Suresh Patil
Ph.D. Scholar, Shri
Jagdishprasad Jhabarmal
Tibrewala University,
Vidyanagari, Jhunjhunu,
Rajasthan, India

Meenaxi R Devangmath
Prinical, The Yash Foundation
College of Nursing and MRI,
Ratnagiri, Maharashtra, India

Bio-psycho-social challenges and coping strategies among the family members of patient with substance abuse residing in rural areas pilot study

Suresh Patil and Meenaxi R Devangmath

Abstract
Background: The family remains the primary source of attachment, nurturing, and socialization for humans in our current society. Therefore, the impact of substance use disorders on the family and individual family members merits attention. Substance abuse in the person disturbs the entire family socially, financially and mentally. Family members may experience different types of psychological problems due to family member addicted with the one or other substance.
Methodology: A quantitative approach with descriptive survey design was adopted for the study. The samples from the selected rural areas of Belgavi district were included by using probability multi-stage random sampling technique. The samples of present study comprises of 60 family members of patients with substance abuse residing in the selected rural areas of Belgavi district. The tools used for data collection was structured bio-psycho-social challenges assessment scale and structured coping strategies scale.
Results: The study result reveal that, bio-psycho-social challenges scale mean was 96.83, median was 96; mode was 97 with standard deviation 18.18 and range score of 57-136. Majority 33(55%) of participants were had moderate nature problems, 15(25%) participants were had severe nature problems and remaining 12(20%) of participants were had mild nature problems. With respect to coping of participants coping strategies scale mean was 57.68, median was 58; mode was 58 with standard deviation 10.24 and range score of 38-82. Majority 30(50%) of participants were had poor level of coping, 22(36.7%) participants were had moderate level of coping and remaining 8 (13.3%) of participants were had good level of coping.
Conclusion: The findings revealed that, the participants had moderate nature of bio-psycho social problems and moderate level of coping with situation. There is a need for family interventions and family centered programs to minimize the challenges faced by the family members and effectively cope with the situation.

Keywords: bio-psycho-social challenges, coping strategies, substance abuse, family members, rural areas

Introduction
The family remains the primary source of attachment, nurturing, and socialization for humans in our current society. Therefore, the impact of substance use disorders on the family and individual family members merits attention. Each family and each family member is uniquely affected by the individual using substances including but not limited to having unmet developmental needs, impaired attachment, economic hardship, legal problems, emotional distress, and sometimes violence being perpetrated against him or her. For children there is also an increased risk of developing an substance use disorder themselves [1]. A growing body of literature suggests that substance abuse has distinct effects on different family structures. For example, the parent of small children may attempt to compensate for deficiencies that his or her substance-abusing spouse has developed as a consequence of that substance abuse [2].

The effects of substance abuse frequently extend beyond the nuclear family. Extended family members may experience feelings of abandonment, anxiety, fear, anger, concern, embarrassment, or guilt; they may wish to ignore or cut ties with the person abusing substances. Some family members even may feel the need for legal protection from the person abusing substances. Moreover, the effects on families may continue for generations. Intergenerational effects of substance abuse can have a negative impact on role modeling, trust, and concepts of normative behavior, which can damage the relationships between generations. For example, a child with a parent who abuses substances may grow up to be an

Corresponding Author:
Suresh Patil
Ph.D. Scholar, Shri
Jagdishprasad Jhabarmal
Tibrewala University,
Vidyanagari, Jhunjhunu,
Rajasthan, India

overprotective and controlling parent who does not allow his or her children sufficient autonomy [3].

Neighbors, friends, and coworkers also experience the effects of substance abuse because a person who abuses substances often is unreliable. Friends may be asked to help financially or in other ways. Coworkers may be forced to compensate for decreased productivity or carry a disproportionate share of the workload. As a consequence, they may resent the person abusing substances [4].

