Women receiving specialized treatment for psychoactive substance use: a cohort study

Mulheres em tratamento especializado para uso de substâncias psicoativas: estudo de coorte
Mujeres en tratamiento especializado para uso de sustancias psicoactivas: estudio de cohorte

Divane de Vargas1, Talita Dutra Ponce2, Erika Giseth León Ramírez2, Caroline Figueira Pereira2, Maria do Perpétuo Socorro de Sousa Nóbbega1

How to cite this article:

ABSTRACT
Objective: To verify the association between the profile of women who seek specialized treatment for the use of psychoactive substances, their treatment adherence time and the types of substance used. Method: A retrospective cohort with data from medical records of women who sought care at a referral service for the use of psychoactive substances. Results: The final sample consisted of 411 medical records. A significant association was observed between unemployment (p<0.000), living in the streets/homeless shelters (p=0.003), having HIV/AIDS (p=0.004) and the type of substance used. The best predictors for the treatment adherence time were being a cocaine and crack user (OR=0.22), having family members who use illegal substances (OR=0.36) and reporting suicidal ideation (OR=2.7). Conclusion: The sociodemographic and epidemiological factors of the women in this study are associated with the use of psychoactive substances. The therapeutic strategies developed for this group should take into account the risk stratification, seeking comprehensive and individualized care. Persistent approaches to include family members in the treatment, especially of those who present problems related to the use of psychoactive substances should be considered.

DESCRIPTORS
Women; Substance-Related Disorders; Mental Health Services; Substance Abuse Treatment Centers; Psychiatric Nursing.

Corresponding author:
Divane de Vargas
Av. Dr. Enés de Carvalho Aguiar, 419 – Cerqueira César
CEP 05403-000 – São Paulo, SP, Brazil
vargas@usp.br
Received: 11/13/2017
Approved: 04/19/2018
INTRODUCTION

The consequences of using psychoactive substances for users and for society are the study objective in several knowledge areas. It is also considered a public health problem[1-2], since the abusive use of these substances is associated to the development of several health problems such as substance use disorders (SUD), the development of neuropsychiatric and gastrointestinal disorders, cancers, and increased possibilities of sexually transmitted infections (STIs)[3-4].

The prevalence of alcohol use in the Brazilian population is higher among men than among women, 62% and 38% respectively[5], a phenomenon that is also observed in other countries[6-7]. Although men in Brazil have a higher prevalence of alcohol consumption, the percentiles of substance use disorders have declined among them, while those of women have increased between 2006 and 2012[8-9].

Data from the World Health Organization[8] have indicated that the use of illicit drugs is higher among men, while the use of tranquilizers and sedatives is more prevalent among women. Although the percentage of men with illicit drug-related disorders is higher than that of the female population, there is evidence in the literature of an increase in this number among women[5-7,9].

Women who use psychoactive substances have peculiarities, and the services that provide treatment to this clientele must be attentive to these characteristics in order to meet the real needs of this population[9]. The epidemiological conceptions presented previously should be taken into account for the treatment[10], and aspects such as support from family members/friends, prospects of improvement, accessibility, gratuity, having a higher income, having a job, and having preserved mental and physical health are related to longer treatment adherence and better treatment outcomes[11]. In addition, women who consume alcohol tend to adhere to treatment longer when compared to women who consume other substances[12].

Considering the importance of investigating these characteristics in a specialized service in the Brazilian reality, and taking into account that the findings may contribute to developing strategies for care of female users of psychoactive substances, this study aims to verify the association between the profile of women who seek specialized treatment for the use of psychoactive substances, their treatment adherence time and the types of substances used.

METHOD

STUDY DESIGN

This is a retrospective cohort study. The study was conducted using data from medical records of a specialized treatment service for psychoactive substance use disorders in the city of São Paulo – SP.

DATA COLLECTION

Data were collected in 2011. Self-reported questionnaires presented in the medical records of women who sought voluntary treatment for the use of psychoactive substances between January 2002 and December 2010 were analyzed. This period was chosen because it represents a transition phase from an outpatient model to an open care model, which met the guidelines of the Psychiatric Reform and the characteristics of the population present in the territory.

