

Children of substance abusers: psychosocial profile of children and adolescents¹

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Abstract: Introduction: Psychoactive substance abuse problems in the family have an impact on the development of children and adolescents. This risk conditions can harm mental health and hinder healthy development in psychosocial areas. **Objectives:** This study investigated the psychosocial profile of children and adolescents assisted in a prevention service center for children of substance abusers in a deprived community located in the outskirts of Sao Paulo. **Methods:** Exploratory and descriptive study, based on cross-sectional methodology and a convenience sample of 791 children and adolescents assisted at the Intervention and Support Center for Children of Substance Abusers - CUIDA between January 2001 and December 2008. The sample was divided into groups according to discharge status: Active, Therapeutic Discharge (TD), Abandonment, Without Information about the Reason for Leaving and With Information about the Length of Treatment (WIRL), Without Information (WI), and Other Reasons for Leaving (OR). **Results:** In the Active group, 26% of mothers had completed high-school and 11% belonged to the A/B socioeconomic classes. The TD group showed the highest percentages of wage earning parents (52%) living together (64%). In the WIRL group, 17% of the mothers were illiterate or had not completed primary education, and 23% of the fathers were unemployed. In the WI group, 22% lived in houses that had been lent to them. **Conclusions:** Results indicate the impact of addiction and underprivileged conditions (such as housing status, fathers' level of education, and socioeconomic status) on retention in the service and the importance of health prevention and promotion strategies aimed at this population.

Keywords: Preventive Health Services, Substance-Related Disorders, Socioeconomic Factors, Human Development, Mental Health.

Os filhos de usuários nocivos de substâncias psicoativas: Perfil psicossocial das crianças e dos adolescentes

Resumo: Introdução: Problemas relacionados ao uso nocivo de substâncias psicoativas na família têm impacto sobre o desenvolvimento de crianças e adolescentes. Essas condições de risco podem prejudicar a saúde mental e impedir um desenvolvimento saudável em termos biopsicossociais. **Objetivo:** Este estudo investigou o perfil psicossocial de crianças e adolescentes assistidos em um serviço de prevenção para filhos de dependentes químicos localizado na periferia de São Paulo. **Métodos:** Estudo de corte transversal, com uma amostra de 791 crianças e adolescentes assistidos no CUIDA (Centro Utilitário de Intervenção e Apoio aos Filhos de Dependentes Químicos), no período de janeiro de 2001 a dezembro de 2008. A amostra foi dividida em seis grupos, de acordo com o status de alta: Ativo, Alta Terapêutica (AT), Desistência, Sem Informação do Motivo de Saída e Com Informação de Tempo de Tratamento (SIMS), Sem Informação (SI) e Outros Motivos de Saída (OM). **Resultados:** No Grupo Ativo, 26% das mães completaram o ensino médio e 11% eram de classe A/B. O Grupo AT apresentou as maiores porcentagens de pais unidos (64%) e assalariados (52%). No Grupo SIMS, 17% das mães eram analfabetas ou tinham primário

incompleto e 23% tinham pais desempregados. No Grupo SI, 22% viviam em casas cedidas. **Conclusões:** Os resultados apontam para o impacto da dependência química e a condição desfavorecida de moradia, escolaridade do pai e condição socioeconômica na adesão ao serviço e a importância de elaborarem-se estratégias de prevenção e promoção de saúde dirigidas a essa população vítima direta do uso de álcool e outras drogas pelos familiares.

Palavras-chave: *Serviços Preventivos de Saúde, Transtornos Relacionados ao Uso de Substâncias, Fatores Socioeconômicos, Desenvolvimento Humano, Saúde Mental.*

1 Introduction

The impact that substance abuse problems in the family have on the development of children and adolescents is a recurrent issue in the international literature. The risk conditions in which these children and adolescents commonly live, due to the adverse family environment, can harm mental health and hinder a healthy development (FIGLIE; MILAGRES; CROWE, 2009; CORTE; ZUCKER, 2008).

Recent studies suggest that children of substance abusers tend to begin the use of psychoactive substances earlier than children of non-substance abusers parents (CORTE; ZUCKER, 2008; CHASSIN; PITTS; PROST, 2002; DAWSON, 2000). Thus, the prognosis for future health and substance use risks of these children and adolescents becomes poorer, because the earlier one experiments alcohol and other drugs, the more likely is the future development of substance abuse and related problems (CORTE; ZUCKER, 2008; OHANNESSIAN; HESSELBROCK, 2009).

In addition to the harmful substance use of substances by children and adolescents, a series of psychiatric and psychological disorders are also directly associated with the repercussions of parental substance use. Current studies point out that children of substance abusers have more behavioral problems than children of non-substance abusers. In substance use by parents can increase the probability of a child or adolescent developing certain types of psychopathology, such as: Attention-Deficit Hyperactivity Disorder (ADHD), Conduct Disorders, Oppositional Defiant Disorder, Major Depression and Drug Abuse/Dependence (GERRA et al. 2009; HILL et al. 2008; OHANNESSIAN et al., 2004).