Even though substance abuse is well recognized as a complex bio-psychosocial phenomenon, substance dependence is considered as a 'family disease'. A substance dependent person in the family affects almost all aspects of family life, *e.g*., interpersonal and social relationships, leisure time activities, and finances. Substance dependence invariably increases conflicts, negatively affects family members, and burdens the families [5]. The psychological and behavioural impact on others is often far greater than on the substance dependent family member. Yet, because of the historical emphasis on substance dependence as an individual's problem, the study of family's problems has been relatively neglected. Consequently, systematic research on substance dependence related burden among the family members is very limited [6].

People who abuse substances are likely to find themselves increasingly isolated from their families. Often they prefer associating with others who abuse substances or participate in some other form of antisocial activity. These associates support and reinforce each other's behavior [7].

Substance abuse in the person disturbs the entire family socially, financially and mentally. Family members may experience different types of psychological problems due to family member addicted with the one or other substance [8]. There are many studies have undertaken the on assessing the impact of substance abuse in person, but very few studies have determined the psychosocial problems and quality of life among the family member of patient with substance abuse.

Objectives
1. To find out the bio-psycho-social challenges of family members of patient with substance abuse residing rural area.
2. To identify coping strategies adopted by family members of patient with substance abuse residing in rural areas.
3. To find out an association between the bio-psychosocial problems of family members of patient with substance abuse residing in rural areas with their selected demographic variables.
4. To find out an association between the level of coping of family members of patient with substance abuse residing in rural areas with their selected demographic variables.

Hypothesis
H_{01}: There will be no statistical association between level of bio-psycho-social challenges of family members of patient with substance abuse and their selected socio demographic variables at 0.05 level of significance.

H_{02}: There will be no statistical association between level of coping among family members of patient with substance abuse and their selected socio demographic variables at 0.05 level of significance.

Methodology
Research approach: An quantitative research approach.
Research design: Descriptive survey design.
Study setting: Rural areas of Belgavi district, Karnataka
Population: The population in the present study comprises of family members of patients with substance abuse residing in the selected rural areas of Belgavi district.
Sampling Technique: Probability: Multistage random sampling.
Sample Size: 60
Source of Data Collection: Primary and secondary data will be collected from the family members of patients with substance abuse residing in the selected rural areas of Belgavi district.
Method of Data Collection: Interview technique

Tools of data collection
The tool for data collection was divided into 3 parts which consists of demographic data, Structured Bio-Pycho-Social challenges scale and structured coping strategies scale

Part 01: Demographic data
It consists of 12 items related to demographic data which includes age, gender, religion, language, type of family, members in family, education, occupation, family income, dietary pattern, relationship with patient and sources of information.

Part 02 – Bio-Psycho-Social challenges scale
A structured bio-psycho-social challenges scale consisted of 34 statements regarding bio psycho social challenges faced by the family members of patient with substance abuse. There are five alternative response columns; strongly agree, agree, uncertain, disagree and strongly disagree. The total score range from 34 to 170.
Level of bio-psychosocial challenges is classified as follows:
▪ Mild Nature problem: 34-83
▪ Moderate Nature problem: 84-110
▪ Severe nature problem: Above 111

Part 03 – Coping Strategies scale
A coping strategies scale consists of 30 statements regarding coping strategies adopted by participants due to patient with substance abuse. It assesses the coping strategies experienced by family members of patient with substance abuse in past three months. There are four alternative response columns; No, Once or twice, some times and often. Each item is scores as:

Total Scores: 0-90
▪ Poor coping: 0 – 58 score
▪ Moderate coping: 59 – 66 score
▪ Good coping: 67 and above

Procedure of data collection
The pilot study was conducted at selected rural areas of Belgaum district from 01.11.2020 to 30.11.2020 to find out the feasibility of the tool. Required permission from authorities was taken before study. A total of 60 (10% of total population of main study) family members of patient with substance abuse were selected as per sampling criteria. Written consent was taken from the samples then structured tools were administered on 1st to 6th day.

