

A comparative study of family burden between alcohol dependent patients and patients with schizophrenia



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Submission: 05-05-2021

Revision: 29-06-2021

Publication: 01-08-2021

ABSTRACT

Background: Alcohol dependence and Schizophrenia are two major psychiatric illnesses posing considerable burden on the families and caregivers. Alcohol dependence, like Schizophrenia, tends to run a chronic and erratic course causing a significant burn out on the families. **Aims and Objectives:** 1. To describe the Socio-demographic characteristics of Alcohol dependent patients and patients with Schizophrenia. 2. To compare the family burden in patients with Alcohol dependence and patients with Schizophrenia. **Materials and Methods:** The study was conducted in the Department of Psychiatry of a tertiary institute of north eastern India over a period of one year. A total of 100 cases (50 each of Alcohol dependence and Schizophrenia) constituted the study sample. A Semi-structured proforma was used for socio-demographic variables. The assessment of family burden was done using Pai and Kapur Family Burden Interview Schedule. **Results:** The two groups differed significantly from each other with respect to most of the sociodemographic variables. The overall family burden in the alcohol dependent patients was significantly higher than in schizophrenia patients. **Conclusion:** The families of both Schizophrenia and alcohol dependent patients suffer from moderate to severe amount of burden in various dimensions of their lives and the burden experienced by the families of alcohol dependent patients is in no way lesser than a chronic debilitating illness like Schizophrenia.

Key words: Burden; Caregiver; Mental illness; Substance use disorders; Alcoholism

Access this article online

Website:

<http://nepjol.info/index.php/AJMS>

DOI: 10.3126/ajms.v12i8.36924

E-ISSN: 2091-0576

P-ISSN: 2467-9100

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INTRODUCTION

The term 'Family' has its origin in the Latin designation 'familia' meaning a household establishment. In early Roman society, the term represented a group of members sharing a common descent or related by marriage.¹ The family forms a key support in caring for the persons with mental illness and has a significant role in the treatment and prognosis of mental illness. At the same time, the families of psychiatric patients experience substantial amount of hardships and burden like financial, interpersonal, health etc.²

Alcohol dependence and Schizophrenia are two major psychiatric illnesses in the world. These are two apparently distinct conditions having their individual etiopathogenesis,

clinical features and management. However, both these conditions tend to run a chronic and erratic course causing a significant burn out on the effected families. Unemployment, aggression, domestic violence, are some of the commonalities associated with these two apparently distinct disorders. These are two major public health problems and contribute significantly to number of years lived with disability. Both pose considerable burden on the patient, their families, the society and the health care system. The family and the care givers are the greatest sufferers, financially, psychologically, socially as well as physically. At the same time, the families and the caregivers play a significant role in the management of these two therapeutically challenging disorders. It thus becomes

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imperative for mental health professionals to understand and keep in mind the burden experienced by families of such patients, while formulating a holistic management plan. This would go a long way in improving the prognosis as well as the quality of life of both the patients and their families.

However, when it comes to the field of research in family burden, Schizophrenia is not as naive as Alcohol dependence. A number of previous studies have reported on the family burden in Schizophrenia.^{3,4} But there is a scarcity of research studying the family burden of alcohol dependent patients. Hence, in the present study we attempted to study the family burden in patients with Alcohol dependence in relation to patients with long term Schizophrenia.

Aims and objectives

The aim of the study was to compare the family burden in alcohol dependent patients and patients with Schizophrenia. The objectives were:

1. To describe the Socio-demographic characteristics of Alcohol dependent patients and patients with Schizophrenia in the study population.
2. To compare the family burden in patients with Alcohol dependence and patients with Schizophrenia.

MATERIALS AND METHODS

It was a cross sectional hospital based study. The study was conducted in the Department of Psychiatry of a medical college located in the state of Assam. The catchment area is inhabited by people from all the communities, mostly Hindus and Muslims in the ratio of 5:4. The college is the only tertiary care facility in its district getting referrals from all the nearby districts as well as neighboring states like Manipur, Mizoram and Tripura and also from the neighboring country Bangladesh. The study was carried out over a period of one year extending from October 2010 to September 2011. All alcohol dependent and schizophrenia patients attending the Psychiatry outpatient department or admitted in the indoor ward of the Medical College constituted the study population. Non-Purposive sampling strategy was used. All consecutive alcohol dependent and schizophrenia patients attending Psychiatry outpatient department or admitted in the indoor Psychiatry ward of the Medical College during the period of the study and fulfilling the inclusion criteria constituted the study sample. The Primary caregiver was identified and the interview schedule for assessment of family burden was applied after obtaining an informed consent. A total of 100 cases, 50 each of Alcohol dependent patients and Schizophrenia constituted the study sample.