Relationship problems are also very common. Kearns-Bodkin and Leonard (2008) studied the quality of relationship in adults who were children of alcoholics, especially when it comes to intimacy in affective relationships. It is considered by them as one of the most frequent issues within this population.

In general, children and adolescents living with substance abuser parents show emotional, conduct, learning and legal problems and also high levels

of anxiety and depression, apart from generalized stress, depressed mood and physical problem symptoms (FIGLIE; MILAGRES; CROWE, 2009; GANCE-CLEVELAND; MAYS; STEFFEN, 2008; DÍAZ et al., 2008). Gance-Cleveland, Mays and Steffen (2008) pointed out that, in cases of greater severity of parental addiction, there are greater negative consequences for the development of adolescents, manifesting through problems associated with the medical condition, physical problem symptoms and mood problems.

Besides the possible psychological and psychiatric problems due to the parent's addiction there is also an association that can evolve between behavior disorders and family environment variables. It has been found consistently that the amount of negative events experienced in the family context can constitute a particularly harmful determinant to children's development, and therefore a factor that leads to behavior problems. Children exposed to poverty, maternal psychiatric illness and domestic violence are more likely to experience high rates of psychiatric illness in the context of Brazil (FEITOSA et al., 2011; FERREIRA; MARTURANO, 2002; GOODMAN; SCOTT, 2004). The literature indicates a strong relation between community violence and mental functioning of the child or adolescent, since the sense of security can be jeopardized, yielding negative effect on the young person's development (FEITOSA et al., 2011).

It is worth mention that there is very few national data regarding this population and no Brazilian data about facilities aimed at them.

Considering this scenery, this study was conducted with the objective to examine the psychosocial profile of children and adolescents cared for in a pioneer prevention service and to investigate the factor that influenced retention in the intervention.

As being a subject so little studied in Brazil, this research expected to contribute to the development of specific strategies towards children of substance abusers and the family members, increasing the awareness for the importance of health prevention.

2 Methodology

2.1 Sample

The present study was developed in the *Centro Utilitário de Intervenção e Apoio aos Filhos de Dependentes Químicos* (CUIDA – Intervention and Support Center for Children of Substance Abusers Parents), a selective prevention service situated in the district of Jardim Ângela, in an underprivileged suburban community of the city of São Paulo.

This was an exploratory and descriptive study, based on cross-sectional methodology and a convenience sample.

The sample was comprised of 791 children from 0 to 11 years old and adolescents from 12 to 18 years old, who had been in the care of the CUIDA service between January 2001 and December 2008.

All had at least one substance abuser as a family member. Thus, individuals aged more than 18 years and those who did not have a family member with addiction were excluded from the sample.

The total sample was divided into six groups, based on information obtained about participants' intervention status. In addition, this study sought to examine different psychosocial patterns among them. The following six classifications were considered: Active, Therapeutic Discharge (TD), Abandonment, Without Information about Reason for Leaving and With Information about Length of Treatment (WIRL), Without Information (WI) and Other Reasons for Leaving (OR).

The Active group included individuals who were in treatment in the service until data collection ended. The TD group was comprised of those who had been discharged from the service, which usually occurs after one year of treatment, with the possibility of an extension, when required. The Abandonment group included those who had terminated the service, not showing an interest to continue their treatment. The Without Information group was divided into with and without information of length of stay in the service (WIRL and WI, respectively). In the Other Reasons for Leaving group (OR) were those who had abandoned treatment due to a change of address.

2.2 Instruments

Data were collected by way assessment protocols created by the CUIDA professionals and filled by the professional responsible for the screening when children and adolescents started treatment.

It included the socio-demographic situation of families, information about age, sex, parents' marital status, occupation, level of education, household income, assets and type of residence, among other things. Social aspects were analyzed using the Critério de Classificação Econômica Brasil (Brazilian Economic Classification Criteria) (ABEP, 2003), which estimates the purchasing power of urban families and individuals, without the intention of categorizing the population into social classes.

The Brazilian Economic Classification Criterion (ABEP, 2003) is based on ownership of assets and access to services, linking to each item a number of points where the distribution of the population between economic classes is as follows: A, B1, B2, C1, C2, D, E, being that the A class the wealthiest and the E class less wealthy.

Some questions involved items related to the substance abusers member, type of substance taken, current and previous treatments and consequences of harmful use/dependence from the point of view of the family member.

Family CAGE questionnaire (FRANK et al., 1992) was used to screen addiction in the family, an instrument applied to children older than four years of age, consisting of four questions that assess child and/or adolescent perception of parental alcoholism or other drug use pattern. Score varies from 0 to 4 and one positive item already indicates a possible case of addiction.

The protocol was also structured with questions about level of education, discipline problems, drug use in school, reading and learning difficulties, failing school grades, and visits to health professionals, among other things. In addition, it included a clinical assessment adapted from the Comprehensive Assessment and Treatment Outcome Research (CATOR) – Adolescent Intake, History and Discharge Forms (HOFFMAN, 1993), with items associated with adolescent alcohol use patterns, their perception of self-image, sexual behavior, problems with the law and occupation/employment.

