



RESEARCH ARTICLE

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PROFILE AND CONSUMPTION OF USERS AND PSYCHOACTIVE DRUG SUBSTANCES AND TREATMENT

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ABSTRACT

The present study aimed to analyze the consumption profile of psychoactive substances by drug users undergoing treatment in the clinic rehabilitation in a medium-sized city in the state of Minas Gerais, pointing out the types of psychoactive substances most consumed correlated to possible risk factors such as age and the number of types of psychoactive substances consumed with the user's length of stay. Dealing with the quantitative analytical study of an observational cross-sectional type, through an intervention research, in which the workshop group was used, 61 men participated in which, who were undergoing treatment due to the damage caused by drug use, in the Chemical Dependency Clinic with 100 interns. Research shows that the greater the variety of psychoactive substances consumed, the lower the age of the addict. The use of psychoactive drugs by young people is mainly associated with parties, so the use reasons for this are related to context. Therefore, programs to reduce drug use among young people are essential, in addition to support more incisive psychological in this age group.

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INTRODUCTION

The use of some drug substances, legal or unlawful, is not a recent phenomenon in society, but, currently, is considered a major public health problem that affects mainly young people, causing, thus, social and personal damage in your life (Marques & Cruz, 2000). In 2015, on average, some 250 million people use drugs and about 11% of the increased risk of developing addiction (Gomes-Medeiros, Faria, Fields, & Tófoli, 2019). The overall rate of consumption of these substances is growing increasingly, creating thus a major global concern; due to this, economic, social and political values are being affected (Medeiros, Maciel, Souza, Tenorio-Souza, & Dias, 2013). First, it is used to give pleasure or to forget about the problems, but, over time, the object of use is to avoid withdrawal symptoms (Alvarez, Gomes & Xavier, 2014). In this way, it can be said, with the use of certainty that these substances can be harmful to health

because it generates dependence and destruction in various contexts of people's lives (Medeiros *et al*, 2013). And the study points in October that in Brazil the use of substances such as alcohol and other drugs, other than tobacco, is responsible for 12% of the mental health problems that affect young people from the age of 12 and 10% of people use some substances, regardless of lifestyle (Dalpiaz, Jacob, Smith, Bolson & Hirdes, 2014). The studies by Marques & Cruz (2000) and Gomes-Medeiros, Faria, Fields and Tófoli (2019) emphasize that epidemiological data in Brazil and in the world have shown that it is in the transition from childhood to adolescence that the use of alcohol and other drugs (Antoniassi Junior & Meneses-Gaya, 2015). As a result, it is estimated that in the United States, on average, three million people use tobacco, being children and adolescents. Alcohol is used by 50% of high school students, with 31% constantly using it (Gomes-Medeiros, Faria, Fields, & Tófoli, 2019). The risky use of drugs such as alcohol and tobacco are the most harmful, as they contribute to the emergence of

psychological, biological and social problems. Also due to excessive alcohol consumption, fatal traffic accidents have increased, especially with young people. It is important to note that also smokers have the propensity to develop increased some type of disease, such as cancer (Brazil, 2013; Elicker, Palazzo, Aerts, Alves, & Hall, 2015). Therefore, the present study aimed to analyze the profile of consumption of psychoactive substances by drug users undergoing treatment in a rehabilitation clinic in the medium-sized city in the state of Minas Gerais, pointing out the types of psychoactive substances consumed correlated to the most feasible risk factors such as age and the number of types of psychoactive substances consumed with the length of stay user.

