

A Study on the Relationship between Quality of Life and Psychiatric Co Morbidity in Alcohol Dependent Subjects

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Abstract

Background: Alcohol dependence is frequently associated with significant psychiatric co morbidity and impaired quality of life. Understanding the interplay between these factors is essential for treatment planning and long term recovery.

Aim: To find out the relationship between Quality of life and Psychiatric co-morbidity in Alcohol dependent subjects.

Materials and Methods: The study was conducted on 100 Alcohol dependent subjects admitted in tertiary care hospital for de addiction treatment. Psychiatric co-morbidity was assessed using M.I.N.I while Quality of Life was assessed using RAND -36 questionnaire.

Results: Using M.I.N.I the psychiatric co morbidity was observed in more than 50% of alcohol dependent subjects. The most common psychiatric condition was psychotic disorders (40%) followed by generalized anxiety disorders (18%). Alcohol dependent subjects with psychiatric disorders had low scores on all the dimensions of Quality of life when compared to Alcohol dependent subjects without psychiatric disorders. The differences in mean scores has attained statistical significance for the items related to physical functioning, role limitation due to emotional health, energy, social functioning and general health.

Conclusion: Psychiatric comorbidity is highly prevalent among alcohol dependent individuals and is significantly associated with poor Quality of life. Integrated treatment approaches addressed both, Psychiatric symptoms and substance use and these are crucial for improving overall functioning and wellbeing in this population.

Keywords: Alcohol Dependence, Quality of Life and Psychiatric Comorbidity.

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Introduction

Alcohol dependence is frequently associated with significant Psychiatric co-morbidity and impaired Quality of life. Understanding interplay between these factors is essential for treatment planning and long term recovery. Alcohol use disorders (AUDs) are defined by the Diagnostic and Statistical Manual of Mental Disorders (DSM) and the International Classification of Diseases (ICD) by operational criteria: "continued alcohol use despite negative psychological, biological, behavioural, and social consequences, of which a minimum number must be met during the same 12-month period to qualify for the diagnosis." [1] AUD is a serious global disease that burdens and threatens the development of healthy societies. [2,3] The

alcohol-attributable fraction (AAF) of all-cause deaths was 5.4%. [4] According to WHO, 43% of the world population reportedly consumes alcohol regularly. [5] In India prevalence is high among males with recent National Family Health Survey (NFHS) - 4 (2014–15), reported alcohol consumption prevalence as 29.2% among adult men. [6] Alcohol consumption is responsible for medical issues with the involvement of many body organs, liver damage, stroke, head and neck cancers. [7] These destructive impacts of liquor may affect human wellbeing and Quality of Life (QoL). There are some reported studies in a hospital or primary care setting which found significant impairment of QoL in individuals using

alcohol, particularly concerning their mental health and social functioning. [8,9] There are few studies in hospital settings on determinants of QoL among patients of alcohol dependence who undergo treatment.

These studies assessed factors such as the severity of alcohol dependence, the intensity of alcohol use, employment status, age, gender, and psychiatric history as predictors of QoL. [10,11] As alcohol dependence is being increasingly recognised as chronic relapsing illness, QoL assessment have been often used as secondary outcome measure as well as to measure individual's well-being, contentment, and ability to function in different domains. [12] A number of Indian studies conducted on inpatients have shown strong associations between alcohol dependence with other substance abuse, mood and anxiety disorders, personality disorders with prevalence ranging from 16% to as high as 90%. [13,14,15,16] presence of psychiatric comorbidity have been found to contribute significantly to lowering QoL in alcohol dependence. [17]

There have been few studies from India highlighting the poor QoL in alcohol dependence, [18,19] however, there is lack of literature on the relation between comorbidities and their influence on QoL in alcohol dependence syndrome in Indian settings. [20]

Aims and Objectives

Aim: To find out the relationship between Quality of life and Psychiatric co-morbidity in Alcohol dependent subjects.

Objectives:

1. To estimate the Quality of life among Alcohol dependent subjects.
2. To know any psychiatric co-morbidity among the study population.
3. To study the relationship between Quality of life and Psychiatric co-morbidity in the study population.

Materials and Methodology

Study Design: It is an observational study

Study Setting: Study was conducted in Psychiatry Department, at a tertiary care hospital.

Study Duration: The study was conducted from April 2026 to June 2026 for a period of 3 months.

Study Population: Alcohol dependent participants who were admitted in the de-addiction ward were considered for the study.