2.3 Ethical considerations

The study was approved by the Research Ethics Committee of the Medical School of São Paulo/UNIFESP (Committee number 1843/09), and the Research Ethics Committee of the Health Department of São Paulo's City Hall (CAAE 05.174/11).

All of the participants and their guardians were informed of the nature, content, and destination

of the interviews. Parents or guardians were also requested to sign an Informed Consent for Participation.

2.4 Statistical analysis

Data were analyzed using SPSS version 11.0. They were tabulated and descriptively with the purpose of gathering the sample's descriptive profile. Simple and relative frequencies were obtained for all categorical variables. Associations between two categorical variables were examined using Pearson's chi-square test or, in the case of overly small samples, Fisher's exact test. For all statistical tests, a 5% significance level was considered.

In situations where Pearson's chi-square or Fisher's exact tests were significant, the percentages emphasized in the commentaries were those showing standardized and adjusted residual values higher than 2.

In regards to continuous variables (e.g., length of stay in the service), summary-measures were calculated (mean, median, standard deviation, minimum and maximum).

A predictive investigation was performed using the Decision Tree classification method. This non-parametric, classification method is based on successive divisions of the sample into sub-groups, based on the most significant differences in sample indicators (HASTIE; TIBSHIRANI; FRIEDMAN, 2001). It uses both the chi-square and the ANOVA according to the type of variable.

The analytical process is repeated until there are not significant differences. Results are shown as classifications and/or decisions to identify groups that are expected to produce a specific result.

3 Results

3.1 Characteristics of the sample studied

The total sample was comprised of 791 participants, with a mean age of 9 years ($sd=4.25$). 70% were children and 30% adolescents; 55% were boys, the majority (65%) lived in the care of their mother and 12% lived in shelters.

According to the *Critério de Classificação Econômica Brasil* (ABEP, 2003), the majority were from classes C (34%) and D (44%).

The group that had received therapeutic discharge showed the highest percentage of parents living

together (64%), fathers with paid work (52%) and family income higher than three minimum wages (70%). The group of active participants in the service showed the highest percentage of mothers who had completed high-school (26%) and classes A/B (11%), in addition to the lowest percentage of children living in houses that had been handed over.

The group from which no information about status could be obtained, although including length of stay in the service, is the one that showed the highest percentages of illiterate mothers or those who had not completed elementary school (17%) and unemployed fathers (23%), thus being the group with the worst socioeconomic condition.

Mean time of stay in the CUIDA service was 27 months (2.3 years) in the TD group and about 9 months in the Abandonment, WIRL and OR groups. Socio-demographic characteristics of children and adolescents, according to their current status in the service, are shown in Table 1.

According to the Decision Tree classification method (Figure 1), the most relevant outcome variables in the study were housing (houses that had been handed over), father's level of education (illiterate/incomplete primary school level) and economic class (D/E).

4 Discussion

The results of this study indicate that the social and economic vulnerability is not only a risk for children of substance abusers living in such conditions, but also a major obstacle to any treatment effort, since, as pointed out in the Decision Tree, the greater the social vulnerability, lower the adherence in the treatment program.

In Brazil, there are still few studies which describe the impact on children and adolescents who live with substance abusers and none that has described the psychosocial profile of this population.

Socioeconomic situation was an important factor for both seriousness of the family situation and the possibility of completing treatment and, as a result, the prognosis of children and adolescents cared for in the service. Using the Decision Tree classification method, this factor was found to be relevant in children's and adolescents' retention in the service, in addition to show the need to design specific strategies for this population. The more specific to this population are the strategies developed, the better outcomes achieved.

A research conducted by the National Center on Child Abuse and Neglect (2003) found that in 80%

Table 1. Distribution of the children and adolescents characteristics according to their current status in the service (N=791).