MATERIALS AND METHODS

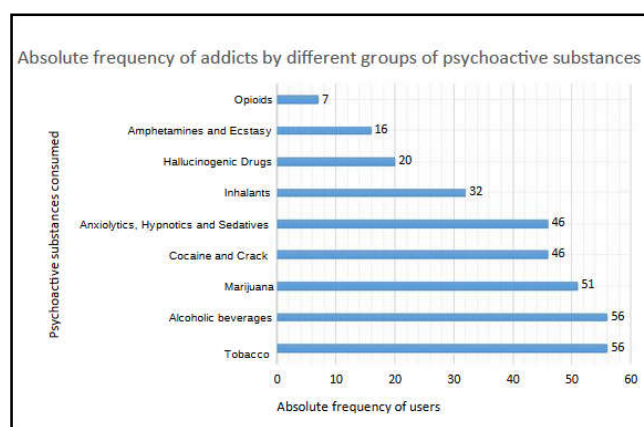
This is a quantitative study of the observational analytical and descriptive transverse through an intervention research, which used a group workshop, attended by 61 men who were under treatment resulting from the use of damage drugs in a Chemical Dependency Clinic with 100 inmates, a City Midsize, Minas Gerais, Brazil. According to data from the Brazilian Institute of Geography and Statistics (IBGE, 2019), in 2018 was registered an estimated population of 150,893 inhabitants, specifically, in the last census of 2010, the population corresponds to 138 710 inhabitants. Inclusion criteria were being older than 18, with at least 7 days of residence in the clinic. The study was approved by the Research Ethics Committee of the Faculty Patos de Minas, with CAAE number: 97694718.0.0000.8078 look under number 2925579. To collect data, it constituted a double work involving college interns supervised in psychodrama modality of Psychology Faculty of Patos de Minas. It occurred in a morning group of workshop activity in which is held the practice of weekly stage and at the end of the meeting, was made the invitation to those group members who wished to participate in the survey remain in the place of the workshop. First, the researchers presented the proposal and research as soon then did the reading of Informed Consent and Informed (IC) and the questions were answered to those who signed the term and set out to answer the questionnaire adapted to the proposed Meneses and Junior Antoniassi-Gaya (2015b). Participants were taken to a large room, airy and isolated for collective application, which enabled the participants did not suffer external and reflect condition influences, getting all the instructions for filling.

The classes of psychoactive substances in the questionnaires were addressed: alcoholic beverages, tobacco, marijuana, cocaine / crack, anxiolytics / hypnotics / sedatives, inhalants, stimulants class of amphetamines, hallucinogens, inhalants and opioids. Participants can respond to more than one alternative in the types of drugs. Then they were added quantities of types of psychoactive substances consumed by each individual. The other collected variables were gender, age and length of stay in the clinic. The statistical analysis of this study was descriptive and inferential. Quantitative variables: age, number of types of consumed psychoactive substances and hospitalization time were subjected to tests of normality (Kolmogorov-Smirnov) and homoscedasticity (Bartlett test) of variance, and then were described by its mean and its standard deviation, minimum value, maximum value, lower and upper limits of the confidence interval at 95%. Inferential analysis was performed using the F statistic and analysis of variance (ANOVA) for the means were compared by more than 2 groups from the

categorization of variable age (age range: less than 20 years old, 21 to 30 years old 31 to 40, greater than 41 years), number of types of psychoactive substances (less than 3 types, grades 4 to 6, greater than 6 types). Qualitative variable "types of psychoactive substances" was described from their absolute and relative frequencies. Inferential analysis was by the binomial hypothesis test for a sample. Data were planned and graphics were developed with the help of Microsoft Excel program. After this correlation tests were performed using Pearson R and the linear regression through the scatter plot. For all statistical analyzes were considered the significance level of 5% ($p < 0.05$) and were performed by the SPSS computer program (Statistical Package for Social Sciences) version: 22.0.0.

RESULTS

The average age of the participants ($n = 61$) was 34.44 ± 10.79 years, ranging from 14 to 62 years. The length of stay in the institution ranged from 14 days to 1 year, with an average of 119.85 ± 187.70 days. The tobacco and alcohol were increased consumption of psychoactive substances and obtained the same prevalence of 91.8% ($n = 56$). Following the use of cannabis with 83.6% ($n = 51$), cocaine / crack with 75.4% ($n = 46$) and anxiolytics, hypnotics and sedatives also 75.4% ($n = 46$) inhalant 52.5% ($n = 32$), hallucinogens, with 32.8% ($n = 20$), amphetamine-type stimulants, 26.2% ($n = 16$) and opioids to 11, 5% ($n = 7$), as can be seen in Figure 1 in relation to the absolute frequency of drug users depending on the consumption of different groups of substances.



