



SEVERITY DETERMINANTS AND QUALITY OF LIFE IN CHRONIC ALCOHOL USERS: RECENT TRENDS.

Psychiatry

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ABSTRACT

Background: Goa is a rapidly developing state with a high level of Western influence. There are not many studies on alcoholism status in Goa. A need was felt to explore the recent trends in various factors involved along with severity and the quality of life of alcoholic patients. **Aims :** To study the severity of alcohol use and their correlates in patients admitted to a tertiary care psychiatry hospital and to assess the Quality of life in these patients. **Materials & Methods:** A Hospital -based cross-sectional study was initiated among 75 adults aged ≥ 18 years in a Tertiary care psychiatric inpatient unit. Subjects were selected by a purposive sampling technique. SADQ and WHO QoL BREF questionnaire were used for assessment. SPSS 22 was used for data analysis and Chi Square test for significance ($P < 0.05$). **Results:** On SADQ, Moderate dependence was seen in majority of subjects $n=39$ (52%). Severe dependence was noted in 28 patients (37.3%). Mean age of study sample was 40.17 years ($SD \pm 10.37$ yrs) with majority of subjects in 31-50 years age group $n=46$ (61.3%). Most study subjects had below SSCE level of education, $n=62$ (82.67%) and only $n=13$ (17.33%) were above SSCE. Majority were daily wagers or unemployed $n=42$ (56%). The age of initiation into alcohol was before 25 yrs in 68 (90.7%) mean age being 18.28 yrs ($SD \pm 4.21$ yrs). 76% ($n=57$) were having more than 10 yrs duration of alcohol use. WHOQoL BREF scores were low in social (38.09) and physical Domains (43.68). **Conclusions:** There is a trend of earlier initiation of alcohol use at younger age in our study group. Poor educational status, longer duration of alcohol use, poor income and poor QOL is associated with severity of alcohol use.

KEYWORDS

Alcohol Dependence, severity, socio-demographic determinants, Quality of Life (QOL).

INTRODUCTION:

According to WHO 43% of global population use alcohol on regular basis.^[1] In third world countries it is the leading cause of Disability Adjusted Life Years loss i.e. about 44 millions.^[1] Evidence shows that mortality following alcohol use is much higher than that caused by chronic diseases like Diabetes, HIV, Tuberculosis, etc.^[1] A survey conducted by Srivastava et al 2003 throughout India including Goa reported that 18.3% of men in the age group of 12 to 60 consume alcohol.^[1] Hazardous alcohol use is defined on the basis of score derived from Severity of Alcohol dependence Questionnaire; 0-7 non-dependent, 8-15 mild, 16-30 moderate and 31-60 severe dependent.^[1] Quality of life is explained as emotional wellbeing along with satisfaction in one's ability to enjoy everyday life.^[1] In alcohol dependent subjects the health related quality of life is often severely disturbed. Several studies have demonstrated the ill effects of chronic alcohol use in several domains of the QOL (WHO-BREF).^[1-3] QOL assessment scores determine patients subjective evaluation of impact that alcohol use Disorders and its treatment can have on their lives. It helps in assessing their employment status, family support systems and ability in utilising the services of the health care systems. QOL assessment also helps clinicians in identifying problems other than alcohol use disorders leading to better broader treatment decisions and setting treatment goals and priorities.^[1-3]

Goa is a rapidly developing State with a high level of Western influence. There are not many studies on alcoholism status in Goa. As per one study done by Gladstone D. et al 2007 the male pattern of drinking is predominant leading to absenteeism, high level of harmful and dependent drinking in the population.^[4]

A need was felt to explore the recent trends in various factors involved along with severity and the quality of life of the admitted alcoholic patients in a tertiary care setting. This project was undertaken as part of STS Scheme of ICMR for UG-MBBS.

