

# Self-concept, academic performance and behavioral evaluation of the children of alcoholic parents

## Autoconceito, desempenho escolar e avaliação comportamental de crianças filhas de alcoolistas

Original version accepted in Portuguese

Daniela Viganó Zanoti-Jeronymo,<sup>1</sup>  
Ana Maria Pimenta Carvalho<sup>2</sup>

### Abstract

**Objective:** It has been shown that being the child of an alcoholic is a risk factor for the development of alcoholism in adulthood. Due to the suffering caused by living with alcoholic parents, other vulnerabilities appear in such children. Among these are low self-esteem, poor academic performance and behavioral problems. This work aims to comparatively evaluate children of alcoholic parents and children of nonalcoholic parents. **Methods:** The study design was quasi-experimental, involving two comparison groups. Two groups of 20 children were selected. The groups consisted of 10- to 12-year-old male and female children. One group comprised children of alcoholic parents, whereas the other comprised children of nonalcoholic parents. The self-concepts of these children were evaluated using the Piers-Harris Children's Self-Concept Scale as well as the Academic Performance Test. Their mothers participated in the study by answering questions related to the behavior of their children on the Rutter A2 scale of Child Behavior. **Results:** The results showed that the children of alcoholic parents tended to have more negative self-concepts and presented lower academic performance in reading and arithmetic than did children of nonalcoholic parents. Based on the responses given by the mothers, the children of alcoholic parents presented more behavioral problems than did those of nonalcoholic parents. **Conclusions:** The results of this study confirm those of other studies and call attention to the need to be aware of the potential vulnerabilities of children of alcoholic parents and, especially, to try to minimize such vulnerabilities, thereby altering the course of psychological suffering that can mark their lives.

**Keywords:** Alcoholism/psychology; Antisocial personality disorder; Child of impaired parents/psychology; Child behavior disorders/psychology; Family health; Self concept; Underachievement

### Resumo

**Objetivo:** A literatura vem mostrando que ser filho de alcoolista é um fator de risco para o desenvolvimento de alcoolismo na idade adulta. Além do sofrimento ocasionado pela convivência com pais alcoolistas, essa condição implica em outras vulnerabilidades para as crianças, como baixo autoconceito, mau desempenho escolar e problemas de comportamento. Este trabalho propõe-se a avaliar comparativamente crianças, filhos de alcoolistas (FA), e filhos de não-alcoolistas (FNA) com relação às variáveis acima citadas. **Métodos:** O estudo baseia-se na comparação entre grupos, com delineamento denominado quase experimental. Selecionaram-se dois grupos de 20 crianças, de ambos os sexos, com idades entre 10 e 12 anos, sendo um dos grupos composto por filhos de alcoolistas e o outro por filhos de não-alcoolistas. Estas crianças foram submetidas à avaliação do autoconceito por meio da Escala Infantil Piers-Harris de Autoconceito e do desempenho escolar por meio do Teste de Desempenho Escolar (TDE). As mães destas crianças participaram do estudo respondendo a questões relativas ao comportamento de seus filhos, por meio da Escala Comportamental Infantil A2 de Rutter. **Resultados:** Os resultados mostraram que filhos de alcoolistas tendem a ter um autoconceito mais negativo e um desempenho escolar inferior nas tarefas de leitura e aritmética quando comparados a filhos de não-alcoolistas. Quanto à percepção das mães, filhos de alcoolistas apresentam mais problemas de comportamento que filhos de não-alcoolistas. **Conclusões:** Concluiu-se que os resultados deste trabalho corroboram os de outros estudos e chamam a atenção para a necessidade de se atentar para possíveis vulnerabilidades das crianças filhas de alcoolistas, sobretudo, para tentar minimizá-las alterando a trajetória do sofrimento psicológico, que pode marcar suas vidas.