Inclusion Criteria:

- The study includes male participants who are diagnosed as Alcohol dependence syndrome as per DSM V criteria.
- Male participants aged between 18 to 65 years were included for the study.
- Participants who gave written informed consent were considered for the study.

Exclusion Criteria: The study excluded individuals with independent psychiatric disorders of DSM-5 and with co morbid medical illness

Sample Size: A total of 100 male participants who meet the inclusion criteria are considered for the study.

Method of Data Collection: Participants who are diagnosed as Alcohol dependence syndrome as per DSM 5 and those who meet the inclusion criteria and given informed consent were considered eligible for the study. Socio demographic details of the participants were collected using the socio demographic data sheet that was designed for the purpose of the study. Study subjects were applied on M.I.N.I [22] to look for co-morbid psychiatric illness and later self-administered RAND 36-Item Health Survey21 will be given to the subjects for assessing their quality of life.

Data obtained was analysed using SPSS (Software program for windows version 31).

Mean, Standard deviation, Chi square tests were used to examine the relationship between Psychiatric co-morbidity and Quality of life scores.

A "P" - Value of <0.05 was considered statistically significant.

Tools Used:

1. Socio-demographic data sheet: Semi-structured socio-demographic profile which is self-designed was used to take details of age, gender, marital status and education.
2. RAND 36 –Item Health Survey [21]: A self-administered questionnaire for Quality of Life
3. MINI: The Mini International Neuropsychiatric Interview, M.I.N.I. version 6.0.0 [22], it is a short structured diagnostic interview to assess major psychiatric disorders.

Observations and Results

The study included 100 participants with a mean age of 43.49 years with a standard deviation of ± 8.026 years. Most of them belonged to age range of 45-54 years.

Table 1: Socio demographic characteristics of the sample

Mean Age		Mean	S.D.
	Mean Age	43.49 Yrs	8.026 yrs
Age Range		N	%
	18-24 yrs	2	2.00
	25-34 yrs	13	13.00
	35-44 yrs	38	38.00
	45-54 yrs	44	44.00
	>55 yrs	3	3.00
Gender		N	%
	Male	100	100.00
Marital status			
	Married	73	73.00
	Unmarried	24	24.00
	Divorced	03	03.00
Family type			
	Joint	70	70.00
	Nuclear	30	30.00
Domicile			
	Rural	45	45.00
	Urban	55	55.00
Socioeconomic status			
	Low	58	58.00
	Med	40	40.00
	Higher	02	02.00
Education			
	Illiterate	10	10.00
	Primary	20	20.00
	Secondary	27	27.00
	High School	35	35.00
	Graduate	08	08.00
Employment status			
	Employed	59	59.00
	Un Employed	41	41.00
Occupation			
	Un Skilled	45	45.00
	Skilled	14	14.00
	Un Employed	41	41.00

Majority of them were married, belonged to joint families were from urban background and belonged to low socio-economic status. Most of them had high school education, were employed and belonged to unskilled occupational groups.

Table 2: Quality of life scores (RAND 36): Mean scores on the Quality-of-life subscales

Quality of life subscales	Mean $\pm$ S.D
Physical functioning	87.93 $\pm$ 5.73
Role Limitation/Physical Health	48.5 $\pm$ 8.80
Role Limitation / Emotional Health	32.5 $\pm$ 11.48
Energy/fatigue	48.86 $\pm$ 8.05
Emotional well being	57.26 $\pm$ 7.58
Pain	78.95 $\pm$ 7.04
Social functioning	60.02 $\pm$ 13.32
General health	58.00 $\pm$ 7.68
Health change	51.78 $\pm$ 5.42

The sample of alcohol dependent subjects scored least in the dimension of “Role limitation due to emotional health problems”. They had low scores on scales related to “Role limitation” due to physical health problems, energy, health change and emotional well-being. High scores were found on subscales of physical functioning and pain respectively.

Table 3: Psychiatric comorbidity: Psychiatric diagnosis as diagnosed by M.I.N.I

S.No	Psychiatric diagnosis as diagnosed by M.I.N.I	Total sample (100) N%
1	Psychotic disorder	40 (40%)
2	Generalized anxiety disorder	18 (18%)
3	Major depressive disorder	2 (2%)

The most common psychiatric diagnosis observed in Alcohol dependent subjects was psychotic disorders- 40%, followed by Generalized anxiety disorder 18%, followed by Major depressive disorder -2%.

