

# BURDEN OF CARE AND QUALITY OF LIFE (QOL) IN OPIOID AND ALCOHOL ABUSING SUBJECTS

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## ABSTRACT

**Background:** Alcohol misuse is a major cause of morbidity and mortality and an important health care burden, the Quality of Life (QoL) of alcohol abusing subjects has been little studied to date.

**Aims & Objective:** To assess the burden of care and quality of life of alcohol and opioid dependent subjects.

**Material and Methods:** A cross sectional hospital based study was done. The sample consisted of 37 patients of mixed sex and their family members. The subjects were examined using a semi structured socio demographic profile performa, the WHOQOL-BREF quality of life assessment, Family Burden Interview Schedule (FBIS).

**Results:** The overall mean scores for WHOQOL-Bref were not statistically significant between the alcohol ( $p=0.93$ ) and the opioid ( $p=0.99$ ) dependent groups and also the individual domains showed no significant difference between groups.

**Conclusion:** Our study was conducted to analyse the quality of life and burden of care in alcohol and opioid dependent patients. The report of many subjects of poor quality of life during early withdrawal periods stresses the need for implementing ways of improving quality of life during this stage, to reduce relapse, and have better compliance of the detoxification and management measures. Our study also shows that the quality of life of alcohol users is equally poor when compared to that of opioid dependent subjects.

**Key-Words:** Alcohol Dependence; Opioid Dependence; Quality of Life (QOL); Burden of Care

## Introduction

The World Health Organization estimates that risks linked to alcohol cause 2.5 million deaths a year from heart and liver disease, road accidents, suicides and cancer, accounting for 3.8 percent of all deaths. It is the third leading risk factor for premature death and disabilities worldwide.<sup>[1]</sup> A study by London's Imperial College's chair of neuro psychopharmacology, examined twenty different drugs, including tobacco, marijuana, methamphetamine, ecstasy, cocaine, heroin, and alcohol. The study gave each drug a rating in terms of its propensity to cause various personal problems. Heroin and crack cocaine proved to be the most dangerous drugs to individuals. However, when combined with the societal impact, alcohol came out ahead as the world's most dangerous drug.<sup>[2]</sup> And in most societies alcohol, unlike crack and heroin, is perfectly legal for adults to consume.<sup>[2]</sup>

Although alcohol misuse is a major cause of morbidity and mortality and an important health care burden, the Quality of Life (QoL) of alcohol

abusing subjects has been little studied to date.<sup>[3]</sup> Quality of life as an outcome measure in alcoholism treatment research showed that 36 studies, published between 1993 and 2004, met with criteria of heavy drinking or episodic heavy drinking patterns were associated with reduced QoL.<sup>[4]</sup> The burdens of caring for a patient at home are considerable. They often affect the caring relative's social and leisure activities, and financial problems arise frequently. Relatives have difficulties in understanding and coming to terms with illness-related behaviour.<sup>[5]</sup> Frequently, burden of care is more defined by its impacts and consequences on caregivers. In addition to the emotional, psychological, physical and economic impact, the concept of 'burden of care' involves subtle but distressing notions such as shame, embarrassment, feelings of guilt and self-blame.<sup>[6]</sup>

The above constructs have been debated and studied, but the available literature from our current set-up is sketchy with few studied elaborating this complex phenomenon. Hence the present study was undertaken with aims to: assess the quality of life (QOL) and burden of care in

alcohol and opioid abusing or dependent subjects. To compare the two groups regarding the quality of life (QOL) and burden of care parameters.

## Materials and Methods

A cross sectional hospital based study was done. The sample consisted of 37 patients of mixed sex and their family members. All subjects reporting to de-addiction outpatient services (OPD) of Sir Sunder Lal hospital, of Institute of Medical Sciences (IMS), Banaras Hindu University (BHU) Varanasi, India. The diagnosis was made using the International Classification of Diseases (ICD-10).<sup>[7]</sup> diagnostic criteria for the selection of patients having alcohol dependence syndrome and Opioid dependence syndrome.

