Vulnerable adolescence: bio-psychosocial factors related to drug use
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Abstract
The physical, psychological and social modifications in adolescence deepen the condition of vulnerability and increase the risk of precocious use of psychoactive substances (PAS). This cross-sectional study covered 229 adolescent users of PAS under treatment at a psychosocial center for the care of children and adolescents (CAPSIA), during the first ten years of the service, with the purpose of outlining the bio-socio-psychological of the users and profile of the users and identifying risk factors for beginning drug use among adolescents. Most of the medical records belonging to male patients who practice or had practiced misdemeanors as school dropouts and had lived or have lived with family members who use drugs, and/or in situations of family aggression. Such data reveal a profile of vulnerability that generates a need for additional protection on the part of the diverse services for child and adolescent care, in different spheres.

Keywords: Adolescents. Mental health services. Substance-Related disorders. Behavior/drug effects. Psychophysiologic disorders. Social vulnerability.

Resumo
Adolescência vulnerável: fatores biopsicossociais relacionados ao uso de drogas
As modificações físicas, psíquicas e sociais da adolescência aprofundam a condição de vulnerabilidade e aumentam o risco de início precoce do uso de substâncias psicoativas (SPA). Realizou-se estudo transversal com 229 adolescentes usuários de SPA, em tratamento em centro de atenção psicosocial à infância e adolescência (Capsia), durante o período correspondente aos primeiros dez anos de funcionamento desse serviço, com a finalidade de traçar o perfil biopsicossocial dos usuários e identificar fatores de risco para o início do uso de drogas entre adolescentes. A maioria dos prontuários analisados pertencia a pacientes do sexo masculino, que praticam ou praticaram atos infracionais, estão em evasão escolar e conviveram ou convivem com familiares que utilizam drogas e/ou em situações de agressão familiar. Tais dados revelam um perfil de vulnerabilidade que gera a necessidade de proteção adicional por parte dos diversos serviços de atenção às crianças e adolescentes, em diferentes esferas.


Resumen
Adolescencia vulnerable: factores biopsicosociales relacionados al uso de drogas
Las modificaciones físicas, psíquicas y sociales de la adolescencia profundizan la condición de vulnerabilidad y aumentan el riesgo de un inicio precoz en el uso de sustancias psicoactivas (SPA). Se realizó un estudio transversal con 229 adolescentes usuarios de SPA, en tratamiento en un centro de atención psicosocial a la infancia y adolescencia (CAPSIA), durante el periodo correspondiente a los primeros diez años de funcionamiento de este servicio, con la finalidad de trazar el perfil biopsicosocial de los usuarios e identificar factores de riesgo para el inicio en el uso de drogas entre adolescentes. La mayoría de los prontuarios analizados pertenecía a pacientes del sexo masculino, que practican o practicaron actos de infracción, están en evasión escolar y convivieron o conviven con familiares que utilizan drogas y/o en situaciones de agresión familiar. Tales datos revelan un perfil de vulnerabilidad que genera la necesidad de protección adicional por parte de los diversos servicios de atención a los niños y adolescentes, en diferentes esferas.


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Declaram não haver conflito de interesse.
Adolescence is a moment of great impact in human development and it is a crucial period in what concerns the use of drugs. According to the Brazilian Ministry of Health (Ministério da Saúde) 1. Adolescence corresponds to the period between the ages of 10 and 20 years – according to the criterion of the World Health Organization – and consists in an emancipation process affected by several factors in which attitudes, habits, and behaviors are under transformation. The first contacts with alcohol and other drugs generally occur during this period, in which the brain structures responsible for time perception and the control of impulses are still maturing 2. The immediate satisfaction provided by the use of psychoactive substances (PAS) goes toward the impulsive behavior and the immediacy often present in young people in this age group. This fact, along with the physical and psychical transformations 3 and the conflicts with the family and social medium 4, ends up deepening the inherent vulnerability of this specific population.

