

Family burden in alcohol dependence: A study in north-eastern India

Surajit Kumar Sen, Robin Victor, Kaveri Saxena

Department of Psychiatry, Silchar Medical College and Hospital, Silchar, Assam, India.
Correspondence to: Robin Victor, E-mail: robinvictor111@gmail.com

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Abstract

Background: Substance abuse and dependence besides affecting the individual also has substantial impact upon the family. It puts the whole family through a physical, psychological, emotional and financial stress.

Aim and Objectives: The aim of the present study was to assess the various socio-demographic variables of alcohol-dependent patients as well as their primary care givers and evaluate the severity and pattern of family burden among them.

Settings and design: A cross-sectional single interview case study done at Silchar Medical College and Hospital Assam after obtaining permission from ethics committee.

Material and Methods: Briefly, 50 cases were selected serially from the Psychiatry Outpatient department fulfilling the ICD-10 criteria of alcohol dependence syndrome and the primary care givers of these cases were assessed to evaluate the pattern and severity of family burden which was assessed via family burden interview scale.

Results: Majority of alcohol dependence cases were from the age range of 35 to 44 years (44%) while their primary care givers from 30 to 39 years (44%). Most of cases had their spouses (74%) as the primary care givers and 10–14 years of alcohol dependence (34%). Majority the primary care givers suffered from moderate type of family burden especially in area such as disruption of routine family activity, recreation and family interaction. Higher family burden was associated with equal to or more than 15 years of alcohol dependence which was statistically significant in most of the areas. Higher subjective burden was also observed when the primary care givers were spouse, cases were from rural areas, having nuclear family type with being illiterate/primary educated, belonging to lower/lower socio-economic group, and were financially dependent on others (unemployed/housewives).


Conclusion: The severity of family burden is greatly influenced by the socio-demographic variables of the families as well as the duration of the substance dependence of the cases.

KEY WORDS: Alcoholism, caregiver, cost of illness, socio-economic status

Introduction

The term family has its origin from the Latin term ‘familia’ that denotes a household establishment. The concept of family has undergone many transitions through various civilizations with time. Family nowadays denotes a group that consists of

parents, their children and nearby relatives of same bloodline.^[1] Family plays an important role in providing not only social and financial support to an individual but also helps in dealing with emotional crisis. It has been seen that any kind of illness, acute or chronic besides affecting the individual also has substantial impact upon the family. This is evident both in cases of physical as well as mental illness. Leff et al^[2] in 1990 suggested that traditional joint families helps in diffusion of burden for mentally ill usually leads to good course and outcome of a major mental disorder. In a traditional and culturally diverse country such as India family serves as an important institution since ages. Role of family becomes much more important here, as in country with 1.2 billion population there are approximately 5000 mental health professionals. Because of massive deficiency of mental health care settings and service providers, the community and family have important role to play in mental health

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care of an individual after discharge from hospital.^[3] According to the World Health Organization (WHO) report 2010 Alcohol per capita (15+) consumption (in liters of pure alcohol) in India has increased from an average of 3.6 for the year 2003–2005 to 4.3 for year 2008–2010. The prevalence of alcohol use disorder was 8.7% among men and 1.9% among women while that of alcohol dependence was 5.5% among men and 1.35% among women.^[4] Substance abuse disorder is a problem that affects both the individual as well as his family. “Burden of care” is defined as the presence of problems, difficulties, or adverse effects which affect the life of the household members of the psychiatric patient.^[5] Another view about family burden as suggested Rammohan et al^[6] in 2002 is “the cost that families of patients with psychiatric illness have to bear in terms of economic hardship, social isolation and psychological strains.” Hoeing and Hamilton^[7] in 1966 suggested that the family burden has two components – objective and subjective. The objective burden includes effect on the financial and economic area, interpersonal and social relationship, family interaction, and leisure time activities. While subjective burden includes care giver’s own perception about his/her mental and physical health. Alcohol abuse and dependence is a common problem in India^[8]. It has been seen that the families of the alcohol dependents are characterized by communication problem such as problem solving capacity, low family congeniality and poor family cohesion.^[9,10] It is mainly the spouse of an alcoholic that faces major stress. Alcohol abuse is associated with marital dissatisfaction, domestic violence and marital discord.^[11] Also there are increased reports of poor parenting and childhood abuse and neglect if there is an alcoholic parent in the family.^[12] The family not just undergoes stress because of the patient but also from the society due to the behavior of the alcohol-dependent individual. Although there have been many studies on substance dependence as an individual problem the study of its impact upon the family and associated familial problems have not been given much importance.

