

Epidemiology of psychological development disorders in adolescents: use of alcohol and other drugs

Epidemiologia dos transtornos do desenvolvimento psicológico em adolescentes: uso de álcool e outras drogas

Epidemiología de los trastornos del desarrollo psicológico en adolescentes: uso de alcohol y otras drogas

Fábio Vinícius Rocha¹, Roberto Lazzarini de Oliveira², Daniella Almeida Silva Brum¹, Ricardo Bezerra Cavalcante², Richardson Miranda Machado²

Objective: to identify the personal and clinical characteristics of adolescents alcohol and other drugs' users with Psychological Development Disorders. **Methods:** this retrospective study analyzes the care of the Psychosocial Care III Center. **Results:** from the 415 adolescents treated, 52.3% were female; 89.9% were between 12 to 14 years old, 51.6% attended by court order, 28.2% had "Unspecified Disorder of Psychological Development"; 32.3% used multiple drugs. Being between 12 and 14 years of age meant 2.5 and 1.5 times more risk of having Psychological Development Disorders, respectively. Cocaine/crack users were more likely (4.27 times) to receive the diagnosis of "Psychoactive Substance Use." **Conclusion:** adolescents are treated in accordance with the law, which requires treatment for social living inadequacies due to high use of cannabinoids, and there is a difficulty of professionals in treating Psychological Development Disorders.

Descriptors: Developmental Disabilities; Adolescent; Psychiatric Nursing; Substance-Related Disorders.

Objetivo: identificar as características pessoais e clínicas de adolescentes com Transtornos do Desenvolvimento Psicológico, usuários de álcool e outras drogas. **Método:** estudo retrospectivo que analisou os atendimentos de um Centro de Atenção Psicossocial III. **Resultados:** de 415 adolescentes atendidos, 52,3% eram do sexo feminino; 89,9% com 12 a 14 anos, 51,6% atendidos por ordem judicial, 28,2% apresentavam "Transtorno do Desenvolvimento Psicológico não Especificado"; 32,3% utilizavam múltiplas drogas. Ter 12 e 14 anos apresentou, respectivamente, riscos 2,5 e 1,5 vezes maiores de possuir Transtorno do Desenvolvimento Psicológico. Usuários de cocaína/crack apresentaram maior chance (4,27 vezes) de receber o diagnóstico "Uso de Substância Psicoativa". **Conclusão:** os adolescentes são atendidos em função de Lei, que impõe tratamento decorrente de inadequações ao convívio comum, em alto uso de canabinoides, e a dificuldade de profissionais no atendimento dos Transtornos do Desenvolvimento Psicológico.

Descritores: Deficiências do Desenvolvimento; Adolescente; Enfermagem Psiquiátrica; Transtornos Relacionados ao Uso de Substâncias.

Objetivo: identificar las características personales y clínicas de adolescentes con Trastornos del Desarrollo Psicológico, usuarios de alcohol y otras drogas. **Método:** estudio retrospectivo que analizó la atención en un Centro de Atención Psicosocial III. **Resultados:** de 415 adolescentes tratados, 52,3% eran mujeres; 89,9% con 12 a 14 años; 51,6% asistidos por orden judicial; 28,2% tenían "Trastorno del Desarrollo Psicológico no Especificado"; 32,3% utilizaban múltiples drogas. Tener entre 12 y 14 años presentó, respectivamente, riesgos 2,5 y 1,5 veces mayores de Trastorno de Desarrollo Psicológico. Consumidores de cocaína/grieta presentaron más probabilidad (4,27 veces) de recibir el diagnóstico "Uso de Sustancias Psicoactivas". **Conclusión:** los adolescentes son tratados según la Ley, que requiere tratamiento debido a las inadecuaciones al convivio común, en alto uso de cannabinoides, y la dificultad de profesionales en la atención de los Trastornos del Desarrollo Psicológico. **Descriptores:** Discapacidades del Desarrollo; Adolescente; Enfermería Psiquiátrica; Transtornos Relacionados con Sustancias.

Corresponding author: Richardson Miranda Machado

Rua São Paulo, 1080, apto 301, bairro Centro, CEP: 35500-006, Divinópolis, MG, Brazil. E-mail: richardson@usp.br

¹Universidade do Estado de Minas Gerais. Divinópolis, MG, Brazil.