METHODS:

It was a Tertiary Psychiatry Hospital based cross-sectional analytical study amongst adults aged between 18-65 years. All consecutive consenting inpatients meeting ICD-10 diagnosis for Alcohol Use Disorders (AUDs) were included in the study. Study was reviewed and approval obtained from the Institutional Ethics Committee. Informed consent was obtained from the participants once they were out of withdrawal. Data was collected on a semi-structural predesigned interview schedule prepared for this purpose. The socio-demographic details along with age of alcohol initiation, duration of alcohol use,

physical morbidities were obtained. Confidentiality was maintained throughout the study. Participants only when having capacity to understand the study procedure were evaluated. Subjects were then administered Severity of Alcohol Dependence Questionnaire (SADQ).^[1] WHO-QOL BREF was used to assess the quality of life of the participants.^[8,9] Both instruments have good reliability and validity.

Statistical Analysis:

All the collected data was entered into Microsoft Excel worksheet with due precautions. All statistical analysis were performed using SPSS version 22. Categorical and continuous data was expressed in percentage and mean $\pm$ SD values respectively. Pearson's Chi-square test was applied to understand significance of Association between two variables. T-test was applied to understand significance of difference between two means and one-way Analysis of Variance was used for comparing > 2 means. $P < 0.05$ was considered statistically significant.

RESULTS:

Table I: Characteristics of study population, N=75.

Variables		Frequency(n)	Percentage(%)
Age Group	18-30	12	16
	31-50	46	61.3
	51-70	17	22.7
Sex	male	74	98.7
	female	1	1.3
Occupation	Unemployed	18	24
	Daily wages	32	42.7
	salaried	25	33.3
Religion	Hindu	52	69.3
	Catholic	17	22.7
	Muslims	5	6.7
	Others	1	1.3
Education	SSCE & above	28	37.3
	Below SSCE	47	62.7
Marital status	Single	16	21.3
	Married	57	76
	Others	2	2.7
Age at starting alcohol(years)	< 25	68	90.7
	> 25	7	9.3
Duration of alcohol use (years)	< 10	18	24
	> 10	57	76

Amount of alcohol use (Equivalent whiskey bottle)	<1/2	17	22.7
	>1/2	58	77.3
Family history of AUDs	Present	37	49.3
	Absent	38	50.7

A total of 75 inpatients diagnosed with Alcohol Use Disorder were included in this study. The characteristics of the study population are shown in Table I. The mean age was 40.37(SD±10.37) years with majority of the subjects in 31-50yrs group i.e. n=46(61.3%). Most of the study sample was male, n=74(98.7%) and were Hindus by religion, n=52(69.3%). Most subjects had below SSCE level of education, n=62(82.67%) and only n=13(17.33%) were above SSCE. Majority were daily wagers/ unemployed n=42(56%). 57subjects (76%) were married. The age at initiation of alcohol was before 25yrs of age in 68(90.7%), mean age being 18.28 (SD±4.81yrs). 76% (n=57) were having more than 10 years of duration of alcohol consumption. Most patients n=58(77.3%) were consuming more than half bottle whiskey (equivalent) per day. Family history of alcohol use was found in 37(49.3%) patients.

Table 2: SADQ Scores and duration of alcohol use (N=75)

Years of alcohol use	No. of subjects	0-7scores	8-15scores	16-30scores	>31	P
<10	18	1(1.33)	2(2.67)	10(13.33)	5(6.67)	
>10	57	0	5(6.67)	29(38.67)	23(30.67)	<0.05
Total	75	1	7	39	28	

Table 2 depicts the SADQ-Analysis of the study sample and duration of alcohol use. Most patients belonged to Moderate Dependence n=29(38.67%) and 23(30.67%) were of severe dependence with more than 10 years of alcohol use respectively. 10(13.33%) had moderate dependence and 5(6.67%) of the severe category had less than 10years of alcohol use. Overall 7patients had mild dependence and one subject had less than 7 score on the SADQ.

