

# Behavioural Problems in Adolescent Children of Alcoholics

## Alkoliklerin Ergen Çocuklarında Davranış Sorunları

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### Öz

**Amaç:** Alkol bağımlılığı sendromu hem bireyleri hem de aileyi etkileyen önemli bir sorundur. Alkole bağımlı ebeveynlerin çocukları birçok davranış problemlerine karşı savunmasızdır. Batıdaki çalışmalar, bu çocuklarda hem içsel hem de dışsal semptomları göstermiştir. Bu çalışmanın amacı alkole bağımlı ebeveynlerin çocuklarında psikolojik işlevlerini ve alkol bağımlılığının şiddeti ile ilişkilerini değerlendirmektir.

**Hastalar ve Yöntem:** Bu çalışma 2015-2017 yılları arasında Bangalore'deki bir üçüncü basamak hastanenin Psikiyatri Bölümü'nde yürütülmüştür. Alkol bağımlılığı olan 11 baba ile 18 yaş arasındaki 80 çocuk değerlendirildi. Ebeveynin ve çocuğun sosyografik demografik bilgileri yapılandırılmış bir Performa tarafından bilgilendirilmiş onam alınarak toplandı. Alkol bağımlılığının şiddeti Alkol Bağımlılığı Şiddeti Anketi (SADQ) kullanılarak değerlendirildi. Çocukların psikolojik işlevleri Gençlik Öz Raporlama Ölçeği (YSR) kullanılarak değerlendirildi.

**Bulgular:** Değerlendirilen 80 çocuktan 41'i erkek, 39'u kadındı. % 47.5'i anlamlı içselleştirme belirtileri ve % 48.7'si önemli dışsallaştırma belirtileri gösterdi. İçselleştirme puanları kızlarla daha yüksek korelasyona sahipti (P=0.004) ve erkeklerde dışsallaştırma semptomları (P=0.008). Ancak babada bağımlılığın şiddeti ile korelasyon bulunmadı.

**Sonuç:** Alkol bağımlısı babaların çocuklarında dışsallaştırma ve içselleştirme davranışları açısından psikiyatrik morbidite prevalansının yüksek olduğu bulunmuştur. Bu nedenle, bu sorunların erken teşhisi ve müdahale bu grupta daha iyi çalışmayı sağlayacaktır.

**Anahtar Kelimeler:** Alkolikler, Çocuk, İşlevsel Olmayan Davranış, Duygusal Rahatsızlık

### Abstract

**Aim:** Alcohol dependence syndrome is a major problem affecting both individuals and their family. Children of alcohol dependent parents are vulnerable to a host of behavioural problems. Studies in the west have shown both internalizing and externalizing symptoms in these children. This study aims to assess the psychological functioning in offspring of alcohol dependent parents and its association with severity of alcohol dependence.

**Patients and Methods:** This study was conducted at the Department of Psychiatry of a Tertiary hospital in Bangalore between 2015-2017. Eighty children aged 11 years - 18 years, along with their alcohol dependent fathers were included. Socio demographic details of the parent and the child were collected by a semi structured Performa along with informed consent. Alcohol dependence was diagnosed based on ICD 10 criteria. Severity of Alcohol dependence was assessed using Severity of Alcohol Dependence Questionnaire (SADQ). Psychological functioning of the children was assessed using Youth Self Report Scale (YSR).

**Results:** Among 80 children assessed 41 were males and 39 were females. 47.5% of them showed significant internalizing symptoms and 48.7% significant externalizing symptoms. Internalizing scores had higher correlation with girls (P = 0.004) and externalizing symptoms in boys (P = 0.008). However no correlation was found with severity of dependence in the father.

**Conclusions:** It was found that there was high prevalence of psychiatric morbidity in terms of externalizing and internalizing behaviours in children of alcohol dependent fathers. Thus early detection of these problems and intervention would ensure improved functioning in this group.