Table 4: Correlation analysis (Comparison of Mean QOL scale scores in AD subjects with and without psychiatric diagnosis according to M.I.N.I)

QOL Subscale	AD Subjects with psychiatric disorders (N=60; Mean $\pm$ S.D.)	AD Subjects without any psychiatric diagnoses (N=40; Mean $\pm$ S.D.)	't'	p
physical functioning	87.25 $\pm$ 6.007	88.95 $\pm$ 5.193	1.55	< 0.05 *
Role Limitation/Physical Health	48.5 $\pm$ 9.097	48.5 $\pm$ 8.464	0.38	0.35 N.S
Role Limitation/ Emotional Health	30.7 $\pm$ 10.824	35.2 $\pm$ 12.055	2.05	< 0.02 *
Energy/fatigue	48.26 $\pm$ 8.426	49.75 $\pm$ 7.472	1.40	< 0.05 *
Emotional well being	57.15 $\pm$ 8.106	57.42 $\pm$ 6.830	0.503	0.307 N.S
Pain	78.73 $\pm$ 7.259	79.27 $\pm$ 6.778	0.548	0.292 N. S
Social functioning	59.33 $\pm$ 13.612	61.05 $\pm$ 12.981	3.025	P < 0.001 *
General health	56.76 $\pm$ 7.520	59.85 $\pm$ 7.654	2.017	P < 0.001
Health change	52.28 $\pm$ 5.049	51.02 $\pm$ 5.933	0.309	0.309 N.S

The difference in the mean scores on QOL subscales as assessed by the t test reached statistical significance for the subscales of physical functioning, role limitation due to emotional health, energy, social functioning and general health.

Discussion

In the current study the mean age of the sample was found to be 43.49 years with a standard deviation of ± 8.026 years and majority were found to be in the age groups of 45-54 years (44%) and 35-44 years (38%) respectively. In a study alcohol dependence is seen between 25 and 40 years of age [23]. The mean age of alcohol dependent subjects in the present study sample is comparable to Hesselbrock MN et al, Ross HE. Et al, Powell BJ et al and R. Chandrasekharan (2001) respectively. Majority of the sample were married 73%. High alcohol use in married men was observed earlier by Lal and Singh (1979), Ghulam (1996), Singh (2000) and Meena et al (2002) [24,25,26,27]. Increase in the responsibilities in married life might be one the contributing factor for increased alcohol consumption among married men.

When the QOL scores were observed in our study AD subjects scored least on Role limitation due to emotional health problems followed by role limitation due to physical health problems, energy, Health change, emotional wellbeing and general health. In a study by Morgan MY (2004) the most important deficits were observed in physical and emotional role limitations and in social functioning [28]. Similar observations were reported by Volk and Robert J (1997) and Schukit MA et al (2003) [29,30]. The lower scores of Role

limitations could be partly explained by the high rate of unemployment observed in Alcoholic subjects. The group of Alcohol dependent persons scored high on physical functioning and pain.

Smith KW (2003) has observed that substance abusers had much lower mean scores than general population on both the mental health and physical health component scales [31]. Stein MD (1998) had found that Alcohol had little effects on physical and role functioning scores. However health perception and pain subscale scores were found to be lower in Alcoholics [32]. The most common psychiatric diagnosis observed in Alcohol dependent subjects was Psychotic disorder (40%) followed by generalized anxiety disorder (18%) followed by Major depressive disorder (2%).

The prevalence of psychiatric disorders observed in the study (>50%) is greater than that found in Epidemiological Catchment area Study (ECA) in which the prevalence rate reported was found to be 38%. As the present study has been done in a tertiary care hospital where the more severe dependence and more psychotic cases tend to be pooled up, the prevalence rates in the study may not reflect the true prevalence rates of substance induced mental disorders in Alcoholic individuals in the community.

Influence of Comorbid Psychiatric Conditions on QOL: The findings of our study indicate a significant negative correlation between psychiatric co-morbidity and QOL suggesting that psychiatric co morbidity is associated with poorer perceived wellbeing across multiple domains of life. Consistent with the previous literature Alcohol

dependent individuals with psychiatric co morbidity in our study demonstrated lower QOL scores compared to those without psychiatric comorbidity. These findings align with studies such as those by Romeis Je et al(1999)31, Mc Carty et al(2002) [33], Richtel D et al (2004) [34], Peters TJ (2003) [35], Zoster J.H et al(2002) [36] which also reported significantly impaired QOL in Alcohol dependent subjects with psychiatric comorbidities than those without psychiatric comorbidity.