Graphic 1. Absolute drug users often as the consumption of different groups of psychoactive substances

Regarding the drug 100% ($n = 61$) participants consumed more than two types, with an average of 5.39 ± 1.81 types of substances per user. Users of hallucinogenic drugs were those who consumed the greatest variety of other types of drugs used for an average of 7.20 ± 1.00 different drugs. Followed by amphetamine users (average 7.06 ± 1.23 types) by inhalants (6.59 ± 1.29), opioids (6.29 ± 1.49), crack / cocaine (6.13 ± 1.34), anxiolytics / hypnotics / sedatives (5.83 ± 1.79), marijuana (5.79 ± 1.54), tobacco (5.57 ± 1.76) and alcohol (5.5 ± 1.83). Graph 2 shows the average amount of use of psychoactive substances consumed by drug users as its classification. The average age of participants who used marijuana was 31.71 ± 8.54 versus 47.79 ± 11.53 years who did not use this psychoactive substance ($p < 0.05$). Already participants who consumed cocaine or crack averaged 31.85 ± 7.66 versus 41.93 ± 15.09 years who did not use ($p < 0.05$).

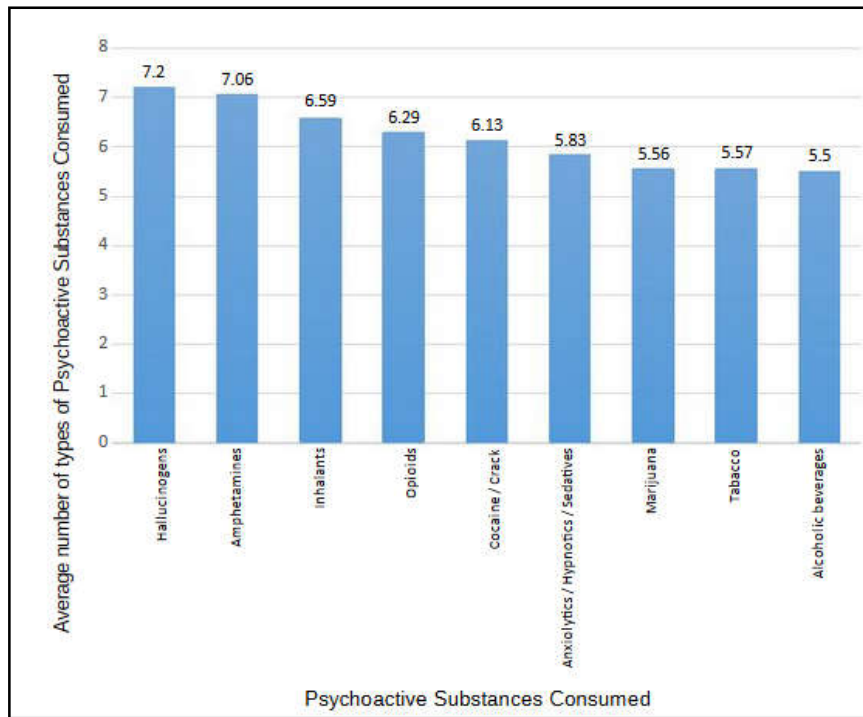


Figure 2. Average number of types of psychoactive substances consumed by drug users as its classification