**Key words:** Alcoholics, Child, Dysfunctional Behaviour, Emotional Disturbance

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## INTRODUCTION

Alcohol dependence is a major problem in India with a prevalence of 21.4% (WHO). Alcohol dependence affects both individuals and their family. In a recent study(1) 95% - 99% of family members of such individuals had moderate to severe burden in terms of disturbed psychological and emotional states. Children are the most affected due to parental alcohol dependence. The children of alcohol dependent parents grow up in an environment lacking parenting, with poor home management and lack of family communication skills. There is a lack of effective modelling to children by parents due to alcohol dependence(2). Parents with alcohol dependence are unable to provide a structure or discipline in family life, but simultaneously expect their children to be competent at a wide variety of tasks earlier than do non-substance abusing parents (2–5). Studies have reported that children of alcohol dependent parents are predisposed to maladjustment (6). They often have personality disturbances manifested by signs of hostility, impulsiveness, depression, and sexual confusion. These children reported depressive and anxiety symptoms more frequently than children from non-addicted families (7). There is also increased rate of Attention Deficit Hyperactivity Disorder (ADHD) and Oppositional Defiant Disorder(ODD) in them.(8) The pre-adolescent children of alcohol dependent individuals have been the main focus of most Indian studies. These studies pertain mostly to nutritional neglect, physical abuse(9), problems in emotional and social adjustments, and school dropouts(10). Studies on adolescent children of parents with alcohol dependence in west have predominantly shown both internalizing and externalizing symptoms Indian studies looking at maladaptive behaviour in adolescent children of alcohol dependent parents are sparse. On this background, the present study takes this inquiry further to examine the psychological functioning in the children of alcohol dependent parents.

## PATIENTS AND METHODS

The present cross-sectional study was conducted at the Department of Psychiatry, in a Tertiary care centre, Bangalore, India between 2015-2017. The study protocol was presented to the Ethical Review committee and was duly approved. The data was collected over the span of one year, with purposive sampling. 80 consecutive Adult males with diagnosis of Alcohol Dependence Syndrome according to ICD

10, seeking treatment at the Department of Psychiatry were included in the study. Patients with any co-morbid psychiatric diagnosis or using any other substance concurrently (except nicotine) were excluded from the study. Their children aged between 11 to 18 years were included in the study. Those children with low IQ were excluded. Written informed consent was obtained from all of them prior to recruitment into the study. Socio-demographic characteristics and clinical details of all the subjects were recorded in a semi-structured proforma developed by the department of psychiatry for the study.

The severity of alcohol dependence in patients was assessed using Severity of Alcohol Dependence Questionnaire (SADQ). IQ assessment was done to the children using Binet Kamat Test and Youth Self Report was administered to children included in the study to assess psychological functioning. All scales were administered in English by the interviewer.

### **Scales used:**

**SADQ:** The SADQ is a self-administered, 20-item questionnaire designed to measure severity of dependence on alcohol as formulated by Stockwell et al; (1979). It includes Physical Withdrawal, Affective Withdrawal, Withdrawal Relief Drinking, Alcohol Consumption, and Rapidity of Reinstatement. Each item is scored on a four-point scale, ranging from "Almost Never" to "Nearly Always," resulting in a corresponding score of zero to three. Thus, the total maximum score possible is 60 and the minimum is zero. Based on the scores the severity ranges from no dependence to very severe dependence. A score of 31 or higher indicates "severe alcohol dependence". A score of 16 -30 indicates "moderate dependence" A score of below 16 usually indicates only a mild physical dependency. It shows good evidence of internal validity, criterion validity and external validity. (11)

**Binet – Kamat Test:** Binet-Kamat (B-K) test is a modified version of Stanford Binet Scale measuring intelligence of Indian children. Tests are grouped into age levels extending from 3 years to superior adult level, with six tests in each group. B-K test include both verbal and performance tests. It is both power and speed test since some of the test items are timed. The test provides an estimate of MA& IQ. Pattern analysis of the test items provide estimate of specific cognitive functions as, comprehension, memory, reasoning and other abilities. The reliability of the Binet – Kamat test of intelligence is reportedly above 0.7 and the validity of this test for normal children against estimation of

intelligence quotient by teachers is 0.5 (12).

