

# Anxiety, depression, self-esteem among children of alcoholic and nonalcoholic parents

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## ABSTRACT

**Context:** Children of alcoholics (COAs) face risks of behavioral problems during childhood and mental health problems in adult life. Identifying these problems at the earliest can significantly reduce the problems in future. **Aims:** To compare the anxiety, depression, and self-esteem between COA and non-COA parents. **Settings and Design:** A cross-sectional comparative survey research design was adopted for the present study. The study was conducted at selected government high school located in Bangalore urban. **Subjects and Methods:** The simple random sampling technique was used. A total of 200 children comprising 100 children of each alcoholic parents and nonalcoholic were recruited for the study. A screening test (modified) was used for identifying COA. Spence Children's Anxiety Scale, Center for Epidemiological Studies Depression Scale for Children (CES-DC), and Rosenberg Self-Esteem Scale were used to assess anxiety, depression, and self-esteem, respectively. **Statistical Analysis Used:** Data were analyzed using Statistical Package for the Social Sciences software package (version 23). **Results:** The results show that there is statistically significant difference between COA and non-COA group with regard to anxiety, depression, self-esteem, separation anxiety, social phobia, obsessive compulsive problems, and physical injury. **Conclusion:** The study concludes that COAs are having higher rate of anxiety, depression, and low self-esteem compared with children of nonalcoholics.

**Keywords:** Anxiety, children of nonalcoholic, depression, self-esteem

## Introduction

Alcohol use may harm not only the individual drinker but also the lives of their partners, families, friends, work colleagues, and their communities. It has become a matter of global concern because of impact on social and economic burden in societies. The World Health Organization (WHO) estimates that there are around 3.3 million deaths worldwide per year because of harmful use of alcohol. Alcohol-related deaths make up nearly 6% of global deaths per year.<sup>[1]</sup>

A considerable amount of research has examined the impact of parental alcohol misuse on children's development. Parental

alcoholism was found to be statistically significantly associated with a child harm outcome measure in almost two of every three published studies.<sup>[2]</sup> It has been projected that 10% of US children is exposed to alcohol abuse or dependence in the family.<sup>[3]</sup> The 30% of children lived with at least one binge drinking parent in UK<sup>[4]</sup> and 12% of parents/carers stated that one or more of their children had been physically hurt, emotionally abused, or exposed to domestic violence because of others' drinking in Australia.<sup>[5]</sup>

The children of alcoholics (COAs) suffer from a wide range of psychosocial problems.<sup>[6]</sup> The psychological effect of parental alcoholism has been identified from infant period to adulthood.<sup>[7,8]</sup> COA parent had higher internalizing symptoms than did their non-COA peers<sup>[9]</sup> and higher risk for both major depressive disorder and persistent depressive disorder.<sup>[10]</sup> These children are prone for early and frequent use of alcohol, tobacco, cannabis, and other illicit drugs.<sup>[11]</sup>

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COA father had higher depression/anxiety scores,<sup>[12]</sup> greater impulsivity, and externalizing behaviors<sup>[13]</sup> and are more likely to exhibit attention and conduct problem,<sup>[14]</sup> lower self-esteem, and poor adjustment than non-COA parents.<sup>[15]</sup> Parental addiction had a significant association with child abuse<sup>[16]</sup> and high rate of school dropouts.<sup>[17]</sup> The effect of parental alcoholism varies among gender; girls have higher internalizing scores whereas the boys have higher externalizing scores.<sup>[18]</sup> These children had negative expectations for the future<sup>[19]</sup> and mental health consequences even persist far adulthood.<sup>[20]</sup>

The children of alcohol-dependent women were at increased risk for externalizing (conduct disorder and attention-deficit hyperactivity disorder) and internalizing disorders (major depressive disorder and anxiety disorders). By young adulthood, children from these multiplex families had significantly greater odds of developing alcohol abuse or dependence and drug abuse or dependence. These indicate that children are at risk for behavioral problems because of father or mother alcoholism.<sup>[21]</sup>

The psychiatric disorders among children with parental alcoholism had higher somatization scores, social withdrawal, greater attention problems,<sup>[22]</sup> depression, hyperactivity disorder, and substance use disorders.<sup>[23,24]</sup> The physical, psychological health, wellbeing, and quality of life are significantly impacted in families where the father is alcohol-dependent.<sup>[25]</sup>