All those meeting ICD 10 criteria for alcohol dependence syndrome, those who gave consent, were between 18 to 65 years of age, and did not have any organicity and no other addiction were included in the study. The subjects were excluded if they had an unstable medical condition, the subjects who were unaccompanied by any family members and the ones having a co morbid psychiatric problem. Patients included in the study ranged in age between 18 and 65 years and had a history of two or more relapses during the course of their illness despite getting treatment. The patients and their families included in the study had homogenous socio-demographic characteristics. One adult relative living with the patient in the same property, and who had maximum interaction with the patient or who was directly involved with the patient was included in the study. Mostly these were parents, spouses, siblings or any other significant relative. The subjects were administered the following tools: Semi structured socio demographic profile performa, the WHOQOL-BREF quality of life assessment, and the Family Burden Interview Schedule (FBIS).

**Semi-Structured Socio Demographic Profile Performa<sup>[8]</sup>:** Demographic data was collected from each participant with regards to their age, gender, marital status, type of accommodation, occupation (if any), educational level, drug use including primary drug of dependence and other drugs of dependence (if more than one is used),

duration of use, route of administration, and quantity used per day in the month prior to admission. Enquiry was also made into the number of previous treatments for drug or alcohol withdrawal and the nature of this treatment.

**WHO Quality of Life-BREF (WHOQOL-BREF)<sup>[9]</sup>:** The World Health Organization Quality of Life (WHOQOL) project was initiated in 1991. It assesses the individual's perceptions in the context of their culture and value systems, and their personal goals, standards and concerns. The WHOQOL instruments were developed collaboratively in a number of centers worldwide, and have been widely field-tested. The WHOQOL-BREF instrument comprises 26 items, which measure the following broad domains: physical health, psychological health, social relationships, and environment. The WHOQOL-BREF is a shorter version of the original instrument that may be more convenient for use in large research studies or clinical trials.

**Family Burden Interview Schedule (FBIS)<sup>[9]</sup>:** Pai and Kapur's family burden interview schedule is used to assess family burden. The FBIS assesses the burden placed on families of psychiatric patients living in the community setting. This scale measures objective and subjective aspects of burden and it contains six general categories of burden, each having two to six individual items for further investigation. Subcategories include: financial burden, effects on family routine, effects on family leisure, effects on family interaction, effects on physical health of family members and effects on mental health of other family members. Each item is rated on a three-point scale, where 0 is no burden and 2 is severe burden.

A database containing demographic information, quality of life, and burden of care was constructed using SPSS v16.0 files. Analysis utilizing chi-square and t-test was performed comparing the outcome variables (QOL and burden of care) in those with alcohol dependence and those with opioid dependence. The study was approved by the institute ethical committee.

## Results

A total of 37 patients were recruited, 17 were

alcohol dependents and 20 had history of opioid dependence. Of the 37 interviewed, 7 were female and 30 male. The overall mean age of the total population studied was 37.46 (SD: 11.02).The results also showed that the percentage of married (64.9%) subjects were more than single (24.3%). The percentage of substance use in graduates /postgraduates was 40.5 while in the profession or honours were 13.5%.The mean age of the alcohol group was 38.7 and the opioid dependent 34.2. The distribution according to type of drug abused is as in (Table 1).

**Table-1: Socio-Demographic Profile of the Sample**

Variable	Dependence		SD	t Value	df	p Value
	Alcohol	Opioid				
Age (mean)	36.06	38.65	11.02	11.24	20	0.94
Sex	Male	15	0.39	14.30	1	0.00
	Female	2				
Religion	Hindu	17	0.78	35.11	3	0.00
	Muslim	0				
Marital Status	Married	13	0.23	29.43	1	0.00
	Unmarried	3				
	Divorced	1				
	Widowed	0				
Education	Illiterate	1	1.56	25.24	6	0.00
	Primary	1				
	Middle	2				
	High School	2				
	Intermediate	1				
	Graduate/PG	8				
	≥ Profession	2				
Occupation	Unemployed	1	2.53	7.32	7	0.39
	Professional	2				
	Semi-Professional	3				
	Skilled Worker	1				
	Semi-skilled Worker	2				
	House Wife	1				
	Student	2				
	Clerical/Shop Owner/ Farmer	5				