Table 1. Comparison of the average age of individuals consuming and not consumed different classes of psychoactive substances

| Consumption of Psychoactive Substances | | n | AGE (in years) Average± Standard Deviation | T test | P-value |
|--|-----|----|---|--------|---------|
| tobacco | Yes | 56 | 33.70 ± 10.66 | 1,547 | 0.127 |
| | No | 5 | 41.40 ± 10.78 | | |
| Alcoholic beverages | Yes | 56 | 34.84 ± 16.18 | -1.245 | 0.218 |
| | No | 5 | 28.60 ± 10.23 | | |
| Marijuana | Yes | 51 | 31.71 ± 8.54 | 5,103 | 0,000 * |
| | No | 10 | 47.7 ± 11.53 | | |
| Cocaine / Crack | Yes | 46 | 38.85 ± 7.66 | 3,411 | 0.001 * |
| | No | 15 | 41.97 ± 15.09 | | |
| Stimulants such as amphetamines | Yes | 16 | 32.19 ± 6.51 | 0.923 | 0.360 |
| | No | 45 | 35.09 ± 11.51 | | |
| inhalants | Yes | 32 | 31.94 ± 8.22 | 1,854 | 0.069 |
| | No | 29 | 36.97 ± 12.69 | | |
| Anxiolytics, hypnotics and sedatives | Yes | 46 | 35.24 ± 10.66 | -1.158 | 0.251 |
| | No | 15 | 31.53 ± 10.66 | | |
| hallucinogens | Yes | 20 | 34.30 ± 11.05 | 0.014 | 0.989 |
| | No | 41 | 34.34 ± 10.8 | | |
| opioids | Yes | 7 | 34.09 ± 9.58 | -0.470 | 0.640 |
| | No | 54 | 36.14 ± 18.66 | | |

* Presented statistical differences.
Legend: SD, standard deviation.

Table 2. Correlation of the number of types of substances consumed with age of the addict

| Category for the number of types of psychoactive substances consumed | the individual's age (in years) | | | | | | | | | |
|--|---------------------------------|---------------|------|------|-----------|------------------------|-------------------|---------|-------------|----------|
| | Descriptive statistics | | | | | inferential statistics | | | | |
| | n | Mean ± SD | Min. | Max. | 95% LI | 95% LS | Variance Analysis | | Correlation | |
| | | | | | | | F The new | P-value | R Pearson | value -p |
| Less than 3 types | 11 | 42.18 ± 15.66 | 16 | 60 | 32.93 | 51.44 | 4,261 | 0.01 * | -0.286 | 0.025 * |
| From 4 to 6 different | 29 | 33.59 ± 9.77 | 14 | 62 | 30.03 | 37.14 | | | | |
| Over 6 types | 21 | 31.238 ± 6.97 | 19 | 42 | 28.27 | 34,20 | | | | |

* Presented statistical differences.
Legend: SD, standard deviation; CI, confidence interval 95%, LI lower limit; LS, upper limit.

So addicts who consumed marijuana and cocaine or crack were younger than individuals who did not consume these types of psychoactive substances - Table 1. The age did not vary among individuals who consumed other types of drugs (p> 0.05). The variable old also had a negative correlation with Pearson R equal to -0, 286 compared to the amount of categories of drugs (p <0.05) can be observed in table 2 and figure 3 the observed dispersion, because the linear regression

due to the steeper slope of the line showed a significant correlation. Thus, the greater the variety of psychoactive substances consumed, the lower the age of the addict. The length of stay at the clinic was not correlated to any consumption of some sort in specific psychoactive substance (p> 0.05), ie, independent of the drug (s) (s) used (s), length of hospital stay was not bigger or smaller.

