felt similar burden caring for their patients. And there is no statistically significant difference between them.

Male care givers and female care givers felt similar burden when caring for their patients. And there is no statistically significant difference between them.

Table-11: Burden scores among different sexes of care givers. Bas score

	Male	Female	Pvalue
Bas score	78.11 +/- 10.56	78.25 +/- 10.15	0.95

Table-12: Burden scores of male patient's bas score

	male care givers	female care givers	p value
Bas score	77.82+/-11.99	78.58+/-7.25	0.81

Among the care givers for the male patients, female more burdens compared to males but there no statistically significant difference between the two.

Among the caregivers caring for the female patients males felt more burdens compared to females but there is no statistically significant difference between the two.

Table-13: Burden scores for female patients: bas score:

	Male Care Givers	Female Care Givers	P Value
Bas score	78.94+/-	75.00+/-	0.35

Table-14: Burden scores among different religions

	schizophrenia	bpad	p value
hindus	78.72 ± 10.39	77.71 11.09	0.992
muslims	74 ± 14.14	75.67± 5.85	0.896
christians	74 ± 1.41	85 ± 5.00	0.358
p value	0.69	0.48	

There is no statistically significant difference between schizophrenia and BPAD when caring for their patients of different religions. There is also no statistically significant difference in both schizophrenia and BPAD depending on religion.

Table-15: Comparison of burden scores among different religions

	Hindus	Muslims	Christians	P Value
Bas Score	78.23± 10.67	75.0 ± 8.24	80.60 ± 7.02	0.69

There is no statistically significant difference in the mean burden scores of Hindus,Muslims and Christians

Table-16: Burden scores depending on marital status of caregivers

	Schizophrenia	Bpad	P value
Married	79.73 ± 9.44	78.34 ± 11.06	0.615
Unmarried	58 0.0	-	-
Widowed	73.5 ± 10.87	76.4 ± 6.34	0.314
P value	0.04	0.70	

There is no statistically significant difference between schizophrenia and BPAD when caring for their patients depending on marital status of caregivers. In both schizophrenia and BPAD there is no statistically significant difference in the mean burden scores depending on marital status of caregivers.

Table-17: Burden scores depending on patient marital status

	Schizophrenia	Bpad	P value
Married	79.37 ± 9.45	79.07 ± 11.47	0.694
Unmarried	75.45± 11.65	73.90 ± 7.24	0.716
Widowed	78.5 ± 16.26	85.50 ± 0.70	0.65
P value	0.57	0.25	

In schizophrenia there is only a slight difference in mean burden scores of married, unmarried and divorced groups and there is no statistically significant difference. In BPAD mean burden score of divorced group is much more than the married and unmarried group but not statistically significant. There is also no statistically significant difference between schizophrenia and BPAD.

Table-18: Burden scores depending on literacy of caregivers

	Schizophrenia	Bpad	P value
Literate	75.67 ± 11.19	78.05 ± 10.32	0.618
Illiterate	80.36± 9.03	78.17 ± 11.13	0.754
P value	0.15	0.97	

There is no statistically significant difference between schizophrenia and BPAD depending on caregiver's literacy. In BPAD both literate and illiterate caregivers felt similar burden but in schizophrenia group illiterates felt more burden compared to literates but there is no statistically significant difference between them.

Table-19: Burden scores depending on literacy of patients

	Schizophrenia	Bpad	P value
Illiterate	78.38 ± 8.94	87.86 ± 9.33	0.990
Literate	78.19 ± 10.92	76.03 ± 9.70	0.295
P value	0.95	0.01	

Caregivers in schizophrenia group felt similar burden when caring for their literate and illiterate patients but caregivers in BPAD group felt significantly higher burden when caring for their illiterate patients. There is no statistically significant difference between schizophrenia and BPAD when cvaring for their patients depending on education of patients.

