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The Tenth Revision of the International Classification of Diseases and Health Problems (ICD-10) defines the dependence syndrome as being a cluster of physiological, behavioral, and cognitive phenomena in which the use of a substance or a class of substances takes

## Spouse Burden in Patients with Alcohol Dependence Syndrome

Use of alcohol has been one of the major source of recreation and stress relievers to date and it is one of the most abused substances in the world due to its free availability. The cost that a spouses incur in terms of economic hardships, social isolation and physical strain can be referred to as Spouse Burden. Spouses play an important role in patient's support and treatment and with a study like this there might be a better understanding of the problem. A descriptive, cross-Sectional hospital based study was done in 62 patients who met the diagnostic criteria for Alcohol Dependence Syndrome (ICD-10 DCR) and consents were taken from required personnel.

Most of the patients examined were in the age group 40 to 60 years of age (72.6%) followed by the age group up to 40 (22.6%). 72.5% of the spouses were up to 40 years of age, followed by spouses of the age group 40-60 (27.5%). Males were the primary alcohol abusers(87%). 51.6% of the patients were unemployed and the rest 48.4% was still employed whereas 51.6% of the spouses were employed and the rest 48.4% unemployed. 51.6% of the patients were illiterate whereas majority of the spouses were literate(67.7%).

There is a significant severity of burden of alcohol dependence syndrome in spouses and the severity of dependence is positively correlated with spouse burden. Financial, spouse routine, spouse interaction, physical and mental health of other members of the family were significantly affected with increase in dependence.

**Key words:** Alcohol dependence syndrome, ICD-10 DCR, FBIS, Spouse burden

on a much higher priority for a given individual than other behaviors that once had greater value<sup>1</sup>. Thus a cluster of physiological, behavioral, and cognitive phenomena in which the use of alcohol takes on a much higher priority for a given individual can be defined as Alcohol Dependence

Syndrome. The use of alcohol has been in practice since ancient times and has been one of the major sources of recreation and stress relievers to date. Dependence to alcohol by an individual leads to a financial, social and psychological burden to the primary caregiver. A primary caregiver can be anyone close to the patient, a spouse or the husband/wife of the patient can be one of them. The burden on families on account of substance abuse by a family member has begun to come into focus since the 90s<sup>2</sup>.

Drinking of alcohol is a common practice among major population in many parts of the world which has led to serious social, physical and mental consequences according to the WHO<sup>3</sup>. Hoenig and Hamilton have attempted to distinguish between objective and subjective burden among care takers. Objective includes the effects of the illness on finances and routine of the family and the subjective is defined as the extent to which family members are affected<sup>4</sup>. It has been found that use of any amount of alcohol is not safe for the human body<sup>5</sup> and the use of alcohol leads to different chronic diseases of the body including Liver Cirrhosis, Encephalopathy and Dyslipidemia to serious Road Traffic Accidents. The cause of death due to alcohol related trauma have remained on high despite the ongoing preventive measures<sup>6</sup>. Demographic and socioeconomic factors have a major influence on the prevalence of trauma caused by alcohol use and determine alcohol effects on selected outcomes<sup>7,8,9</sup>.

Alcohol Dependence can be challenging to the patients as it causes burden in different ways. The dependence leads to use up of all the finances the patient has, the patient spends most of the time drinking which can cause being fired from work and leading unemployment. Patients generally develop aggressive behavior causing quarrel and fight among friends and families. The average estimation of social cost and economic cost of alcohol use in industrialized countries range from 1.1% of GDP in Canada to 5-6% in case of Italy<sup>10</sup>. Alcohol use increases the expenditures of families significantly and drastically affecting their quality of life. Family's expenses is related directly to an addicted member in the family. The average expenditure of the family decreased from an average of €676.44/month (20.2% of the total pre tax family income) at baseline an average of €145.4/month at 12 months after the beginning of the treatment<sup>11,12,13,14</sup>. Alcohol is also considered one of the major source of revenue and in developing countries like India and Nepal where there is an increasing purchasing power, the misuse of alcohol is more evident with little effort made on minimizing the promotion and sale of alcohol.