²Universidade Federal de São João Del Rei. Divinópolis, MG, Brazil.

Introduction

In healthcare practice it is possible to observe that a large proportion of adolescents assume the use of substances as a coping mechanism for dealing with adverse situations such as stressful events or dealing with difficult or new emotional states. It can be observed that a larger share of adolescents who have some kind of psychological development disorder turn to drugs.

Puberty is characterized by psychological, biological and social vulnerabilities that can lead to health problems and/or risky behaviors such as: use of psychoactive substances, violence, practice of unprotected sex, among others(1). This is one of the reasons why it is common for adolescence to be a confusing phase of identity search or self-assertion⁽²⁾.

It is also during adolescence that mental problems may emerge or be aggravated. Specifically psychological development disorders, which are characterized by: a condition originated in the first or second childhood phase; the condition induces impairment in the development of tasks related to central nervous system biological maturation and tends to evolve without remissions or relapses. Language disorders, difficulty with visual-spatial skills and motor coordination disorders can also be commonly found⁽³⁾.

There is evidence that genetic factors play an important role in the etiology of most psychological development disorders. On the other hand, environmental or social factors influence the development of these disorders, often aggravating the development of functions already compromised. As individuals grow, the existing deficit, even if subtle, will be present in adulthood. Furthermore, regression of symptoms may be impaired by the presence of environmental factors that compromise appropriate management of patients⁽³⁾.

Along with the existence of mental disorders in adolescence, the use of alcohol and/or other psychoactive drugs has as important role. Legal or illegal drug consumption has been starting earlier and steadily increasing, especially among teenagers⁽⁴⁾. Young people with psychological development disorders that use one or more drugs have a higher chance of reaching adulthood with more serious impairments incapacitating their development, and may also bring forth the onset of symptoms and develop new types of mental disorders.

In comparing the patients who use some type of substance that alters the functioning of the central nervous system, alcohol is the most prevalent. In Europe, nine out of ten adolescents from 15 to 16 years old have consumed alcohol, starting on average at 12.5 years of age(1). In Brazil, alcohol is consumed regularly by about 3% to 10% of the general adult population, a fact that raises the level of the psychoactive substance used most by large-scale population. Alcoholism is the cause of 50% of psychiatric male hospitalizations in the country⁽⁵⁾. Individuals who are predisposed to addiction and who abuse alcohol can become dependent. Most cases of alcohol abuse start between 13 to 18 years of age and are related to use that lasts until adulthood. To confront this, preventive measures of substance use and effective treatment for when the use has already begun benefits these teens.

Although alcohol is considered a legal drug with high social acceptance, its abuse can cause similar damage of that caused by illicit drugs. In the case of illicit drugs such as cannabis, adolescents in school (students) are not the most affected by drug use, but when this occurs they often dropout of school⁽⁶⁾, and possibly have violent behavior. Therefore, implementing a public health model for health promotion and prevention of psychotropic substance use has become indispensable for offering better care for the population, in order to reduce the number of new addicts. It is essential to develop a broad view of the individual, involving them in social, political and cultural aspects that care for the subject's autonomy and their rescue.

Adolescent alcohol and/or other drug use, especially by people with mental disorders (such as people with psychological development disorders) involves a social problem. Every day, professionals and health services are faced with new cases, from primary care to the community mental health services, and they face difficulties in establishing early diagnosis and the proper treatment approach.

This study was proposed aiming to identify the personal and clinical characteristics of adolescents with Psychological Development Disorders who use alcohol and other drugs, and to contribute to updating and the orientation of the actions of health professionals, in hospitals and throughout the health care network community. In this sense, it is believed that the results may contribute to the direction and planning of public health policies, with regards to the establishment of more specific and effective intervention, treatment and prevention measures.

Method

This is an analytical, exploratory and retrospective epidemiological study. This research aimed to: describe the characteristics of adolescents diagnosed with psychological development disorders who use alcohol and/or other drugs, and establish links between diagnosis and sociodemographic and clinical variables.