Table-20: Comparison of burden scores between literate and illiterate patients

	Literate patients	Illiterate patients	P value
Bas score	77.00 ± 10.01	85.85 ± 12.48	0.07

Caregivers felt more burdens when caring for their illiterate patients than literate patients but there is no statistically significant difference between them.

Literate and illiterate caregivers felt similar burden when caring for their patients and there is no statistically significant difference between them.

Table-21: Comparison of burden scores between literate and illiterate caregivers

	Literate patients	Illiterate patients	P value
Bas score	76.98 ± 10.65	79.38 ± 9.96	0.30

Table-22: Burden scores according to domicile

	Schizophrenia	Bpad	P value
Urban	81.40 ± 10.57	81.00 ± 11.83	0.97
Rural	75.10 ± 9.02	75.40 ± 8.92	0.786
P value	0.04	0.10	

There is no statistically significant difference between schizophrenia and BPAD depending on domicile. In both schizophrenia and BPAD caregivers from urban areas felt more burden when compared to caregivers from rural areas and in schizophrenia group there is statistically significant difference in the mean burden scores.

Table-23: Comparison of burden scores between urban and rural areas

	Urban	Rural	P value
Bas scores	81.21 ± 11.05	75.25 ± 8.86	0.01

Caregivers from urban areas felt significantly higher burden when compared to caregivers from rural areas and there is statistically significant difference between them

Table-24: Burden scores among different caregivers

	Schizophrenia	Bpad	P value
Mother	78.86 ± 8.49	74.00 ± 6.84	0.154
Father	72.83 ± 11.65	74.78 ± 11.67	0.817
Husband	80.46 ± 10.19	83.13 ± 11.91	0.424
Wife	84.25 ± 7.45	78.00 ± 5.78	0.58
Brother/sister	68.67 ± 13.61		
P value	0.17	0.10	

There is no statistically significant difference between schizophrenia and BPAD when caring for their patients of different relations.In the schizophrenia group wives felt more burden followed by husband and mother but there is no statistically significant difference between them.In the BPAD group husbands felt more burden followed by wives and fathers but there is no statistically significant difference between them.

Table-25: Burden scores according to the type of family

	Schizophrenia	BPAD	P value
Nuclear	78.04 ± 10.38	78.29 ± 9.98	0.68
Nonnuclear	78.75 ± 10.22	77.67 ± 12.24	0.819
	0.84	0.86	

There is no statistically significant difference between schizophrenia and BPAD whether they come from nuclear or nonnuclear families. In both schizophrenia and BPAD there is no significant difference in mean burden scores whether they come from nuclear or nonnuclear families.

Table-26: Comparison of burden scores according to the type of family

	Nuclear	nonnuclear	p value
Bas score	78.16 ± 10.09	78.21 ± 11.04	0.985

Caregivers from both nuclear and nonnuclear families felt similar burden and there is no statistically significant difference between them.

Burden scores in both schizophrenia and BPAD are significantly lesser when patient income is > 6000 rupees. There is no statistically significant difference between schizophrenia and BPAD in the mean burden scores of different income groups.

Table-27: Burden scores depending on income of patients

	Schizophrenia	BPAD	P value
< 2999	79.00 ± 10.80	79.54 ± 12.73	0.358
3000- 5999	76.7 ± 7.55	76.72 ± 5.85	0.57
6000	67 ± 0.00	73 ± 4.69	0.00(S)
	0.47	0.47	

Table-28: Burden scores depending on income of caregivers

	Schizophrenia	bpad	p value
0 -4999	79.29± 9.83	78.19 ± 9.56	0.76
5000-9999	80.55 ± 10.81	78.67 ± 13.37	0.82
>10000	68.20 ± 4.55	73.50 ± 6.36	0.237
	0.04	0.82	

Burden scores in both schizophrenia and BPAD are lesser when caregiver income is >10000 rupees. There is no statistically significant difference between schizophrenia and BPAD in the mean burden scores of different income groups.