**Youth Self Report:** The YSR is a 112-item self-report designed for children and adolescents (ages 11-17), that assesses behavioural competency and behavioural problems and parallels the Child Behavior Checklist (CBCL). Behaviours are rated on a 3-point scale: 0-Not true, 1-Somewhat or sometimes true and 2-Very true or often true, based on the preceding 6-months. The questionnaire provides scores for the following syndrome scales: anxious/depressed, withdrawn/depressed, somatic complains, social problems, thought problems, rule-breaking behavior, and aggressive behavior. The questionnaire provides scores for the following DSM-oriented scales: affective problems, anxiety problems and somatic problems grouped under internalizing behaviours, attention deficit/hyperactivity problems, oppositional defiant problems and conduct problems grouped as externalizing behaviours. There are 20 social competency items that measure the child's participation in hobbies, games, sports, jobs, chores, friendship, and activities. Percentile scores are calculated for internalizing behaviour, externalizing behaviour, total scores and competence which are then grouped under normal range and clinical range. (13)

The responses were analysed using descriptive statistics, and Chi-square test, with  $P < 0.05$ , was considered statistically significant with the help of SPSS software.

## RESULTS

Socio-demographic details of the study population were as follows. The age of alcohol dependent fathers ranged between 30 – 50 years, of which ten were aged between 30 – 35 years, 23 were between 35 – 40 years, 26 between 41 – 45 years and 21 were between 46 – 50 years. Twenty-one of the above were illiterates whereas 25 had primary education. 27 had completed their secondary education, six had bachelors' degree and 1 had masters. The sample population belonged to various occupational strata, of which two of them were un-employed, 32 were unskilled labourers. 2 belonged to semi-skilled category, 36 were skilled labourers and eight of them were professionals.

Twenty two of the 80 alcohol dependent parents were from the rural background and 50 from urban areas. Seventy-six belonged to Hindu religion and the rest were Muslims. Duration of alcohol consumption in the study population was analysed. It showed that 4 of the fathers had history of alcohol consumption of less than 10 years, 32 between 11 - 20 years, 42 between 21 - 30 years and 2 for more than 30 years.

On SADQ mild dependence was found in 12 of the sample, 44 fulfilled the criteria for moderate dependence; severe dependence was seen in 15 of them and very severe in nine (table 1). Among the 80 children analysed 41 were male and 39 females (Table 1). Average IQ on BKT was 93.98. Raw scores of these children were assessed on YSR; 47.5%

**Table 1.** Descriptive data of the study population

<b>Age Group:</b>		<b>Residence:</b>	
30-35	10	Rural	22
36-40	23	Urban	58
41-45	26	<b>Religion:</b>	
46-50	21	Hindu	76
<b>Education:</b>		Muslim	4
Illiterate	21	<b>Duration of alcohol dependence(Years):</b>	
Primary	25	0-10	4
Secondary	27	11-20	32
Bachelors	6	21-30	42
Masters	1	31-40	2
<b>Occupation:</b>		<b>Severity of alcohol dependence :</b>	
Unemployed	2	Mild Dependence	12
Unskilled	32	Moderate Dependence	44
Semiskilled	2	Severe Dependence	15
Skilled	36	Very Severe Dependence	9
Professional	8	<b>Childs' Gender:</b>	
<b>Annual income:</b>		Male	41
<60,000	17	Female	39
60,000-1,20,000	45		
>1,20,000	18		

**Table 2.** Raw scores of YSR scales of children

	Male	Female	Total
Aggressive behaviour	48.7 % (20)	46.1 % (18)	47.5 % (38)
Rule Breaking behaviour	43.9 % (18)	46.1 % (18)	45 % (36)
Attention Problems	7.3 % (3)	2.5 % (1)	5 % (4)
thought Problems	4.8 % (2)	7.6% (3)	6.2 % (5)
Social Problems	14.6% (6)	15.3% (6)	15 % (12)
Somatic complaints	34.1 % (14)	38.4 % (15)	36.2% (29)
Withdrawn	34.1% (14)	35.8 % (14)	35 % (28)
Anxious/Depressed	41.4% (17)	46.1 % (18)	43.7% (35)