Studies on the prevalence of behavior problems among children had shown varying results from one state to another. A recent study conducted among school students in Mumbai has shown that symptoms of overall anxiety were present in 10.8% of the students. Older students had greater odds of having overall anxiety symptoms and obsessions/compulsions, where fears of physical injury being the most common type.<sup>[26]</sup> The study conducted at Uttar Pradesh has shown that prevalence of depression was found to be 14.5%, whereas that of anxiety disorder was found to be 15%,<sup>[27]</sup> and a Kerala study has shown that clinical depression was found in 12.7% of sample and subclinical mild depression was found in 19.3% of the sample.<sup>[28]</sup> Hereditary and family factors play major role in causative factor for anxiety and depression among children and adolescents.<sup>[29]</sup> Many studies have shown that parental alcoholism has an effect on growing children.<sup>[12-20,30]</sup>

The impact of heavy parental alcohol use on children and young people is a social issue that urgently requires further research and calls for immediate attention of political leaders, policymakers, health professionals, opinion-makers, and society at large. A systematic review on risk and protective factors for COAs shows that if the problems are identified at the earliest age and appropriate rehabilitation services are provided then the complication can be prevented.<sup>[31]</sup> The environment of alcoholic families affects the growing child because of disruptions to normal routines, the tension of strained relationships, and

dishonesty. The impact of alcoholism has greater effect on children and many studies are not focused on these issues; hence the investigator felt that there is a need to assess anxiety, depression, and self-esteem among children of alcoholic and nonalcoholic parents at selected government high school in Bangalore, India.

## Subjects and Methods

A cross-sectional comparative survey research design was used. The study was conducted at a government high school, coming under Bangalore south-II taluk, India. There are 15 governments high school that comes under this region. The strength of school varies by location of the school. The seven schools were selected by using simple random sampling and data were collected from June to September 2017. Power analysis was carried out by using G\*Power (Institute of Experimental Psychology, Dusseldorf) analysis based on findings of pilot study, by keeping the power of study at 80% ( $P = 0.05$  two-tailed). The power analysis revealed that 76 subjects in each group would be sufficient to find the difference between two independent means (two groups). Totally, 395 children were approached, and 26 students were not willing to participate. Initially, the subjects were screened using COA screening test (modified). Out of 369 children, 145 children had alcoholic parents and 224 children had nonalcoholic parents. Out of 145 children, 100 children were randomly selected and assigned to COA group. Out of 224 children, 100 children were randomly selected and assigned to non-COA group. The inclusion criteria were age between 12 and 16 years and the study excluded children with learning disorders and with single parents.

## Data collection

After obtaining formal permission from the concerned authority, recruitment of subjects took place at selected government high school. Each child was contacted and a screening has been done for identifying COA. Children are randomly allocated to COAs and non-COA groups. Data were collected using standardized tool. The average time taken by children to complete tool is 50 min.

## Ethical consideration

The study protocol was approved by Institution Ethical Committee. Formal permission was obtained from concerned area block education officer, headmaster, and informed consent was taken from child and their parents. The purpose, nature, duration of the study, the researchers contact information, confidentiality, their right not to participate, or withdraw at any time, risks and benefits of the study were explained.

## Assessment

Children who fulfilled the inclusion criteria were administered the sociodemographic proforma, and assessed by Spence Children's Anxiety Scale, Center for Epidemiological Studies Depression Scale for Children (CES-DC), and Rosenberg Self-Esteem Scale.

1. Sociodemographic proforma: It includes questions on their age, sex, religion, class, educational qualification of father, educational qualification of mother, occupation of father, occupation of mother, monthly family income, type of family, number of siblings, and birth order
2. Spence Children's Anxiety Scale: This scale was developed by Susan H Spence (1998), self-administered 4-point Likert scale containing 44 items, of which 38 reflect specific symptoms of anxiety and six relate to positive, filler items to reduce negative response bias. Children are asked to rate on a 4-point scale involving: never (0), sometimes (1), often (2), and always (3), the frequency with which they experience each symptom. The responses are summed to determine possible scores ranging from 0 to 114, with the higher scores indicating a severity of anxiety. A total score of 36 and above are classified as elevated level of anxiety. The subscale scores are computed by adding the individual item scores on the set of items. The internal consistency of the total score (Cronbach's  $\alpha = 0.93$ ) and subscales was high, and 12-week test/retest reliability was satisfactory<sup>[32]</sup>
3. CES-DC for children: This scale was developed initially by Laurie Radloff (1977) and it is a modified version of the Center for Epidemiologic Studies Depression Scale. It is a 20-item self-report depression inventory with possible scores ranging from 0 to 60. Each response to an item is scored as follows: 0 = "Not-at-all," 1 = "A little," 2 = "Some," and 3 = "A lot." However, items 4, 8, 12, and 16 are phrased positively, and thus are scored in the opposite order: 3 = "Not-at-all," 2 = "A little," 1 = "Some," 0 = "A lot." Higher CES-DC scores indicate increasing levels of depression. A cut-off score of 15 as being suggestive of depressive symptoms in children and adolescents. Previous studies show good internal reliability ( $\alpha = 0.84$ ) and test/retest reliability ( $r = 0.51$ )<sup>[33]</sup>
4. Rosenberg Self-esteem Scale: This scale was developed by Dr Morris Rosenberg (1965) and measures global self-worth by measuring both positive and negative feelings about the self. Ten items are answered using a 4-point Likert scale format ranging from strongly agree to strongly disagree. Items 2, 5, 6, 8, and 9 are reverse scored. "Strongly disagree" = 1 point, "Disagree" = 2 points, "Agree" = 3 points, and "Strongly agree" = 4 points. Sum scores for all 10 items are obtained. Higher scores indicate higher self-esteem. A total score <20 indicates low self-esteem, 20–30 indicates moderate self-esteem, and above 30 indicates high self-esteem. An Indian study shows test/retest reliability of 0.80.<sup>[34]</sup>