	Active (N=150)	TD (N=44)	Abandonment (N=142)	WIRL (N=265)	WI (N=137)	OR (N=53)	Total (N=791)	p
Gender								
Male	58.70% (n=88)	47.70% (n=21)	66.90% (n=95)	52.80% (n=140)	46.00% (n=63)	49.10% (n=26)	54.70% (n=433)	
Female	41.30% (n=62)	52.30% (n=23)	33.10% (n=47)	47.20% (n=125)	54.00% (n=74)	50.90% (n=27)	45.30% (n=358)	0.0081
Age								
0 to 05 years old	21.30% (n=32)	22.70% (n=10)	16.90% (n=24)	21.90% (n=58)	31.40% (n=43)	13.20% (n=7)	21.90% (n=174)	
06 to 11 years old	56.70% (n=85)	52.30% (n=23)	50.70% (n=72)	46.50% (n=123)	37.90% (n=52)	45.30% (n=24)	48.00% (n=379)	0.0607
12 years old and more	22.00% (n=33)	25.00% (n=11)	32.40% (n=46)	31.70% (n=84)	30.60% (n=42)	41.50% (n=22)	30.10% (n=238)	
Level of Education								
No school age	12.40% (n=18)	13.60% (n=6)	9.20% (n=13)	14.10% (n=37)	20.60% (n=28)	10.00% (n=5)	13.70% (n=107)	
Day care center	4.80% (n=7)	4.50% (n=2)	3.50% (n=5)	3.80% (n=10)	7.40% (n=10)	0.00% (n=0)	4.40% (n=34)	
Kindergarten	10.30% (n=15)	11.40% (n=5)	9.90% (n=14)	7.60% (n=20)	5.90% (n=8)	8.00% (n=4)	8.50% (n=66)	0.3354 ^(a)
Elementary school	64.10% (n=93)	63.60% (n=28)	66.70% (n=94)	66.20% (n=174)	51.50% (n=70)	70.00% (n=35)	63.40% (n=494)	
High-school	5.50% (n=8)	4.50% (n=2)	6.40% (n=9)	4.60% (n=12)	6.60% (n=9)	4.00% (n=2)	5.40% (n=42)	
Out of school	2.80% (n=4)	2.30% (n=1)	4.30% (n=6)	3.80% (n=10)	8.10% (n=11)	8.00% (n=4)	4.60% (n=36)	
Marital Status (Parents)								
Living together	40.70% (n=61)	63.60% (n=28)	48.60% (n=69)	50.20% (n=133)	46.70% (n=64)	26.40% (n=14)	46.60% (n=369)	
Not living together	2.00% (n=3)	2.30% (n=1)	7.00% (n=10)	9.40% (n=25)	11.70% (n=16)	3.80% (n=2)	7.20% (n=57)	<0.0001
No information	57.30% (n=86)	34.10% (n=15)	44.40% (n=63)	40.40% (n=107)	41.60% (n=57)	69.80% (n=37)	46.10% (n=365)	
Number of Siblings								
0	6.60% (n=9)	4.80% (n=2)	11.20% (n=15)	11.30% (n=28)	10.10% (n=13)	6.50% (n=3)	9.50% (n=70)	
1 to 2	45.20% (n=62)	73.80% (n=31)	60.50% (n=81)	51.20% (n=127)	49.60% (n=64)	47.80% (n=22)	52.60% (n=387)	0.0062
3 to 4	33.60% (n=46)	16.70% (n=7)	24.60% (n=33)	27.80% (n=69)	31.00% (n=40)	26.10% (n=12)	28.10% (n=207)	
5 or more	14.60% (n=20)	4.80% (n=2)	3.70% (n=5)	9.70% (n=24)	9.30% (n=12)	19.60% (n=9)	9.80% (n=72)	

^(a) Fisher's Exact Test

Table 1. Continued...

	Active (N=150)	TD (N=44)	Abandonment (N=142)	WIRL (N=265)	WI (N=137)	OR (N=53)	Total (N=791)	p
Work Situation (Mother)								
Formal work	17.00% (n=25)	22.00% (n=9)	22.60% (n=30)	12.70% (n=28)	12.10% (n=14)	13.00% (n=6)	15.90% (n=112)	
Informal work	32.00% (n=47)	17.10% (n=7)	24.80% (n=33)	22.60% (n=50)	19.80% (n=23)	13.00% (n=6)	23.60% (n=166)	
Unemployed	11.60% (n=17)	17.10% (n=7)	17.30% (n=23)	19.90% (n=44)	18.10% (n=21)	15.20% (n=7)	16.90% (n=119)	0.0003 ^(a)
Housewife	18.40% (n=27)	41.50% (n=17)	26.30% (n=35)	34.40% (n=76)	42.20% (n=49)	26.10% (n=12)	30.70% (n=216)	
Others	21.20% (n=31)	2.40% (n=1)	9.10% (n=12)	10.40% (n=23)	7.80% (n=9)	32.60% (n=15)	12.90% (n=91)	
Level of Education (Mother)								
Illiterate/Incomplete Primary	10.60% (n=15)	15.40% (n=6)	9.80% (n=13)	17.40% (n=40)	8.90% (n=11)	13.00% (n=6)	12.70% (n=91)	
Incomplete Elementary	33.80% (n=48)	35.90% (n=14)	45.90% (n=61)	39.10% (n=90)	46.80% (n=58)	26.10% (n=12)	39.60% (n=283)	
Completed Elementary	6.30% (n=9)	20.50% (n=8)	9.00% (n=12)	9.10% (n=21)	8.90% (n=11)	6.50% (n=3)	9.00% (n=64)	
Incomplete High-School	7.70% (n=11)	10.30% (n=4)	6.00% (n=8)	9.60% (n=22)	10.50% (n=13)	6.50% (n=3)	8.50% (n=61)	<0.0001
Completed High-School	26.10% (n=37)	17.90% (n=7)	18.00% (n=24)	15.70% (n=36)	14.50% (n=18)	8.70% (n=4)	17.60% (n=126)	
Unknown	15.50% (n=22)	0.00% (n=0)	11.30% (n=15)	9.10% (n=21)	10.50% (n=13)	39.10% (n=18)	12.50% (n=89)	
Work Situation (Father)								
Formal work	29.00% (n=42)	52.30% (n=23)	25.40% (n=34)	22.10% (n=51)	21.50% (n=26)	12.00% (n=6)	25.10% (n=182)	
Informal work	28.30% (n=41)	18.20% (n=8)	26.90% (n=36)	26.80% (n=62)	38.00% (n=46)	18.00% (n=9)	27.90% (n=202)	
Unemployed	12.40% (n=18)	13.60% (n=6)	20.10% (n=27)	22.90% (n=53)	13.20% (n=16)	12.00% (n=6)	17.40% (n=126)	<0.0001 ^(a)
Others	11.70% (n=17)	0.00% (n=0)	18.60% (n=25)	12.20% (n=28)	17.40% (n=21)	14.00% (n=7)	13.60% (n=98)	
Unknown	18.60% (n=27)	15.90% (n=7)	9.00% (n=12)	16.00% (n=37)	9.90% (n=12)	44.00% (n=22)	16.10% (n=117)	
Level of Education (Father)								
Illiterate/Incomplete Primary	8.30% (n=12)	23.30% (n=10)	15.70% (n=20)	17.00% (n=38)	18.20% (n=20)	6.30% (n=3)	14.80% (n=103)	
Incomplete Elementary	38.90% (n=56)	34.90% (n=15)	39.40% (n=50)	43.50% (n=97)	46.40% (n=51)	25.00% (n=12)	40.40% (n=281)	
Completed Elementary	10.40% (n=15)	4.70% (n=2)	7.90% (n=10)	5.80% (n=13)	7.30% (n=8)	8.30% (n=4)	7.50% (n=52)	0.0011
Incomplete High-School	4.90% (n=7)	7.00% (n=3)	6.30% (n=8)	3.10% (n=7)	2.70% (n=3)	0.00% (n=0)	4.00% (n=28)	
Completed High-School	10.40% (n=15)	14.00% (n=6)	10.20% (n=13)	6.70% (n=15)	4.50% (n=5)	4.20% (n=2)	8.10% (n=56)	
Unknown	27.10% (n=39)	16.30% (n=7)	20.50% (n=26)	23.80% (n=53)	20.90% (n=23)	56.30% (n=27)	25.20% (n=175)	