The research was conducted at the Psychosocial Care Center III, a public institution considered a referral center for mental health in Divinópolis-MG (a regional health hub for 53 municipalities in the Midwest region of Minas Gerais). Currently this service offers three types of service: 1) Emergency/Urgency - psychiatric assistance to patients in crisis referred

to by the public health network or by spontaneous demand; 2) Ambulatory/Outpatient - performing scheduled appointments on stable psychiatric patients and attending new patients from psychiatric hospitals and/or other mental health services; and 3) Day admission - monitoring of psychiatric patients in crisis referred by urgency/emergency and/or clinics for stabilization of severe and recurrent mental sufferings, replacing hospital admissions.

Data collection was conducted through checking the records of the medical and statistical Psychosocial Care Center filing service, concerning the period of July 1, 1997 (opening day) to July 1, 2013 (date of data collection), where information related to adolescents diagnosed with psychological development disorder and use of alcohol and/or other drugs were compiled. Based on the data collection, a new database was constructed focusing on the following variables: gender, age, patient origin, and diagnosis of psychological development disorder, diagnosis of psychoactive substance use, type of treatment, treatment time and type of discharge from the Psychosocial Care Center.

The study population consisted of all patients with psychological development disorders and drug addicts treated at the Psychosocial Care Center III. The criteria adopted for inclusion in this study were: 1) a diagnosis of psychological development disorder and substance abuse (according to the International Classification of Diseases - ICD-10), 2) between the ages of 12-17 years, 3) having a complete medical record, 4) permanence in the Psychosocial Care Center III for more than 24 hours and 5) were followed from admission to discharge, transfer or death.

A descriptive bivariate analysis of data was performed to measure the association between the diagnosis of psychological development disorders with sociodemographic and clinical characteristics and the use of alcohol and other drugs. The chi-square test was used with the gross odds ratio adjusted by the logistic

regression model for all variables with p-value less than 10%, and chi-square test with a significance level of 5%. Data was organized in Microsoft Office Excel for Windows and subsequently analyzed by Statiscal Software Package for Social Sciences version 13.

This study was conducted in accordance with the requirements of Resolution 466/2012 of the National Health Council and ethical principles of research, and was approved by the Ethics Committee of the Federal University of São João del Rei (report number 339.939/2013). During the research there was no contact with patients, since the data was entirely from the Psychosocial Care Center's records.

Results

Of the 14,161 patients treated at the Psychosocial Care Center, 415 met inclusion criteria, representing a rate of 2.9% of the total. Data analysis revealed a predominance of females (52.3%) and ages between 12 and 14 years (89.9%). Regarding precedence of patients receiving specialized care at the Psychosocial Care Center, it was found that more than half (51.6%) were referred to the service via court order and a minority were referred from the Municipal Emergency (3.6%).

Patients diagnosed with psychological development disorders who used multiple drugs accounted for 32.3% of the study population. By itself, cannabinoids were the most consumed drug, used by 26% of patients, followed by alcohol (18.3%) and cocaine/crack (12.8%). Unspecified stimulants (0.7%) and volatile solvents (0.7%) were the least used drugs.

Regarding the diagnosis of psychological development disorders, 28.2% of adolescents were diagnosed with an Unspecified Psychological Development Disorder, followed by patients with Other Psychological Development Disorders (24.8%). Specific Developmental Disorders of Scholastic Skills and Specific Development of Speech and Language also accounted for a significant portion of the sample, with 18.8% and 18.1% of patients, respectively.

Considering type of treatment, the majority (54.9%) received outpatient care, while the remaining 45.1% were intensively treated (day admission). As for treatment time, 48.7% of patients were assisted by the Psychosocial Care Center for a period of 1 to 30 days, while 22.9% remained in service for more than 60 days. Regarding discharge, medical discharges were more frequent, totaling 77.3%, followed by dropout or evasion (18.3%). Tables 1 and 2 show research results.

Bivariate analysis measured the association between the diagnosis of psychological development disorders, and sociodemographic and clinical characteristics and the use of alcohol and other drugs, the variables "Age," "Diagnosis of Psychoactive Substance Use" and "Treatment Time" were statistically significant. Considering the variable "Age," the classes 12 and 14 years presented 2.5 and 1.5 times higher risks for a diagnosis of Psychological Development Disorder, respectively.