**Table 3.** Distribution of total externalizing scores and internalizing scores in children according to gender

		Child's gender		P Values
		Male	Female	
Internalization Score (Percentile)	Normal range	29	13	0.004
	Clinical Range	12	26	
Externalization score (Percentile)	Normal range	15	26	0.008
	Clinical Range	26	13	

had aggressive behaviour, 45% had rule breaking behaviour, 5% had attention problems, 6.2% thought problems and 15 % had social problems. 36.2% of these children had somatic complaints, 43.7% had anxious/depressed symptoms and had 35% withdrawn/depressed symptoms. (table 2). Of these 80 children 47.5% (38) had internalizing symptoms and 48.7% (39) had externalizing symptoms (Figure 1 and 2). It was noted that internalizing symptoms were significantly higher in females ( $p=0.004$ ) and externalizing symptoms were significantly higher in males ( $p=0.008$ ) (Table 3). However we found no significant correlation between internalizing and externalizing symptoms in children and the

Sociodemographic details (table 4 and 5), or the duration and the severity of alcohol dependence in father (table 6 and 7).

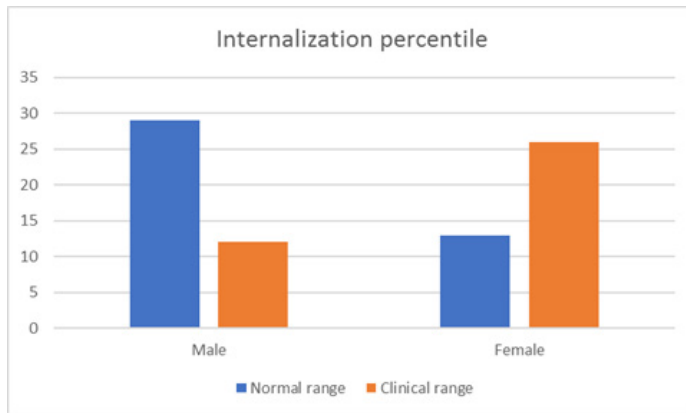
## DISCUSSION

### **Socio-demographic data:**

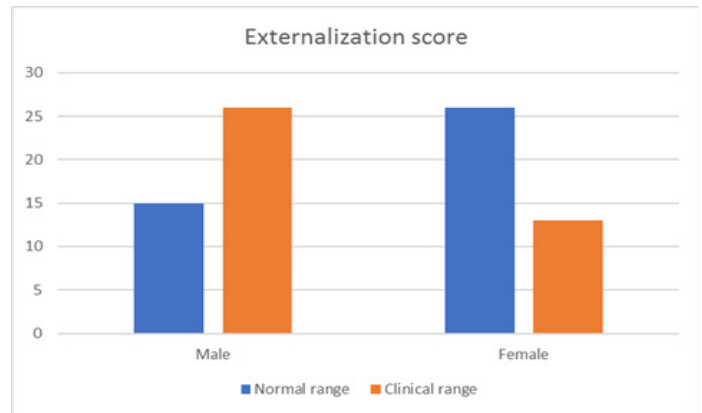
Alcohol consumption and problems related to alcohol vary widely around the world, but the burden of disease and death remains significant in most countries. Alcohol consumption is the world's third largest risk factor for disease and disability; in middle-income countries, it is the greatest risk. In a WHO study conducted in 2014, in India on an average 3.8% of the male population had a dependence

**Table 4.** Correlation of internalizing behaviour with the sociodemographic details

		Internalization (Percentile)		
		Normal range	Clinical range	
Father's Age	30-35	3	7	0.310
	36-40	15	8	
	41-45	13	13	
	46-50	11	10	
Father's education	Illiterate	8	13	0.504
	Primary	15	10	
	Secondary	15	12	
	Bachelors	3	3	
	Masters	1	0	
Father's occupation	Un-employed	1	1	0.159
	Un-skilled	12	20	
	Semi-skilled	23	13	
	Skilled	2	0	
	Professional	4	4	
Residence	Rural	12	10	0.821
	Urban	30	28	



