Risk behaviors to psychoactive substances use in children and young people in Lisbon
Comportamentos de risco relacionada com o consumo de substâncias psicoativas em crianças e jovens da cidade de Lisboa
Comportamientos de riesgo relacionados con el consumo de sustancias psicoactivas en niños y jóvenes de Lisboa

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ABSTRACT:
Objective: To characterize the risk behavior of the psychoactive substances use in a youth population of Lisbon.
Method: An observational, descriptive, cross-sectional study. Participants were 113 children and young people who responded to the Portuguese version of the Risk and Health Behavior questionnaire - Youth Risk Behavior Survey.
Results: Participants with regard to age were between 9-13, most attending the 5th grade, living with parents, had good school performance, good relationship with colleagues while ¼ refer problems. When concerned, recourse to the mother, but it is significant the attention of peers. As for the trial of psychoactive substances was found: 9.7% tobacco, 19.5% alcohol, other substances 5.3%.
Conclusion: With regard to risk behavior stands primarily to early alcohol testing. Emerged as protective factors: family relationship and relationship with the school space. This age group may constitute the ideal time for prevention.

Keywords: Children; school; prevention; psychoactive Drugs.
RESUMO:

Objetivo: Caracterizar os comportamentos de risco face ao consumo de substâncias psicoativas numa população juvenil da cidade de Lisboa

Método: Estudo observacional, descritivo, transversal. Os participantes foram 113 crianças e jovens que responderam à versão portuguesa do Questionário de Comportamento de Risco e Saúde - Youth Risk Behavior Survey.

Resultados: Os participantes no que se refere à idade estavam entre os 9-13, a maioria frequentava o 5º ano de escolaridade, vivia com os pais, tinha bom aproveitamento escolar, boa relação com colegas embora ¼ referia problemas. Quando preocupados, recorrem à mãe, mas é significativa a atenção dos pares. Quanto à experimentação de substâncias psicoativas apurou-se: tabaco 9,7%, álcool 19,5%, outras substâncias 5,3%.

Conclusão: No que se refere aos comportamentos de risco destaca-se principalmente a experimentação precoce de álcool. Emergiram como fatores protetores: relação familiar e relação com o espaço escolar. Esta faixa etária pode constituir-se o momento ideal para a prevenção.

Palavras-chave: Crianças; escola; prevenção; drogas ilícitas.

RESUMEN:

Objetivo: Caracterizar el comportamiento de riesgo de las sustancias psicoactivas en una población juvenil de Lisboa.

Método: Estudio observacional, descriptivo y transversal. Los participantes fueron 113 niños y jóvenes quienes respondieron a la versión en portugués del Cuestionario de Riesgo y Comportamiento de la Salud - Youth Risk Behavior Survey.

Resultados: Los participantes con respecto a la edad tenían entre 9-13, la mayoría de 5º grado de escolaridad, vivían con sus padres, tenían un buen rendimiento escolar, buena relación con los colegas aunque ¼ refería problemas. Cuando están preocupados, recurren a la madre, pero es significativa la atención de los padres. En cuanto a la prueba de sustancias psicoactivas se encontró: 9,7% de tabaco, 19,5% de alcohol, otras sustancias 5,3%.

Conclusión: En relación con el comportamiento de riesgo destaca principalmente la ingesta de alcohol antes de tiempo. Surgieron como factores de protección: las relaciones familiares y la relación con el espacio escolar. Este grupo de edad puede constituir el momento ideal para la prevención.

Palabras clave: Niños; escuela; prevención; drogas ilícitas.

INTRODUCTION

The characterization of the health status comprises several dimensions. One of such dimensions is related to risk behaviours, which may involve personal features, behavioural characteristics, as well as socio-environmental variables possibly determinant for the consumption of substances.

