



## Family burden with substance abusers in Bangladesh

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### ABSTRACT

The aim of this study is to assess the family burden associated with substance abusers in Bangladesh. A descriptive cross-sectional study was conducted to identify the family burden among 112 participants, selected using a convenient sampling technique. Family burden was measured using a standardized Family Burden Interview Schedule (FBIS) scale. Data were collected through face-to-face interviews and a review of medical records. Descriptive and inferential statistics were used to analyze the data. The majority of participants (85.71%) reported experiencing severe family burden. The total mean family burden score was 1.49 (SD = 0.37) out of a possible 2 points. Significant relationships were found between family burden and several variables: participants' age ( $p < .000$ ), education ( $p < .000$ ), occupation ( $p < .000$ ), relationship with the patient ( $p < .000$ ), presence of chronic disease ( $p < .022$ ), monthly family income ( $p < .000$ ), the number of hours spent caring for the patient per day ( $p < .000$ ), patients' religion ( $p < .005$ ), education ( $p < .008$ ), and marital status ( $p < .034$ ). The findings of this study may contribute to strengthening existing resources and mental health interventions. The new insights gained can help empower family members to better cope with the challenges of caring for a substance-abusing relative, allowing them to manage the burden in a more strategic and effective manner.

## INTRODUCTION

Family burden refers to all the difficulties and challenges experienced by families as a consequence of someone's illness or more specifically a caregiving role, whereas caregiving is accepted to have both positive and negative elements (Ennis and Bunting, 2013). As family is the most important resource in the care of patients including those with substance dependence, this burden is known as 'family burden' (Nebhinani et al. 2013). Family burden raises due to globalization, migration, and industrialization are the elements that are participating rapid increase in substance-related problems in the contemporary societies (Nebhinani et al., 2013). In 2012, globally, between 162 million and 324 million people of the world population (aged 15-64) had investigated with an illicit substance use (United Nations Drugs and Crime, 2014). It is calculable

that there have been between 99000 and 253000 deaths globally in 2010 as results of illicit drug use. Alcohol prevalence in India is stated to be 21.4% and there is increasing alcohol intake among the youth (Sarkar et al., 2013). It is significantly rising in the South Asian countries especially in Bangladesh (Zaman et al., 2015). In Bangladesh, it can be estimated above 6 million people were involved in abusing various kinds of drugs (Kamal et al., 2018).

Family burden assessed in the Nepal the entire burden was greater on intravenous drug use (66.7%) compared to alcohol dependence syndrome (46.7%), while the spouses were generally more tolerant (46.7%) than the other caregivers (84.5%) in terms of total burden estimated (Lamichhane et al., 2008) and nearly 95%–100% of the families were observed to have moderate or severe level of family burden

(Nebhinani et al., 2013). And it also disruption of family routine; financial burden; disruption of family interactions; and disruption of family leisure were the most commonly reported affected items in the instrument (Mattoo et al., 2019).

Increasing family burden is the impact of substance abuse affects almost all elements of family life like interpersonal and social relationships, leisure time activities, finances, and increased risk of stressful life events including emotional and physical abuse, medical and psychiatric disorders, and greater use of medical care services (Wu, 2010). It is also adversely affects the individual, families in terms of their physical, emotional, and financial distress, and social and occupational dysfunction, which impact the lives of the significant others and that's labeled as 'burden' (Nebhinani et al., 2013). Another impact of substance abuse is which affects the personal health and accomplishments, but also negatively affects the quality of life of abusers' family members such as financial security, mental health, social networks, and productivity and the functioning of society at large (Wu, 2010). Women who are mostly affected in the family and bear a significant brunt of the burden. In a developing nation like Nepal, where women face additional challenges, this burden is evident (Lamichhane et al., 2008). Substance use related disorders are major concerning issue for Bangladesh due to the increasing burden on family, society and nation. Various family and social factors contribute to the development of these disorders (Siddike et al., 2017).

Substance abuse also negatively impacts on not only substance abusers but also the family members who are care giver of them (Kaur et al., 2018). Challenging behaviors associated with serious mental illness have been shown as the strongest predictor of family burden related to caregiving experience (Mattoo et al., 2019). Bangladesh needs to improve this situation for people with substance abuse and reduce the burden of families or caregivers. However, in Bangladesh there is limited research related to family burden with substance abuser. As a societal and humanism professional, this issue is a matter of researcher interest and priority. In addition worldwide several studies have been conducted

about family burden with substance abuser. Therefore this study is aimed to assess the family burden with substance abuser in Bangladesh. This finding may not be similar in context of Bangladesh. This study may help to inform policy, intervention strategies, and community support initiatives, ultimately leading to improved outcomes for affected individuals and their families

## MATERIALS AND METHODS

### Study design

Descriptive cross-sectional study was carried out to identify family burden with substance abusers in Bangladesh. The study duration was July 2021 to June 2022.