**Figure 1.** Distribution of internalization percentile according to child's gender



**Figure 2.** Distribution of externalization percentile according to child's gender

pattern in alcohol consumption, among whom 12.9% were heavy drinkers(14). Studies in northern India found the 1 year prevalence of alcohol use to be between 25 and 40%(15,16). In India, the prevalence of alcohol harmful use and Alcohol Dependence is higher among the poor sections of the society(17). Among men, very excessive drinking is found to be higher in low educational groups, while 'Psychological Dependence' is higher in intermediate educational groups (18). Harmful drinking and Alcohol Dependence is higher in physically strenuous occupations. The prevalence of hazardous drinking among industrial workers in Goa is 21%(19). Alcohol Dependence vary in urban, rural, town and slum populations. Even

though the proportion of alcohol users is greater in towns, frequent heavy drinking is higher in slum and rural areas (20).

In a south Indian study conducted in Thiruvananthapuram, it was found that mean age of alcohol dependent men was 42.5 years(SD – 17.2), with 2/3rd of the participants in study working in informal sector(manual labour, head load work, carpentry, construction work) (21) Among them 38.41% were severely dependent on alcohol. In a WHO sponsored study conducted in Bangalore (22) of the total alcohol users included in the survey, 17%, were classified as dependent users based on ICD 10. Nearly two thirds of the users (67.4%) were in the age

**Table 5.** Correlation of externalizing behaviour with the sociodemographic details

		Externalization (Percentile)		
		Normal range	Clinical range	
Father's Age	30-35	8	2	.096
	36-40	8	15	
	41-45	15	11	
	46-50	10	11	
Father's education	Illiterate	13	8	.011
	Primary	9	16	
	Secondary	18	9	
	Bachelors	0	6	
	Masters	1	0	
Father's occupation	Un-employed	2	0	.135
	Un-skilled	17	15	
	Semi-skilled	20	16	
	Skilled	1	1	
Residence	Professional	1	7	0.172
	Rural	14	8	
	Urban	27	31	

**Table 6.** Correlation between child's internalization percentile and duration and severity of fathers alcohol dependence

		Internalization (Percentile)		
		Normal range	Clinical range	
Duration of alcohol consumption	0-10	3	1	0.819
	11-20	17	15	
	21-30	21	21	
	31-40	1	1	
Severity of alcohol dependence	Mild	5	3	0.86
	Moderate	9	9	
	Severe	12	14	
	Very Severe	16	12	

**Table 7.** Correlation between child's externalization percentile and duration and severity of fathers alcohol dependence

		Externalization (Percentile)		
		Normal range	Clinical range	
Duration of alcohol consumption	0-10	3	1	0.121
	11-20	20	12	
	21-30	18	24	
	31-40	0	2	
Severity of alcohol dependence	Mild	7	0	0.95
	Moderate	8	10	
	Severe	15	11	
	Very Severe	11	17	

group of 26 to 45 years. The user population includes a greater proportion of unskilled workers (25.4%). Prevalence of alcohol use was almost similar in rural and urban population (16.2%, 12%) in the middle-aged population.

In our study, mean age of the alcohol dependent father was 41.9 years and 53% of the patients had completed at least their secondary education. 85% Of the patients were either unskilled or semi-skilled workers, while only 10% of them were professionals. In our patient population most of them (72%) were residing in urban areas. 30% of the patient population had severe to very severe dependence according to SADQ questionnaire. This change in socio-demographic pattern in our study can be attributed to the fact that study was conducted in an urban, tertiary care centre.

#### **Psychological profile of children:**

Internalizing psychopathology encompasses symptoms such as anxiety and depression and externalizing psychopathology primarily encompasses "acting out" types of behaviour-characterized by rule breaking, defiance, aggression, inattention, and impulsivity.