Results
Section 1: Description of Selected Personal Variables of participants

Table 1: Frequency and percentage distribution of participants according to socio demographic variables

N=60

Sl. No.	Demographic variables		Frequency (f)	Percentage (%)
1	**Age (in yrs)**			
	a)	10-20	02	3.3
	b)	21-30	19	31.7
	c)	31-40	24	40
	d)	Above 40	15	25
2.	**Gender**			
	a)	Male	11	18.3
	b)	Female	49	81.7
3.	**Religion**			
	a.	Hindu	41	68.3
	b.	Muslim	12	20
	c.	Christian	05	8.3
	d.	Other	02	3.3
4.	**Language**			
	a.	Kannada	49	81.7
	b.	Hindi	09	15
	c.	English	02	3.3
	d.	Other	00	00
5.	**Type of family**			
	a.	Nuclear	35	58.3
	b.	Joint	17	28.3
	c.	Extended	08	13.3
6	**Members in family**			
	a.	2	00	00
	b.	3	05	8.3
	c.	4	29	48.3
	d.	More than 4	26	43.3
7	**Education**			
	a.	No formal education	02	3.3
	b.	Primary school (1st - 7th std)	21	35
	c.	High school (8th - 10th std)	22	36.7
	d.	PUC and above	15	25
8	**Occupation**			
	a.	House wife	14	23.3
	b.	Agricultural work	26	43.3
	c.	Business	11	18.3
	d.	Employed	06	10
	e.	Student	02	3.3
	f.	Not working	01	1.7
9	**Family income (Rs/Month)**			
	a.	Below 5000	09	15
	b.	5001 – 10000	27	45
	c.	10001 – 15000	14	23.3
	d.	Above 15000	10	16.7
10	**Dietary pattern**			
	a.	Vegetarian	35	58.3
	b.	Mixed	25	41.7
11	**Relationship with Patient**			
	a.	Father	09	15
	b.	Mother	17	28.3
	c.	Spouse	32	53.3
	d.	Children	02	3.3
12	**Sources of information**			
	a.	News paper	08	13.3
	b.	Social media	22	36.7
	c.	Family and friends	19	31.7
	d.	Others	11	18.3

Data presented in table 1 reveals that

- Majority 24(40%) of participants were belonged to age group of 31-40 years of age
- Majority 49(81.7%) of participants were females
- Majority 41(68.3%) of participants were belonged to Hindu religion
- Majority 49(81.7%) of participants were knew Kannada language
- Majority 35(58.3%) of participants were belonged to nuclear family
- Majority 29(48.3%) of participants were had 4 members in family
- Majority 22(36.7%) of participants were had high school education
- Majority 26(43.3%) of participants were doing agricultural work
- Majority 27(45%) of participants were had 5001-10000 family income
- Majority 35 (58.3%) of participants were vegetarians
- Majority 32(53.3%) of participants were spouses of patients
- Majority 22(36.7%) of participants were had social media as sources of information

Section 2: Description of bio-psycho-social challenges scale scores of participants
a. Description of mean, median, mode, standard deviation and range scores of bio-psycho-social challenges scale

Table 2: Bio-Psycho-Social challenges scores of participants

N = 60

Mean	Median	Mode	Sd	Range
96.83	96	97	18.18	57-136

Table 2 reveals the mean bio-psycho-social challenges scores of participants, it shows that, bio-psycho-social challenges scale mean was 96.83, median was 96; mode was 97 with standard deviation 18.18 and range score of 57-136.

b. Description of findings related to level of bio-psycho-social challenges among participants

Table 3: Frequency and Percentage distribution of participants according to level of Bio-psycho-social challenges

N=60

Level of Bio-psycho-social challenges		
Mild Nature	Moderate nature	Severe nature
f (%)	f (%)	f (%)
12 (20)	33 (55)	15 (25)