There are limited number of studies regarding this issue in North-Eastern India specially the Barak valley therefore this subject has been taken up to evaluate the various socio-demographic variables of alcohol-dependent persons as well as their primary care givers and evaluate the severity and pattern of family burden among them.

Material and Methods

This single interview cross-sectional study was conducted at Silchar Medical College and Hospital, Silchar, which is a tertiary care center. The hospital provides health services to southern part of Assam, along with the neighboring states of Tripura, Meghalaya, Mizoram, and Manipur. The average patients coming to this hospital is about 800–1000 per day. The study was conducted after taking approval from the institutional ethics committee. Data collection was done from December 2015 to February 2016. In total, 50 cases were selected serially from the Psychiatry Outpatient department

fulfilling the International Classification of Disease and Related Health problems criteria (ICD-10 criteria)^[13] of alcohol dependence syndrome. The diagnosis was made by the faculty of Psychiatry department. The primary care givers included were individuals who had been living together with the cases and were directly involved in general and basic care and treatment assistance of the cases for a period of ≥ 1 year. This cut-off was selected as most of the studies done in other parts of India regarding family burden have used this cut-off.^[14,15] Written informed consent was taken both from the patients as well as their primary care giver in the family. Patients as well as their primary care givers >18 years of age who gave consent to participate in the study were included in this study. Those under 18 years of age, suffering from severe debilitating or other comorbid chronic diseases or mental illness or not giving consent to participate in study were excluded. If the information provided by cases as well as their care givers was not adequate or reliable they were excluded from the study. If the cases had any other co-morbid substance dependence along with alcohol they were excluded. All the cases and their primary care givers who were selected were interviewed in detail using the below mentioned tool without any set limit. Interview pattern was flexible to elicit maximum data. For all cases privacy of interview and confidentiality was strictly maintained.

Tools used were:

1. Socio-demographic proforma:
 - A standard proforma describing socio-demographic variables was used which was designed and standardized in the Department of Psychiatry, SMCH.
 - The socio-demographic proforma gives information about age, gender, religion, marital status, family type and domicile, education of patient, occupation and socio-economic status of the cases and primary care givers.
2. Alcohol dependence syndrome was diagnosed using Tenth Revision of the International Classification of Disease and Related Health problems.^[13]
3. Family burden interview schedule (FBIS) [16] was used to assess the extent and pattern of burden on the primary care giver.

FBIS is a semi-structured interview schedule that covers six areas: financial burden, disruption of family routine activities, disruption of family leisure, disruption of family interactions, effect on physical health of others, and effect on mental health of others. It has 24 items, each rated on a 3-point scale (mild, moderate, and severe). Inter-rater reliability for all items is 0.78 and the correlational validity is 0.72. One question at the end is used to assess the global subjective burden.

Statistical Analysis

Appropriate data were collected, tabulated, and statistical analysis was done by GraphPad prism for windows version 6.01 and Statistical Package for the Social Sciences (SPSS v22). Descriptive data were analyzed by frequency, percentage, mean,

and standard deviation. Fischer exact test was applied to find out *P*-value and statistical significance wherever necessary. Odds ratio was also calculated.