In an Indian study estimating the prevalence of behavioural problems in adolescent children in

general population(23), internalizing behaviour was found in 9% of the children and externalizing behaviour in 9.5% of the children. A study in tertiary care centre in Pune (24), examined the internalizing and externalizing symptoms in 25 children of alcohol dependent parents belonging to age group of 6-18 years using Child Behavior Check List. They analysed the results in 2 groups (6-11 years and 12-18 years). In the age group of 12-18 years, the study showed that the internalizing as well as the externalizing scores of the children of alcohol dependent parents was greater than the normal scores of the matched population on the CBCL. The girls had more internalizing problems as compared to boys who had more externalizing problems.

Another Indian study conducted by Raj et al. (25) which also used CBCL concluded that girls had a significantly more internalizing behavioural problems than boys and externalizing problems, especially conduct problems are represented more in boys than girls of alcohol dependent parents. Although no studies were conducted in India using the same scale, Obot et al. (26) conducted such study in United States among the population sample of the National Household Survey on Drug Abuse, and compared Youth Self Report (YSR) scores of children of alcohol

dependent parents with non-alcohol dependent parents in a community based study. The study showed that children of parents with active alcohol problems had higher scores than other children on aggressive problems, anxious-depressed, attention problems, and social problems. There was no statistically significant relationship between parental alcohol dependence and indices of thought problems, somatic complaints or being withdrawn.

In our study, of the 80 children 47.5% had clinically significant scores in internalization with significantly higher correlation with female children than males. Also 48.7% had clinically significant externalizing symptoms with significantly higher correlation to male children. Among the areas analysed, these children showed disturbance / symptoms in dimensions of anxious/depression, withdrawn, and aggressive behaviour. There were no significant symptoms in dimensions of somatic complaints, social problems, thought problems, attention problems and delinquent behaviour. The internalizing and externalizing scores were much higher than in general population. The findings of our study are in concordance with the above-mentioned studies.

#### **Association of children's psychological profiles with parental factors:**

Hussong et al examined the longitudinal correlation of children's externalizing and internalizing symptoms, and socio-demographic details, parental alcohol dependence pattern and severity. They also assessed the fluctuation in child's symptoms with parents alcohol pattern (27-29). In their study higher levels of parental education were associated with lower levels of internalizing at age 13. None of the remaining relations between demographic covariates and the growth factors was significant. They also found consistent and large number of children of alcohol dependents had greater risk for externalizing symptoms than children of non-alcohol dependents. In addition, they also correlated child's externalizing symptoms with greater alcohol-related symptoms during the study period when externalizing symptoms were assessed, i.e., during periods of severe dependence in parent there was increased externalizing symptoms in children. However, they found higher risk of internalizing symptoms in children of alcohol dependent parents, they could not find any correlation between children's internalizing symptoms and severity of alcohol dependence.

In India Raman et al. (30) analysed the psychopathology of children of alcohol dependent parents

of age group 5-9 years and their correlation with severity of alcohol dependence and found that higher externalizing behaviour were seen in children of parents with higher levels of alcohol dependence. No significant relation was found between internalizing symptoms and severity of alcohol dependence.

In our study no significant association was found between socio- demographic variables and externalizing behaviours. There was also no significant correlation found between internalizing and externalizing behaviours and duration or severity of illness. As previous studies were mainly done in the west, further studies have to be conducted in our population to assess the confounding/ protective factors.

#### **Implication:**

As there is a high prevalence of psychological disturbances in the children of alcohol dependent individuals it would be imperative to consider routine screening of these individuals, which would further help in developing strategies for prevention, early identification, and timely intervention.

#### **Limitations:**

- The findings from this study cannot be generalised as the sample was collected from a highly specific group of individuals (patients and their children who sought help from a tertiary care centre for substance dependence) and was a descriptive study. Case – control studies/ community-based studies have to be conducted in this area for generalization of the results.
- Other factors that might affect the occurrence of psychological disturbance in child were not studied.
- All the assessments were based on self-reports and may not reflect the true estimate of both the dependence on alcohol as well as the psychological profile of the child.

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