Table 3: WHO Qol BREF Analysis N=75 compared with other studies

Domains	Full Scores (0-100)	Prajakta etal [30] IJP2019	GopalDas[28] etal2019	Greece study[31]
Physical	43.68	37.32	38.95	41.44
Psychological	46.06	38	37.84	52.59
Social	38.09	33.98	39.92	50.66
Environmental	50.45	37.08	50.34	61.40

Table 3 depicts the WHOqolBref scores of our study in comparison with other Indian and international studies. The scores of our study were comparable with those of these studies.

DISCUSSIONS:

Alcohol dependence forms a major health issue and a large economic burden to our society. This study was conducted to understand the recent trends in severity determinants, and Quality of Life of this population. A total of 75 alcohol dependent inpatients formed the sample of our study. On SADQ we found that 37.5%, 52%, and 9.3% of the patients respectively belonged to high, middle and low dependence group. The SADQ assessments show that moderate to severe dependence was seen in mean age 40.37(SD±10.37), i.e. in 31-50 years age group. Similarly, in some earlier Indian studies on AUDs, the mean age of the subjects was 39.7 ± 8.66, 38.05 ± 7.36 and 37.51 ± 9.7years, and most of the patients belonged to the 35–44 years, 26–45 years, and 30–39 years' age group, respectively.^[1-3] Most patients with high dependence belonged to Hindu religion. This is so because majority of our State population is Hindus.^[4] Our sample reflected poor education level (SSCE and lower) in the moderate to severe alcohol dependent patients. Most studies in India have shown similar results.^[3] Regarding marital status 76% of our patients were married with 21.3% single and 2.7%divorced. This is similar to findings of other Indian studies.^[16] The mean age of starting first drink was 18.28 years. This is similar to Western studies by De Coit etal and Hill SYetal^[1], but slightly lower than other Indian studies.^[16,18,19] This is probably due to the Western influence on our youth.

SADQ analysis with duration of alcohol use showed a significant association in moderate dependents n=29 (38.67%) and severe dependents n=23(30.67%) with more than 10years of alcohol use (P<0.001).^[23,26]

Poor QOL is directly related to the degree of severity of alcohol dependence. All of our patients had complicated withdrawal warranting admission to the psychiatry (de-addiction) ward. The overall QOL BREF analyses of our study showed lowest scores in social domain (38.09) and physical domain (43.68) with psychological domain scoring (46.06) and highest scoring for environmental domain (50.45). Similar findings were seen with other studies,^[10,] where social and physical domains were severely affected. Poorer social domain scores reflect poor social relationships and poor physical domain scores correspond to impaired mobility and difficulty to work. Environmental domain fairs better across studies probably due to greater satisfaction with living conditions and access to health services.

Several studies have compared severity of alcohol use with quality of life with higher scores in mild to moderate cases in all domains of WHO Qol-BREF in comparison with lower scores found in severe dependents.^[6] Findings from these studies were similar to that of our study which involved severe ADS patients. There is no much variation in each domain comparisons except for some significant difference noted in our study between groups in the social domain which is poorer while environmental domain is higher in QOL. This difference could be due to inclusion of severe grade ADS patients in our study with pertinent factors like early age of onset and longer duration of alcohol use as reflected by high SADQ scores.

Strengths of the Study: We had 75 cases of chronic alcohol dependents included in our study. All patients with Axis I major psychiatric diagnosis/ any severe medical illnesses were excluded. We excluded patients having concomitant substances abuse which could be a confounding factor for QOL assessment. The results obtained from our study could be compared with other studies done internationally as we used SADQ and WHO qol bref. The principal investigator administered the instrument to the study subjects, so the reporting bias was minimised arising out of different social, educational /economic background.