### Study participants

National Institute of Mental Health and Hospital, Dhaka was selected for research setting purposively because majority of mental health patient in the urban and rural area of Bangladesh were admitted for the purpose of getting better care. Target Population: The target population of this study was consisted of all family members who live with the patient of substance abuser for at least six months for the purpose of giving care. The sample size was determined by using "G" power analysis with a significant ( $\alpha$ ) level of 0.05, an expected power of 0.80 ( $1-\beta$ ), and an effect size of 0.30. The estimated sample size was 82. In addition to reduce attrition rate 20% more sample will be added (Burns and Grove, 2013). Therefore 112 hospitalized and outdoor visited substance abuser clients' family member was selected following inclusion criteria the participant must be a family member of substance abuser patient and lives with the patient for at least six months.

### Instruments

The following two instruments were used to measure the variables.

Part-A: Demographic Characteristics Questionnaire Eleven (11) items of family members and Part- B: Socio-demographic questionnaire for substance abuser with eight (8)

items developed by researcher. Questionnaire-II: Interviewer administered questionnaires family burden interview schedule (FBIS) scale developed by Pai and Kapur in 1981 for measuring the family burden used in this study. It has 24 items, each rated on a 3-point scale. Here, no burden is 0, moderate burden is 1, and severe burden is 2. The total score range of 0-48. 0 score means no burden, 1-24 means moderate burden, and 25-48 means severe burden (Pai and Kapur, 1981). The translation of the instruments was done by the back translation process (Burns and Grove, 2013).

### Data collection methods

IRB approval was obtained from the Institutional Review Board of the National Institute of Advanced Nursing Education and Research (NIANER). Permission obtains from the director of National Institute of Mental Health and Hospital and nursing superintendents. The researcher were explained to the participants about the study objectives, their rights, and benefits of the study and asked them to participate in the study. The researcher was obtained informed written consent from each subject (family member come with the patients) after he or she agrees to participate in the study. Privacy, confidentiality and anonymity of the participant strictly maintained during data collection.

### Data analysis

Data was analyzed by Statistical Package for Social Sciences (SPSS) version 21. Descriptive

statistics was used to describe socio-demographic characteristics of the participants. Inferential statistics such as Pearson product moments correlation (r), Independent sample t-test (t) and analysis of variance ANOVA (F) was used to examine the relationship among study variables.

## RESULTS

### Distribution of the participants by burden related questionnaire

In this study, the level of burden of the study participants were measured by using 24 items of burden related questionnaire with 3 points Likert Scale. Table 1 showed that mean score for overall family caregivers' burden out of 24 items the highest mean was given the item - Has any other member of the family lost sleep, become depressed or weepy, expressed suicidal wishes become excessively irritable etc? How severely?(1.88), Expenditure incurred due to extra arrangements (1.79) Loss of patient's income that effect on family income (1.79), Expenditure incurred due to patients and treatment and its effect on family finances (1.74), Overall, Any ill effect on the general atmosphere in the house (1.68), and Stopping of normal recreational activities (1.61) respectively. On the other hand, lowest mean was given by the item - Patient not helping in household work (.92). The total mean of Family Burden Interview Scale (FBIS) was 1.49, (SD=.37) that are presented in the table 1.

**Table 1:** Distribution of the participants' by family burden related questionnaire with six dimension (N=112)

Items	No Burden	Moderate Burden	Severe Burden	Mean±SD
	n(%)	n(%)	n(%)	
<b>Financial Burden</b>				1.60±.40
Loss of patient's income that effect on family income	0	23(20.54)	89(79.64)	1.79±.40
Loss of income of any other member due to patients	6(5.36)	43(38.39)	63(56.25)	1.50±.60
Expenditure incurred due to patients and treatment and its effect on family finances	1(.89)	27(24.11)	84(75.00)	1.74±.46
Expenditure incurred due to extra arrangements	0	24(21.43)	88(78.57)	1.79±.41
Loans taken, its effect on family finances an	13(11.61)	52(46.43)	47(41.96)	1.30±.67

