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Internalizing and Externalizing Disorders in Alcohol Dependence Syndrome and its Clinical Correlates

Kailash Sureshkumar*, Swapna Sukumar, Sabari Sridhar OT, Shabeeba Kailash and Srinivasan B

Department of Psychiatry, Tehran University, Tehran, Iran

***Corresponding author:** Kailash Sureshkumar, Department of Psychiatry, Tehran University, Tehran, Iran; E-mail: sureshk@gmail.com

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Abstract

Alcohol is a psychoactive substance with properties known to cause dependence. A cluster of physiological, behavioural, and cognitive manifestations where the use of alcohol takes a much higher priority for an individual is characteristic of dependence. Although, not everyone consuming alcohol is predisposed to developing dependence, it poses a significant problem to both the health care and the society due to the much larger number of people consuming it. The various neurobiological/ psychodynamic mechanisms provide us with a useful means of primordial strategies to overcome the pathway to dependence. Thus, the morbid consequences of alcohol addiction/dependence can be prevented.

Keywords: Psychoactive substance; Neurobiological; Alcohol addiction

Introduction

Externalizing simply refers to the manifestation of one's expressions outwardly and an inability to inhibit socially undesirable or restricted actions. Externalizing disorder is considered to be one of the important factors for developing substance used. Externalization is purported to be mediated by the neurotransmitter Dopamine (DA) which is also responsible for the reward pathway (mesolimbic pathway) of alcohol addiction. Studies have also reported that persons with parental history of alcohol use disorders demonstrate higher externalization than individuals without such a history [1,2].

It is also reported that the externalization/internalization might represent mediation of intergenerational transmission of alcoholism. Externalization correlates with several other clinical indices of alcohol dependence syndrome such as the age of onset and severity of alcohol abuse. Also, they tend to have high relapse rates [3].

Internalizing symptoms are more inwardly experienced. Symptoms include a state of being anxious or afraid, worrying about the future, feeling self-conscious, being nervous, or feeling sad. Internalization may sometimes precede and contribute to the development of alcohol use disorders. Specific treatment improves the treatment outcome of these patients. Accordingly, treatment for persons with alcohol use disorders may need to include interventions designed to address.

The lack of data from the south Indian population in the domains of internalizing/externalizing with respect to the alcohol dependence and the clinical parameters has necessitated this study. The objective is to assess the prevalence of internalizing and externalizing traits in alcohol dependence syndrome and to assess the sociodemographic and clinical parameters of these patients in alcohol dependence syndrome [4].

Literature Review

Methodology

It is a retrospective cross-sectional study. It was conducted by reviewing the case records in the department of psychiatry, Chettinad Hospital and Research Institute between the period 2013-2017. Data was extracted from the records by a trained psychiatry resident who is aware of the confidentiality and process of data maintenance in the department. The study was conducted after getting the approval of the Institute Ethics Committee.

Participant records

All the files between the five years periods were retrieved from the department registry. This amounted to 5300 case sheets which were screened for cases of alcohol dependence syndrome which was based on ICD-F10. 20 diagnostic criteria. 425 case files bearing the age group 18-59 years were assessed [5].

Clinical variables

The details on the sociodemography on the basis of a semi-structured proforma were retrieved from the case sheets. The age of the patient at the time of presentation, their sex, educational status, occupation, marital status and the socioeconomic status were charted.

The details about the personality of the subjects were transcribed based on the facets of the externalizing or internalizing spectrum which was already mentioned on the files [6].

The age of onset of use was grouped as less than 18 years, 19 to 25 years and greater than 25 years. The age of onset of dependence was grouped as less than 25 years (early onset) or greater than 25 years (late onset). The duration of dependence was grouped as less than three years, three to five years, six to ten years and greater than ten years. As for the quantity of alcohol consumed in Units the data was categorized as less than 12 units, 12-24 units and >24 units. The duration of maximum abstinence was noted down and then grouped as: nil, 0.1-0.5, 0.5 to 1 month, 1 to 6 months, and 6 to 12 months, greater than 12 months. The number of relapses in the subjects was grouped as less than three, three or more relapses [7].