Limitations:

This was a cross-sectional purposive sampling hospital based study. Our sample may not reflect the actual population and therefore not possible to extrapolate the findings. Our study comprised of severe ADS subjects which may show results inclined towards one extreme of cases when compared with other studies. We had only one female subject, so we could not bring out the gender differences. We have not assessed our patients for any Personality Disorders, adult ADHD, below average /dull intelligence or any sub-clinical psychiatric condition which may have influenced the Domain scores of WHO Qol BREF.

CONCLUSION:

The study reiterates the association between quality of life and severity of alcohol use disorders. Quality of life is directly related to the severity of alcohol use. More severe the alcohol use poorer is the quality of life across domains. Severity of AUDs is influenced by age of onset of first drink, duration of alcohol use and the amount of alcohol consumed per day. Trend is for earlier age of initiation of alcohol, poor academics and lower financial gains seen in this study. Further community studies are needed with larger sample size to confirm these findings. Such studies will help in devising various rehabilitation programs for alcohol users and promoting government policies in the care, productivity and improvement in the disability adjusted life years related to AUDs.

REFERENCES:

- World Health Organization ,Global Status Report on Alcohol and Health, 2014. Department of Mental Health and substance Abuse, Geneva.
- LimSS, Vos T, Flaxman AD etal : A systematic analysis for Global Burden of Diseases study 2010. Lancet 2012 Dec 15, 380 (4859): 2224-60, doi 10.1016/50140-6736 (12) 61766-8
- JISacks, Jim Roeber, Ellen Blouchery etal 2013: State cost of excessive alcohol consumption 2006. Am J Prev Med 2013 Oct 45(4):474-85
- Srivastava A, Pal HR, Dwivedi SN, etal 2003: National household survey of Drug abuse in India. Report submitted to Indian Ministry of Soc.Just. and Empowerment and the UNO of Drugs and Crime.
- Stockwell T, Murphy D, Hodgson R. The severity of alcohol dependence questionnaire: Its use, reliability and validity. Br J Addict. 1983;78:145–55.
- Global Status Report on Alcohol and Health 2018 : World health Organisation 2019- books.google.com Accessed on 24/4/2022
- Liban C, Smart RG. Generational and other differences between males and females in problem drinking and its treatment. Drug Alcohol Depend 1980;5:207-21.
- WHO quality of life (WHOQOL)-BREF World health organisation (2004), pp 1-4 https://www.who.int/substance_abuse/research_tools/en/English_whoqolpdf, assessed on 12/May 2021