The consumption of psychoactive substances, which constitutes an ancestral practice in many societies, has been studied under different perspectives. The focus of analysis according to age group is a perspective that may help us to understand this complex phenomenon throughout the whole life cycle. This analysis may also allow the construction of more appropriate interventions. In this sense, some studies have made it possible to relate later age groups to the consequences of drug use\(^1\), to establish links between “active age” age groups and the complex phase of addiction\(^2\), and, least of all, to recognise the importance of earlier age groups with respect to prevention — which is the most appropriate strategy to deal with this problem\(^3,4\). In fact, the advantages of universal prevention (focused on the acquisition of healthy lifestyles and decision-making capabilities) in that age group have been recognized as a strategy capable of avoiding and delaying the contact with substances, as it has been also recognized the need for selective prevention in contexts of behavioural approach — or greater exposure — to risk, in terms of reducing vulnerability and the exposure to risk factors, and increasing resilience\(^5\).
Health promotion, as defined by the “Ottawa Charter”, in 1996, is a process which seeks to create conditions that enable individuals to control their health, as well as that of the groups they are part of, and to act upon the factors that influence it\(^{(6)}\). As such, health promotion is interlinked with the need for universal prevention of psychoactive substance use and with the encouragement of healthful behaviours. Prevention can be understood as an active process of implementing initiatives aimed at modifying and improving integral education and quality of life, in order to promote personal and social skills related to well-being\(^{(6)}\). In this sense, it has been discussed which age is most appropriate for “prevention”. The age group identified as being the most suitable for the selective prevention of consumption is the one comprising ages between 11 and 14 years\(^{(7)}\), because the risk awareness is associated with a lower probability of consumption\(^{(6,8,9)}\). It is unanimously agreed that universal prevention should be done at an earlier age and that the strategies in development should be based on the available evidence\(^{(5)}\).

The paradigm of universal and selective prevention, required to meet the health needs of the juvenile population, prior to substance use, is associated — in a more recent line — to the need of environmental prevention aimed at changing social norms, through global strategies which intervene at the level of society and social systems. Such strategies advocate the transformation of cultural, social, physical and economic environments that interfere with individual choices regarding the use of psychoactive substances. In this age group, we emphasize the special attention given to the exposure to advertising messages, the age control regarding the purchase/sale of those substances, and the measures applied in particular contexts — such as the school environment\(^{(10)}\). In this sense, it stands out the recent legislative amendment, which increases the legal age for acquiring alcoholic beverages to 18 years\(^{(11)}\). Preventive approaches are frequent, but we must take into account the rationalization of resources and the overloading of messages addressed to the same target group\(^{(12)}\).

The preventive approach has been deepened in some studies regarding substances — namely nicotine — related to consumption in earlier age groups. With respect to the issue of nicotine consumption, the following have been identified as protective attitudes: the perception that there is little benefit in smoking, the belief that smoking is harmful and causes addiction in a short period of time, the refusal of the belief that smoking reduces stress, contributes towards a better image, or promotes the image of being an older person, and, finally, the refusal that smoking facilitates social acceptance. Research indicates that those who smoke have opposing beliefs and attitudes\(^{(4)}\).

From an analytical perspective, addressed to the study population, we emphasize that, in the development of children and adolescents, sociability is characterized by group experience, which is often not inclusive for all. This isolation can be considered an adverse event with impact on health, but it may also be related to bullying and psychological maltreatment\(^{(13)}\). To this information, we can add — to reflect in a developmental perspective — the fact that the child’s effective knowledge must include the construction that he/she makes of his/her particular situation, how he/she interprets and elaborates the meanings of the experiences that he/she lives and the similar analysis that the child makes about others.

The intention behind this article was the description of the state of health of a young population. This description intends to identify some effective behaviours, with impact on health, beyond the perception of healthcare professionals and psychosocial professionals who intervene with these populations. The study was conducted by
researchers from the Center for Interdisciplinary Research in Health (CIIS) of Universidade Católica Portuguesa (UCP), in partnership with the Non-Governmental Organization “Médicos do Mundo” which can be translated by “Doctors of the World”, with the objective of characterizing the health status, risk behaviours, self-esteem and self-concept of this population, which integrates several projects of communitarian intervention in the city of Lisbon, within a certain social context. This part of the study has the objective of characterizing risk behaviours with respect to the consumption of psychoactive substances in that juvenile population.

**MATERIAL E METHOD**

Observational, descriptive and cross-sectional study with quantitative approach. It was used a survey for social-demographic characterization — the “Youth Risk Behaviour Survey (YRBS)” —, validated for the Portuguese population\(^{14}\), whose objective was to evaluate risk behaviours, health behaviours and perception of the adolescents’ connection with family, friends and school. The version used in this study presents 102 questions, organized in 18 domains: 1) Social-demographic characteristics; 2) Family structure; 3) Perceived performance in school; 4) School environment; 5) Social adaptation; 6) Social support by parents, friends, peers, educational agents and other adults; 7) Health and well-being; 8) Height and body weight; 9) Safety and accidents; 10) Violence behaviours; 11) Depressive mood and self-aggressive ideation; 12) Consumption of tobacco, alcohol and illicit drugs; 13) Sexual behaviour; 14) Perception of body weight and eating habits; 15) Physical activity; 16) HIV/AIDS; 17) Use of dental health services; 18) Protection from the sun.