The details about medical complications due to alcohol use, use of other substances and family history of alcohol dependence were also noted. The information regarding the treatment undertaken such as medications taken for anti-craving and the other psychiatric medications, number of follow up (none, one to five, greater than five) duration of treatment taken and compliance whether present or absent were also noted.

Statistical methods

Pearson's *Chi-Square* test was applied to compare the possible outcomes between the Internalizing and externalizing groups alone. P-value of less than 0.05 was considered statistically significant. The comparison groups containing variables less than five in number, Fisher's exact test was applied. Incomplete case records were excluded from the study [8].

Results

The predominant age of presentation in this study was between 31-45 years accounting to about 53.86% (230) of the study subjects. The urban population accounted for 51.24% (207), with skilled laborers being 45.91% (185). The upper lower class was found to be the major socioeconomic group with alcohol dependence accounting to 53.58% (217). Majority of the subjects had high school education amounting to 40.85 % (163) [9].

Internalizing traits was found in 36% (153) of the population, while 33% (141) had externalizing traits. 31% (131) had neither of the traits (Table 1) [10].

Table 1: Correlation among personality model and the clinical parameters of alcohol dependence syndrome.

Parameters	Personality Model		Total	P-Value
	Externalizing	Internalizing		
Age of onset of use (years)				
< or=18	61 (43.6%)	18 (11.8%)	79 (27.1%)	<0.001
19 to 25	61 (43.6)	58 (38.2)	119 (40.8)	
>25	18 (12.9%)	76 (50%)	94 (32.2)	
Age of onset of dependence (years)				
<25	123 (87.9%)	23 (15%)	146 (49.8%)	<0.001
>25	17 (12.1%)	130 (85%)	147 (50.2)	
Duration of dependence (years)				
<3	27 (19.3%)	33 (21.6%)	60 (20.5%)	0.345
3 to 5	21 (15%)	34 (22.2%)	55 (18.8%)	
6 to 10	42 (30%)	40 (26.1%)	82 (28%)	
>10	50 (35.7%)	46 (30.1%)	96 (32.8%)	
Quantity of alcohol consumption in units				
<12	63 (46%)	88 (57.9%)	151 (52.2%)	0.027
12 to 24	66 (48.2%)	50 (32.9%)	116 (40.1%)	
>24	8 (5.8%)	14 (9.2%)	22 (7.6%)	
Duration of maximum abstinence (months)				
Nil	61 (45.5%)	71 (47.7%)	132 (46.6%)	0.973
0.1-0.5 Month	14 (10.4%)	18 (12.1%)	32 (11.3%)	
0.5-1 Month	12 (9%)	15 (10.1%)	27 (9.5%)	

1-6 Months	32 (23.9%)	31 (20.8%)	63 (22.3%)	
6-12 Months	5 (3.7%)	5 (3.4%)	10 (3.5%)	
>12 Months	10 (7.5%)	9 (6%)	19 (6.7%)	
Compliance				
Present	40 (69%)	46 (79.3%)	86 (74.1%)	0.203
Absent	18 (31%)	12 (20.7%)	30 (25.9%)	
Number of relapses				
None	13 (18.31%)	7 (9.21%)	20 (13.61%)	0.127
<3	36 (50.7%)	50 (65.79%)	86 (58.5%)	
3 or more	22 (30.99%)	19 (25%)	41 (27.89%)	

Externalize had started using alcohol as early as 18 years of age or lesser with the data being statistically significant. Also, the onset of dependence was found to have occurred earlier *i.e.* less than 25 years of age in subjects with externalizing traits which was also statistically significant [11].

The compliance was better in internalizes although this couldn't be highlighted statistically. Externalizes were found to have 3 or more relapses (30.99%) more frequently than the internalizes (Table 2) (25%).

Table 2: Quantity of alcohol consumption and the age of onset of use.

Age of onset of use	Quantity of alcohol consumed			Total	P value
	<12 units	12-24 units	>24 units		
<=18 years	30 (19.9%)	37 (31.9%)	9 (40.9%)	76 (26.3%)	0.023
19-25 years	62 (41.1%)	51 (44%)	6 (27.3%)	119 (41.2%)	
>25 years	59 (39.1%)	28 (24.1%)	7 (31.8%)	94 (32.5%)	

Later the onset of use (>25 yrs. of age), lesser the quantity of alcohol consumption i.*e.* 39.1% of the subjects consumed less than 12 units/day (Table 3).