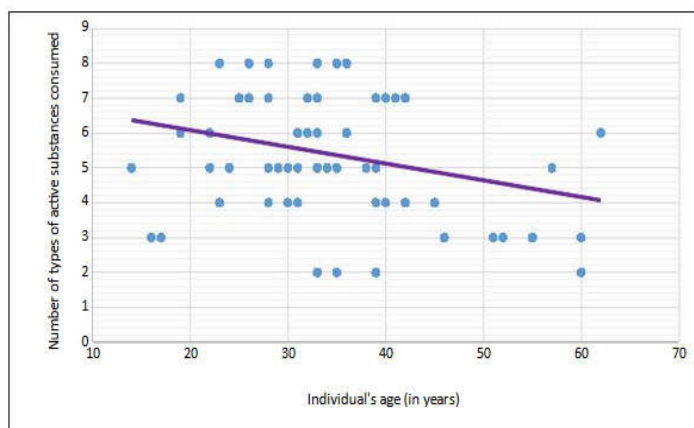


Figure 3. The individual's age in correlation with the amount of addiction types of psychoactive substances consumed

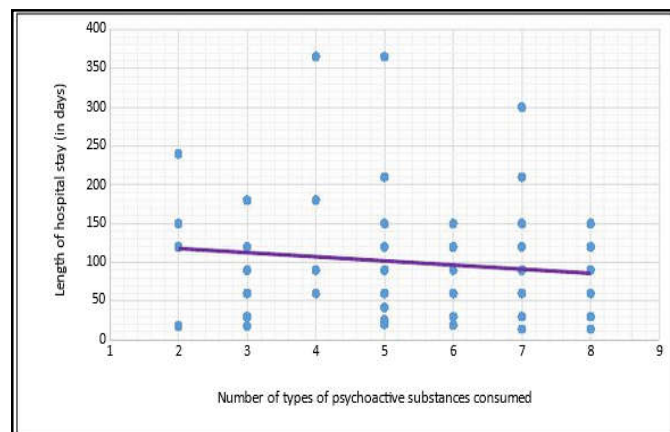


Figure 4. Correlation of the number of types of psychoactive substances consumed with the length of stay (days)

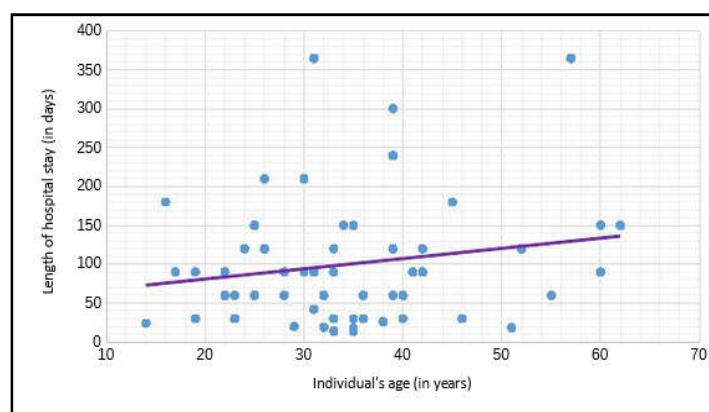


Figure 5. Age correlation of the individual in addiction with the hospital stay

Table 3. Correlation of the mean length of stay according to the amount of consumed types of psychoactive substances and the age of the addict

| Correlated variable | length of stay (in days) | | | | | | | | | | | |
|---------------------|-----------------------------|-----------|----------------|------|--------|--------|------------------------|---------|---------|-------------|----------|--|
| | Descriptive statistics | | | | | | inferential statistics | | | | | |
| | Mean and standard deviation | | | | | | Test Variance | | | Correlation | | |
| Category | N | Mean ± SD | Min. | Max. | 95% LI | 95% LS | F | The new | P-value | R Pearson | value -p | |
| Amount types drugs | <3 types | 11 | 101.46 ± 70.30 | 18 | 240 | 59.91 | 143.00 | 0.768 | 0.264 | -0.124 | 0.341 | |
| | From 4 to 6 different | 29 | 106.24 ± 86.83 | 19 | 365 | 74.64 | 137.84 | | | | | |
| | > 6 types | 21 | 86.91 ± 70.94 | 14 | 300 | 59.56 | 120.25 | | | | | |
| age group | <20 years | 5 | 82.8 ± 62.3 | 24 | 180 | 27.72 | 137.87 | 0.431 | 0.732 | 0.182 | 0.162 | |
| | 21 to 30 years | 16 | 95.00 ± 55.86 | 20 | 210 | 67.63 | 122.37 | | | | | |
| | 31 to 40 years | 28 | 96.00 ± 86.84 | 14 | 365 | 63.84 | 128.17 | | | | | |
| | > 41 years | 12 | 121.00 ± 91.7 | 18 | 365 | 70.69 | 173.14 | | | | | |

Legend: SD, standard deviation; CI, confidence interval 95%; LI lower limit; LS upper limit; <, Smaller; > Greater.