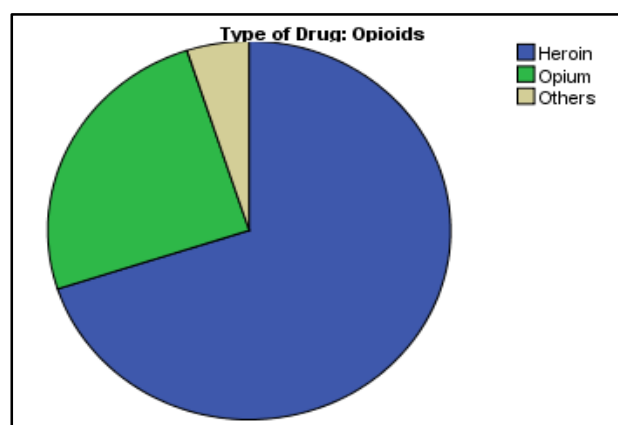
**Table-2: QoL Domains on WHOQoL Bref Version**

Type of Drug	Chi-Square	Domain WHOQoL Bref Version				Total Score
		Physical	Psycho-logical	Envi-ronment	Social Relatio-nship	
Alcohol	3.588	6.471	6.471	3.588	4.353	
	df	9	6	6	9	10
	Asymp. Sig.	0.936	<b>0.373</b>	<b>0.373</b>	0.94	0.93
Opioids	4.000	5.300	2.000	3.400	2.400	
	df	14	10	9	12	15
	Asymp. Sig.	0.995	<b>0.87</b>	0.99	0.99	0.999

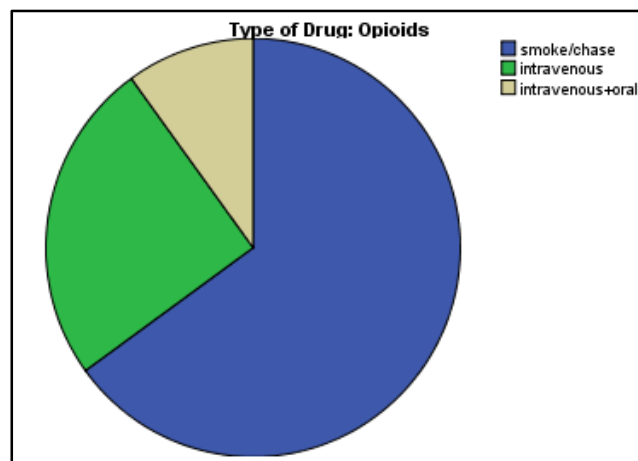
Those who used opioids, 70 % used heroin, 25% used opium and 5% used other types of opioids, and were reported using it intravenously, smoke or chase and both intravenous and orally (Figure 1 & 2). The overall mean scores for WHOQOL-Bref were not statistically significant between the

alcohol (p = 0.93) and the opioid (p=0.99) dependent groups and also the individual domains showed no significant difference between groups (Table 2).

Although the burden of care in both alcohol and opioid group was seen to be severe in all domains, the domains of disruption of family leisure, effect on physical health of others, financial burden, disruption of family routine activities, disruption of family interaction and effect of mental health of others showed no statistical significance between the groups. (Table 3)



**Figure-1: Type of Opioids**



**Figure-2: Route of Use**

## Discussion

Our study was conducted to analyse the quality of life and burden of care in alcohol and opioid dependent patients. The result showed that the both groups of the patients had similar socio demographic profile. Both the groups exhibited significantly low quality of life and an unreal burden on care givers. We tried to compare the two groups of alcohol and opioid. The QOL and burden was significantly higher in the two groups but there was no statistical significance between

**Table-3: Burden of Care on FIBS**

Domain	Alcohol Dependence			Opioid Dependence			t value	P Value
	Mild	Moderate	Severe	Mild	Moderate	Severe		
Financial burden	0	0	17	1	0	19	0.874	0.350
Disruption of routine family activities	0	0	17	1	1	18	1.797	<b>0.407</b>
Disruption of family leisure	0	6	11	3	4	13	3.345	<b>0.188</b>
Disruption of family interaction	0	0	17	1	1	18	1.797	<b>0.407</b>
Effect on physical health of others	1	10	6	4	6	10	3.580	<b>0.167</b>
Effect on mental health of others	1	8	8	1	9	10	0.038	0.981

the two groups, meaning that irrespective of the type of abuse the domains of burden and quality of life remain poor.