Results

Socio-demographic and Clinical Variables of the Cases and their Care Givers Out of the cases of 50 cases of alcohol dependence syndrome taken for study, majority were found to be in the age range of 35–44 years (44%) followed by 45–54 years (30%). In the study group 96% cases were males with females comprising only 4%. In total, 88% were Hindus and 68% were from a rural background. Around 40% cases belonged to a nuclear family, 36% to joint family, and 24% had extended family. Majority of the cases were married (76%) and 14% were unmarried. In our study it was found that 62% cases had received primary education, 22% had secondary education, and 8% graduates with only 8% illiterate cases. Most of the cases in the study were unskilled workers (32%) followed by servicemen (28%), and businessmen (12%) where only 10% cases were unemployed/retired. When the socio-economic status was looked at, it was found that 46% cases were from lower/lower middle strata, 28% from middle socio-economic status, and 26% from upper middle/upper strata. These results are shown in Table 1.

As depicted in Figure 1, it was found that majority of cases had their spouses (74%) as the primary care givers, i.e., wife/husband; with 12% cases having parents as the primary care givers. In 6% cases their children were the care giver, 4% cases had siblings (mostly brother), and 4% cases had care givers which were not related to them.

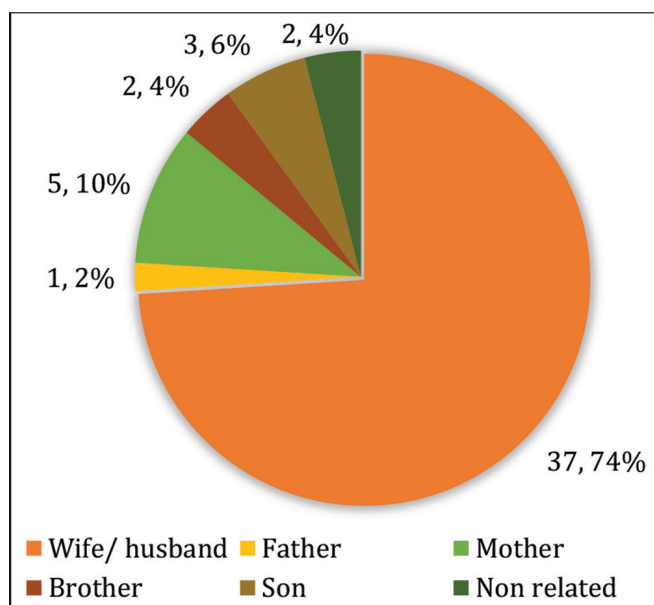


Figure 1: with patient

Table 1: Socio-demographic variables of alcohol-dependent cases

Parameters	N	%
<i>Age range</i>		
15–24	1	2
25–34	10	20
35–44	22	44
45–54	15	30
55–64	1	2
65–75	1	2
<i>Gender</i>		
Male	48	96
Female	2	4
<i>Religion</i>		
Hindu	44	88
Muslim	6	12
<i>Domicile</i>		
Rural	34	68
Urban	16	32
<i>Family type</i>		
Joint	18	36
Extended	12	24
Nuclear	20	40
<i>Marital status</i>		
Married	38	76
Unmarried	7	14
Others	5	10
<i>Education</i>		
Illiterate	4	8
Primary	31	62
Secondary	11	22
Graduate	4	8
<i>Occupation</i>		
Unemployed/retired	5	10
Housewife	2	4
Unskilled	16	32
Skilled	5	10
Service	14	28
Business	6	12
Professional	2	4
<i>Socio-economic status</i>		
Lower/lower middle	23	46
Middle	14	28
Upper middle/upper	13	26

As shown in Table 2, among the primary care givers majority were from age group of 30–39 years (44%) and 40–49 years (30%). It was found that 74% among the primary care givers had received primary education, 12% had secondary education, 4% were graduates/postgraduates, and only 8% were illiterates. Majority among the primary care givers were homemakers (70%), 28% were working, and only 2% were unemployed.