The collection of data took place between September and October, 2013, through an online system, with the support of the project animators, to clarify any doubts that might arise. The target-population comprised all the children and juveniles who attended community support facilities, namely socialisation centres and youth activity centres. The following inclusion criteria were defined: children and youngsters between the ages of 9 and 13 years old (completed in 2013) from disadvantaged backgrounds, namely social housing districts and other areas identified as priorities in the region of Lisbon, integrated in the intervention project “Like ME” (in youth activity centres). The sample, which coincided with the target population, consisted of 113 subjects. The following was defined as an exclusion criterion: youngsters who attended those community facilities momentarily and were not affiliated with them. Data was analysed using SPSS Statistical Software for Windows, version 22 (IBM SPSS, Inc.), to obtain statistical measures of central and non-central tendency, and dispersion according to the normality of the distributions. The study had the favourable opinion from the Ethics Committee for Health Sciences of Universidade Católica Portuguesa, which was granted on May 24th, 2013. The participants, as well as their legal representatives, signed the Free and Informed Consent Form for participation in a research study, and they were granted confidentiality in the treatment of the data collected, anonymously, on the computer platform.

**RESULTS**

Not all participants composing the sample answered to all the questions. As such, the answers do not add up to 100%, and they are present according to the percentage of respondents (n varies).
Regarding gender, 51.3% of those who answered the question are male and 44.2% are female. Their age ranged from 9 (5.3%) to 13 (15.0%) years old, with a median of 11 years (mean of 11.2 years). The majority of them has an European origin (87%) and attended the 5th grade (46.9%).

Their height varied between 1.24 m and 1.73 m, with an average of 1.47 m, and their weight ranged from 20 kg to 65 kg, with an average of 42.4 kg (standard deviation (sd)=0.1), with 56.8% of the participants presenting normal weight, 8.1% being underweight, and 16.2% having obesity. The average BMI was 19.2 (\bar{X} = 3.2).

Most of these juveniles lived with both parents (59.3%) and 23.9% lived with only one of the parents. With respect to the juveniles' parents, 59.3% were married or lived together, while 26.5% were separated. The household varied between 1 and 16 people, with a median of 5.

In a general manner, the reference person(s) with whom the subjects most shared their problems, when dealing with a situation of concern, were (in descending order): the mother (54%), the siblings (35.9%), the friends (35.4%), the father (32.7%), the grandparents (20.4%), and the teacher (17.7%), among others with less percentage representation. On the other hand, the subjects pointed out that, when they faced problems, those who were better aware were (in descending order): the mother (64.6%), the friends (44.2%), the siblings (44%), the father (34.5%), the grandparents (20%), the teacher (16.7%), and the uncles (12.4%), among others.

Regarding school performance, 47.8% considered it to be Good, 25.7% considered it as Sufficient, 15% as Very Good and 8% as Insufficient. Most of these juveniles, according to their own reading, did not have problems with their peers, considered that they “got along” with all their colleagues (54%) and did not feel provoked or threatened by them (69.9%). However, 40.7% reported having relationship problems with colleagues, with 25.7% of the participants reporting problems with one or two colleagues, while 10.6% reported having problems with several colleagues and 4.4% reported to have problems with all their peers. Additionally, 23.9% of the respondents felt they were sometimes provoked or threatened. In the last year, most of the juveniles did not feel sad or hopeless, to the point of feeling the need to quit their day-to-day activities (96%).

With respect to their health status, 40.7% consider it to be excellent, 31% very good, 23% good and only 1.8% consider it to be weak. Concerning the consumption of psychoactive substances, the majority of the youngsters (90.3%) denied having experienced contact with tobacco smoke. Of the 6 juveniles who responded affirmatively, 4 reported having smoked an entire cigarette. Only one declared to have bought cigarettes during the last month, without his identification having been asked for.

The majority of the youngsters (80.5%) reported never having drunk alcohol, while 15% reported having drunk — between the ages of 6 and 13 years old — more than enough to merely taste it. During the past month, a young man had, at least, one alcoholic beverage during the span of one day, and one other young man had five or more alcoholic drinks in a row, but never within the school premises. Concerning other substances, 94.7% reported not having tested marijuana, 95.6% stated not having experienced hallucinogens, such as LSD, acid, ecstasy or “mushrooms”. As for the experience of drug inhalation, 69% denied having done so. One young man claimed to
have consumed heroin and cocaine. Also, a young man reported the existence of illegal drug offering within the school premises during the past 12 months.