<b>savings spent</b>				
Any other planned activity put off because of financial pressure owing to patient's illness.	9(8.03)	45(40.18)	58(51.79)	1.44±.64
<b>Disruption of routine family activities</b>				1.37±.53
Patient not going to school, college, work	17(15.18)	26(23.21)	69(61.61)	1.46±.75
Patient not helping in household work	41(36.61)	39(34.82)	32(28.57)	.92±.81
Disruption of activities of other family members	3(2.68)	54(48.21)	55(49.11)	1.46±.55
Patient's behavior disrupting activities	3(2.68)	57(50.89)	52(46.43)	1.44±.55
Neglect of rest of the family members due to patients illness	8(7.14)	35(31.25)	69(61.61)	1.54±.63
<b>Disruption of family leisure</b>				1.45±.45
Stopping of normal recreational activities	3(2.68)	38(33.93)	71(63.39)	1.61±.54
Patient's illness using up another person's holiday/ leisure time	1(0.89)	55(49.11)	56(50.00)	1.49±.52
Patient's lack of attention to other members- children and its effect on him	24(21.43)	43(38.39)	45(40.18)	1.19±.77
Any other leisure activities had to be abandoned due to patient's illness	3(2.68)	47(41.96)	62(55.36)	1.53±.55
<b>Disruption of family interaction</b>				1.47±.39
Any ill effect on the general atmosphere in the house		36(32.14)	76(67.86)	1.68±.47
Do other members get into arguments over this	3(2.68)	51(45.54)	58(51.79)	1.49±.55
Have relatives and neighbors stopped visiting the family or reduced the frequency of their visits because of the patient's behavior or the stigma attached to his illness?	7(6.25)	55(49.11)	50(44.64)	1.38±.60
How do the members feel about this?	1(.89)	85(75.89)	26(23.22)	1.22±.44
Has the patient's illness had any other effect on relationships within the family or between the family and neighbors or relatives	3(2.68)	39(34.82)	70(62.50)	1.60±.55
<b>Effects on physical health of others</b>				2.10±.79
Have any other family members suffered physical ill health and injuries.	13(11.61)	57(50.89)	42(37.50)	1.26±.65
Has there been any other adverse effect on health		35(31.25)	77(68.75)	1.69±.47
<b>Effects on mental health of others</b>				2.37±.69
Has any other family member sought help for psychological illness brought on by the patents behavior?	6(5.36)	52(46.43)	54(48.21)	1.43±.60
Has any other member of the family lost sleep, become depressed or weepy, expressed suicidal wishes become excessively irritable etc? How severely?	0	13(11.61)	99(88.39)	1.88±.32
<b>Total mean of FBIS</b>				1.49±.37

### Level of family burden

The table 2 shows that the majority of participants (85.71%) experienced a severe burden, while 14.29% of participants experienced a moderate burden

**Table 2:** Distribution of level of family burden (n=112).

Family Burden	Frequency	Percentage (%)
No burden	0	0.00
Moderate burden	16	14.29
Severe burden	96	85.71

### Relationship between socio demographic characteristics and family burden of the family members

The table 3 presented that, the age was significantly related with family burden ( $F=8.27$ ,  $p=.000$ ) of family caregivers' and educational qualification was strongly significant relationship with the family burden ( $F= 4.36$ ,  $p=.000$ ). Other characteristics like gender ( $t= -1.82$ ,  $p=.077$ ), occupation ( $F=3.00$ ,  $p=.000$ ), resident ( $t= .996$ ,  $p=.321$ ), family type ( $t= -.747$ ,  $p=.457$ ), relationship with the patient ( $F=17.109$ ,  $p=.000$ )

**Table 3:** Relationship between socio demographic characteristics of the participants and family burden (n=112)

Variables	Categories	Mean± SD	t/F/r	P Value
Age	≤30 <sup>a</sup>	1.07±.15	8.27	.000 <sup>c&gt;b&gt;a</sup>
	31-45 <sup>b</sup>	1.55±.32		
	>45 <sup>c</sup>	1.82±.14		
Gender	Male	1.39±.40	-1.82	.077
	Female	1.53±.36		
Education	No formal education <sup>a</sup>	1.81±.12	4.36	.000 <sup>a&gt;b&gt;c</sup>
	Primary <sup>b</sup>	1.66±.29		
	Secondary <sup>c</sup>	1.20±.29		
Occupation	Student <sup>a</sup>	1.09±.03	3.00	.000 <sup>c&gt;b&gt;a</sup>
	Service <sup>b</sup>	1.30±.05		
	Others occupation <sup>c</sup>	1.75±.03		
Resident	Urban	1.47±.36	.996	.321
	Rural	1.54±.37		

were found to be significant. Other characteristics like chronic disease ( $t=2.316$ ,  $p=.022$ ) monthly family income is also a significant relationship with family burden ( $F=4.59$ ,  $p=.000$ ). On the other hand duration of caregiving per day ( $F=20.78$ ,  $p=.000$ ), was also significant association with family burden. However, no significant relationships were found between family burden and other socio-demographic variables such as gender, resident, family type and so on.