Levinas 5 defines vulnerability as a condition of every human being, as we are all exposed to each other and to the world, and for them we are responsible. In order to define precisely he use of the term “vulnerability” and how his concept has been applied and understood by bioethics, Neves 6 starts from the concept of vulnerability as in Levinas 5, extending such understanding to the verification of the existence of especially vulnerable groups and individuals, which must be protected due to their condition aggravated by specific circumstances and situations. This same distinction is made by the bioethics of protection 7, which makes a distinction between “vulnerable” and “made vulnerable” 8. According to Schram 9, while the first term refers to the common condition of all human beings, as referred by Levinas 5, the second names that individual whose condition of vulnerability is aggravated by adverse circumstances.

Given the above, in this work vulnerability is to be understood as fragility, susceptibility and need of additional protection 10. According to Guimarães and Novaes 11, the decrease in vulnerability depends on the elimination of the consequences of limitation infringed upon subjects or groups. However, for this result to be reachable, it is necessary to identify such limitations and to know the factors involved in its genesis.

As already mentioned, it is believed that the early use of PAS may be a limiting factor for healthy development, both in the physical and psychosocial spheres. Israel-Pinto 12 call attention to the increase in the use of PAS in the last decades, as well as to the more frequent demand by youngsters for vacations and activities related to the drug use. The early use of alcohol and drugs can lead young people to move away from their normal development, exposing them to the risk of evolving from experimental use to addiction 2. It can also anticipate consequences and it can also anticipate consequences and associated losses, as health problems, legal penalties, family and social conflicts, school dropout and feelings of guilt or anxiety 13–15. Such situations would undoubtedly be added to the existing factors, deepening the condition of inherent vulnerability.

Faced with growing problems related to substance abuse in Brazil, investments were needed in the modification of public and social policies, justice and public health. The year 2002 was appointed by the Brazilian Ministry of Health in its document on the comprehensive care policy for users of alcohol and other drugs 16, as particularly decisive in the adoption of work strategies toward PAS users. In that year, according to the same document – which adopts the proposals recommended by the III National Conference on Mental Health, in 2001 –, the harmful use of substances is recognized as a public health issue, originating the construction of a policy for these people. The centers for psychosocial attention (“Centros de Atenção Psicossocial” - CAPS) are part of a program to create a network of extra-hospital assistance to patients with psychopathologies, including assistance to users of psychoactive substances 17,18, who, this way, started receiving attention away from the hospital environment 19.

According to Laranjeira 20, chemical addiction must be considered a chronic, complex disease, requiring specific strategies of attention, with the aim to reach satisfactory prognoses. Once the gravity of the abuse of PAS is understood, as well as the fragility of adolescents in this scenario, studies are necessary in order to lead to a better understanding of the factors involved in the use of these substances by Brazilian youngsters, so as to contribute to the adequacy of the services that aim to aid and treat this population an to the resulting decrease in the situation of vulnerability in which they are.

Complex bioethics provides an adequate basis for the discussion of this theme, being understood as an interdisciplinary complex and shared reflection on the adequacy of the actions involving life and living 21. The present study has the aims to draw a bio-psychosocial profile of this population and to identify possible risk factors for the early start of the
use of PAS, debating these elements from the perspective of bioethics.

Methods

Data were collected by reading the medical records of patients using psychoactive “substances seeking treatment at the “Centro de Atenção Psicossocial da Infância e Adolescência” (Center of Psychosocial Attention for Childhood and Adolescence - CAPSIA) of the city of Santa Cruz do Sul, in the State of Rio Grande do Sul, in the period corresponding to the ten first years of functioning of this service.

The study of data for this initial period is important for the characterization of the population for which the service was created, pointing out that, until the moment of preparing this report, such information had not been investigated. In addition, we can see through the literature, that there are still few studies focused on the adolescent population showing disorders due to the use of psychoactive substances and undergoing treatment in the ambulatory network – as these are mostly focused on the adult population and the hospital network. Thus, the present study contributes to deepen the understanding of specific aspects of the problems faced by adolescents using PAS, such as perception and expression of coercion, voluntariness for the treatment, modality of treatment and readmissions.