All male patients meeting a diagnosis of alcohol dependence syndrome and all male patients meeting a diagnosis of Schizophrenia as per ICD-10 criteria in the age group of 21-70 years with a duration of illness equal to or more than two years were included in the study.

Only male cases were selected for the purpose of the study considering the socio cultural background of the study population and the study area where drinking and alcohol use disorders are not prevalent among the females. So assessing family burden with male patients would give results closer to the actual scenario. Duration of at least two years of illness was used as a criterion for the selection of cases with the aim of selecting only chronic cases for a better assessment of the burden on the families. It was also felt that the number of patients with Alcohol dependence with a duration of illness of at least two years would be very less for ages below 20, and for patients above 70 years the families may experience burden due to various other physical conditions and dependency on the family members. Hence in the study patients from 21 to 70 years were selected.

Patients with associated Intellectual disability, any other psychiatric illness diagnosable by ICD –10 criteria, patients with any long standing medical illness, patients with presence of any chronic physical illness or mental illness in any other member of the family, patients with primary caregivers who themselves suffer from any chronic physical illness, any mental illness or who refuse to cooperate. were excluded from the study.

Operational definitions

Primary caregiver: For the purpose of the study a primary caregiver was defined as any adult person staying with the patient in the same household for a duration of at least 12 months and directly involved in caregiving, most supportive emotionally or financially and most responsible for patient care.

Tools

- A Semi-structured proforma which was prepared in the department for the purpose was used for collecting information on socio-demographic variables of the patients and the primary caregiver.
- The Tenth Edition of the International Classification of Diseases, Classification of Mental and Behavioral Disorders, (Clinical Descriptions and Diagnostic Guidelines), AITBS Indian Edition 2007.⁵
- Pai and Kapur Family Burden Interview Schedule: This Interview Schedule was used to assess the burden on the families. The Family Burden Interview Schedule was designed by Shaila Pai and R.L.Kapur.⁶ This is a semi-structured interview schedule which measures

both the objective as well as subjective burden on the family. The objective burden is assessed by 24 items grouped under six general categories viz. financial burden (6 items), disruption of routine family activities (5 items), family leisure (4 items), family interactions (5 items), and effect on physical and mental health of others (2 items each). Rating of burden is done on a three-point scale for each item as well as for each general category (No burden-0, Moderate burden-1, Severe burden-2). It also contains a standard question to assess the 'subjective' burden which is scored on a similar three-point scale. The total family burden, including objective and subjective burden, is also rated similarly using a three-point rating. The schedule has a satisfactory validity and reliability with the inter-rater reliability for all items reported to be more than 0.78 by the authors. A translated version of Pai and Kapur's Family Burden Interview Schedule (1981) in the local language was used for the study. The translated version was tested for reliability and found to be statistically reliable with a Cronbach's alpha of 0.90. In our study we have scored each of the 24 items under the six broad general categories for assessing the objective burden as well as the subjective burden on a 3-point scale (0-no burden, 1-moderate burden and 2-severe burden). Each of the six general categories of objective burden was then scored by adding up the scores of the individual items under the respective categories. Then the mean scores of each of the general categories of objective burden as well as the mean subjective burden for the total sample were calculated. The mean scores were used for comparison between our two study groups. The total burden on each family was also measured by adding up the scores of all the 24 individual items of the objective burden and the score of the subjective burden. The mean family burden score of the total sample was thereafter calculated and the mean scores were used to compare the total burden on the families of patients with alcohol dependence and Schizophrenia.

Ethical considerations

The study was reviewed and approved by the Institutional Ethical Board of the college where the study was conducted. The study did not involve any intervention on any living subjects nor does the study reveal the identity of any study participants. The informed consent of the primary caregivers was taken prior to their enrolment for the study. They were fully explained about the need and nature of the study and about the protection of their identity in simple comprehensible language prior to taking their consent.

Statistical analysis

Chi-square test, Unpaired t-test and Mann-Whitney non parametric test were used to look for statistical

comparison of the sociodemographic variables and family burden between the alcohol dependent group and the schizophrenia group.

RESULTS

Sociodemographic variables

From Table 1 it can be seen that the two groups differed significantly from each other with respect to most of the sociodemographic variables except for domicile, type of family and educational status. Majority of the patients in both the groups were from a rural background, living in a nuclear family and were educated upto mid school level. The mean age of the alcohol dependent group was significantly higher (41.5 ± 9.4 years) than the Schizophrenia group (36.8 ± 10.5 years). There were a greater number of Hindus (86%) and Christians (10%) in the alcohol group than the Schizophrenia group (64% and 2% respectively) whereas there was a significantly higher number of Muslims (34%) in the Schizophrenia group compared to alcohol dependent group (4%). A significantly higher number of Schizophrenia patients were unmarried (20%) and unemployed (48%) compared to just 6% unmarried and 2% unemployed alcohol dependent patients. In addition to these, we also found that in the alcohol dependent group maximum number of patients was in the 31-40 years age group (38%) whereas the maximum number of patients with Schizophrenia was from the 21-30 and 31-40 years age group (32% each). The maximum number of cases (68%) had initiated drinking between 21-30 years of age. Similarly the most frequent age of initiation of Schizophrenia was between 21-30 years (38%).