Table 2: Variables of the primary care givers

Variables	No. of care givers (N = 50)	Percentage
<i>Age range</i>		
10–19	1	2
20–29	6	12
30–39	22	44
40–49	15	30
50–59	3	6
60–69	2	4
70–80	1	2
<i>Education</i>		
Illiterate	4	8
Primary	37	74
Secondary	6	12
Graduate/postgraduate	2	4
<i>Occupation</i>		
Unemployed	1	
Housewife	35	
Working	14	

Duration of Alcohol Dependence of the Cases

When the cases were categorized according to their years of alcohol dependence, it was found that maximum (34%) cases had 10–14 years of alcohol dependence, 22% had 5–9 years of dependence, and 14% had 15–19 years of dependence as shown in Table 3.

Distribution of Type and Severity of Family Burden

Table 4 shows the distribution of type and severity of family burden on the primary care giver. In the financial burden it was found that 52% care givers had moderate burden and 28% with severe burden. Under disruption of routine family activity 58% had moderate burden and 26% had severe burden. For disruption of family recreation 72% care givers were found to have moderate and 16% care givers had severe burden. For disruption of family interaction 58% care givers had moderate burden with 32% care givers of severe burden. When effect on physical health of others was looked at, 46% cases were found to having no burden and 42% cases had moderate burden while for mental health 52% of care givers were having moderate burden and 40% cases with severe burden. When the subjective burden was assessed it was found that 48% had moderate burden and 36% of primary care givers had severe burden.

Comparison of the Severity of Family Burden with Years of Dependence

As shown in Table 5 severe financial burden (64.70%) was found more in cases ≥ 15 years of alcohol dependence and this was found to be highly statistically significant ($P < 0.0001$). Looking into cases ≥ 15 years of alcohol dependence case, higher no/moderate burden was found in the area of disruption of routine family activity (52.94%; $P = 0.021$) which was

Table 3: Duration of alcohol dependence of the cases

Years of dependence	Number of cases	Percentage
1–4	5	10
5–9	11	22
10–14	17	34
15–19	7	14
20–24	6	12
25–30	4	8

statistically significant, in area of disruption of family recreation (88.23%; $P = 0.699$) which was statistically insignificant and upon the physical health of the primary care giver (78.58%; $P = 0.013$) which was statistically significant. Higher severe burden was found upon the effect on mental health of others (64.40%; $P = 0.015$) and in disruption of family interaction (58.82%; $P = 0.008$) in cases with more than 15 years of dependence both of which was statistically significant.

Comparison of Various Socio-demographic Variables according to the Severity of Subjective Burden

As shown in Table 6, the subjective burden with various socio-demographic variables was compared. Among the primary care givers spouse of alcohol-dependent cases were found to have more burden (moderate burden 66.66% and severe burden 88.88%) as compared with non-spouse care givers. When the age of the primary care giver was looked at it was seen that 38.88% of severe burden group had age range of 30–39 and 40–49 each with 41.66% of moderate burden among age group 30–39 years. Majority of cases with moderate burden were from rural background (91.66%) and in severe burden cases were equally distributed for rural and urban background (50% each). For the type of family, 72.22% with severe burden belonged to nuclear family while 54.16% among moderate burden belonged to nuclear family. Looking at the socio-economic status 44.44% cases with severe burden and 62.5% with moderate burden were from lower/lower middle socio-economic status while among no burden group majority (62.5%) of the cases were from upper middle/upper socio-economic status. Majority of care givers with severe (55.55%) and moderate burden (91.66%) had received primary level of education. 73.68% of the care givers with severe burden and 73.91% care givers with moderate burden were the housewives of the cases under study.