The data presented in the Table 3 shows level of bio-psycho-social challenges of participants, it reveals that, Majority 33(55%) of participants were had moderate nature problems, 15(25%) participants were had severe nature problems and remaining 12(20%) of participants were had mild nature problems.
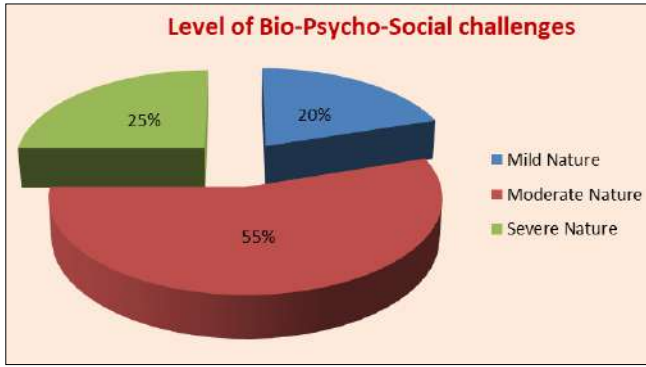
Fig 1: Percentage distribution of participants according to their bio-psycho-social challenges

c. Association between levels of bio-psycho-social challenges of participants with demographic characteristics

Computed Chi-square value for association between level of Bio-psycho-social challenges of participants and their selected demographic variables is found to be statistically significant at 0.05 levels for religion and dietary pattern of participants and not found statistically significant for other socio demographic variables.

Section 3: Description of coping strategies scale scores of participants
a. Description of mean, median, mode, standard deviation and range scores of coping strategies scale

Table 4: Coping strategies scores of participants

N = 60

Mean	Median	Mode	Sd	Range
57.68	58	58	10.24	38-82

Table 4 reveals the mean coping strategies scores of participants, it shows that, coping strategies scale mean was 57.68, median was 58; mode was 58 with standard deviation 10.24 and range score of 38-82.

b. Description of findings related to level of coping strategies among participants

Table 5: Frequency and Percentage distribution of participants according to level of coping strategies

N=60

Level of coping		
Poor coping	Moderate coping	Good coping
f (%)	f (%)	f (%)
30 (50%)	22 (36.7%)	8 (13.3%)

The data presented in the Table 5 shows level of coping of participants, it reveals that, Majority 30(50%) of participants were had poor level of coping, 22(36.7%) participants were had moderate level of coping and remaining 8 (13.3%) of participants were had good level of coping.
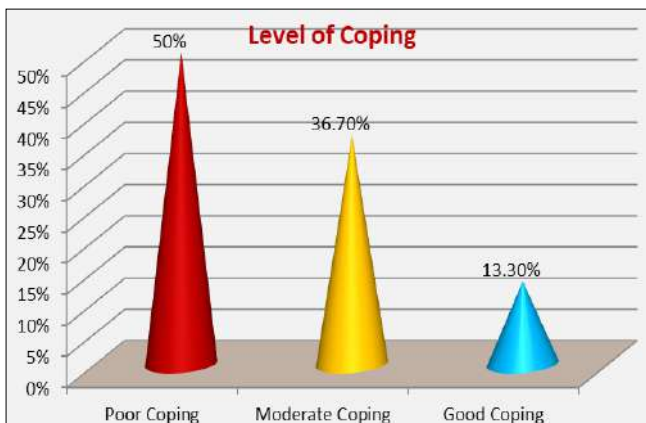

Fig 2: Percentage distribution of participants according to their level of coping

c. Association between levels of coping strategies of participants with demographic characteristics
Computed Chi-square value for association between level of coping of participants and their selected demographic

variables is not found statistically significant for any of the selected socio demographic variables.

Conclusion
All participants from selected rural areas of Belagavi district were willingly participated in the study. The participants had moderate nature of bio-psycho social problems and moderate level of coping with situation. They gave free and frank responses and willingly participated in the study.
Further, the conclusion drawn on the basis of the findings of the study includes:
1. All participants were had some level of bio-psycho social challenges related to patient with substance abuse in the family.
2. All participants adopted one or other coping strategies to cope with the situation of patient with substance abuse in the family
3. There was association between level of Bio-psycho-social challenges of participants and their selected demographic variables is found to be statistically significant at 0.05 levels for religion and dietary pattern of participants.
4. There was no significant association found between the level of coping and selected socio demographic variables of participants

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