Family burden

From Table 2 it can be seen that the families of the alcohol dependence group were found to be suffering from greater amount of Total family burden, greater subjective burden and higher burden in all the dimensions of objective burden except for financial burden compared to the schizophrenia group. These differences were found to be statistically significant except for the dimension of "Effect on Mental health of others" and "Subjective burden". Unpaired t test was used to look for significance between the difference in Total objective burden, Total family burden and the difference in burden scores in the dimensions of "Disruption Routine Family Activity" and "Disruption of family Recreation". For rest of the items Mann-Whitney non parametric test was used to look for statistical significance for the difference of burden scores between the two groups.

DISCUSSION

This study is an attempt to analyze the alcohol dependence and schizophrenia cases as they occur and to see the

Table 1: Sociodemographic characteristics of Alcohol dependence and Schizophrenia patients

Variable	Alcohol dependence (n=50)	Schizophrenia(n=50)	Significance
Mean Age (years)	41.5	36.84	t=2.332
SD	9.45	10.5	*
Religion			
Hindu	43	32	
Muslim	2	17	X ² =16.122
Christian	5	1	**
Marital Status			
Unmarried	3	20	
Married	46	25	X ² =21.443
Divorced/Widower	1	5	**
Domicile			
Rural	31	34	
Urban	19	16	X ² =0.3956 NS
Family			
Nuclear	31	30	X ² =1.283
Joint	10	14	NS
Extended	9	6	
Educational status			
Illiterate	3	2	X ² = 0.2222
Primary	6	6	NS
Mid-school	22	23	
Matriculate	19	19	
Occupation			
Unemployed	1	24	
Farmer/daily wager	14	9	X ² =30.962
Self employed	12	10	**
Govt.employee/Professional	23	7	
Socioeconomic status			
Low	11	18	X ² = 6.419
Middle	23	26	*
Upper	16	6	

t- Unpaired t test, X²- Chi square test, *p<0.05, **p<0.001, NS- Statistically Non significant

various socio-demographic variables and the burden on the families of alcohol dependent patients and patients with schizophrenia. There have been many studies in the past on the family burden of Schizophrenia. However, there is a dearth of literature reporting family burden in alcohol dependent patients in comparison to that of Schizophrenia.

The findings regarding the age group of the patients corroborate with the findings of many other previous studies.^{3,4,7-12} However a few other authors reported different findings.^{13,14,15} Majority of the patients in both the groups were Hindus and from a rural locality. This reflected the population pattern of the catchment area of the study. Similar findings were also reported by Hazarika et al.,¹⁴ and Creado et al.³ Most (92%) of the alcohol dependent patients were married, in contrast to just 50% in the schizophrenia group. This may be due to the burden of illness, social stigma, inability to find out stable occupation and stable partner, and gradual social isolation associated with Schizophrenia. Our findings are also supported by the findings of several other authors.^{3,10,16,17}

We found that majority of patients from both our study groups had a nuclear family (62% alcohol dependent and

60% schizophrenia patients). This is a reflection of the rapid urbanization and industrialization causing the age old tradition of extended and joint families to give up to the newer trend of smaller and nuclear families. Our finding regarding the educational status of the patients was very similar in both the groups with maximum number of patients in each of the groups (44% alcohol dependent and 46% schizophrenia) having an educational qualification upto mid school or high school level. This similarity is probably due to the pattern of population attending our study center. However, we found that majority (46%) of the alcohol dependent patients were employed in a government job whereas majority (48%) of schizophrenia patients were unemployed. This shows the devastating effect of schizophrenia on the individual. These findings corroborated the findings of several other previous studies.^{3,4,18,19} Majority of the patients in both the alcohol dependent and schizophrenia group were from the middle class socio economic strata (46% and 52% respectively). Similar findings were reported by various other national and international studies.^{4,17,19} Our finding as well as the findings of other authors shows that middle class families are more vulnerable to the menace of alcohol dependence as well as schizophrenia. High expectation,

Table 2: Comparison between family burden of alcohol dependent patients and patients with Schizophrenia