Discussion

In this hospital-based cross-sectional study, 50 cases serially fulfilling the International Classification of Disease and Related Health problems criteria of “alcohol dependence” as well as the other inclusion and exclusion criteria were taken for the study. Majority of the alcohol dependence cases were found to be in the age range of 35–44 years (44%) while most of the primary care givers from age group of 30–39 years (44%). The mean age of the cases was 40.44 ± 8.83 years while that of primary care givers was 38.34 ± 11.20 years. Our

results were similar to a study done by Mattoo et al^[17] in North India who found mean age of cases and primary care givers to be 44.72 ± 8.95 and 41.17 ± 10.65 , respectively. Majority of our cases were Hindus (88%) followed by Muslims which can be explained on the basis that intake of alcohol is forbidden in Islam. Majority of the cases were married (76%) and most of them belonged to the lower to middle socio-economic status (76%). Malik et al^[18] in their study from Punjab, India reported almost similar results. However 62% of our cases had received primary education and only 8% were illiterate unlike that reported by Malik et al^[18] who had found majority of dependent cases to be illiterate (61%). Looking into the family structure it was found that most of the cases (60%) were from a joint/extended family. This finding is against the common belief that joint family system protects the individual from substance abuse and other psychiatric morbidities. The reason behind

this could be due to the prevalent socio-cultural codependence which forces the family members to accept the patient's drinking. Unlike our results Mattoo et al^[17] found maximum dependent cases (57.5%) from nuclear families. In our study majority of the primary care givers were spouse of the patient (74%) which is similar to study by Mattoo et al^[17] who found 77.5% primary care givers to be wife of the patient.

While looking on the years of dependence it was found that 34% cases had 10–14 years of alcohol dependence followed by 22% having 5–9 years of dependence. The mean duration of alcohol dependence for the cases was 11.94 ± 6.58 years. Malik et al^[18] reported 42.9% of the cases had 6–15 years of dependence which is quite similar to our study. Mattoo et al^[17] found the mean duration of dependence to be 12.92 ± 9.18 years.

Comparing across the different areas of family burden (as shown in Table 4) it was found that most of the areas had

Table 4: Distribution of type and severity of family burden

Type of family burden	No burden	Moderate burden	Severe burden
Financial burden	10 (20%)	26 (52%)	14 (28%)
Disruption of routine family activity	8 (16%)	29 (58%)	13 (26%)
Disruption of family recreation	6 (12%)	36 (72%)	8 (16%)
Disruption of family interaction	5 (10%)	29 (58%)	16 (32%)
Effect on physical health of others	23 (46%)	21 (42%)	6 (12%)
Effect on mental health of others	4 (8%)	26 (52%)	20 (40%)
Subjective burden	8 (16%)	24 (48%)	18 (36%)

Table 5: Comparison of the severity of family burden with years of dependence

Years of alcohol dependence	No burden/ moderate burden	Severe burden	P-value	Odds ratio	95% confidence interval	P-value significance
<i>Financial burden</i>						
<15 years	30 (90.90%)	3 (9.09%)	$P < 0.0001$	18.33	3.89–86.28	Significant
15–30 years	6 (35.29%)	11 (64.70%)				
<i>Disruption of routine family activity</i>						
<15 years	28 (84.84%)	5 (15.15%)	$P = 0.0210$	4.97	1.29–19.14	Significant
15–30 years	9 (52.94%)	8 (47.05%)				
<i>Disruption of family recreation</i>						
<15 years	27 (81.81%)	6 (18.18%)	$P = 0.699$	0.60	0.11–3.35	Non-significant
15–30 years	15 (88.23%)	2 (11.76%)				
<i>Disruption of family interaction</i>						
<15 years	27 (81.81%)	6 (18.18%)	$P = 0.008$	6.43	1.73–23.83	Significant
15–30 years	7 (41.17%)	10 (58.82%)				
<i>Effect on physical health</i>						
<15 years	32 (96.96%)	1 (3.03%)	$P = 0.013$	13.33	1.408–126.2	Significant
15–30 years	12 (70.58%)	5 (29.41%)				
<i>Effect on mental health</i>						
<15 years	24 (72.72%)	9 (27.27%)	$P = 0.015$	4.889	1.39–17.16	Significant
15–30 years	6 (35.29%)	11 (64.70%)				
<i>Subjective burden</i>						
<15 years	22 (66.66%)	11 (33.33%)	$P = 0.75$	1.40	0.42–4.68	Non-significant
15–30 years	10 (58.82%)	7 (41.17%)				