Table-29: Burden scores depending on duration of illness

	SCHIZOPHRENIA	BPAD	P VALUE
< 5 YEARS	75.05 ± 8.98	74.95 ± 6.45	0.285
6-10 YEARS	77.95 ± 9.56	77.00 ± 6.11	0.153
10 YEARS	86.67 ± 11.91	82.93 ± 14.79	0.227
P VALUE	0.06	0.09	

In both schizophrenia and BPAD caregivers felt more burdens when the duration of illness of their relatives is >10 years but there is statistically significant difference between them. There is no statistically significant difference between schizophrenia and BPAD depending on duration of illness.

Table-30: Burden scores depending on age of onset of illness

	schizophrenia	bpad	p value
< 20 years	78.75 ± 10.96	75.94 ± 11.61	o.98
21-25 years	78.56 ± 9.61	78.20± 8.43	0.38
26-30 years	78.62 ± 10.09	79.00 ±12.32	0.551
30years	74.75 ± 14.00	88.23 ± 9.60	0.552
	0.92	0.32	

There is no significant difference between schizophernia and BPAD in the mean burden scores of caregivers depending on age of onset of illness of their patients.

DISCUSSION

Studies on burden of caregivers of patients having schizophrenia conducted so far report significant burden of caregivers with over 90% of families, experiencing moderate to severe burden.

The burden of carers of schizophrenia is multifaceted and large. There are the direct costs of providing care for individuals with schizophrenia. loss of productivity through impairments, disability as well as some legal problems including violence comes under indirect cost.

The behaviour of the person with mental disorders requires that the caretaker places their own needs and wishes after those of the client. The burden on families' ranges from emotional reaction to the illness, the stress of coping with disturbed behaviour, the disruption of household routine, the stigma they are confronted with and the restriction of social activities and economic difficulties.

Lauber[1] reported that threats, nuisances, time spent with the affected one, restricted social life and leisure activities are also predictors of burden. Data on such issues are essential in organizing services for the primary caregivers and mobilizing financial assistance.

Creer *et al.* [2] have also reported that the most common problems faced by the relatives while caring for the patient was putting up with his/her socially embarrassing and difficult behaviour.

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. This study demonstrated equal amount of burden reported by both male and female caregivers. The reason may be unlike traditional system where females perform the larger part of caretaking responsibility of ill persons in the family, males are also sharing the responsibility now a days.

Schizophrenia ans BPAD has a larger impact not only on the individual, but also on families and communities. Individuals not only suffer from the symptoms of the illness, but they are unable to participate in work and leisure activities often not only as a result of disability, but also because of the stigma and discrimination.

Schizophrenia and bipolar disorder are among chronic diseases which cause deterioration in patients, affect both patients and their environment negatively by this deterioration and have a remitting/relapsing course.We investigated the caregiver burden of relatives of patients with schizophrenia and bipolar disorder by Burden assessment schedule.

In our study, we found that literacy of caregivers has no effect on burden in both schizophrenia and bipolar affective disorder. However Care givers felt more burdens when the patients are illiterate. Results of the study differ from Aydın *et al.* [3]. In another study done in Nigeria in 2006 by Ukpong[4], it was concluded that higher number of years of education increases care burden. This was interpreted as well-educated person leaving his/her working environment, spending more time with his/her spouse and higher responsibility to financially support the patient .These inconsistent results may be due to differences at study designs and sample sizes but also be interpreted as intercultural differences which educational level may arise due to different social consequences and life styles.

Foldemo *et al*. [5] found that age and gender of caregiver is not correlated with care burden in their study published in 2005. We also did not found any statistically significant correlation between age and gender with the burden scores consistent with this finding.

Van Der Voort *et al*. [6] reported that higher level of CGIS increases caregiver burden. Similarly, in the study of Şahin *et al*. [7]. disease severity significantly increase the burden experienced by patients' relatives by using "Young Mania Rating Scale".

We also found that spouses and parents are the most exposed to subjective burden among caregivers. In studies of Jungbauer *et al*.[8]. it was concluded that parents and spouses are under continuous care burden.