Alcohol use not only impacts the life and wellbeing of the abuser but also the people around the patient, the

society and overall the country. The primary caregiver are mainly impacted and on top of that the spouse are the first one generally to get the burden. Spouse can be the wife of the husband, wives are most affected by the individual's substance use. Alcohol intake can be a devastating disease which can cause suffering in the patient and the family<sup>15,16</sup>. People who tend to abuse alcohol have also been found to indulge in other substances such as tobacco or illicit drugs<sup>17</sup>. In late life, behavioral disturbances appears to be a significant marker in a person with a history of drinking problems<sup>18</sup>. Children of the people abusing are the other people affected the most. The hostile behavior can be transferred to the children making the susceptible as well<sup>19</sup>. Like many societies, Nepal is a transitioning society and with changing roles, increased stress and alterations in lifestyle can arise newer problems<sup>20</sup>. Alcohol use is on the rise worldwide and urgent and immediate steps are required to limit this growing burden of alcohol consumption<sup>21</sup>.

Kathmandu being the capital is the most populated city in Nepal and having a higher chance of Alcohol Abuse it is likely to give a better chance in understanding the epidemiology of the disease and in understanding the impacts. This city infamous for abuse will also give a better insight into the prevalence of abuse in different age groups and gender inside the city. Spouses play an important role in patient's support and treatment and this study might help in a better understanding of the problem and develop and prevention and treatment strategies as well as help them cope with the problems.

### General Objectives

To study the burden faced by Spouses in patients with Alcohol Dependence Syndrome.

### Specific Objectives

To study the severity of alcohol dependence in patients.

To study the significance of burden in spouse in terms of financial, subjective and other areas with increase in severity of dependence.

To study the average Literacy and Employment Status of spouse

## Methods and Materials

Study was conducted at the Department of Psychiatry, NMCTH, Jorpati, Gokarneshwor-8, Kathmandu, Nepal within a period of 1 year (September 17, 2017- September 16, 2018). A descriptive, cross-sectional, hospital based study was done with a sample size of 62 people (n=62). All consecutive cases who met the diagnostic criteria for Alcohol Dependence Syndrome attending the Psychiatry

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OPD and admitted patient in the ward or cases referred from any other department of NMCTH were included in the study.

Sample of all cases of Alcohol Dependence Syndrome were included whereas the patients and spouses who refused to give their family details, who did not give informed consent, pregnant ladies and the ones who had comorbid medical and surgical illness were excluded.

### Ethical Consideration

The following ethical issues were kept in consideration during the period of the study :

The privacy of the patient was maintained by taking interviews in a private and separate room.

The patient's confidentiality was maintained with use of codes.

An informed written consent was taken from the patient and spouse.

Ethical approval was obtained from NMC Institution Review Committee (IRC)

### Procedure, Data Analysis and Tools

The total number of patients (n=62) were selected by simple random procedure with the patients that attended the Out Patient Department of NMCTH as well as the ones that were directly admitted to the ward or referred

from other departments. The duration of the study was 1 year. Informed written consent was taken from the patient or the patient's spouse or a relative.

At first a pro forma was filled with the required information of the patient. Then a detailed history of the patient was taken including a detailed psychiatric history from the patient and the spouse. The diagnosis was made based on ICD-10 international classification of mental and behavioral disorders diagnostic criteria for research and FIBS was used in the spouse who is the primary caretaker to find the burden among them. Spouse who is the primary caretaker here refers to anyone male/female who is married to the patient who provides care for or who gives assistance to patient who is no longer able to perform day to day tasks of personal or household care necessary for everyday survival. They were interviewed in a one to one situation. Severity of dependence was analyzed using SADQ (Severity of Alcohol Dependence Questionnaire).

Finally, the data was analyzed using SPSS version 16 and simple descriptive statistics (percentage, mean and Standard Deviation) were analyzed. For association, Chi-square test was used, p value of the less than 0.05 was considered significant.