**Descritores:** Alcoolismo/psicologia; Transtorno da personalidade anti-social; Filho de pais incapacitados/psicologia; Transtornos do comportamento infantil/psicologia; Saúde da família; Auto-imagem; Baixo rendimento escolar

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<sup>1</sup> Universidade Estadual do Centro Oeste (UNICENTRO)

<sup>2</sup> School of Nursing, Universidade de São Paulo (USP), Ribeirão Preto (SP), Brazil

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### Correspondence

Daniela Viganó Zanoti-Jeronymo  
Rua Brigadeiro Rocha, nº 1141, apto 206  
85070-210 Guarapuava, PR  
E-mail: danielazanoti@uol.com.br

## Introduction

The repercussions of parental alcoholism are not limited to the use or abuse of substances by their children, but are also directly related to a series of psychological disorders found in pre-adolescent and adolescent children of alcoholics (COAs).<sup>1</sup>

Studies have shown that COAs present higher indices of behavioral problems than do children of nonalcoholics (CONAs). There have been reports showing that, according to the assessment of parents and teachers, these take the form of delinquent behaviors, impulsiveness, attention deficit, hyperactivity and social impropriety.<sup>2</sup>

Researchers in the area of alcoholism consider COAs a risk group bound to develop negative results as they grow up, although such researchers also recognize that a great number of COAs develop no related problems.<sup>2-3</sup>

Regarding the cognitive aspect, cognitive assessments have shown differences in performance, and poor academic performance has been reported. Both pre-adolescent and adolescent COAs frequently present more academic problems.<sup>4-5</sup>

On the emotional level, feelings of anxiety, depression and inferiority are more common among COAs than among CONAs.<sup>6-7</sup>

Using the concept that human development is the product of the relationship between characteristics of the individual (factors of vulnerability, invulnerability or resistance) and of the environment (risk/nonfacilitator and protection/facilitator)<sup>8</sup> as a reference, the focus of analysis in the present study was on variables related to the individual (cognitive level, self-concept, academic performance and behavioral problems) under the environmental risk condition of having an alcoholic father.

## Methods

The study was based on the comparison between groups, designated as a quasi-experimental delineation. The independent variable was the condition of being or not being the child of an alcoholic father. The dependent variables were self-concept, academic performance, behavioral performance and control variables (gender, age and school year).

### 1. Subjects

Two groups of children between 10 and 12 years of age participated in the study. Each group consisted of 20 children: 10 boys and 10 girls. One of the groups consisted of COAs and the other of CONAs. The COAs were identified based on data related to their parents. The fathers of the COAs were patients in an inpatient psychiatric unit during the 2001-2002 period and had been diagnosed with alcoholism, harmful use of alcohol or abusive use of alcohol according to the CID-10 criteria. The clinical charts of the fathers were analyzed under the supervision of the doctor responsible for the treatment, and it was determined that their alcohol problems were not accompanied by the use of other drugs or by any other mental disorder. The CONAs were selected from the same schools and classes attended by the COAs. Each school was asked to nominate five children, and the first child on each list was selected for the CONA group. The subjects were matched by age, gender and schooling (details in the dissertation of the first author).<sup>9</sup>

The criteria for inclusion in the study were having two parents that were in a steady relationship (either legally married or living together) or, if the parents were separated, having lived with both parents for at least five years (prior to the separation), and having a mother who presented no alcohol problems;

having no evident sensorial or neurological deficits or history of hospitalization caused by injuries to the head; and, finally, not being under psychological or psychiatric treatment.

All of the COAs were included during the collection of clinical data phase, without refusals or losses.

## Procedure

### 1. Ethical aspects

The study was approved by the Ethics in Human Research Committee of the University of São Paulo at Ribeirão Preto School of Nursing.

### 2. Data Collection

Data were collected from February to May of 2002. The number of subjects was determined according to this time frame, to the availability of the participants and to literature-based findings about psychosocial variables, determining the number at the ordinal level and thus allowing statistical analyses through nonparametric tests.<sup>10</sup>

Once the potential participating fathers had been identified, they were contacted in the same unit where they were being treated and were asked about their availability to participate in the study. Upon they had consented to participate, their spouses were contacted so that the study could be explained to them, and so that their availability to participate, as well as their willingness to allow their children to participate, could be determined.

When the father gave his consent, a home interview was scheduled with the mother, and the investigation proceeded using the instruments specified herein. For each case, we sought, at the school where the child studied, another child with similar characteristics that could be their control. The same procedure of initial contact with the parents was followed until consent to participate was obtained.

The children were assessed by the first author, individually, in a room of the school, conveniently located so as to facilitate access by the participants.

The Human Figure Drawing Test (HFDT) was applied by a psychologist blinded to the condition of the children. The test was administered to small groups, in the same location where the other assessments were conducted.