The differences in the mean scores of QOL has attained statistical significance for the subscales of physical functioning, Role limitation due to emotional health, energy, social functioning and general health. The influence of comorbid psychiatric disorders like mood and anxiety disorders and substance abuse disorders on QOL scores has been described by earlier research. [29,37,38,35,28,31] However those who showed psychiatric symptoms showed poor QOL compared to group without psychiatric comorbidity.

Conclusion

The concept of Quality of life is recently emerging as a measure of patient's subjective well-being. A paucity of Indian studies about the Quality of life among Alcohol dependent subjects has prompted the initiation of the present study. The Alcohol dependent subjects with psychiatric co-morbidity were found to have poor Quality of life than the Alcoholics without psychiatric co-morbidity. A statistically significant lowering of Quality of life scores was observed for Alcohol dependent persons with psychiatric co-morbidity in the subscales of "Physical functioning", Role limitations due to emotional health", "Energy", "Social functioning" and "General health" respectively.

Limitations: Sample size is less and hence the obtained results cannot be generalized to the population.

References

- Carvalho AF, Heilig M, Perez A, Probst C, Rehm J. Alcohol use disorders. *Lancet* 2019; 394: 781–92.
- World Health Organization. Global status report on alcohol and health 2018. World Health Organization; 2019.
- Park SH, Kim DJ. Global and regional impacts of alcohol use on public health: Emphasis on alcohol policies. *Clin Mol Hepatol* 2020; 26: 652–61.
- World Health Organisation Global Health Observatory Data Repository World Health Organisation (2020)
- World Health Organisation Global Status Report on Alcohol and Health 2018 (2018)
- International Institute for Population Sciences National Family Health Survey – 4 (2017)
- S. Umarani, K. Somasundaran Impact of alcoholism on health in urban area of Puducherry, India *International Journal of Multidisciplinary*, 3085 (2019), pp. 194-199
- J.E. Kirchner, C. Zubritsky, M. Cody, et al. Alcohol consumption among older adults in primary care *J Gen Intern Med*, 2007;22(1):92-97.
- A. Goel, S.L. Jat, A. Sasi, V.K. Paliwal, R. Aggarwal Prevalence, severity, and impact on quality of life of restless leg syndrome in patients with liver cirrhosis in India *Indian J Gastroenterol*, 35 (3) (2016), pp. 216-221,
- M.Y. Morgan, F. Landron, P. Leher Improvement in quality of life after treatment for alcohol dependence with acamprosate and psychosocial support *Alcohol Clin Exp Res*, 28 (1) (2004), pp. 64-77,
- K. Colpaert, J. DeMaeyer, E. Broekaert, W. Vandeplasch Impact of addiction severity and psychiatric comorbidity on the quality of life of alcohol-, drug- and dual-dependent persons in residential treatment *Eur Addiction Res*, 19 (4) (2013), pp. 173-183,
- Ugochukwu C, Bagot KS, Delaloye S, Pi S, Vien L, Garvey T, et al The importance of quality of life in patients with alcohol abuse and dependence *Harv Rev Psychiatry*. 2013;21:1–17
- Kattukulathil S, Kallivayalil RA, George R, Kazhungil F. Psychiatric comorbidity in alcohol dependence: A cross-sectional study in a tertiary care setting Kerala *J Psychiatry*. 2015;28:72–6
- Vohra AK, Yadav BS, Khurana H. A study of psychiatric comorbidity in alcohol dependence *Indian J Psychiatry*. 2003;45:247–50
- Singh NH, Sharma SG, Pasweth AM. Psychiatric co-morbidity among alcohol dependants *Indian J Psychiatry*. 2005;47:222–4
- Kaur R, Krishna PS, Ravinder E, Sahithi JK, Dattatreya M. Psychiatric disorders in adult males with alcohol dependence - A study in Telangana region of Andhra Pradesh *Int J Res Med*. 2013;2:80–6
- Levola J, Aalto M, Holopainen A, Cieza A, Pitkanen T. Health-related quality of life in alcohol dependence: A systematic literature review with a specific focus on the role of depression and other psychopathology *Nord J Psychiatry*. 2014;68:369–84
- Srivastava S, Bhatia MS. Quality of life as an outcome measure in the treatment of alcohol dependence *Ind Psychiatry J*. 2013;22:41–6
- Patra BN, Sarkar S, Basu D, Mattoo SK. Quality of life of opioid-and alcohol-dependent treatment seeking men in North India *J Substance Use*. 2015;9:1–6
- Singh S, Balhara YP. A Review of Indian Research on Co-occurring Psychiatric