A cross cut study was performed with all 229 adolescents who were users of PAS at the CAPSIA in the period from November 2002 to December 2012. Data were collected to characterize the moment of the search for treatment (sex, age, school status, source of referral, factors considered aggravating of vulnerability (domestic violence, involvement in crime, school evasion and issues relative to the treatment (substances used and hospital admissions). Involuntary and compulsory admissions were grouped in one category, as it was impossible to distinguish between the two modalities in the records. It is also necessary to emphasize that this classification was based on the identification made by the CAPSIA team, which attributed involuntary or compulsory feature to admissions performed under judicial intervention.

Data obtained from the medical records were evaluated quantitatively and descriptively, allowing the characterization of a biopsychosocial profile of these adolescents. The project was authorized by the “Secretaria Municipal de Saúde de Santa Cruz do Sul” (Health Department of the City of Santa Cruz do Sul) and approved by the Research Ethics Committee of the Hospital de Clínicas de Porto Alegre.

Results

Most patients were male (81.7%) and their age at the moment they sought treatment varied from 7 (0.4%) to 17 years (19.2%), with predominance of the age group between 15 (23.6%) and 16 years (24.0%). Given that the ages correspond to the moment of seeking treatment, the choice to also analyze the record of the patient who was 7 year old is justified, as he continued his treatment during his adolescence. Many of these adolescents referred to living with family members who used some kind of drug (56.8%), having also suffered physical aggression from family members (24.0%). The difficulties these youngsters went through are reflected in their conduct as well as in their school life. The practice of illegal acts appears as frequent behavior (64.2%), next to school evasion (62.9%).

In the records, among other things, the search focused on data on the course of treatment, information on its beginning. With this, it was observed that most referrals were made by the city’s “Conselho Tutelar” (the local Guardianship Council) (43.2%), followed by the public health centers (17.5%). Although the CAPSIA was originally aimed at attending users not only referred by the “Conselho Tutelar”, but also from the “Juizado da Infância e Juventude” (Court of Childhood and Youth), only 4.4% of the patients had this type of referral during the period under study. Few patients sought the service spontaneously (11.4%) without referral by other institutions.

During the ten first years of the service, 314 admissions took place which were classified by the authors of this study as “voluntary admissions for detoxification” (44.5%); “Involuntary or compulsory admissions for detoxification” (39.8%), “admission to therapeutic community” (12.1%) and “for treatment of other psychiatric disorders” (3.5%).

Most of the records studied belonged to subjects identified as poli-users (68.1%), that is, those who make use of more than one psychoactive substance. Concerning the type of drug consumed by these patients, it was found that the most used were marijuana (58.9%) and crack cocaine (54.6%). Records of the use of cocaine (24.7%), alcoholic beverages (34.5%), tobacco (25.8%), “loló” (an inhalant made from chloroform and ether, 7.0%) and ecstasy (0.4%).
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Discussion

When analyzing aspects concerning childhood and adolescence, it is necessary to consider that this phase corresponds to a potentially vulnerable population. Such vulnerability refers not only to that vulnerability inherent to every human being, but also to their fragility in the face of environmental, social and other situations, like their dependence on older people, including economical dependence. This makes them especially conditioned to the physical and social environment in which they live.

The reading of the records showed a high number of patients who had some sort of contact with family members users of PAS and also records reporting situations of aggression experienced by these young people. Also, a significant fraction of them (62.9%) were away from the school environment. Schenker and Minayo, in analyzing risk and protection factors to drug use in adolescence, refer that family and school are fundamental elements in supporting adolescents and pre-adolescents.

Kreishe, Sordi and Halpern cite the monitoring and supervision of the child or adolescent by the parents as a key factor in the prevention of drug abuse. Families in which there is lack of attachment and caring, inefficient parenting and drug abuse by guardians or caretakers increase the potential of the risk for the child to develop the same behavior.