As for the "Diagnosis of Psychoactive Substance Use," bivariate analysis showed the use of stimulants as a risk factor for the diagnosis of mental disorders, where the risk is 4.27 times higher for cocaine/crack users, 3.0 times higher for users of other stimulants, 2.59 higher for volatile solvent users and 2.06 for multiple drug users.

In relation to the "Treatment Time," those who remained in Psychosocial Care Center for a period over 60 days are 1.94 times more likely to be diagnosed as having a Psychological Development Disorder, compared to patients who remained in treatment for less time.

The variables "Gender," "Origin," "Treatment Type" and "Discharge Type of Psychosocial Care Center" were not statistically significant as an influencing factor for the diagnosis of Psychological Development Disorder, presenting p>0.05 in the chisquare test.

Table 1 - Sociodemographics, the merits and substance use by patients with Psychological Development Disorders seen at the Psychosocial Care Center between the years 1997-2013

Variable	n(%)
Gender	
Male	198(47.7)
Female	217(52.3)
Age (years)	
12	90(21.7)
13	162(39.0)
14	121(29.2)
15	19(4.6)
16	13(3.1)
17	10(2.4)
Precedence	
Family	123(29.6)
Family healthcare team	63(15.2)
Municipal Emergency Center	15(3.6)
Judicial Order	214(51.6)
Diagnosis of Psychoactive Substance Use $(ICD-10)^*$	
F10 - Use of alcohol	76(18.3)
F11 - Use of opioids	1(0.25)
F12 - Use of cannabinoids	108(26.0)
F13 - Use of sedatives or hypnotics	1(0.25)
F14 - Use of cocaine/crack	53(12.8)
F15 - Use of other stimulants	3(0.7)
F16 - Use of hallucinogens	17(4.1)
F17 - Use of tobacco	19(4.6)
F18 - Use of volatile solvents	3(0.7)
F19 - Multiple drug use	134(32.3)

^{*}International Statistical Classification of Diseases and Related Health Problems – ICD 10 $\,$

Table 2 - Characterization of the Psychological Development Disorder diagnosed and clinical treatment of the psychoactive substance user patients treated at the Psychosocial Care Center between the years 1997-2013

Variable	n(%)
Diagnosis of Psychological Development Disorders*	
F80- Specific developmental disorders of speech and language	75(18.1)
F81- Specific developmental disorders of scholastic skills	78(18.8)
F82-Specific developmental disorder of motor function	18(4.3)
F83- Mixed specific developmental disorders	21(5.1)
F84- Pervasive developmental disorders	3(0.7)
F88- Other psychological development disorders	103(24.8)
F89- Unspecified psychological development disorder	117(28.2)
Type of Treatment	
Outpatient/ambulatory	228(54.9)
Day admission	187(45.1)
Treatment duration (days)	
≤ 30	202(48.7)
31 - 60	118(28.4)
≥ 61	95(22.9)
Type of Discharge from Psychosocial Care Center	
By doctor request	321(77.3)
By patient request	12(2.9)
By dropout or evasion	76(18.3)
By clinic transfer *According to the International Statistical Classification of Diseas	6(1.5)

Discussion

ted Health Problems - ICD 10

Women are more affected by mental illness, especially in adulthood. Factors such as longer longevity of women⁽⁷⁾, domestic violence⁽⁸⁾ and the fact they are more open to seek help from health services are crucial for the greater presence of females in the statistics in dealing with mental health. However,

when it comes to the Psychological Developmental Disorders, males are usually the most affected⁽³⁾.

However, the results of this study showed that gender was not statistically significant and could not be considered as a risk factor for the development of psychological developmental disorders in the cases studied. In analyzing the findings of slight female predominance in this psychiatric service seems to go against data found in a similar study in São Paulo, which demonstrated that there is great disparity on the gender of service applicants. In it, 22.2% of the adolescents diagnosed with psychological development disorders were male, while only 7.5% were female⁽⁹⁾.