Table 3: Type of withdrawal and clinical parameters of alcohol dependence.

	Type of withdrawal		Total	P Value
	Complicated	Simple		
Age of onset of use (years)				
<=18 years	27 (42.86%)	53 (22.94%)	80 (27.21%)	0.006
19-25 years	22 (34.92%)	98 (42.42%)	120 (40.82%)	
>25 years	14 (22.22%)	80 (34.63%)	94 (31.97%)	
Age of onset of dependence (years)				
<25	39 (61.9%)	109 (46.98%)	148 (50.17%)	0.036
>25	24 (38.1%)	123 (53.02%)	147 (49.83%)	
Quantity of alcohol consumed				
<12 units	28 (18.5%)	123 (81.5%)		0.252
12-24 units	31 (26.7%)	85 (73.3%)		
>24 units	4 (18.2%)	18 (81.8%)		
Number of follow ups				

1-5 times	25 (39.7%)	73 (31.6%)	98 (33.3%)	0.096
>5 times	7 (11.1%)	13 (5.6%)	20 (6.8%)	
None	31 (49.2%)	145 (62.8%)	176 (59.9%)	
Compliance				
Present	27 (81.8%)	59 (71.1%)	86 (74.1%)	0.234
Absent	6 (18.2%)	24 (28.9%)	30 (25.9%)	

Subjects with earlier age of onset of use and onset of dependence were found to have complicated withdrawal more often than those who started late. In contrast to the earlier studies, simple withdrawal was associated with higher units of alcohol consumption [12].

Discussion

In this study, the relationship between the substance use behavior and the internalizing/externalizing traits of the subjects was studied. A sample of 425 case records was extensively reviewed. The externalizing traits account for early onset of use and early onset of dependence which is similar to the findings in the earlier studies. This could be due to the fact that the sensation seeking characteristic of the externalizes may have resulted in the earlier onset of use [13]. The impulsivity and immediate gratification tendencies in the externalizes may have manifested in the dependence towards alcohol. Individuals with externalizing traits have a higher quantity of alcohol consumption which is in accordance with the previous studies. In contrast to an earlier study, more internalizes displayed shorter periods of abstinence as compared to externalize. This may be due to the fact that among internalizes, a significant proportion had comorbid depression and thereby a low level of motivation to quit alcohol. However, more frequency of relapse was observed in externalizes, this could be attributed to the trait impulsivity in externalizes. This study yielded better compliance rates in internalizes which are in stark contrast to the earlier studies [14].

In this study, later the onset of use, lesser the quantity of alcohol consumption, whereas earlier onset of use, greater quantity of alcohol consumption which is in line with previous studies [15]. Subjects with earlier age of onset of use and onset of dependence were found to have complicated withdrawal more often than those who started late which is similar to the findings of the previous studies. In contrast to the earlier studies, Simple withdrawal was associated with higher units of alcohol consumption and there was no association found between the family history of alcohol use and the externalization as in the case of earlier studies [16].

Findings of this study may have important preventive intervention implications in subjects displaying externalizing/internalizing traits. The earlier onset of use and dependence in externalizes paired with greater quantity of alcohol consumption should be borne in mind while formulating the treatment plan for their effective management.

Strengths of the study: Precise definitions prior to extraction of the data helped in achieving exhaustive data collection such as information on the follow up, maximum period of abstinence, compliance, etc. A large sample of subjects was covered in the study [17].

This study is limited by its design being a retrospective study where the data collection was based on case record review. A prospective longitudinal study with similar objectives would yield better generalizability [18-20].

Conclusion

This study revealed high prevalence of internalizing (36%) and externalizing (33%) traits among the cases of alcohol dependence syndrome. The externalizes were found to have an earlier onset of use and an earlier onset of dependence which shall possibly account for the prolonged burden on the health care and the society in addition to the individual. Pharmacological and psycho-social interventions for managing these traits can help in overcoming the burden of alcohol dependence and improve the treatment outcomes.