In our study care givers from urban area felt more burdens when compared to care givers from rural areas. This is in contrast to Mubarak Ali[9] and Bhatt who have found that the burden perceived by relatives of a patient with chronic schizophrenia was the same in urban and rural families.

Exposure to subjective care burden was found in relatives of patients with bipolar disorder and schizophrenia. However, no statistically significant difference was found between groups regarding care burden. In our study care givers from both nuclear and non-nuclear families felt similar burden scores.

CONCLUSION

Care burden is substantial among caregivers of patients with both bipolar disorder and schizophrenia but there is no statistically significant correlation between two groups when compared

Mental illnesses affect individuals directly and caregivers indirectly. Therefore healthcare services for mental illness should also incorporate aspects of wellbeing of caregivers.

The relatives of patients with bipolar affective disorder and schizophrenia spend numerous care hours with their patients on a daily basis. Longer daily care hours significantly contribute to higher care burden and poorer quality of life. Therefore interventions focussed on decreasing caregiver's time spent on caregiving, such as developing more culturally integrated rehabilitation programs or day-care centres, may help to ameliorate the perceived burden of caregivers and further improve their quality of life.

Results of our study said that chronic psychiatric diseases cause a burden more than the medical aspect of the condition in both practical and psychiatric senses for family of patient. Changing life styles and family structures in our modernizing society produces severe problems for care of individuals with chronic diseases. There is increasing need for institutional follow-up units for patients deprived of social support for following their treatment after acute phase treatment and gaining their functionality as much as possible. Social Mental Health Centers which are under development will serve in narrow districts and will both treat and follow-up individuals with chronic psychiatric diseases and contribute to their clinical and social conditions. This will avoid disruption of treatment and consequently increase social participation and functionality of these patients.

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. Family interventional programs should be planned on the basis of a careful assessment of the burden experienced, coping strategies, interpersonal skills and social resources of each relative

REFERENCES

1. Lauber C, Eichenberger A, Luginbühl P, Keller C, Rössler W. Determinants of burden in caregivers of patients with exacerbating schizophrenia. European psychiatry. 2003 Oct 1;18(6):285-9.
2. Creer C & Wing J. Living with a schizophrenic patient. *Br J Hosp Med.* 1975 ;14:73–8
3. Aydin A, Eker SS, Cangür Ş, Sarandöl A, Kirli S. Şizofreni Hastalarında Bakım Veren Külfet Düzeyinin, Sosyodemografik Değişkenler ve Hastalığın Özellikleri ile İlişkisi. Archives of Neuropsychiatry/Noropsikiatri Arsivi. 2009;46.
4. Ukpong DI. Demographic factors and clinical correlates of burden and distress in relatives of service users experiencing schizophrenia: A study from south-western Nigeria. International Journal of Mental Health Nursing. 2006 Mar;15(1):54-9.
5. Foldemo A, Gullberg M, Ek AC, Bogren L. Quality of life and burden in parents of outpatients with schizophrenia. Social Psychiatry and Psychiatric Epidemiology. 2005 Feb 1;40(2):133-8.
6. Van der Voort TY, Goossens PJ, van der Bijl JJ. *Burden, coping and needs for support of caregivers for patients with a bipolar disorder: a systematic review*. J Psychiatr Ment Health Nurs. 2007; 14(7): 679–687.
7. Şahin E, İlnem C, Yıldırım EA, Güvenç C, Yener F. İki uçlu mizaç bozukluğu olgularında aile yüklenmesi üzerine karşılaştırmalı bir çalışma. Düşünen Adam Psikiyatri ve Nörolojik Bilimler Dergisi. 2002;15(4):196-204.
8. Jungbauer J, Bischkopf J, Angermeyer MC. Belastungen von Angehörigen psychisch Kranker. Psychiatrische Praxis. 2001 Apr;28(03):105-14.
9. Ali RM, Bhatti RS. Social support system and family burden due to chronic schizophrenia in rural and urban background. Indian journal of psychiatry. 1988 Oct;30(4):349.