Family and school are also considered by Schenker and Minayo relevant institutions in the construction of resilience. According to the authors, resilience is important for the adolescent to develop a comprehensive inquisitive and reflective spirit, from which they will be able to develop a critical attitude towards drugs. The importance of formal school attendance was also pointed out by Vasters and Pillon as a way of access to drug prevention policies, although they mention situations of low school performance or evasion as common in the literature they consulted on drug use in adolescence.

Although the data on the records show that, at the moment of search for treatment at CAPSIA, subjects were strayed from the school environment, it was not possible to identify the causes of this distance. One can speculate that the school evasion occurred because of drug abuse, but it is also possible to conjecture in the opposite direction, that is, the inadequacy of school to receive such adolescents and assist them in overcoming the conflicts experienced. A study performed by Araldi and collaborators mentions the fragility of schools participating in the research, since these institutions counted with few strategies of prevention of the use of PAS, without presenting clear guidelines to approach the them in their their pedagogical projects. In addition, the authors see the naturalization of common sense notions as a reinforcing element of the stigmatizing and the prejudice against students who are users of PAS.

Because it permeates different sectors of society, the stigma of psychoactive substance users is a sensitive topic, causing losses on different levels, to the individual stigmatized. Studies show that this labeling can interfere with the involvement of the person in various activities as well as cause their rejection by others. Thus, the user tends to develop strategies such as social isolation, confrontation or escape in situations that, according to their perception, may harm them. Such behavior can aggravate conditions such as depression, hostility and anxiety.

The school, as well as the family, should be able to generate a space for reflection, providing a warm atmosphere that enabled young people to become citizens able to think about their reality and to change it. The absence of these characteristics hinders the formation of a more resilient personality, that would enable them to better cope with conflict situations they experience, like the aggression perpetrated by family members. Thus, school evasion, which implies the total removal from the school environment, appears to reduce the coping possibilities of using drugs. It is believed that this factor, added to the others presented, can contribute to the search for drugs as an escape element and enabler of a pleasure not achieved by other means.

As for the practice of infractions, common in the records (64.2%), they can also point to two different scenarios. The first, that such behavior would be indicative of a high crime rate among patients with disorders due to the use of psychoactive substances, while the second would represent a higher referral rate of those subjects that have more deprivation and social prejudice and greater degree of dependence on PAS.

It is believed that the second scenario is more representative of the population studied, since it was found frequent mediation of the Guardian Council, the organ of origin of most referrals to the CAPSIA. The Guardian Council is responsible for attending this public when their rights are violated by third parties or because of their own conduct. Also it is up to this body to administer measures to ensure children’s and adolescents’ access to their rights, to refer them to medical and psychological treatment,
and to include them in drug addiction treatment programs\textsuperscript{37}. So adolescents who have access to this service appear to be those whose substance use sets up social or health problems, leading to the triggering of the Guardian Council in order to protect them from possible harm.

Although teens constitute one of the groups that attract the attention of government and researchers because of the greater likelihood of succumbing to addictions\textsuperscript{28}, it is possible that those subjects who have a lower rate of problems related to PAS use are still being neglected. The Brazilian Ministry of Health\textsuperscript{18} recognizes that individuals who meet the criteria for the pattern corresponding to drug addiction are precisely those addressed more often by the care system, although they do not constitute the majority of the user population.

This fact generates controversy, as the users out of the reach of the assistance services may have difficulties in asking for help and their chances of being target of theories and research is smaller, as well as their access to the different services available to fulfill this demand\textsuperscript{28}. This situation also permeates the debate on the great difference found between the number of male and female patients seeking care at the CAPSIA in the period under study.

The data presented indicate that youngsters looking for help ate the CAPSIA were, in their majority, boys, with little demand for this service by female users. The higher prevalence of male patients in drug user treatment environments is addressed by Silva, Borrego and Figlie\textsuperscript{29}, for whom the smaller demand for the treatment of disorders associated to drug use by women is due to the social judgment they are commonly subjected to. The “Relatório Brasileiro sobre Drogas”\textsuperscript{19} (Brazilian Report on Drugs), made by the “Secretaria Nacional de Políticas sobre Drogas (National Secretariat for Policies on Drugs - Senad), mentions the perception of the use of alcohol, marijuana and cocaine/crack as a serious risk is more intense among women than among men which, according to some authors, explains the less frequent involvement by the female population.