### Screening tool

COAs screening test (modified): This scale is a subsample of questions appearing on the COAs screening test, developed by Jones and Pilat, and has been used to screen for COAs. Three or more yes answers indicate COAs. The internal consistency of a shortened CAST containing the six selected items (CAST-6) is 0.86.<sup>[35]</sup>

### Statistical analysis

Data were analyzed using Statistical Package for the Social Sciences software package (version 23, International Business Machines Corporation, US), and the results were presented in table form. Descriptive statistics were used for anxiety, depression, and self-esteem scores. Independent "*t*"-test was used for comparison of means between two groups. Chi-square was used for comparison of demographic data.

### Results

There is no significant difference in demographic characteristics between COAs and children of non-COA groups [Table 1], and there is significant difference in mean scores of anxiety, depression, self-esteem, separation anxiety, social phobia, obsessive compulsive problems and physical injury between COA and non-COA parents. Mean scores of anxiety, depression, separation anxiety, social phobia, obsessive compulsive problems, and physical injury are high in COA compared with non-COA. Mean score of self-esteem is low in COA compared with non-COA. There is no significant difference in mean scores of panic/agoraphobia and generalized anxiety between COA and non-COA [Table 2].

The frequency distribution of respondents shows that higher number of COA had elevated level of separation anxiety, social phobia, obsessive compulsive problems, agoraphobia, generalized anxiety, physical injury, and depression compared with non-COA and majority of COA had low self-esteem, whereas majority of non-COA had moderate self-esteem [Table 3].

### Discussion

The present study examined anxiety, depression, self-esteem among COA and non-COA parents. Our findings show higher rate of anxiety and depression among COA compared with non-COA. The COA parents will have adverse childhood experience in a home with alcohol abusing parents which may be the factor for increased rate of depression among COA. This finding was supported by the study conducted by Ranta and Raitasalo, which shows significantly higher rate of psychiatric disorders among children of parents with substance abuse compared with control group.<sup>[36]</sup> The elevated level of internalizing symptoms is seen as young as 2–3 years old<sup>[37]</sup> and continues to show elevation relative to their peers that continue through adolescence.<sup>[38]</sup> The studies reported that being exposed to parental alcoholism, children had approximately twice the risk of meeting criteria for lifetime major depressive disorder and persistent depressive disorder.<sup>[10]</sup>

The present study shows that majority of COA parents are having low self-esteem. This finding was supported by the study conducted by Hussong *et al.* that found COAs showed a statistically significant difference in their emotional and behavioral aspects such as shyness, insecurity, and low self-esteem.<sup>[39]</sup> Another study found poor school adjustment and lower levels of self-esteem among COAs.<sup>[40]</sup>

**Table 1: Comparison of demographic characteristics between COAs and non-COAs**

Demographic data	Items	Groups		$\chi^2/t$	P
		COAs (n=100)	Non-COAs (n=100)		
Age in years (Mean SD)		14.81 (0.80)	14.93 (0.82)	1.05	0.29
Gender	Male	55	62	0.139	0.709
	Female	45	38		
Class	8 <sup>th</sup>	42	37	5.99	0.20
	9 <sup>th</sup>	41	41		
	10 <sup>th</sup>	17	22		
Educational qualification of father	No formal education	11	17	18.82	0.27
	Primary education	25	31		
	Secondary education	29	24		
	PUC	35	28		
Educational qualification of mother	No formal education	45	50	6.90	0.65
	Primary education	34	33		
	Secondary education	18	10		
	PUC	3	7		
Occupation of father	Government job	7	3	6.18	0.72
	Private job	45	52		
	Business	29	31		
	Others	19	14		
Occupation of mother	Private job	30	20	3.17	0.78
	Business	24	20		
	House maker	46	60		
Monthly family income (Mean SD)		9590 (3455.6)	10250 (3226.7)	1.39	0.16
Type of family	Nuclear	60	70	1.78	0.18
	Joint	40	30		
Number of siblings	1	10	13	3.26	0.95
	2 and More than 2	90	87		