## Results

Variables		Patient (%) (n=62)	Spouse (%) (n=62)
Age Range	Up to 40	14 (22.6%)	45 (72.5%)
	40-60	45 (72.6%)	17 (27.5%)
	>60	3 (4.8%)	0 (0%)
Gender	Male	54 (87%)	8 (13%)
	Female	8 (13%)	54 (87%)
Literacy	Illiterate	32 (51.6%)	20 (32.3%)
	Literate	30 (48.4%)	42 (67.7%)
Employment Status	Employed	30 (48.4%)	32 (51.6%)
	Unemployed	32 (51.6%)	30 (48.4%)
Domicile	Rural	19 (30.6%)	
	Semi-urban	2 (3.3%)	
	Urban	41 (66.1%)	

Table 1: Socio-demographic Profile of Patient. Note: since all of the spouses we interviewed were staying with the patient and providing primary care, the domicile of the spouse considered same as that of the patient

Severity	Frequency	Percent
Mild	33	53.2
Moderate	28	45.2
Severe	1	1.6
Total	62	100.0

Table 2: Dependence pattern of the patients. Note : Score of 31 or higher in SADQ considered severe alcohol dependence, score of 16-30 considered moderate, less than 16 considered mild

51.6% of the patients were unemployed and the rest 48.4% were still employed whereas 51.6% of the spouses were employed and the rest 48.4% unemployed. 51.6% of the patients were illiterate and 48.4% were literate whereas 67.7% of the spouses were literate and 32.3% illiterate.

53.2% of the patients were mildly dependent to alcohol, 45.2% were moderately and 1.6% severely dependent.

Categories	No burden	Moderate burden	Severe burden
Effect on spouse routine	9 (14.6%)	36 (58%)	17 (27.4%)
Effect on spouse leisure	7 (11.3%)	45 (72.6%)	10 (16.1%)
Financial	13(21%)	32 (51.6%)	17 (27.4%)
Effect on spouse interaction	6 (9.7%)	36 (58%)	20 (32.3%)
Effect on physical health of other members in a family	29 (46.8%)	26 (41.9%)	7 (11.3%)
Effect on mental health of other members in the family	5 (8.1%)	32 (51.6%)	25 (40.3%)
Subjective burden	10 (16.1%)	30 (48.4%)	22 (35.5%)

Table 3 : FIBS (Family Burden Interview Schedule) (n=62)

The average score on SADQ was  $18.94 \pm 10.65$ . Nearly 80% of alcohol dependent patients were drinking minimum of 180ml of Indian Made Foreign Liquor (IMFL) per day which contains about 76.5 ml of absolute alcohol. IMFL is a distilled spirit (i.e., brandy, whiskey, and rum). Our patients consumed predominantly brandy. Each 100ml of IMFL contains 42.5% of absolute alcohol. Almost 40% of dependent patients were drinking around 360 ml of IMFL every day and 8% of dependent patients were drinking 750 ml of IMFL per day.

From the above tables we could conclude that most of the patients examined were of the age group 40-60 years of age (72.6%) followed by the age group up to 40 years of age with 22.6% and 4.8% of the patients were more than 65. 72.5% of the spouses were up to 40 years of age, followed by 27.5% of the spouses of the age group 40-60. Male were the primary Alcohol Abusers with 87% of them being male.

## Discussion

Dependence on alcohol is a serious problem in the spouse, family and community and possesses a severe problem to the mental health problem which is associated with burden to the spouse in health, financial and other aspects. This study of ours assessed the spouse burden among 62 patients in the study associated with alcohol dependent subjects. The study's socio-demographic profiles and the level of burden (assessed through FIBS) in spouse were compared with other similar studies.

During the span of this study, the distribution of patients on the basis of age group was evaluated which revealed that majority of the cases were of the age group 40-65 (72.6%) years of age which was followed by the age group of below 40 (22.6%) and the least being above the age of 65 years (4.8%). Majority of the patient with alcohol dependence syndrome were found to be of middle