### 3. Instruments used

#### 1) Demographic characterization

a) **Script for the interview with the mothers** – The script had the objective of collecting data to identify the family, as well as of investigating the family history of alcoholism.

b) **CAGE** – Translated and adapted for use in Brazil by Masur and Monteiro, the CAGE questionnaire was used in the interview with the mothers to determine whether there was any risk of problematic consumption of alcohol among them.<sup>11</sup>

c) **CSEB** – The *Critério de Classificação Econômica Brasil* (CSEB, Brazilian Criterion for Economic Classification) is an instrument which enables the reliable establishment of parameters of family income within each social class (from A to E).

#### 4. Instruments for assessment of the children

1) **The Piers-Harris Children's Self-Concept Scale** – To assess self-concepts, we used The Piers-Harris Children's Self-Concept Scale ("How I feel about myself"), adapted for use with Brazilian children by Jacob and Loureiro.<sup>12</sup> This scale consists of 80 yes/no questions.

**2) Rutter A2 Scale of Behavior for Children** – Translated and adapted by Graminha,<sup>13</sup> the Rutter A2 scale consists of 36 items, distributed among three topics: health problems; habits; and behaviors, making it possible to assess emotional and behavioral problems.

**3) Academic Performance Test** – standardized to Brazilian norms by Stein,<sup>14</sup> this is a psychometric instrument that tries to offer an objective assessment of the fundamental knowledge required for academic achievement in the first through the sixth grade of elementary school.

**4) The Human Figure Drawing Test** – Standardized for application in Brazilian children by Hutz & Antoniazzi,<sup>15</sup> the HFDT makes it possible to assess indicators of evolution and emotional status in children.

## 5. Data Analysis

The self-concept scale was analyzed based on total scores and subscale scores.

The scale of behavioral assessment was analyzed in relation to the norms proposed. Overall scores and scores on the individual components of the instrument were taken into consideration.

The HFDT was analyzed according to pre-established norms.<sup>15</sup>

The Academic Performance Test results were assessed according to the criteria proposed, comparing the overall scores on each subtest (reading, writing and arithmetic) the predicted scores for his or her grade level.

The results obtained with the two instruments were compared using the nonparametric statistical Mann-Whitney U tests and Fisher's exact test, considering p values of < 0.05 as statistically significant. The statistical tests were carried out using the *Statistical Package for Social Sciences* program, version 10.0.

## Results

The results related to self-concept, academic performance and behavioral assessment are presented in Table 1.

The comparison of the cognitive assessment (HFDT) results revealed no significant differences between the two groups (COA: median = 18, minimum-maximum = 14-22; CONA: median = 19, minimum-maximum = 14-23, p = 0.0643).

The chart shows factors of COA vulnerability, resilience and invulnerability.

## Discussion

The emerging risk of COA conditions of vulnerability, such as cognitive, academic, behavioral and emotional difficulties, have been widely reported in the literature. This, in itself, justifies studies on this subject. Such studies are also warranted in Brazil, where there is a high rate of alcoholism. Despite the number of people affected by alcoholism in Brazil, there have been few studies focusing equally on the alcoholic and on the social/family context.<sup>7</sup>

Within the objective proposed for this study and using the concept that human development is the product of the relation between variables related to the individual (factors of vulnerability and resilience) and to the environment (risk and protection) as a reference, we believe that, in an environmental condition of risk (being a COA), some individual conditions that constitute vulnerability and factors of resilience can be identified. However, analyzing the set of variables in quantitative terms, those indicating vulnerability prevail.

## Conclusions

The results obtained in this study, despite the use of different methodological strategies, replicate the findings of other studies. However, a few aspects, such as sample size and family variables which could not be controlled (schooling and occupational level), precluded drawing any general conclusions from the results. Although the children were paired (by age, gender and school year) and were recruited from the same schools, their families did not necessarily have the same characteristics. One of the differential aspects was the

**Table 1 – Synthesis of the results: medians, minimum/maximum total scores and p values associated with the null hypothesis related to the comparison between the groups with regard to self-concept; academic performance and emotional/behavioral aspects (level of statistical significance: p < 0.05)**