**Table 2: Comparison of anxiety, depression, and self-esteem among children of alcoholic and nonalcoholic parents**

Variables	COA (n=100)		Non-COA (n=100)		“t”	P
	Mean	SD	Mean	SD		
Anxiety	35.49	7.82	30.69	5.49	5.02	0.001
Depression	13.91	3.95	11.59	2.96	4.68	0.001
Self-esteem	19.54	4.20	26.46	3.26	13.01	0.001
Anxiety subscales						
Separation anxiety	7.41	2.34	6.65	1.86	2.54	0.012
Social phobia	7.60	2.38	6.21	2.01	4.45	0.001
Obsessive compulsive problems	3.82	2.02	3.27	1.588	2.14	0.034
Panic/agoraphobia	5.19	2.51	4.80	2.261	1.15	0.25
Generalized anxiety	3.31	1.54	3.09	1.371	1.07	0.288
Physical injury	8.16	2.69	6.67	2.458	4.08	0.001

The present study shows that prevalence rate of anxiety and depression among non-COA is 16 and 10%, respectively. These results are similar to those seen in the previous studies conducted in India by Mishra *et al.*, in 2018 that was found to be 14.5% for depression and that of anxiety disorder was found to be 15%.<sup>[27]</sup> The study conducted by Srinath *et al.* in Bangalore shows that prevalence rate of psychiatric disorder among children aged 0–16 year is 12.5%.<sup>[41]</sup> Higher rate of depression and anxiety was associated with loss of parents and alcohol consumption by parents.<sup>[42]</sup>

This study has provided preliminary evidence in the Indian context that COA parents are at higher risk of various of behavioral problems compared with their peer group. There are limited child and adolescent mental health services in India. Mostly such services are restricted to urban areas. Access to mental health services for children with a mental, emotional, or behavioral disorder is substandard, not provided early enough, in sufficient supply, and accessible only to a fraction of children and adolescents. WHO report has shown that one in every five children has a mental health issue. If we invest in identifying the problems early and intervene at the right time, it will be more cost-effective, and we will be preventing further breakdown and avoid an adult treatment and rehabilitation program which is much more expensive. As it is rightly said that “Prevention is better than cure.”<sup>[43]</sup> The parents, teachers, community health workers, and family physician are at the forefront of being able to identify mental health problems among children in the first instance and being able to either offer or serve as gateways to appropriate services.<sup>[44]</sup> The study conducted by Heneghan *et al.* showed that primary care pediatricians play an important role in identifying child/adolescent depression and anxiety disorders.<sup>[45]</sup> Primary care physicians identify approximately one-third of their patients as mental health patients in Western countries and they are treating a wide range of psychiatric conditions and prescribing a variety of psychiatric medications.<sup>[46]</sup> In India, there are less number of psychiatrist and majority of them being in urban areas, so if appropriate training provided to primary care



**Table 3: Percentage of children scoring positive for anxiety, depression, and self-esteem**

Variables (cut-off score)	COAs (n=100)		Non-COAs (n=100)		
	Normal frequency	Elevated frequency	Normal frequency	Elevated frequency	
Anxiety ( $\geq 39$ )	65	35	84	16	
Depression ( $\geq 15$ )	73	27	90	10	
Anxiety subscales					
Separation anxiety ( $\geq 5$ )	76	24	82	18	
Social phobia ( $\geq 9$ )	80	20	90	10	
Obsessive compulsive problems ( $\geq 7$ )	90	10	94	06	
Panic/agoraphobia ( $\geq 6$ )	62	38	85	15	
Generalized anxiety ( $\geq 9$ )	53	47	80	20	
Physical injury ( $\geq 5$ )	92	08	84	16	
Self-esteem (cut-off score $\leq 20$ )	Moderate	Low	Low	Moderate	High
	46	54	15	80	5

physicians, it will be beneficial for reducing complications of childhood disorders.

The limitations of the study are that as the data were self-reported, under- or over- reporting of data may have taken place due to the stigma related to mental disorders. Data were not collected from private school, as it was not permitted.

## Conclusion

This study findings had shown higher rate of anxiety and depression among COA compared with non-COA and higher rate of low self-esteem was found in COA compared with non-COA. These problems will go unnoticed by parents and teacher, which results in complications during childhood and even in early adulthood, so early identification by health care team is very important for prevention of complications. Further research is needed to identify effective strategies for using primary care for recognizing, diagnosing, and treating mental health problems in children and adolescents.

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## Conflicts of interest

There are no conflicts of interest.

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