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	No Burden/ Moderate Burden	Severe Burden	Chi-Square	p-value
Effect on spouse routine			6.51086	0.0107
Mild/Moderate Dependence	34	7		
Severe Dependence	11	10		
Effect on spouse leisure			1.02419	0.3115
Mild/Moderate Dependence	33	8		
Severe Dependence	19	2		
Financial Burden			20.9519	<0.000
Mild/Moderate Dependence	38	4		
Severe Dependence	7	13		
Effect on spouse interaction			11.2355	0.0008
Mild/Moderate Dependence	33	7		
Severe Dependence	9	13		
Effect on physical health of other members in a family			9.46875	0.0020
Mild/Moderate Dependence	40	1		
Severe Dependence	15	6		
Effect on mental health of other members in the family			9.15873	0.0024
Mild/Moderate Dependence	30	11		
Severe Dependence	7	14		
Subjective Burden			0.754134	0.3852
Mild/Moderate Dependence	28	13		
Severe Dependence	12	9		

Table 4 : Comparison of FBIS burden with Alcohol severity

aged group. Another study done in Dharan<sup>22</sup> among 60 patients in family burden in substance dependence syndrome showed that majority of patients with Alcohol Dependence Syndrome were more than 30 years of age.

The study we have done shows most of the spouse were age group below 40 (72.5%). Burden was high among the young adult age groups. The observations we did of the age group presentation of the caregiver (in our case spouse) of patients with alcohol dependence syndrome were in similar to majority of the studies done around India and Nepal<sup>20,24, 25</sup> which mostly included the young adults.

Alcohol dependence was higher among males 54(87%) than in females 8(13%) in our study. A study done in Dharan<sup>22</sup> among 60 patients in Family Burden in Substance Dependence Syndrome showed that the majority of subjects were male (80%) than female and female were the primary care takers of the alcohol dependent patients (51.7%). Our study and the study done in Dharan has similar results.

The study we did showed 51.6% of the patients were literate and 48.4% were illiterate. Also, 67.7% of the spouses were literate and 32.3% of the spouses were illiterate.



A study done in India<sup>23</sup> showed that more than 50% of the patients and primary care takers were literate. A similar study done in Dharan<sup>22</sup> majority of the patients. (93%) and the primary care taker (66.7%) were literate. Our study and the study done in India and Nepal have similarities as the patients and the spouses who were the primary care takers were all literate in majority.

Our study showed that most of the patients resided from urban areas (66.1%) followed by patients from Rural areas (30.6%) and then from Semi-Urban area (3.3%).

A study done in Dharan<sup>22</sup> (n=18, 60%) and India<sup>23</sup> (n=134, 67%) done on caretaker burden in alcohol dependence syndrome showed most of the patients resided from the urban areas as well. Our finding is consistent with other studies.<sup>22-24</sup>

The study we did showed that the spouse who were the primary care giver being employed and unemployed were almost equal with the number of employed being at 48.4% and unemployed being 51.6%. Due to the cultural belief discussed above where in this part of the world, the males are the primary bread winner of the family; but males were more depended to alcohol than female, the idea of females being less employed becomes contrary here as the employment and non-employment difference was not significant.

Unlike our study, a similar study done in Dharan<sup>22</sup> showed the patient and the primary care taker were unemployed whereas study done in India<sup>23-24</sup> on caregiver burden in alcohol dependence syndrome showed that most of the subjects were employed (3/4th of the patient). This study also suggests that unemployment rate of Primary care taker being slightly high meant that unemployed were caregiving the patient due to easy availability.

### Conclusion

A significant burden can be seen in spouses of patients with Alcohol Dependence Syndromes. Majority of the abusers were of the age range 40-60 years of age and most of them were males. Female spouses up to the age of 40 were the major caretakers and only half of them were employed. This has put upon a major burden in the spouses who have to take care of the alcohol dependent spouses as well as taking care of the family's day to day needs and finances, which can be seen in the study which shows a significant financial burden in them. As per the study we can also see a major and significant burden in spouses in their daily routine, interactions, as well as an effect on the physical and mental health of other family members. Thus, it is necessary to create awareness among patients especially in the age group of 40-60 about the adverse effects of alcohol abuse and the consequences it possesses

in the physical and mental health of their spouses as well as other members in the family. Awareness should also be created among the spouses to report the dependence for early detection and intervention as it can be seen in the study that as the severity of the dependence increases, the burden increases. Government can also play a major role to limit the distribution of alcohol and take a major step in controlling alcohol abuse by banning alcohol sale in local places and limit the free availability of alcohol.

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