DISCUSSION

The need felt by the research team, derived from one field intervention, led to the social-demographic and behavioural characterization of this very young population, with some behaviours of approach to the consumption of substances, possibly underlying their life environment. This population was composed mostly by males, with an average height and weight adequate for their age, although a small fraction of the participants, regarding this initial characterization, was overweight. Most lived in households with a mean of 5 people. This preliminary data can be reflected upon, framed within the appropriate social and economic determinants for mental health, such as education, housing conditions, early experiences and family interaction, and also culture and access to health services\(^{(15)}\), which often require protective factors for a satisfactory living and well-being.

From this initial characterization, it seems to be fit to point out a particular physical feature as an indicator of risk towards the consumption of substances. Here, we refer to participants with obesity, a characteristic which has been identified as a factor that leads children to isolation within the contexts of school and peer relation, and is associated with the phenomenon of bullying, which, in turn, has been pointed out as a risk factor for substance use\(^{(13)}\).

From this behavioural data, some perceptions, problems and concerns emerge, related to the participants’ environmental context that have also been considered as risk factors. We refer to the contexts where these children and juveniles live, grow, interact and experience more or less stressful life events — events that are equally determinant for the participants’ mental health, because, in this case, they are related to the school’s space and time environment. We found some relevant data that may be considered as risk factors for substance use, such as: participants who present insufficient school performance\(^{(16)}\); participants with concerns that may, somehow, be considered as causing distress or discomfort; participants with relationship problems with one, or more than one, colleague; and a small percentage of participants — which we considered a group of great risk — who reported having problems with all colleagues, thus leading to high levels of angst and anxiety, and the possibility of attending school with displeasure\(^{(13)}\). The amount of participants who reported problems with all their colleagues, surpasses the amount of those who reported living sad and hopeless, when facing their daily routine, and wanted to abandon their day-to-day activities, but the authors cannot determine if these are the same participants. The possibility of experiencing, or being a victim of bullying is higher among those who reported being provoked or threatened, and this can be considered a risk for substance use\(^{(17)}\). This risk is compounded by the forthcoming consequences of mental disturbance, when children belonging to this age group are bullied, or even aggressors. These children are more likely to develop mental pathology at earlier ages than others with less intense psychological pressure levels, which tend to suffer these consequences later\(^{(17)}\).

With respect to the protective factors against those risks, data points toward the maternal figure and the teacher. It is noteworthy the fact that the participants referred to them, while extrinsic resources, as those who first perceive their problems and difficulties, with whom they share their concerns, and, regarding this need, the figure of
the friend also appears, who they also acknowledge as having the ability to recognise their states of anger and preoccupation. In this population, such proximity to peers of similar age can be identified as a protective factor against behavioural risks related to psychological pressure from peers\textsuperscript{(13,17)}.

Regarding the health issues and the awareness of personal concerns, the relationship with the teacher reinforces the fundamental role this figure has in the prevention of risk behaviours and the promotion of healthy lifestyles, since the teacher, freed from the deeper emotional bond that characterizes the relationship with the parents — the relationship between teacher and student is more limited in time, less exclusive and more mediated by knowledge —, can develop emotionally less tense conversations\textsuperscript{(6)}. It should be noted that social support — at the instrumental, cognitive and emotional levels — is a determining factor for the health of individuals and, namely, it can be advantageous with regards to the risk factors related to substance use\textsuperscript{(18)}.

In relation to the consumption of psychoactive substances, and speaking in a general way, this data should be examined as a set of risk factors. In this sense, the analysis of substance consumption should be based on the intrinsic characteristics of the child or adolescent, that is to say, his/her attitudes, behaviours that generate anxiety, insecurities and dissatisfactions. They should be evaluated in the perspective of each individual child and his/her social, economic, family, physical and psychological contexts\textsuperscript{(17,19)}. His/her lifestyle and abilities, as well as the existing teen subculture, will all influence his/her relationship with substances. It was found that a fraction of the participants (9.7%) had already tried tobacco, while another fraction (19.5%) had already tried alcohol and some of these participants (15.0%) ingested more than a tasting amount. It should also be noted that one juvenile reported an episode of “binge drinking”. This data revealed an excessive consumption of alcohol before the age of 18 years, situation which might have contributed to the legislator raising the legal age for the consumption/sale of alcoholic beverages\textsuperscript{(11)}. This law can be considered a strategy within the scope of selective prevention.