- Disorders and Alcohol use Disorders Indian J Psychol Med. 2016;38:10-9
21. Hays RD, Sherbourne CD, Mazel RM. The RAND 36-Item Health Survey 1.0. Health Econ. 1993 Oct;2(3):217-27.
 22. Sheehan DV, Lecrubier Y, Sheehan KH, Amorim P, Janavs J, Weiller E, Hergueta T, Baker R, Dunbar GC. The Mini-International Neuropsychiatric Interview (M.I.N.I.): the development and validation of a structured diagnostic psychiatric interview for DSM-IV and ICD-10. J Clin Psychiatry. 1998;59 Suppl 20:22-33;quiz 34-57.
 23. Schuckit M A. Alcohol Related disorders in Kaplan H I, Sadock B J, Eds. Comprehensive text book of psychiatry, VII Ed, Baltimore; Williams and Wilkins. 2000.
 24. Lal B, Singh G .Drug abuse in Pubjab. British journal of Addiction.1979;74: 411-427.
 25. Ghulam R, Rahman I, Gupta S R. An Epidemiologic study of Drug abuse in Urban population of Madhya Pradesh. Indian Journal of Psychiatry. 1996; 38 (3), 43 – 46.
 26. Singh J & Singh G, Mohan V, Padda A S. A comparative study of prevalence of Regular alcohol use among male individuals in an Urban and rural area of district Amritsar, Punjab. Indian journal of Community medicine. 2000;25(2): 73 – 78.
 27. Meena, Pardeep Khanna, Vohra A K, Rajesh R. Prevalence, pattern of Alcohol and substance abuse in Urban areas of Rohtak city. Indian journal of Psychiatry.2002; vol 44 (4).
 28. Morgan M Y, Landron F, Leher P. Improvement in Quality of life after treatment for Alcohol dependence with Acamprosate and psychosocial support. Alcohol clinical and experimental research. 2004; 28 (1): 64-77.
 29. Volk, Robert J, Canto, Scott B, Steinbauer, Jeffrey R, Cass, Alvah R. Alcohol use disorders, consumption patterns and Health related Quality of life of Primary care patients, Alcoholism: Clinical and experimental research. Aug,1997; 21(5). 899
 30. Schuckit M A, Preuss U W, Smith T L, George P D, Kathleen K B, Hesselbrock M N, Hesselborck V, Kremer J R. Predictors and Correlates of suicide attempts over 5 years in 1,237 Alcohol dependent Men and Women. American journal of psychiatry. 2003;160: 56-63.
 31. Smith K W, Larson M J. Quality of life assessments by adult substance abusers receiving publicly funded treatment in Massachusetts. American Journal of Drug and Alcohol abuse. May 2003; 29 (2): 323-325
 32. Stein M D, Mulvey K P, Plough A, Samet J H. The functioning and well being of persons who seek treatment for drug and Alcohol use. Journal of substance abuse. 1998; 10 (1): 75-84
 33. Mc Carthy W J, ZhouY, Hser Y I, Collins C. To smoke or not to smoke – impact on disability, Quality of life and illicit drug use in baseline poly drug users. Journal of addictive disorders. 2000; 21(2): 35-54.
 34. Richter D, Eikelmann B, Breger K. Use of the SF – 36 in the evaluation of a drug detoxification program. Quality of life research. Jun.2004; 13(5): 907 -914.
 35. Peters T J, Milward L M, Foster J. Quality of life in Alcohol misuse: Comparison of men and woman. Archives of women mental health. Nov.2003; 6(4), 239-243.
 36. Foster J H, Marshall E J, Hooper R L, Peters T J. Measurement of Quality of Life in Alcohol – dependent subjects by a cancer symptoms checklist. Alcohol, February 2000; 20 (2): 105 – 110.
 37. Romeis J C, Waterman B, Scherrer J F, Goldberg J, Eisen S.A., Health A C Bucholz K K, Slutske W S, Lyons M J, Tsuang M T, True W R. The impact of socio demographic, comorbidity symptom recency on Health related Quality of Life in Alcoholics. Journal of studies on Alcohol. Sep1999; 60(5): 653-662.
 38. Foster J H, Peters T J, Kind P. Quality of Life, Sleep, mood and Alcohol consumption: A complex interaction. Addiction Biology. January 2002; 7(1): 55-65.