Table 6: Distribution of various socio-demographic variables according to the severity of subjective burden

Socio-demographic variables	No burden	Moderate burden	Severe burden
<i>Relation with case</i>			
Spouse	5 (62.5%)	16 (66.66%)	16 (88.88%)
Non-spouse	3 (37.5%)	8 (33.33%)	2 (11.11%)
<i>Age of care giver</i>			
10–19	0	1 (4.16%)	0
20–29	0	4 (16.66%)	2 (11.11%)
30–39	5 (62.5%)	10 (41.66%)	7 (38.88%)
40–49	3 (37.5%)	5 (20.83%)	7 (38.88%)
50–59	0	2 (8.33%)	1 (5.55%)
60–69	0	1 (4.16%)	1 (5.55%)
70–80	0	1 (4.16%)	0
<i>Domicile</i>			
Rural	3 (37.5%)	22 (91.66%)	9 (50%)
Urban	5 (62.5%)	2 (8.33%)	9 (50%)
<i>Type of family</i>			
Joint	2 (25%)	5 (20.83%)	1 (5.55%)
Extended	2 (25%)	6 (25%)	4 (22.22%)
Nuclear	4 (50%)	13 (54.16%)	13 (72.22%)
<i>Socio-economic status</i>			
Lower/lower middle	0	15 (62.5%)	8 (44.44%)
Middle	3 (37.5%)	4 (16.66%)	7 (38.88%)
Upper middle/upper	5 (62.5%)	5 (20.83%)	3 (16.66%)
<i>Education level of care giver</i>			
Illiterate	0	1 (4.16%)	3 (16.66%)
Primary	5 (62.5%)	22 (91.66%)	10 (55.55%)
Secondary	1 (12.5%)	1 (4.16%)	4 (22.22%)
Graduate/postgraduate	2 (25%)	0	1 (5.55%)
<i>Occupation of care giver</i>			
Unemployed	0	0	1 (5.26%)
Housewife	4 (50%)	17 (73.91%)	14 (73.68%)
Working	4 (50%)	6 (26.08%)	4 (21.05%)

moderate burden followed by severe burden except for the effect on the physical health of the care giver where no burden (46%) was followed by moderate burden (42%). Maximum severe burden was found upon the effect on the mental health of the primary care giver (40%) followed the subjective burden (36%). Most of the studies done in India have found the primary care givers to be having moderate burden especially in financial areas, disruption of routine activities, family leisure, and family interaction of results.^[17,18]

When the severity of family burden was compared with the years of alcohol dependence it was found that the cases having ≥ 15 years of dependence duration had more severe family burden in the areas of financial burden (64.70%), disruption of family interaction (58.82%), and effect on mental health of the care givers (64.70%) all of which were statistically significant. This shows the devastating effect of chronic long term use of alcohol on different domains of the family. Malik et al^[18]

reported similar higher family burden in cases having longer duration of substance dependence.

On comparison of the various socio-demographic variables with the severity of subjective burden it was found that most of the spouse of the dependent cases had moderate (66.66%) and severe (88.88%) subjective burden. Also the moderate vs. severe burden was more in housewife and unemployed group as compared to working care givers (73.91% vs. 78.94%). As reported by Bhowmick et al^[19] in most of the cases the family members especially the wives accepts the husband's drinking problem and take the whole responsibility of family on themselves and try to reorganize it. Hence they are subject to a higher physical and psychological burden as compared to the other care givers of the family. Among the family structure higher moderate (54.16%) and severe (72.22%) subjective burden was present in subjects having nuclear family as compared to those belonging