This variable also not correlated to the number of types of psychoactive substances used, i.e. the use of several drugs at the same time did not lead to a longer hospital stay ($p > 0.05$), the data can best be seen in table 03. And Figure 4 shows by means of the low slope of the linear regression correlation of the low number of types of drugs used to hospitalization. Although older individuals have had a longer hospital stay, this variable was not correlated to the age of the addict ($p > 0.05$), ie, age was not a statistically limiting factor for hospitalization, according to the table 3 and in Figure 5 it can be seen that there was no correlation between the numerical variables age and hospitalization time, due to the low slope of the linear regression. Thus, these data demonstrate that age and the amount of consumed types of psychoactive substances did not influence the addict's hospital stay.

DISCUSSION

The data confirms that consumption of alcohol and tobacco are closely related behaviors. So not only people who drink alcohol are more likely to smoke (and vice versa) but also people who drink larger amounts of alcohol tend to smoke more cigarettes. In addition, patients diagnosed with dependence on a drug are also commonly diagnosed with dependence on another drug (Drobes, 2002; Antoniassi Junior & Meneses-Gaya, 2015b). The results support the view of Oliveira *et al.* (2018) that the legal drugs can act as passing drugs that encourage other forms of illicit drug use. In this sense, alcohol, tobacco and drugs passing increase dopamine levels, which increases the pleasure. Increased dopamine caused by substances during adolescence causes the brain to release dopamine less during adulthood.

This leads people to look harder drugs that cause the most dramatic of dopamine release. Soon after, the research shows that the most used illicit drug is marijuana. THEUNODC (2014) confirms that marijuana is the illicit drug most used by addicts in the world. Its use is widespread among young people. In 2015, more than 11 million young people between 18 and 25 used marijuana. According to research conducted by Borges, Leal, Bastos and Macena (2018), marijuana use rates among students in middle and high school the stabilized in recent years after several years of increases. However, the number of young people believe that regular use of marijuana is risky is decreasing. Research shows that the greater the variety of psychoactive substances consumed, the lower the age of the addict. Antoniassi Junior and Meneses-Gaya (2015th) assume that the use of psychoactive drugs by young people is mostly associated to parties, then the use of reason relate to this context. The result supports assumptions that these drugs are used to improve social interactions. Similarly, users describe the drugs party as giving them energy to dance and socialize, reducing inhibition and increasing feelings of connection to others. For some, the party drugs also enhance the sexual experience. This sense of well-being may be related to the living conditions and socioeconomic inequalities, which may go beyond the strict framework of addiction prevention. Intervention and prevention should be correlated with public policies to combat inequalities in order to improve the well-being of young people (Kempf, Llorca, Pizon, Brousse, & Flaudias, 2017).

Considerations

It follows then that the psychoactive substances most consumed by addicts were tobacco, alcohol, marijuana and cocaine or crack. Individuals who used hallucinogens and amphetamines consumed a greater variety of other types of drugs. The variable age, it appears that the lower the age, more marijuana and cocaine or crack individuals used ($p < 0.05$). The younger participants also consumed a greater variety of psychoactive substances ($p < 0.05$). Longer length of hospital stay was not correlated to the type and variety of types of psychoactive substances consumed ($p > 0.05$) or even at the age of the addict ($p > 0.05$). Therefore, make up the essential reduction programs of drug use among young people, as well as a stronger psychological support at this age.

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