Burden	Alcohol dependence	Schizophrenia	t/U' value	p value
Financial Burden (0-6-12)				
Mean	4.66	5.62	U'=1603.5	0.0148*
SD	1.847	2.578		
Disruption of routine family activity (0-5-10)				
Mean	5.84	4	t=3.704	0.0004**
SD	2.244	2.703		
Disruption of family recreation (0-4 8)				
Mean	4.74	3.44	t=2.734	0.0074**
SD	2.211	2.533		
Disruption of family interactions (0-5-10)				
Mean	4.38	1.12	U' =2174.5	<0.0001**
SD	2.440	1.043		
Effect on physical health of others(0-2-4)				
Mean	1.64	0.78	U'=1767	0.003**
SD	1.208	1.036		
Effect on mental health of others (0-2-4)				
Mean	1.54	1.32	U'=1471	0.1242(NS)
SD	0.6764	0.7939		
Total Objective burden (0-24-48)				
Mean	22.78	16.22	t=3.626	0.0005**
SD	8.988	9.101		
Subjective Burden (0-1-2)				
Mean	1.78	1.64	U'=1405.5	0.2734(NS)
SD	0.4185	0.5253		
Total Burden (0-25-50)				
Mean	24.54	17.88	t=3.542	0.0006**
SD	9.287	9.516		

U'-Mann-Whitney Non parametric test, t-Unpaired t test, *statistically significant, **statistically extremely significant, NS- Statistically non-significant

rapid industrialization and urbanization, eroding social support system and extreme competitiveness make this section of population extremely stressed and vulnerable for various emotional disturbances.

The findings on family burden of the two groups reflected that the overall burden as well as the objective burden in each of the group was of moderate grade as can be seen from the mean family burden scores of the groups. The mean family burden scores of the alcohol dependent and the schizophrenia patients were 24.54 and 17.88 respectively (0- No burden, 1-25 – Moderate Burden, >25- Severe Burden). Mean objective burden scores of the two groups were 22.78 (alcohol dependent group) and 16.22 (schizophrenia group) which represents moderate burden (0 –No burden, 1-24 –Moderate Burden, >24 – Severe Burden). The overall subjective burden in both the groups was found to be severe as evident from the mean value of subjective burden scores in each of the groups.²⁰ The mean value of subjective burden score in the alcohol dependent group was 1.76 and in the schizophrenia group 1.66 (0 –No burden, 1 –Moderate Burden, >1 – Severe Burden). These findings reflected the findings of some other studies.^{4,21,22}

The alcohol dependent group was found to be suffering from significantly greater amount of objective (22.78

vs 16.22; *p value* 0.0005) as well as overall family burden (24.54 vs 17.88; *p value* 0.0006) compared to the Schizophrenia group. It was found that, compared to the Schizophrenia group, the alcohol dependent group was suffering from greater amount of burden in all the dimensions of the Family Burden Interview Schedule except for financial burden which was found to be higher in the patients with schizophrenia. The alcohol dependent group experienced maximum burden in the area of disruption of routine family activity followed by disruption of family recreation. Similar findings have been reported by another study from norther India.²³ Whereas in the schizophrenia group financial burden was found to be maximum followed by the domain of disruption of routine family activity similar to another study from South east Asia.²¹

This difference in the pattern and the extent of burden in the two groups is probably influenced by the sociodemographic and clinical variables of the patients and various other factors like the illness duration, symptomatology of the patients, compliance and response to treatment, expectancy of the family members on the functioning of the patient, extent of dependency of other members on the patient, family needs, family support, relation of the primary caregiver with the patient as well as premorbid functioning of the patient.

Limitations

Our study was a hospital based study which limits the study to only a section of the actual diseased population living in the community. The study sample consisted of patients visiting the hospital whereas the difficulties and burden of the families who do not report to the hospital may be qualitatively as well as quantitatively much different from the study sample. The cross sectional nature of the study is another limitation as the reported burden may vary over period of time depending on a various other dynamic variable which might be influencing it. Lastly, the sample size is a limitation for inferring the findings to the larger population. Hence, a community based longitudinal study involving a larger sample size and taking into account various other influencing variables will give better insights into the problem.

CONCLUSION

From the findings of our study we can conclude that the families of patients with alcohol dependence as well as those with schizophrenia suffer from moderate to severe amount of burden in various dimensions of their lives. The burden experienced by the families of patients with alcohol dependence is in no way lesser than a chronic debilitating illness like Schizophrenia. This calls for a larger longitudinal study exploring this lesser explored yet so important area involving alcohol dependence as well as a multipronged approach for the management of these two paralyzing disorders.

ACKNOWLEDGEMENT

The authors take this opportunity to thank the entire Department of Psychiatry of Silchar Medical College and Hospital for their whole hearted support for the study.

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All the authors have made significant contribution to the concept and design of the study, reviewing the literature, statistical analysis, interpretation of the results and preparation, revision and approval of the final draft of the manuscript.

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Source of Funding: None, **Conflict of Interest:** None.