to joint/extended family. This highlights the positive effect a joint/extended family has in absorbing the stress and psychological, physical and financial burden in the family in times of crisis.^[20] Padmavath et al^[21] found that the larger the family, in terms of it being an extended or joint family, the more it was able to compensate for a dysfunctional member of family. Moderate vs. severe burden was higher in subjects hailing from rural background (91.66% vs. 50%), either being illiterate or having primary education (95.82% vs. 72.21%) and belonging to lower/lower middle socio-economic status (62.5% vs. 44.44%). Mattoo et al^[17] found similar result that family burden was associated with rural location of cases and low socio-economic status. People living in the rural area have less work opportunities and as most of them are not much educated they do not get high earning jobs thus most of them lie in the lower/lower middle socio-economic group. Already they are having higher psychological and financial burden and if any member of the family is having substance dependence large amount of money is spent by him in procuring the substance as well in treatment and care of the person due to adverse effect of the person which adds up to the subjective burden of the family members^[22].

Thus it was found that majority of the alcohol-dependent cases were from the age group of 35–54 years, married, from rural background, having joint/extended family type with primary level of education, belonging to lower/lower middle socio-economic class with most of them having their spouse (housewives) as the primary care givers. Majority of them had 10–14 years of alcohol dependence. Most of the primary care givers suffered from moderate type of family burden especially in area such as disruption of routine family activity, recreation and family interaction. Higher family burden was associated with equal to or more than 15 years of alcohol dependence. Higher subjective burden was also found when the primary care givers were spouse, cases were from rural areas, having nuclear family type with being illiterate/primary educated, belonging to lower/lower socio-economic group and were financially dependent on others (unemployed/housewives).

This study was one of the few studies conducted in India specially the North-Eastern region to evaluate the pattern of family burden among the primary care givers of alcohol-dependent cases. A number of significant findings have been highlighted in our study, which are in fact almost similar to most of the other studies explored. The severity of family burden has a temporal association with socio-demographic variables of the families as well as the duration of the substance abuse and dependence of the cases. Hence while formulating effective preventive policies and management plans these associations should be kept in mind and a multi-dimensional approach should be preferred.

However this study had few limitations. Since our study was restricted to a tertiary care medical center it may not reflect actual pattern of socio-demographic variables of the alcohol-dependent cases and their primary care givers as well as the severity of family burden prevalent in the community. The number of study subjects taken were few and no control

group was taken to compare. Also this being a cross-sectional study the follow-up of the primary care givers having severe burden in area of mental health was not done to see if they developed any psychiatric illness in future. Hence more number of prospective studies involving larger number of cases followed up for longer duration need to be conducted for detailed evaluation in this context.

Conclusion

The severity of family burden is greatly influenced by the socio-demographic variables of the families as well as the duration of the substance dependence of the cases.

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References

1. Avasthi A. Preserve and strengthen family to promote mental health. *Indian J Psychiatry*. 2016;52(2):113–26 [cited April 10, 2016]. Available at: <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=2927880&tool=pmcentrez&rendertype=abstract>.
2. Leff J, Wig NN, Bedi H, Menon DK, Kuipers L, Korten A, et al. Relatives' expressed emotion and the course of schizophrenia in Chandigarh. A two-year follow-up of a first-contact sample. *Br J Psychiatry* 1990;156:351–6 [cited April 11, 2016]. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/2346833>
3. Sartorius N, Leff J, López-Ibor JJ, Maj M, Okasha A, editors. *Families and Mental Disorders*. Chichester, UK: John Wiley & Sons, Ltd; 2004 [cited April 11, 2016]. Available at: <http://doi.wiley.com/10.1002/0470024712>
4. World Health Organisation. WHO Regions Country Profiles, 2014, pp. 1–202.
5. Platt S. Measuring the burden of psychiatric illness on the family: an evaluation of some rating scales. *Psychol Med* 1985;15(2):383–93 [cited April 11, 2016]. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/4023142>
6. Rammohan A, Rao K, Subbakrishna DK. Burden and coping in caregivers of persons with schizophrenia. *Indian J Psychiatry* 2002;44(3):220–7 [cited April 11, 2016]. Available at: <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=2954392&tool=pmcentrez&rendertype=abstract>
7. Hoening J, Hamilton MW. The schizophrenic patient in the community and his effect on the household. *Int J Soc Psychiatry* 1966;12(3):165–76 [cited 2016 April 11]. Available at: <http://isp.sagepub.com/content/12/3/165.citation>
8. Prevalence of Drug Abuse in India through a National Household Survey [cited April 11, 2016]. Available at: <http://www.current-sciencejournal.info/issuespdf/SND-AIIMS.pdf>
9. Jester JM, Jacobson SW, Sokol RJ, Tuttle BS, Jacobson JL. The influence of maternal drinking and drug use on the quality of the home environment of school-aged children. *Alcohol Clin Exp Res* 2000;24(8):1187–97 [cited April 11, 2016]. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/10968656>