^(a) Fisher's Exact Test

Table 1. Continued...

	Active (N=150)	TD (N=44)	Abandonment (N=142)	WIRL (N=265)	WI (N=137)	OR (N=53)	Total (N=791)	p
Social Status								
A/B	11.50% (n=17)	4.50% (n=2)	2.20% (n=3)	1.60% (n=4)	0.70% (n=1)	0.00% (n=0)	3.50% (n=27)	
C	41.20% (n=61)	34.10% (n=15)	43.10% (n=59)	32.00% (n=81)	34.30% (n=46)	22.00% (n=11)	35.60% (n=273)	<0.0001
D/E	33.80% (n=50)	61.40% (n=27)	48.90% (n=67)	55.30% (n=140)	54.50% (n=73)	30.00% (n=15)	48.60% (n=372)	
In shelter	13.50% (n=20)	0.00% (n=0)	5.80% (n=8)	11.10% (n=28)	10.40% (n=14)	48.00% (n=24)	12.30% (n=94)	
Household Income								
No income or Up to 1 minimum wage	28.40% (n=42)	17.50% (n=7)	26.60% (n=34)	24.70% (n=59)	24.40% (n=32)	12.50% (n=6)	24.50% (n=180)	
1 to 3 minimum wages	45.90% (n=68)	70.00% (n=28)	53.90% (n=69)	52.30% (n=125)	55.00% (n=72)	35.40% (n=17)	51.60% (n=379)	<0.0001
More then 3 minimum wages	12.20% (n=18)	12.50% (n=5)	13.30% (n=17)	11.30% (n=27)	9.90% (n=13)	2.10% (n=1)	11.00% (n=81)	
In shelter	13.50% (n=20)	0.00% (n=0)	6.30% (n=8)	11.70% (n=28)	10.70% (n=14)	50.00% (n=24)	12.80% (n=94)	
Type of Residence								
Own house	34.70% (n=51)	38.60% (n=17)	33.80% (n=45)	29.50% (n=75)	31.50% (n=41)	20.00% (n=10)	31.50% (n=239)	
Rented house	19.00% (n=28)	18.20% (n=8)	17.30% (n=23)	15.00% (n=38)	11.50% (n=15)	10.00% (n=5)	15.40% (n=117)	
Own house in land of São Paulo's Townhall	32.00% (n=47)	29.50% (n=13)	26.30% (n=35)	24.80% (n=63)	23.80% (n=31)	14.00% (n=7)	25.90% (n=196)	<0.0001
Handed Over	0.70% (n=1)	13.60% (n=6)	16.50% (n=22)	18.90% (n=48)	22.30% (n=29)	8.00% (n=4)	14.50% (n=110)	
Others	13.60% (n=20)	0.00% (n=0)	6.00% (n=8)	11.80% (n=30)	10.80% (n=14)	48.00% (n=24)	12.70% (n=96)	
Substance Abuser Member								
Mother	14.70% (n=21)	2.30% (n=1)	3.60% (n=5)	9.70% (n=25)	10.40% (n=14)	12.00% (n=6)	9.40% (n=72)	
Father	49.70% (n=71)	72.70% (n=32)	64.50% (n=89)	59.50% (n=153)	58.50% (n=79)	42.00% (n=21)	58.00% (n=445)	
Mother and Father	9.80% (n=14)	0.00% (n=0)	7.20% (n=10)	3.90% (n=10)	5.20% (n=7)	14.00% (n=7)	6.30% (n=48)	0.0029
One of the parents and siblings	10.50% (n=15)	9.00% (n=4)	11.60% (n=16)	14.00% (n=36)	12.60% (n=17)	14.00% (n=7)	12.40% (n=95)	
Other members	15.40% (n=22)	15.90% (n=7)	13.00% (n=18)	12.90% (n=33)	13.30% (n=18)	18.00% (n=9)	14.00% (n=107)	