Although the Sao Paulo region and the Midwest of Minas do not have demographic differences between gender distribution of its inhabitants, the profile of the disparity in the clinical care of the Greater São Paulo region is perceived when the data are compared⁽¹⁰⁾. It could be argued that this discrepancy exists in populations that are ethnographically similar. Therefore, the discrepancy should be investigated in order to establish a more accurate epidemiological profile about the public who seek mental health service in this Minas Gerais region, even if the data does not directly represent influential factors for the diagnosis of psychological development disorders.

With regard to age, the ages of 12 and 14 were shown to be risk factors for the diagnosis of psychological development disorders. This does not appear as a surprise since, although these disorders usually begin in childhood⁽³⁾, it is around puberty that pre-existing problems associated with new ones (knowledge of the body, identity search, etc.) become more visible and valued. A study conducted in São Paulo confirms this finding, where 60% of patients were between 5 and 15 years of age⁽⁹⁾.

The State delegates the role of caregivers to the families who are responsible for the adolescents' welfare, providing as healthy of a biopsychosocial development as possible. However, when the family cannot afford or neglects care, the responsibility for patient care is taken over by the State⁽¹¹⁾.

In this study, the highest proportion of adolescents with psychological development disorders were treated/admitted due to court order, suggesting a possible lack of family attention directed towards them, and possibly reflecting the health problems and impairment of development. Family care for the mental health of these individuals is essential, improving their treatment. When facing a family's impossibility in providing proper care, the State has a fundamental role in providing services that include information about the mental healthcare network; psychological, medical and legal assistance⁽¹²⁾.

Regarding diagnosis of psychological development disorders, there has been some difficulty from the mental health professional in establishing a diagnosis that would enable proper treatment, since "Unspecified Disorder of Psychological Development" and "Other Psychological Development Disorder" accounted for the majority of the diagnoses, revealing unprepared professionals or lack of diagnostic instruments to assert a diagnosis.

For the realization of accurate diagnosis "disorders," neuropsychological tests required that measure functions (such as cognitive, communicative and emotional functions) that are commonly compromised in people with psychological development disorders. These will reflect the quality of diagnosis and rehabilitation planning for these patients⁽¹³⁾. From the cognitive processes it is also important to evaluate an important component of the executive functions, which is the working memory. In the early years of formal education of children and adolescents, the working memory is a stronger predictor of academic success than the intelligence quotient(14).

Therefore, given these factors it is assumed that the professionals who performed the diagnoses demonstrated difficulty in measuring and locating cognitive and motor functions. If this hypothesis is

confirmed, it may represent a significant factor in the treatment of such individuals, as prevention, care or treatment of patients with psychological development disorders is made possible from a proper diagnosis. Furthermore, it is important to mention that a mistaken diagnosis for an adolescent's psychological development may reflect problems in many other areas of their life, especially in academic, since the probability of a subject to be successful academically is strongly related to how they developed their cognitive abilities⁽¹⁴⁾, and which interventions were made available by the health system if there was failure in these skills⁽¹⁵⁾.

Considering the use of psychoactive substances, this variable proved to have a high association with the diagnosis of psychological development disorders, especially stimulants. The search for immediate pleasure, a desire to escape from reality, negative emotional states and the tendency to self-care are factors that can instigate the use of drugs by these patients. However, an individual's impulsivity linked to the use of substances can have very damaging results in terms of cognitive and behavioral states.

Cocaine/crack, despite not being the most used drug, was the one that presented as the main risk factor for the diagnosis of psychological development disorders. Cocaine is a drug that stimulates the central nervous system and causes feelings of great pleasure, euphoria and power. To achieve these effects, increasing doses should be consumed, which combined with the easy access and use of this drug led to large and rapid dependence.

When used by people with comorbidities, such as those having psychological development disorders, crack/cocaine effects can be even more devastating. In addition to enhancing the pre-existing mental disorders, their use can hamper treatment adherence; worsen future deficits; trigger the emergence of new comorbidities (hallucinations, heart diseases, kidney diseases, intestinal disorders, HIV and others) and impair bonding, compromising social rehabilitation

and continued treatment(16).