9. Gholani A, Jahromi LM, Zarai E, et al. Application of WHOQOL-BREF in measuring Quality of life in Health-care Staff. *Int J Prev Med.* 2013 Jul;5(7):809-17. PMID:24049600;PMCID:PMC3775221
10. Donovan D, Mattson ME, Cisler RA, Longabaugh R et al Quality of life as an outcome measure in alcoholism treatment research *J Stud Alcohol Suppl* 2005; 15, 119-39, discussion 92-3, doi:10.15288/jss2005.S15.119
11. Foster JH, Peters TJ, Marshall EJ. Quality of life measures and outcome in alcohol-dependent men and women. *Alcohol* .2000;22(1):45-52.doi:10.1016/s0741-8329(00)99102-6
12. LoCastro JS, Youngblood M, Cisler RA, et al Alcohol treatment effects on secondary nondrinking outcomes and quality of life : the COMBINE study. *J Stud Alcohol Drugs.* 2009;70:186-96.
13. Longabaugh R, Mattson ME, Connors GJ, Cooney NL. Quality of life as an outcome variable in alcoholism treatment research. *J Stud Alcohol Suppl* 1994;12:119-29.
14. Gladstone Dcosta, Irwin N, et al 2007: Harmful alcohol use in Goa ,India and its association with violence: Alcohol and Alcoholism Vol 42, No 2 pge 131-7 2007. Advance Access Publication 15 Dec 2006.
15. Stockwell T, Hodgson R, Edwards G, Taylor C, Rankin H. The development of a questionnaire to measure severity of alcohol dependence. *Br J Addict Alcohol Other Drugs* 1979;74:79-87.
16. Solomon MA, Sridhar OT, Srinivasan B. Correlation between age of alcohol dependence and quality of life – A hospital based study. *IAIM.* 2018;5:88–96.
17. Chaudhury S, Das SK, Mishra BS, Ukil B, Bhardwaj P, et al. Physiological assessment of male alcoholism. *Indian J Psychiatry.* 2002;44:144–9.
18. Chandrasekaran R, Sivaprakash B, Chitraleka V. Five years of alcohol de-addiction services in a tertiary care general hospital. *Indian J Psychiatry.* 2001;43:58–60.
19. Raju M, Chaudhury S, Sudarsanan S, et al Trends and issues in relation to alcohol dependence in the armed forces. *Med J Armed Forces India.* 2002;58:143–8.
20. Chaudhury S, Das SK, Ukil B. Psychological assessment of alcoholism in males. *Indian J Psychiatry.* 2006;48:114–7.
21. [https://Error! Hyperlink reference not valid.](#) Goa Religion Data- Census 2021, accessed on 12/05/2022
22. Chavan BS, Arun P, Bhargava R, Singh GP. Prevalence of alcohol and drug dependence in rural and slum population of Chandigarh: A community survey. *Indian J Psychiatry.* 2007;49:44–8.
23. Subramanian SV, Nandy S, Irving M, Gordon D, et al. Role of socio economic markers and state prohibition policy in predicting alcohol consumption in India: *Bull World Health Organ.* 2005;83:829–36.
24. Faller S, da Rocha NS, Benzano D, Lima AF, Stolf AR. Factors associated with a quality of life decrease in alcoholic patients who sought treatment. *J Addict Res Ther.* 2015;6:2–6.
25. Sujiv A, Chinnakali P, Balajee K, , et al. Alcohol use and alcohol use disorder among male outpatients in rural Puducherry. *Ind Psychiatry J.* 2015;24:135–9.
26. De Coit DJ, Adlaf EM, Offord DR et al : Age at first alcohol use ;A risk factor for development of alcohol disorders. *A J Psych* 2000, 157; 745-50
27. Hill SY, Shen S, Lower L, Locke J : Factors predicting onset of adolescent drinking in families at high risk for developing alcoholism . *Biol Psychiatry* 2000 ;48 :265-75
28. Tonse U, Sinu E. Quality of life of alcohol dependents after community based camp intervention treatment for ADS. *Int J Applied Res Stud.* 2012;1:1–5.
29. Shruti Srivastava, Bhatia M: Quality of life as an outcome measure in treatment of Alcohol Dependence. *Industrial Psychiatry Journal:* Jan-Jun 2013 Vol 22 Issue 1 Pages 44-46.
30. Gopal Das, Mohan Das et al Assessment of quality of life in patients with alcohol dependence syndrome. *Open J. of Psy. & Allied Sciences* 10(1):57 DOI:10.5958/2394-2061.2019.00014.4
31. Da Silva, Lima AF, Fleck M, et al : Psychometric properties of WHOQol-BREF in alcoholic males- A pilot study. *Qual life Res* 2005;14-473-8.
32. Prajakta Patkar, Daniel Saldanha, et al Quality of life and disability in males with Alcohol Dependence Syndrome: *Ind Psychiatry J* 2019 Jul-Dec 2019; 262-271
33. Ginieri-Cocossis M, Liappas IA, Tzavellas E, Trianta Ilou E, Soldatos C. Detecting changes in quality of life and psychiatric
34. symptomatology following an in-patient detoxi cation programme for alcohol-dependent individuals: the use of WHOQOL-100. *In Vivo.* 2007;21:99-106
35. Ginieri Cocossis M, Liappas IA et al Detecting changes in QOL and psychiatric symptomatology following an inpatient detoxification program for AUDs, the use of WHOqolBREF-100 in vivo 2007;21; 99-107.