^(a) Fisher's Exact Test

Decision Tree

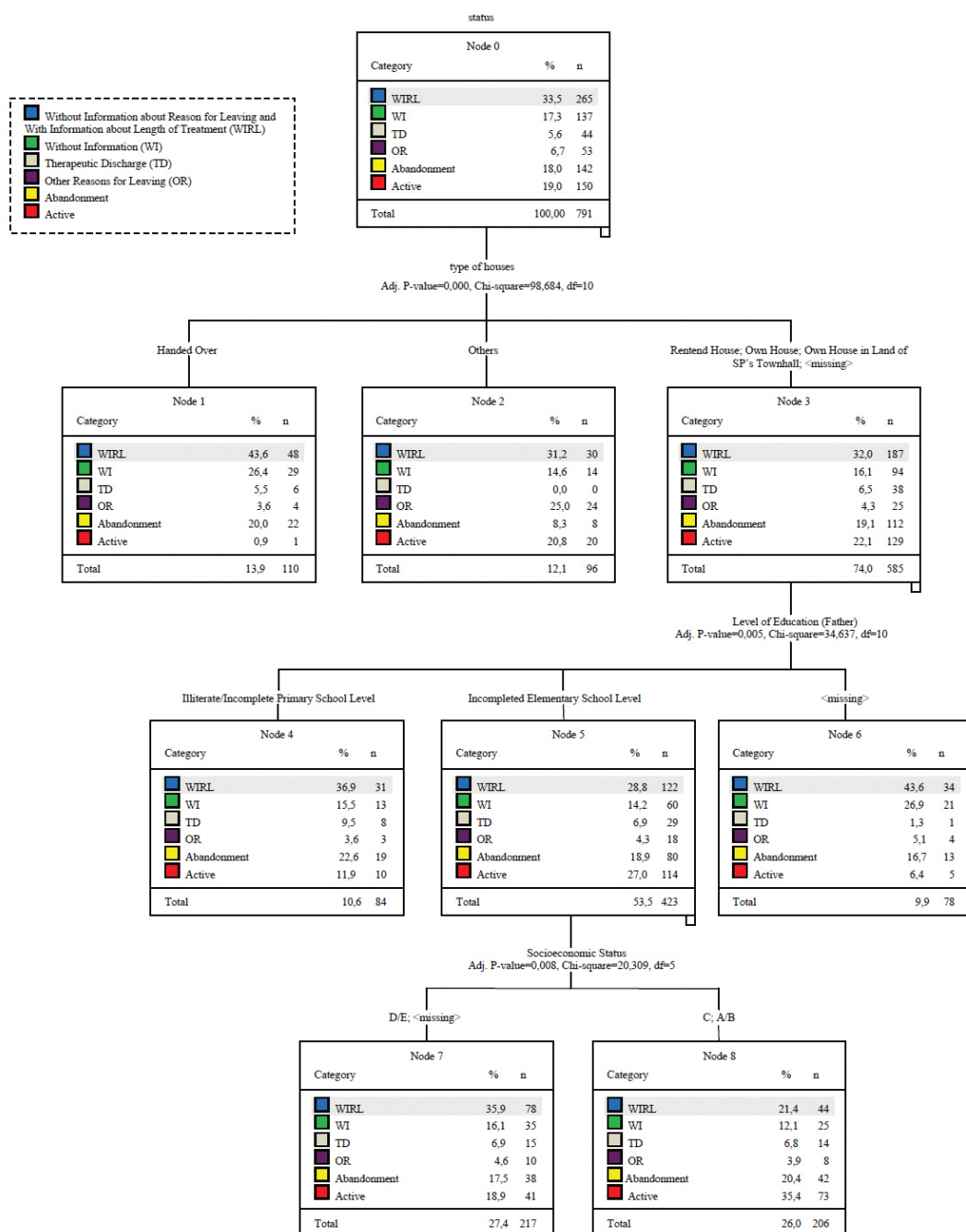


Figure 1. Decision tree

of the American states surveyed, the consumption of substances by parents and poverty are the two major problems among child protective service caseloads, evidencing that children of substance abusers are three times more likely to be maltreated and four times more likely to be neglected when compared to children of non-dependents.

A study (TRIM; CHASSIN, 2008) revealed that the implementation of preventive services aimed at children of substance abusers is key to care for the population living in a low income area, in addition to the need to always observe the socioeconomic condition in which they live, so that strategies are the most adequate possible.