High rates of alcohol and cannabinoids, especially when combined, can result in social, organic and psychological damages that are significant in adolescent life, making teenagers more prone to addiction in adulthood. Also, developmental changes seen in the brain also suffer abnormal changes with the use of alcohol and marijuana, as shown by studies on neurocognitive functioning, confirming a general lowering in several cognitive functions such as attention, visuospatial location, learning ability and ability to record and evoke verbal and nonverbal information⁽⁶⁾. It is possible that such abuse affects more adolescents afflicted by psychological development disorders since they have a different and probably impaired brain development when compared to healthy subjects.

Regarding the type of treatment offered, the results of this study revealed a prevalence of individuals who are treated as outpatients (54.9%), compared to those who are treated by day admission (45.1%). Data indicate that there is no significant difference in the final results between these two types of monitoring⁽¹⁷⁾.

In addition to intensive treatment. development psychological disorders require prolonged treatment. When analyzing the data found in this research related to treatment time, it was found that staying in the Psychosocial Care Center for more than 60 days increased patient risk of being diagnosed with some psychological development disorder. However, a minority of patients were seen by the Psychosocial Care Center for more than 60 days, representing 22.9% of subjects. It is assumed that several factors may contribute to this finding, such as the financial difficulty of the patient to attend the service, the absence of an accompanying adult, the lack of sufficient professionals to meet every demand, in addition to difficulties of their own team to adapt to this new model of care, which may impair the effective treatment of these patients.

In assessing the findings of this research related to the discharge type of the Psychosocial Care Center, it is observed that despite the dropout rate being significant, representing 18.3% of the sample, the vast majority of patients (77.3%) were discharged from the service through medical discharge, suggesting good treatment adherence. However, the variables found did not allow for analyzing whether there is long-term continuous treatment by patients.

Conclusion

Half of all psychiatric disorders begin in adolescence. The dysfunctional adaptation in which the teenager can pass through puberty is directly related to several psychiatric demands which can become chronic later in life. Because of this, it is important to know the specific characteristics of the public and the real reasons that have led to the use of drugs, and a better understanding of the relationship they establish with them. It is possible that their use may mainly be the environmental factor that is associated with aggravation and the perpetuation of psychological development disorders into adulthood and the emergence of other mental disorders.

From the study, it was possible to realize that the quantity of research that address psychological development disorders is poor, especially those that deal with the relationship established with drugs, the social stigma faced by these patients and their families, in addition to results that different therapeutic approaches produce on these subjects, with none more effective than the other.

Also, the imperative need for better training of health professionals in epidemiological knowledge was evident, producing a guided practice, or in this case a better established association between the consumption of drugs and the diagnosis of psychological development disorders. This training would enable a more effective approach for people

who seek health care in this situation, as well in others generally. So that health practice is contextualized, it is important to consider the socio-demographic variables associated to the framework. Thus, the need to develop public policies aimed at addressing these disorders is significant, as well as the awareness that drug use can lead to specific disorders.

From observing the data obtained, the difficulty that public health professionals have been facing for diagnosing patients with psychological development disorders accurately is also clear, which is evidenced by a significant part of the sample who were diagnosed with "unspecified psychological development disorder." Accordingly, there is also a need for professional training directed to making an accurate and early diagnosis of these individuals, to the forwarding of demand, in order to attend to these people by offering specific help for specific characteristics of their diagnosis through the existence of more standard forms of treatment for each disorder.

Considering the use of a single drug, an investigation into why the use of cannabinoids overcomes the use of alcohol in these adolescents is worthy, in view of the relative ease of acquiring alcohol compared to marijuana, as well as marijuana being an illicit drug and more expensive to obtain. It would also be worthy to investigate if there is some relationship between drug abuse and referrals via court order. It is important to determine whether adolescents are being referred to the service because of the use of an illicit drug or if they in fact have some kind of psychological development disorder, and that both problems are receiving proper care. It is also necessary to better research the relationship of the court order with the role played by families, as well as the coping resources for dealing with the situation which in the midst of the health service promotes a better family approach and also a better understanding of the profile of those referred to the service.

Given the above, it is possible to recognize

that adolescence is a stage of life that requires family care and health services, leading to the need to expand on forms of drug prevention, as well as future intercurrences, enabling healthy living and the optimization of spending on public health. It is also noteworthy that psychological development disorders tend to become chronic and sometimes evolve, requiring prolonged treatment, often bypassing throughout all or much of the life of the subject.