References

1. Dougherty DM, Lake SL, Mathias CW, Ryan SR, Bray BC, et al. (2015) Behavioral impulsivity and risk-taking trajectories across early adolescence in youths with and without family histories of alcohol and other drug use disorders. Alcohol Clin Exp Res 39:1501–1509
2. Acheson A, Richard DM, Mathias CW, Dougherty DM (2011) Adults with a family history of alcohol related problems are more impulsive on measures of response initiation and response inhibition. Drug Alcohol Depend 117:198–203
3. Martin CS, Earleywine M, Blackson TC, Vanyukov MM, Moss HB, et al. (1994) Aggressivity, inattention, hyperactivity, and impulsivity in boys at high and low risk for substance abuse. J Abnorm Child Psychol 22:177–203
4. Salvatore JE, Gottesman II, Dick DM (2015) Endophenotypes for alcohol use disorder: an update on the field. Curr Addict Rep 2:76–90
5. Sher KJ, Trull TJ (1994) Personality and disinhibitory psychopathology: alcoholism and antisocial personality disorder. J Abnorm Psychol 103:92–102
6. Mitchell JM, Fields HL, D'Esposito M, Boettiger CA (2005) Impulsive responding in alcoholics. Alcohol Clin Exp Res 29:2158–2169

7. Soloff PH, Lynch KG, Moss HB (2000) Serotonin, impulsivity, and alcohol use disorders in the older adolescent: A psychobiological study alcohol. Clin Exp Res 24:1609–16019
8. Bjork JM, Hommer DW, Grant SJ, Danube C (2004) Impulsivity in abstinent alcohol-dependent patients: Relation to control subjects and type 1-/type 2-like traits. Alcohol 34:133–150
9. Cornelius JR, Maisto SA, Martin CS, Bukstein OG, Salloum IM, et al. (2004) Major depression associated with earlier alcohol relapse in treated teens with AUD. Addict Behav 29:1035–1038
10. Clark DB, Neighbors B (1996) Adolescent substance abuse and internalizing disorders. Child Adolesc Psychiatr Clin N Am 5:45–57
11. Hettema JM, Neale MC, Myers JM, Prescott CA, Kendler KS (2006) A population-based twin study of the relationship between neuroticism and internalizing disorders. Am J Psychiatry 163:857–864
12. Cloninger CR, Bohman M, Sigvardsson S (1981) Inheritance of alcohol abuse: cross-fostering analysis of adopted men. Arch Gen Psychiatry 38:861–868
13. Tikka DL, Ram D, Dubey I, Tikka SK (2014) Socio-emotional factors in alcohol dependence. Indian J Psychol Med 36:153–157
14. Vanheusden K, Van Lenthe FJ, Mulder CL, Van Der Ende J, Van De Mheen D, et al. (2008) Patterns of association between alcohol consumption and internalizing and externalizing problems in young adults. J Stud Alcohol Drugs 69:49–57
15. Kendler KS, Gardner C, Dick DM (2011) Predicting alcohol consumption in adolescence from alcohol-specific and general externalizing genetic risk factors, key environmental exposures and their interaction. Psychol Med 41:1507–1516
16. Cloninger CR, Sigvardsson S, Bohman M (1996) Alcohol Health and Research World 201. Superintendent of Documents, U.S. Government Printing Office, distributor, Washington.
17. Von Knorring L, Von Knorring AL, Smigan L, Lindberg U, Edholm M (1987) Personality traits in subtypes of alcoholics. J Stud Alcohol 48:523–527
18. Jerant A, Chapman B, Duberstein P, Robbins J, Franks P (2011) Personality and medication non-adherence among older adults enrolled in a six-year trial. Br J Health Psychol 16:151–169
19. Axelsson M, Brink E, Lundgren J, Lötvall J (2011) The influence of personality traits on reported adherence to medication in individuals with chronic disease: An Epidemiological study in West Sweden. PLoS One 6
20. King KM, Chassin L (2007) A prospective study of the effects of age of initiation of alcohol and drug use on young adult substance dependence. J Stud Alcohol Drugs 68:256–265