Self-concept categories	COAs = 18 CONAs = 20				Academic performance	COAs = 20 CONAs = 20				Emotional and behavioral aspects	COAs = 20 CONAs = 20			
	md	Min. Max.	md	Min. Max.		md	Min. Max.	md	Min. Max.		md	Min. Max.	md	Min. Max.
Behavior	13.5	9-19 p = 0.1446	15.0	9-17	Reading	67.0	52-70 p = 0.0017	69.5	64-70	Health	2	0-5 p = 0.0475	1	0-4
Physical appearance and attributes	9.0	1-13 p = 0.0010	11.0	8-13	Reading	28.0	8-34 p = 0.0618	29.5	18-34	Habits	2	0-4 p = 0.1635	1	0-5
Anxiety	7.0	4-13 p = 0.0005	11.0	8-13	Arithmetics	17.0	10-25 p = 0.00007	24.0	14-32	Behaviors	15	5-31 p = 0.0001	6	1-19
Happiness and satisfaction	8.0	4-9 p = 0.00003	9.0	6-9	Overall score	107.5	71-130 p = 0.0011	121.0	98-134	Overall score	16.5	1-39 p = 0.00016	8	3-28
Intellectual status	12.5	5-15 p = 0.00003	16.0	12-17										
Popularity	7.0	4-11 p = 0.0026	10.0	5-11										
Overall score	58.0	31-68 p = 0.00003	73.0	57-79										

COAs = children of alcoholics  
CONAs = children of nonalcoholics  
md = median  
Min. = minimum total score  
Max. = maximum total score

occupational level of the father that, possibly due to the alcoholism itself, was detrimental to the children in this group. Alcoholic fathers were more often involved in temporary occupations than were nonalcoholic fathers.

Studies attempting to identify the conditions of children who live under conditions of psychosocial risk make it possible to develop educational and guidance programs for such children, substantially improving the medical care given to these patients and their families – both in health clinics and through community programs.

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## References

1. Windle M. On the discriminative validity of a family history of problem drinking index with a national sample of young adults. *J Stud Alcohol*. 1996;57(4):378-86.
2. Puttler LI, Zucker RA, Fitzgerald HE, Bingham CR. Behavioral outcomes among children of alcoholics during the early and middle childhood years: familial subtype variations. *Alcohol Clin Exp Res*. 1998;22(9):1962-72.
3. Finn PR, Sharkansky EJ, Viken R, West TL, Sandy J, Bufferd GM. Heterogeneity in the familial of sons of alcoholics: the impact of familial vulnerability type on offspring characteristics. *J Abnorm Psychol*. 1997;106(1):26-36.
4. McGrath CE, Watson AL, Chassin L. Academic achievement in adolescent children of alcoholics. *J Stud Alcohol*. 1999;60(1):18-26.
5. Morey CK. Children of alcoholics: a school-based comparative study. *J Drug Educ*. 1999;29(1) 63-75.
6. Hill SY, Locke J, Lowers L, Connolly J. Psychopathology and achievement in children at high risk for developing alcoholism. *J Am Acad Child Adolesc Psychiatry*. 1999;38(7):883-91.
7. Fligje N, Fontes A, Moraes E, Paya R. Filhos de dependentes químicos com risco psicossocial necessitam de um olhar especial? *Rev Psiq Clin*. 2004;31(2):53-62.
8. Sroufe LA. Psychopathology as an outcome of development. *Dev Psychopathol*. 1997;9(2):251-68.
9. Zanoti-Jeronymo DV. Autoconceito, desempenho escolar e avaliação comportamental de crianças filhas de pais alcoolistas [tese]. Ribeirão Preto (SP): Universidade de São Paulo; 2003.
10. Siegel S. Estatística não paramétrica tradução AA Farias. São Paulo: MacGraw-Hill do Brasil; 1975.
11. Masur J, Monteiro MG. Validation of the "CAGE" alcoholism screening test in a Brazilian psychiatric inpatient hospital setting. *Braz J Med Biol Res*. 1983;16(3):215-8.
12. Jacob AV, Loureiro SR. Autoconceito e o desempenho escolar [resumo]. In: 29º Reunião Anual de Psicologia. 1999; Ribeirão Preto; Sociedade Brasileira de Psicologia; 1999. 164p.
13. Graminha SSV. Escala comportamental infantil Rutter A2. Estudos de adaptação e fidedignidade. *Est Psicol*. 1994;11(1):34-42.
14. Stein LM. TDE: Teste de desempenho escolar: manual para aplicação e interpretação. São Paulo: Casa do Psicólogo; 1994.
15. Hutz CS, Antoniazzi AS. O desenvolvimento do desenho da figura humana em crianças de 5 a 15 anos de idade: normas para avaliação. *Psicol Reflex Crít*. 1995;8(1):3-18.