Another perspective may be found from the data in the Brazilian Report on Drugs\textsuperscript{19}, according to which, the I and the II “Levantamento Domiciliar sobre o Uso de Drogas Psicotrópicas no Brasil” (Household Survey on the use of Psychoactive Drugs in Brazil) showed that, in the years of 2001 and 2005, respectively, males had the higher prevalence in the use of the following substances: marijuana, solvents, cocaine, hallucinogens, crack cocaine, merla and steroids. Among females, there was higher consumption of stimulants, benzodiazepines, opioids and anorexogenic. Similar data are pointed by the reports: “VI Levantamento Nacional sobre o Consumo de Drogas Psicotrópicas entre Estudantes do Ensino Fundamental e Médio da Rede Pública de Ensino nas 27 Capitais Brasileiras – 2004”\textsuperscript{33} (VI National Survey on the Use of Psychoactive Drugs by Elementary and High School Students in the Public Network in the 27 Brazilian Capitals – 2004) and “VI Levantamento Nacional sobre o Consumo de Drogas Psicotrópicas entre Estudantes do Ensino Fundamental e Médio das Redes Pública e Privada de Ensino nas 27 Capitais Brasileiras – 2010”\textsuperscript{34} (VI National Survey on the Use of Psychoactive Drugs by Elementary and High School Students in the Public Network in the 27 Brazilian Capitals – 2010). Thus, these studies indicate that girls apparently make use of substances less connected to evident social losses, which may be leading to their exclusion from the present assistance model, in general focused on the population that suffers the most losses from the use of substances\textsuperscript{18}.

Also the type of drug used, as reported in the medical records of these patients reflects a profile similar to that outlined by studies conducted in the country, where there is reference to the high percentage of marijuana\textsuperscript{31,35} and crack cocaine\textsuperscript{30,31}. Also the type of drug used, as reported in the medical records of these patients reflects a profile similar to that outlined by studies conducted in the country, where there is reference to the high percentage of marijuana use 31,35 and 30,31 crack cocaine. The consumption of such substances (crack cocaine and marijuana), which have greater social visibility in the current scenario as well as losses from the PAS abuse, can lead to greater pressure for going into treatment, either as an outpatient or in hospital. This is because such attitudes are understood, according to some authors\textsuperscript{36,37}, as ways of restoring the autonomy of these users, preventing further damage.

Furthermore, addictive behaviors are normally included as a burden, both in health and in social and economic terms, so that, in response to this cost, society ends up using different control strategies in order to ensure that users of alcohol and other drugs receive treatment\textsuperscript{38}. These different pressures are classified by Wild\textsuperscript{39} into three categories, according to their origin: legal pressures (judges, prosecutors, bailiffs, police), formal pressures (teachers, employers, guardianship counselors etc.) and informal pressures (friends and family).

Although there is, in the data indicated in this study, a number fairly similar of hospital admissions
described as voluntary and those considered involuntary / compulsory, it is important to note that a search classified as “voluntary” is not always free from any pressure; after all, the patient may be avoiding legal or employment sanctions, or even feel strong coercion to start treatment. It should be noted that coercion or perception of coercion, is related to the understanding of the individual regarding the decision-making process, regardless of the use of pressure or external control.

Therefore, the identification of hospitalizations as voluntary or involuntary based only on legal referrals may omit important information about the process as a whole as well as its effects on patients. While the legal pressures may be considered stronger as compared with those carried by other sources, the pressure from friends or family members have been identified as the most common in the process of going into treatment. Special attention should be paid to young people, who, in addition to suffering greater objective pressure, are also more likely to claim feelings of coercion, compared to the adult population.

Wolfe and collaborators suggest that this happens because younger people tend to value more strongly issues related to autonomy and independence, reacting differently (more negatively) to external pressures for change, when compared with older individuals. However, as already pointed out, the pressures from different sources are not equally experienced as elements of interference on individual autonomy, so that there is no direct relation between social objective pressures as the source of the referral, and the perception of the patients that they have been coerced to start treatment.