### Relationship between socio demographic characteristics of the patients and family burden

The table 4 depicted that, the patient education ( $F= 4.987$ ,  $p=.008$ ) and the religion ( $F= 5.572$ ,  $p=.005$ ) of patient was significantly associated with family burden. However, in terms of marital status ( $-0.616$ ,  $p=.034$ ) was also significantly relationship with the family burden. Other characteristics such as patients age ( $F=.096$ ,  $p=.909$ ), gender ( $t= 1.584$ ,  $p=.116$ ), occupation ( $F=2.015$ ,  $p=.138$ ), route of taking substance ( $t=-.374$ ,  $p=.709$ ) and Types of substances ( $t= 1.931$ ,  $p=.150$ ) were no significant relationship with family burden.

Family type	Nuclear Family	1.48±.38	-.747	.457
	Extended Family	1.54±.37		
Relationship	Father <sup>a</sup>	1.71±.26	17.109	.000 a>b>c
	Mother <sup>b</sup>	1.62±.34		
	Others relationship <sup>c</sup>	1.28±.34		
Any Chronic Disease	Yes <sup>a</sup>	1.59±.35	2.316	.022 <sup>a&gt;b</sup>
	No <sup>b</sup>	1.43±.38		
Family income	≤40000 <sup>a</sup>	1.79±.18	4.59	.000 <sup>a&gt;b&gt;c</sup>
	41000-70000 <sup>b</sup>	1.29±.30		
	>70000 <sup>c</sup>	1.06±.15		
Patient Service Hours	≤4 <sup>a</sup>	1.24±.31	20.78	.000 <sup>c&gt;b&gt;a</sup>
	5-8 <sup>b</sup>	1.56±.35		
	>8 <sup>c</sup>	1.71±.30		

**Table 4:** Relationship between patients' socio demographic characteristics and family burden (n=112)

Variables	Categories	Mean±SD	t/F/r	P Value
Patient age	≤25	1.50±.36	.096	.909
	26-40	1.49±.39		
	>40	1.46±.41		
Gender	Male	1.51±.37	1.584	.116
	Female	1.33±.34		
Religion	Muslim <sup>a</sup>	1.49±.38	5.572	.005 <sup>a&gt;b&gt;c</sup>
	Hindu <sup>b</sup>	1.70±.29		
	Christian <sup>c</sup>	1.25±.31		
Education	Illiterate <sup>a</sup>	1.29±.44	4.987	.008 <sup>b&gt;c&gt;a</sup>
	Primary <sup>b</sup>	1.73±.27		
	Secondary <sup>c</sup>	1.47±.37		
Occupation	Student	1.49±.36	2.015	.138
	Service	1.43±.39		
	Others	1.64±.35		
Marital Status	Married <sup>a</sup>	1.47±.40	-.616	.034 <sup>b&gt;a</sup>
	Unmarried <sup>b</sup>	1.51±.36		
Routes of taking substance	Injectable	1.53±.38	.374	.709
	Oral	1.49±.37		
Types of substances	Buprenorphine	1.53±.38	1.931	.150
	Gaza and Yabba	1.41±.38		
	Cannabis	1.56±.36		

## DISCUSSION

### Level of family burden

The present study findings reported eighty five percent of the participant have perceived severe burden besides, nearly fifteen percent participant perceived burden to be moderate. The previous study reported 74% participant perceived severe level of burden which is almost similar to present study (Lamichhane et al., 2008). However, another study found that 56% participant perceived severe burden that is incongruent with current study (Shyangwa et al., 2008).

### Relationship between socio-demographic characteristics of family members with family burden

Significant relationship was observed between the age of the participant and family burden. Nearly half of the participants were the age group 31 to 45 years that is congruent with study conducted by Sharma et al., 2019. The possible explanation is young adult family member were most responsible for caring substance abuser in the family.