10. Haber JR, Jacob T. Marital interactions of male versus female alcoholics. *Fam Process* 1997;36(4):385–402 [cited April 11, 2016]. Available at: <http://doi.wiley.com/10.1111/j.1545-5300.1997.00385.x>
11. Leonard KE, Eiden RD. Marital and family processes in the context of alcohol use and alcohol disorders. *Annu Rev Clin Psychol* 2007;3:285–310 [cited April 11, 2016]. Available at: <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=2667243&tool=pmcentrez&rendertype=abstract>
12. Timko C, Kaplowitz MS, Moos RH. Children's health and child–parent relationships as predictors of problem-drinking mothers' and fathers' long-term adaptation. *J Subst Abuse* 2000;11(1):103–21 [cited April 11, 2016]. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/10756517>
13. World Health Organization. The ICD-10 classification of mental and behavioural disorders: Clinical descriptions and diagnostic guidelines. World Health Organization, 1992. pp. 1–267. Available at: <http://apps.who.int/iris/handle/10665/37958> <http://scholar.google.com/scholar?hl=en&btnG=Search&q=in+title:The+ICD-10+Classification+of+Mental+and+Behavioural+Disorders#1>
14. Chakrabarti S, Kulhara P, Verma SK. Extent and determinants of burden among families of patients with affective disorders. *Acta Psychiatr Scand* 1992;86(3):247–52 [cited April 12, 2016]. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/1414422>
15. Chakrabarti S, Kulhara P, Verma SK. Family Burden of Neurosis: Extent and Determinants. *Hong Kong J Psychiatry* 1996;6(1):23 [cited April 12, 2016]. Available at: <https://www.questia.com/library/journal/1G1-169753418/family-burden-of-neurosis-extent-and-determinants>
16. Pai S, Kapur RL. The burden on the family of a psychiatric patient: development of an interview schedule. *Br J Psychiatry* 1981;138:332–5 [cited April 12, 2016]. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/7272637>
17. Mattoo SK, Nebhinani N, Kumar BN, Basu D, Kulhara P. Family burden with substance dependence: A study from India. 2013;(April):704–11.
18. Malik P, Kumar N, Sidhu BS, Sharma KC, Gulia AD. Impact of Substance Dependence on Primary Caretaker in Rural Punjab. *Delhi Psychiatry J* 2012;15(1):72–8.
19. Bhowmick P, Tripathi BM, Jhingan HP, Pandey RM. Social support, coping resources and codependence in spouses of individuals with alcohol and drug dependence. *Indian J Psychiatry* 2001;43(3):219–24.
20. Sethi BB CP. A review and role of family studies and mental health. *Indian J Soc Psychiatry* 1985;216–30.
21. Padmavathi R, Rajkumar S, Srinivasan TN. Schizophrenic patients who were never treated – a study in an Indian urban community. *Psychol Med [Internet]*. 1998;28(5):1113–7 [cited April 22, 2016]. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/9794018>
22. Hutchinson DM, Mattick RP, Braunstein D, Maloney E, Wilson J.

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