Wertheimer relates coercion to preventing the exercise of choice, and the actual condition of coercion may vary according to the moral force of the coercive agent. That is, if the subject pressed recognizes that the author of pressure has the right to demand something, the chances of feeling coerced decrease. Once family and friends can be recognized by the user as having the right to demand changes in conduct, this argument allows for an explanation, in a way, of the data presented by Urbanoski, according to which informal pressures tend to generate a lower degree of coercion perception.

Although there is still no consensus on the effectiveness of using pressure to entry into treatment, Lidz et al. believe it to be preferable that the perception of patient coercion be minimized, either by deeming it undesirable to feel coerced, or because this feeling can harm the subsequent treatment. For the authors, coercion in mental health treatment brings more harm than good and may negatively affect the relationship of patients with the professionals involved, be it by loss of confidence, by alienation or by the avoidance of treatment. Such behaviors are referred to by the authors as incompatible with building a therapeutic relationship that promotes adherence to the treatment.

**Final considerations**

Analyzing the results based on current debates in bioethics, we tried to present data of patients who entered treatment for the first ten years of operation of the CAPSIA in the city of Santa Cruz do Sul, in Rio Grande do Sul. It is possible to identify marijuana and crack cocaine as the most commonly used drugs among young people who began treatment during the study period. Data about the user - such as being male, having no connection with school, living with family members who use drugs and / or family situations of aggression - were also highlights of this research. Such information shows a profile of young people who, for these characteristics, appear particularly vulnerable, therefore needing more attention from the various services of care for children and adolescents - be it in the health sector, be it in education and social assistance - in order to reduce the risks to which they are subjected.

The data shown here highlight the relevance of support and acceptance provided by professionals working in CAPS not only to patients but also to the family and schools. Therefore, these professionals contribute to building strategies that enable open discussion on the subject of drugs, without false moralism or stigmatization.

Based on the literature, it is believed that these actions can help reduce the stigma attached to drug users and at the same time contribute to the development of resilience of these young people. Also, in this way, access is increased to information and consequently to health services for those young people whose substance use is not configured yet as a social or health problem, requiring the involvement of specialized services.

It is suggested also that the approach of these patients contemplates the investigation of possible pressures suffered by them for seeking treatment, as well as the feelings aroused by these experiences. Thus, at the time of entering the treatment, we avoid the classification commonly employed for this pressures, which highlights only the source of refer-
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By emphasizing the source, rather than experience, such concept minimizes the importance of personal perceptions of patients, which contradicts the current mental health policy in the country, that predicts the elaboration of individualized therapeutic projects.

This study specifically promotes the role of CAPSIA, and upon the resumption of this historical profile, enables a broader view about the public benefit and at the same time encourages the performance of future studies comparing the data in this population with information about patients attended in later years. However, studies like this go beyond the local barrier, making themselves important to bring clarity on the population served by services for PAS teenager users. They therefore generate better understanding of the demands of this public, as well as their reality outside the treatment environment. This perspective enriches the professionals working in the area, forming the basis for more effective planning of actions to be provided on behalf of the best benefit of patients.

To conclude, it is recognized as a limitation of this study, the difficulty of carrying out more accurate inferences about the reasons for school dropout, for the low access of female patients to the service and for the larger care of patients with greater involvement in illegal acts. This limitation is attributed to the choice of medical records as object of data collection and analyses, as the information contained in this instrument are restricted to the records of the CAPSIA team on the health care provided. Thus, we suggest the performance of future research to investigate such questions as well as the types of pressure to which these patients are submitted and to what extent these pressures affect their motivation for the treatment.

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Participation of the authors
Ana Luiza Portela Bittencourt and José Roberto Goldim participated equally in all stages of the elaboration of the present article (conception, data analysis and interpretation, writing and review of the final text). Lucas Garcia França contributed in the writing and review of the final version of the text.