These strategies include all sorts of health care professionals to give the children and adolescents the possibility of developing higher tolerance while dealing with their reality and improve the problem solving capacity. The multidisciplinary teams should include Psychologists, Psychiatrists, Occupational Therapists, as well as any other professional that could help improve the patients' mental health.

Fleitlich and Goodman (2002) point out that the severity of the repercussion of mental disorders in both childhood and adolescence, as well as the high rates of prevalence, especially in poorer regions, indicates the importance of deployment and implementation of community mental health services for children and adolescents. According to them, those services must concentrate in the areas presenting lower socioeconomic levels, where the rates are usually higher than in other regions. In addition to that, many studies have proved that prevention programs are highly advantageous from the cost-benefit point of view, as they generate an economy of more than 10 dollars – for each dollar invested – for treatments related to alcohol consumption and other drugs.

Although the socioeconomic situation is the main factor in this study, the emotional conditions and difficulties of children of substance abusers are important issues to be addressed in any study regarding this matter. These issues are what make them different from the general population, who do not experience this family situation. In the literature, there are several studies on this, which point to situations such as behavioral problems, symptoms of internalization, Attention-Deficit Hyperactivity Disorder (ADHD) and family cohesion, among other things (EIDEN; EDWARDS; LEONARD, 2007; TRIM et al., 2007; MARSHAL et al., 2007; LEV-WIESEL; LIRAZ, 2007; KELLEY et al., 2007; LORBER et al., 2007), all of them objects for further investigation.

4.1 Strengths and limitations

An important strength of the study is concerning the fact that this is a pioneer research with children and adolescents exposed to substance abuse in their families, conducted in an underprivileged violent area. The findings of this study should be read with caution due to the fact that the data collected comprised a convenient sample assessed in a single service. Additional limitations include the fact that there was a lack of record in the assessment protocol specially because the instrument was adapted throughout the years, with the inclusion of several

questions and resulting differences among versions. In addition to that, children and adolescents living in shelters did not have their data included into the protocol, once this information was either unknown or inaccurate.

References

- ASSOCIAÇÃO BRASILEIRA DE EMPRESAS DE PESQUISA – ABEP. *Critério de Classificação Econômica Brasil*. São Paulo: ABEP, 2003. Available from: <<http://www.abep.org>>. Access on: 10 dec. 2010.
- CHASSIN, L.; PITTS, S. C.; PROST, J. Binge drinking trajectories from adolescence to emerging adulthood in a high-risk sample: predictors and substance abuse outcomes. *Journal of Consulting and Clinical Psychology*, Arlington, v. 70, n. 1, p. 67-78, 2002. <http://dx.doi.org/10.1037/0022-006X.70.1.67>
- CORTE, C.; ZUCKER, R. A. Self-concept disturbances: cognitive vulnerability for early drinking and early drunkenness in adolescents at high risk for alcohol problems. *Addictive Behaviors*, Oxford, v. 33, n. 10, p. 1282-1290, 2008. PMID:18602220 PMCID:PMC2600771. <http://dx.doi.org/10.1016/j.addbeh.2008.06.002>
- DAWSON, D. A. The link between family history and early onset alcoholism: earlier initiation of drinking or more rapid development of dependence? *Journal of Studies on Alcohol*, New Brunswick, v. 61, n. 5, p. 637-646, 2000.
- DÍAZ, R. et al. Children of alcoholics in Spain: from risk to pathology. Results from the ALFIL program. *Social Psychiatry and Psychiatric Epidemiology*, Berlin, v. 43, n. 1, p. 1-10, 2008. PMID:17932609. <http://dx.doi.org/10.1007/s00127-007-0264-2>
- EIDEN, R. D.; EDWARDS, E. P.; LEONARD, K. E. A conceptual model for the development of externalizing behavior problems among kindergarten children of alcoholic families: role of parenting and children's self-regulation. *Developmental Psychology*, Washington, v. 43, n. 5, p. 1187-1201, 2007. PMID:17723044 PMCID:PMC2720575. <http://dx.doi.org/10.1037/0012-1649.43.5.1187>
- FEITOSA, H. N. et al. Mental health of children and adolescents: epidemiological, assistance and bioethical considerations. *Revista Bioética*, Brasília, v. 19, n. 1, p. 259-275, 2011.
- FLEITLICH, B. W.; GOODMAN, R. Deployment and implementation of community mental health facilities for children and adolescents. *Revista Brasileira de Psiquiatria*, São Paulo, v. 24, n. 2, p. 2, 2002.
- FERREIRA, M. C. T.; MARTURANO, E. M. Ambiente familiar e os problemas do comportamento apresentados por crianças com baixo desempenho escolar. *Psicologia: Reflexão e Crítica*, Porto Alegre, v. 15, n. 1, p. 35-44, 2002. <http://dx.doi.org/10.1590/S0102-79722002000100005>
- FIGLIE, N. B.; MILAGRES, E.; CROWE, J. *Família e dependência química: uma experiência de prevenção com crianças e adolescentes no Jardim Ângela*. São Paulo: Roca, 2009.