Usually the people who abuse with substance does not think the deep and long term impact of their actions. Our study reveals that alcohol abusers are equally affected like opioid abusers. Even though alcohol has a social sanction but its dependence is equally harmful for self and family.<sup>[4]</sup> In a cross-sectional, hospital based study conducted in de-addiction centre under department of psychiatry, All India Institute Medical Sciences(AIIMS), India, it was found that opioid dependent subjects cause considerable amount of distress to their care providers.<sup>[11]</sup> Similarly, in a study to compare a subjective Quality of Life (QoL) assessment before, after six and twelve months of participating in a methadone program, was found that in patients before admission to methadone program quality of life was extremely low and improved subsequently with treatment.<sup>[12]</sup> Our study also showed a poor quality of life in the two groups, however a lack of a control group has served as an impediment in a robust conclusion, although our findings corroborate the conclusion of the above study. In a review of quality of life in alcohol dependence patients, only 5 out of 442 accepted abstracts at a recent international QoL conference concerned alcohol-dependent subjects. The main conclusions from the review were that the QoL of alcohol-dependent subjects is very poor but improved as a result of abstinence, controlled or minimal drinking.<sup>[4]</sup> In a survey done in Bangalore, India, on quality of life in alcohol dependence, of 103 subjects studied, the study concluded that the aspect of quality of life is important in alcoholism. It also indicated the need for an appropriate measure of QOL, specific for alcohol dependent subjects.<sup>[12]</sup> The report of many subjects of poor quality of life during early withdrawal periods stresses the need for implementing ways of improving quality of life during this stage, to

reduce relapse, and have better compliance of the detoxification and management measures.<sup>[13]</sup> Our study also shows that the quality of life of alcohol users is equally poor when compared to opioid. Our study did not consider subjects in active withdrawal hence the findings from our study indicate a poor QoL in these subjects holistically and not stage specific.

In a study conducted in Taiwan to compare the quality of life (QOL) between subjects with and without heroin use and to examine the association of QOL with socio demographic characteristics, characteristics of heroin use, family support, and depression among heroin users at entry to a methadone maintenance treatment program. The level of QOL between subjects with and without heroin use was compared, and the correlates of QOL among heroin users were examined. Heroin users had poorer QOL than nonusers in the physical, psychological, and social relationship domains but not the environment domain of the WHOQOL-BREF after controlling for the influences of other factors.<sup>[13]</sup> In addition, heroin users with obvious depression had poorer QOL in all four domains than those without obvious depression. Also, heroin users who perceived higher family support had better QOL in the social relationship and environment domains. Heroin users had poorer QOL than nonusers in multiple domains.<sup>[12,14]</sup> Our study found that the opioid and alcohol dependent subjects had a poor QoL in all domains and this finding is in concurrence with our findings.

Quality of life and burden of care is an important parameter if we look at multiple psychiatric illnesses like schizophrenia, OCD, BPAD. In this aspect, the dual diagnosis also assumes significance. One important aspect which needs to be emphasized is that social acceptance of alcohol intake is limited to a responsible use once it leads to abuse and dependence alcohol use becomes a

serious illness.<sup>[15]</sup> Our study shows the findings which have been reported in the literature. Our study concludes that substance abuse regardless to type leads to a marked decrease in QOL and increase in the burden of care.

The current study is an initial investigation into important constructs of QoL and burden of care. These dimensions are holding an important place in terms of holistic management of individuals.<sup>[14]</sup> Lack of regional literature makes this investigation important.

Our study has a significant limitation in terms of small sample size, and a lack of a normal control group. We cannot make robust conclusions because we were lacking a control group. Nevertheless the study at best can be described as a preliminary investigation. A longitudinal assessment in contrast to the cross sectional assessment as ours would have provided a clearer picture regarding the constructs of quality of life and burden of care. For future studies a larger sample along with a control group is needed for making robust conclusions.

## Conclusion

Our study was conducted to analyse the quality of life and burden of care in alcohol and opioid dependent patients. The report of many subjects of poor quality of life during early withdrawal periods stresses the need for implementing ways of improving quality of life during this stage, to reduce relapse, and have better compliance of the detoxification and management measures. Our study also shows that the quality of life of alcohol users is equally poor when compared to that of opioid dependent subjects.

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