There is statistical significance was found in education. More than one third of the participant's education level was SSC. However, more burdens were observed among the people with no formal education. This finding is incongruent with the finding of Indian study (Shyangwa, Tripathi, & Lal, 2008). The possible reason is that, the understanding level was very poor of no formal education group. That's their burden is much higher. There is significant relationship between occupation and family burden. This finding is congruent with another study finding (Sharma et al., 2019). Both study observed most of the participant were housewives. The possible reason is that, others participants (student and service holder) have a strict schedule to go to school or working place which is obligatory for them. However, housewife and others occupation people have cared the patient more time due to their freeness of time. In addition, they have to perform others household activities. Therefore, housewives and other occupations participant have more burden than others occupation.

In case of relationship with the patient, there is a highly significant relationship with their father compare to mother and wife. This finding is congruent with one of the earlier studies (Sharma et al., 2019) which showed that participants have good intimacy with their father. In Bangladesh mainly male person was responsible to earning the money in the family. They may receive money from their father, that's why result may like this. In spite of taking financial pressure along with hospital services, due to such different sorts of pressure their burden is much higher compare to others.

Chronic disease is one of the influencing attributes of family burden. It is the highly significant character for creating burden on family. This result is similar to the previous study (Shyangwa et al., 2008). For those participants who have chronic disease, it can uniquely make severe burden on family. The possible reason is that they already have less coping ability for any stressful situation. Even after so many things are their financial, disruption of family routine activity, family leisure, family interaction and effects on physical and mental health. After all this, their family burden is much higher for these possible reasons.

Monthly family income is highly associated with family burden. This finding is consistent with several studies in developing countries (Sharma et al., 2019; Lamichhane et al., 2008). Family burden is higher for those people who earn less money ( $\leq 40000$ ) per month. In India higher proportion of severe family burden was seen in families with income Rs. 20,000–40,000 per month. Concerning, the duration of patient services per day, the results of the investigation showed a strong correlation with burden. It is concluded that who have provided services for a longer period of time have more burden compare to others.

Residence is a big issue when it comes to the character of substance users. In this current study residence is highly significant with family burden. This finding is congruent with several existing studies (Matto et al., 2013). The previous study reported that higher burden being associated with rural population which was reported more burdened for financial domain, and disruption of

family leisure especially for elderly and female caregivers. The possible explanation is that, in the village the income source is very little and then, the money to buy substance is like a death blow.

### **Relationship between patient's socio-demographic characteristics with family burden**

There was a significant relationship between the patient age and family burden. This finding is similar with the previous study (Sharma et al., 2019). The possible cause may below twenty five years age is the time for their children to build a career and parents have a lot of dreams. The frustration of this dream-breaker further aggravated their family burden. In case of gender, the present study findings reported that most of the patients were male. The consistent findings were reported in the some previous studies from Nepal (Jhingan et al., 2003), America (Mack, Franklin & Frances, 2005) and Bangladesh (Akhter, 2012) respectively. In spite of a conservative nation like Bangladesh, the western culture is entered. According to United Nation survey about 13% female in Bangladesh were substance depended and their number of female substance user is increasing day by day which is alarming for nation.

Regarding patients' religion, it is highly associated with family burden. This finding is inconsistent with other study (Malik et al., 2012). Among the current study participants there are only 7-8% participants were Hindus. They are reluctant to mix with other community people. So they run less towards to the substance abuse. Another possible cause is detected that they feel more burden as they are the majority of the participant were service holder. For that reason they have to manage many things and they feel extra burden. Patients' with primary level education were more burden compare to others education. The previous study findings reported similar finding (Mattoo et al., 2019).

This present study showed that marital status had also significant relationship with the family burden. Burden was higher in case of unmarried patient. This finding is dissimilar in the couple of studies conducted in India (Matto, et al., 2013;

Chandra, 2004). Both of the previous study found that married patients' to be more families burdened.

### **CONCLUSION**

Substance use disorders are strongly associated with many social and family problems. Several significant associations were found between socio-demographic characteristics and family burden. Therefore, substance abuse is a social crime and many negative impacts. We need to make an effective strategy to stop social crime. Family burden also influenced by socioeconomic attributes of family. Higher portion of severe family burden was reported by female participants. Extent of physical, psychological, interpersonal, and financial burden increased along with age, occupation, education, chronic disease, duration of care, financial status of family. Successful detection of family burden in substance use disorder patient and professional help to enhance their quality of life. Further study is recommended in different context and different setting, and Future qualitative study and casual relationship study is also recommended

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