Collaborations

Rocha FV, Oliveira RL, Brum DAS and Machado RM contributed to the collection and interpretation of data and writing of the article. Cavalcante RB contributed to data interpretation and statistical analysis.

References

- 1. Barroso TMMDA, Mendes AMOC, Barbosa AJF. Programa de prevenção do uso/abuso de álcool para adolescentes em contexto escolar: parar para pensar. Esc Anna Nery. 2013; 17(3):466-73.
- 2. Hawkins EH. A Tale of two systems: co-occurring mental health and substance abuse disorders treatment for adolescents. Ann Rev Psychol. 2009; 60(1):197-227.
- Classificação Internacional de Doenças CID-10. Transtornos do desenvolvimento psicológico [internet]. 2014 [citado 2014 dez 23]. Disponível em:http://www.datasus.gov.br/cid10/V2008/ WebHelp/f80_f89.htm
- Secretaria Nacional de Políticas sobre Drogas. Relatório brasileiro sobre drogas. Brasília: SENAD; 2009.
- Monteiro CFS, Fé LCM, Moreira MAC, Albuquerque IEM, Silva MG, Passamani MC. Perfil sociodemográfico e adesão ao tratamento de dependentes " de álcool em CAPS-AD do Piauí. Esc Anna Nery. 2011; 15(1):90-5.

- 6. Bava S, Tapert SF. Adolescent brain development and the risk for alcohol and other drug problems. Neuropsychol Rev. 2010; 20(1):398-413.
- 7. Venkataraman S. Gender and mental health. J Hum Soc Sci. 2013; 12(4):32-4.
- 8. Costa AM, Moreira KAP, Henriques ACPT, Marques JF, Fernandes AFC. Violência contra a mulher: caracterização de casos atendidos em um centro estadual de referência. Rev Rene. 2011; 12(3):627-35.
- 9. Delfini PSS, Dombi-Barbosa C, Fonseca FL, Tavares CM, Reis AOA. Perfil dos usuários de um centro de atenção psicossocial infantojuvenil da grande São Paulo, Brasil. Rev Bras Cresc Desenvol Hum. 2009; 19(2):226-36.
- Instituto Brasileiro de Geografia e Estatística. Sinopse do Censo Demográfico 2010 [Internet].
 2010 [citado 2014 jan 5]. Disponível em: http://www.censo2010.ibge.gov.br/sinopse/index.php?dados=26&uf=31
- 11. Ministério Público do Estado do Rio de Janeiro.
 O direito à convivência familiar de crianças e adolescentes acolhidos o MCA como instrumento efetivo para implementação deste direito [internet]. [citado 2014 jan 21]. Disponível em: http://www.mp.rj.gov.br/portal/page/portal/MCA/Censo/Quinto_Censo/09_direito.pdf
- 12. Hoagwood KE, Cavaleri MA, Olin SS, Burns BJ, Slaton E, Gruttadaro D, et al. Family support in children's mental health: a review and synthesis. Clin Child Fam Psychol Rev. 2010; 13(1):1-45.
- 13. Zibetti MR, Gindri G, Pawlowski J, Salles JF, Parente MAMP, Bandeira DR, et al. Estudo comparativo de funções neuropsicológicas entre grupos etários de 21 a 90 anos. Rev Neuropsicol Latino-am. 2010; 2(1):55-67.
- 14. Welsh JA, Nix RL, Blair C, Bierman KL, Nelson KE. The development of cognitive skills and gains in academic school readiness for children from low-income families. J Edu Psychol. 2010; 102(1):43-53.

- 15. Alloway TP, Alloway RG. Investigating the predictive roles of working memory and IQ in academic attainment. J Exp Child Psychol. 2010; 106(1):20-9.
- 16. Conselho Federal de Medicina. Diretrizes gerais médicas para assistência integral ao crack 2011. Rio de Janeiro: Conselho Federal de Medicina; 2011.
- 17. Shek E, Stein AT, Shansis FM, Marshall M, Crowther R, Tyrer P. Day hospital vs outpatient care for people with schizophrenia. Schizophr Bull. 2009; 35(6):1057-8.