- FRANK, S. H. et al. Use of the family CAGE in screening for alcohol problems in primary care. *Archives of Family Medicine*, Chicago, v. 1, n. 2, p. 209-216, 1992. PMID: 1341596. <http://dx.doi.org/10.1001/archfami.1.2.209>
- GANCE-CLEVELAND, B.; MAYS, M. Z.; STEFFEN, A. Association of adolescent physical and emotional health with perceived severity of parental substance abuse. *Journal for Specialists in Pediatric Nursing*, Philadelphia, v. 13, n. 1, p. 15-25, 2008. PMID:18096009. <http://dx.doi.org/10.1111/j.1744-6155.2008.00130.x>
- GERRA, G. et al. Childhood neglect and parental care perception in cocaine addicts: relation with psychiatric symptoms and biological correlates. *Neuroscience & Biobehavioral Reviews*, Oxford, v. 33, n. 4, p. 601-610, 2009. PMID:17904221. <http://dx.doi.org/10.1016/j.neubiorev.2007.08.002>
- GOODMAN, R.; SCOTT, S. *Psiquiatria infantil*. São Paulo: Roca, 2004.
- HASTIE, T.; TIBSHIRANI, R.; FRIEDMAN, J. *The elements of statistical learning: data mining, inference, and prediction*. New York: Springer, 2001. <http://dx.doi.org/10.1007/978-0-387-21606-5>
- HILL, S. Y. et al. Psychopathology in offspring from multiplex alcohol dependence families with and without parental alcohol dependence: a prospective study during childhood and adolescence. *Psychiatry Research*, Amsterdam v. 160, n. 2, p. 155-166, 2008. PMID:18597856 PMCid:PMC2605725. <http://dx.doi.org/10.1016/j.psychres.2008.04.017>
- HOFFMAN, N. G. Comprehensive Assessment and Treatment Outcome Research (CATOR): adolescent intake, history and discharge forms. In: CENTER FOR SUBSTANCE ABUSE TREATMENT. *Screening and assessment of alcohol and other drug: abusing adolescents*. Rockville: U.S. Department of Health and Human Services; Public Health Service; Substance Abuse and Mental Health Services Administration; Center for Substance Abuse Treatment, 1993. p. 17-26 (Treatment Improvement Protocol Series, v. 3).
- KEARNS-BODKIN, J. N.; LEONARD, K. E. Relationship functioning among adult children of alcoholics. *Journal of Studies on Alcohol and Drugs*, Piscataway, v. 69, n. 6, p. 941-950, 2008.
- KELLEY, M. L. et al. Parentification and family responsibility in the family of origin of adult children of alcoholics. *Addictive Behaviors*, Oxford, v. 32, n. 4, p. 675-685, 2007.
- LEV-WIESEL, R.; LIRAZ, R. Drawings vs. narratives: drawing as a tool to encourage verbalization in children whose fathers are drug abusers. *Clinical Child Psychology and Psychiatry*, London, v. 12, n. 1, p. 65-75, 2007. <http://dx.doi.org/10.1177/1359104507071056>
- LORBER, W. et al. Patterns of cohesion in the families of offspring of addicted parents: examining a nonclinical sample of college students. *Psychological Reports*, Missoula, v. 101, n. 3, p. 881-895, 2007.
- MARSHAL, M. P. et al. Attention-deficit hyperactivity disorder moderates the life stress pathway to alcohol problems in children of alcoholics. *Alcoholism: Clinical and Experimental Research*, New York, v. 31, n. 4, p. 564-574, 2007.
- NATIONAL CENTER ON CHILD ABUSE AND NEGLECT – NCCAN. *Child maltreatment 2001: reports from the states to the National Center on Child Abuse and Neglect*. Washington: U.S. Government Printing Office, 2003.
- OHANNESSIAN, C. M. et al. The relationship between parental alcoholism and adolescent psychopathology: a systematic examination of parental comorbid psychopathology. *Journal of Abnormal Child Psychology*, Washington, v. 32, n. 5, p. 519-533, 2004. <http://dx.doi.org/10.1023/B:JACP.0000037781.49155.a6>
- OHANNESSIAN, C. M.; HESSELBROCK, V. M. A finer examination of the role that negative affect plays in the relationship between paternal alcoholism and the onset of alcohol and marijuana use. *Journal of Studies on Alcohol and Drugs*, Piscataway, v. 70, n. 3, p. 400-408, 2009.
- TRIM, R. S. et al. The relation between adolescent substance use and young adult internalizing symptoms: findings from a high-risk longitudinal sample. *Psychology of Addictive Behaviors*, Indianapolis, v. 21, n. 1, p. 97-107, 2007. PMID:17385959. <http://dx.doi.org/10.1037/0893-164X.21.1.97>
- TRIM, R. S.; CHASSIN, L. Neighborhood socioeconomic status effects on adolescent alcohol outcomes using growth models: exploring the role of parental alcoholism. *Journal of Studies on Alcohol and Drugs*, Piscataway, v. 69, n. 5, p. 639-648, 2008.

Author's Contributions

Camila Garcia de Grandi; Thaís dos Reis Vilela; Neliana Buzi Figlie were responsible for conceiving the text, organizing sources and analysis, drafting and revising of the text.

Notes

¹ This is an original research followed all ethical aspects and was approved by the Ethical Comitee.