The data on alcohol experimentation and consumption points to lower values than those found in populations which were older and with more schooling years — these populations constitute the majority of those found in the literature — and, in relation to populations of similar age and schooling years, the values were also lower\textsuperscript{(8)}. With respect to tobacco, the number of participants who reported its consumption was lower in comparison to populations which were older or attended higher educational levels, but there is some agreement in the percentage of consumers that belong to the same age group and attend the same school level\textsuperscript{(9)}. In this context, we can consider that their good perception regarding their health status, and also the relational proximity and capacity of expressing concerns with the mother, might contribute to attitudes that lower the risk of experimenting tobacco\textsuperscript{(4)}. On the other hand, the behavioural attitude of getting acknowledged within the group of friends appears as an increased risk factor, among others that can be pointed out, such as living with only one parental element, having parents who smoke, the educational level he/she attends, his/her physical activity and frequency of festive events\textsuperscript{(9)}.

As for other psychoactive substances, such as cannabis and hallucinogens, like as LSD, acid, ecstasy or “mushrooms”, their consumption was assumed only by a small fraction of the participants, although with values that are higher than those found in a particular student population with an average of 13 years old\textsuperscript{(19)}. However, these percentage values are lower than those found in studies with populations which are
older and attend higher educational levels\(^{(19)}\). It should be emphasised that our study specifically focused on the inhalation of solvents (glue, sprays and paint), and this type of consumption was reported by one third of the participants. This fact, not highlighted in other studies, is relevant in the context of the initiation and approach to the effects of psychoactive substances. And, although having little statistical expression, but presenting great clinical and social relevance, we point out the fact that one participant reported the consumption of heroin and cocaine.

Compared to other studies with populations that belong to the same age group or that are progressively older, the analysis of this study’s results points to an increase in the consumption of alcohol and other substances along the children’s and juveniles’ growth\(^{(4,6)}\). Consumption increases progressively, reaching a maximum at the level of higher education\(^{(8)}\). However, it is still important to reflect upon some of the data. Portugal is the country with the highest rate of alcohol consumption “per capita”, but with the lowest rate among adolescents. The frequent consumption by parents can be pointed out as a factor that contributes to reduce consumption among children and adolescents. This statement requires further research, in order to confirm its relevance, in social terms, and its impact on health. Another challenge is researching the impact of prevention campaigns and their effectiveness\(^{(19)}\), since the numbers — despite having less expression than in other countries, and in this particular age group — should be considered a concern, representing a risk factor with respect to the continuity of consumption, and having impact on health, in general, and on mental health, in particular\(^{(16)}\). The progressive increase in the numbers reported by the various studies indicates that, as the age group increases, a legislative response is needed in order to reduce the exposure to risk. In some countries, such action culminated in the increase of the minimum age permitted to access alcohol\(^{(11)}\).

Thus, knowing that the demand for substances can be considered as an immediate resource of well-being, but with negative future impact\(^{(20)}\), prevention strategies should take into account the majority of those included in groups and have a closer look at the ones which are more excluded and in greater suffering. Prevention must be attentive to both the family environment and the adolescent’s environment\(^{(9)}\).

We had difficulty in comparing our results with those of other studies, due to the absence of studies regarding such a young population. Most studies dedicated to the identification of substance use concentrate on populations with a minimum of 9 years of schooling — i.e., where the participants are about 15 years old\(^{(6)}\).

**CONCLUSION**

With respect to the consumption of psychoactive substances, and in general, this study questions a set of risk factors and identifies a group of children and youngsters at risk, who, although having a reduced expression in the sample, are relevant, mostly due to their early age. The collected data contributes to the characterization and understanding of the phenomenon in the population under study, and suggests the planning of a community intervention more focused on the real behaviours of these youngsters.

The analysis of data from project “Like Me” allows us to conclude the following: children and juveniles recognize the maternal figure and the teacher as protective factors for their well-being; regarding the consumption of alcohol, measures must be adopted to delay the access to, and the consumption of, alcoholic drinks until a later
stage in their lives. We can consider that the consumption of substances in this population is practically non-existent, but it should also be noted the small percentage of youngsters who have already contacted with substances, and continue to consume them, situation which, at such an early stage, can be considered as a risk factor for disorders related to the consumption of substances.

We consider that the protective factors found, such as the family support relationship, the relation with the school’s space and time environment, and the way the participants relate, at such an early age, to psychoactive substances, make this the best age group to work with, regarding central aspects of universal prevention, which is selective in relation to substance use and follows along the line of environmental prevention interventions.

As limitations, we can point out the transversal and descriptive nature of this study, as well as the number of participants that makes statistical analysis difficult. Furthermore, this type of study does not allow to relate data such as obesity, insufficient school performance and peer related problems, to data associated with the consumption of psychoactive substances, in order to verify whether these factors are actually determining the approach to substance use. The possibility of interviewing the participant youngsters could also provide sensitive behavioural and experiential data that a quantitative study cannot provide.

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