All medical records within the established period were initially included (N=1,678), however those which corresponded to women who only sought treatment for smoking and/or obesity and the records that presented more than 25% of missing data were excluded (N=1,267). Thus, the final sample consisted of 411 medical records.

The questionnaire for anamnesis of the medical records was composed of questions regarding the cohort’s characteristics. Sociodemographic characteristics were: age, birthplace, education level, occupation, marital status, religion, how they came into contact with the treatment, type of housing, whether they suffered violence in childhood, whether they suffered violence in their adolescence, whether they suffered losses in childhood, whether they suffered losses in adolescence, age of first sexual intercourse, first drug used, age of first contact with alcohol, age of first contact with tobacco, and any legal/criminal problems.

The clinical characteristics were: hypertension, having HIV/AIDS and the presence of suicidal ideation; while the behavioral characteristics were: having family members who are users of psychoactive substances, the type of psychoactive substance used by the family member(s), and for which type of psychoactive substance the woman sought treatment for. Information regarding the treatment adherence time was determined according to the date of the first and last entries in the medical record, and were collected and divided into five categories: 1 day, up to 1 month, 1 to 6 months, 6 to 12 months and more than 1 year.

DATA ANALYSIS

A descriptive data analysis was performed to identify the sample profile, the categorical variables were presented as absolute and relative frequencies, and numerical variables as central tendency measurements (mean, standard deviation and median). For the analysis, the type of psychoactive substance for which the woman sought treatment for was divided into three categories: alcohol use (A), use of multiple drugs excluding cocaine and crack (MDE), and use of multiple drugs including cocaine and crack (MDI). The choice for this division was decided based on the hypothesis that women who use cocaine and crack have different associations, such as adhering to treatment for shorter periods of time.

The Chi-square test and analysis of variance (ANOVA) were used to verify the association between sociodemographic, clinical and behavioral characteristics of the participants and which type of psychoactive substances they used.
sought treatment for. A logistic regression analysis was performed with prior exploration using the chi-square test in order to verify the association between the treatment adherence time and the participants’ profiles. All tests were performed using “R” software, considering a significance value of $p \leq 0.05$.

**Ethical Aspects**

The research was performed according to the recommendations of Resolution no. 196/96, revised and updated by Resolution no. 466/2012 of the National Health Council for research involving human beings in Brazil, and was duly approved by the Research Ethics Committee (CEP) of the School of Nursing of the Universidade de São Paulo under opinion number 74371/2012.

**RESULTS**

The sociodemographic profile of the women attended in the specialized service was characterized by 184 of them being from the city of São Paulo (45%), mean age of 36 years (SD=12.5), illiterate (191, 46.6%), unemployed (221, 54%) and single (217, 53%); who reported following a religion (329, 80.1%), who are mothers (311, 75.8%) and have unfavorable housing conditions such as homeless shelters, house squatting/invasion and living on the streets (172, 42%). One third of the sample (137, 33%) reported having suffered violence during childhood, while 41% reported suffering violence during adolescence. The mean age of the first intercourse was 16 years (SD=3.7), and first contact with drugs was at 15 years (SD=7.4).

Among the most prevalent clinical characteristics investigated in the medical records, 27 women (6.5%) reported having HIV/AIDS, 34 (8.2%) reported Arterial Hypertension (AH), and most of them (306, 74.4%) reported recurring suicidal ideation.

Regarding the higher prevalence of the behavioral profile, 388 women (94.3%) had family members who were users of psychoactive substances, of which 42.8% used illicit psychoactive substances such as marijuana, cocaine or crack.

With regards to the main psychoactive substance use, 55% (226) of the women sought treatment for MDI, 148 (36%) for A (alcohol) and 37 (9%) for MDE. When analyzing the treatment adherence time, 120 (29%) attended the service for up to 1 month, 94 (22.9%) from 1 to 6 months, 30 (7.3%) from 6 to 12 months, and 101 (24.6%) for more than 1 year.

The results showed a statistically significant association between occupation ($p<0.000$), housing ($p=0.003$), losses in adolescence ($p=0.036$), having HIV/AIDS ($p=0.004$), having family member users of psychoactive substances ($p<0.000$), and the type of substance used, as shown in Table 1.

The mean age of the participants and their age of first sexual intercourse had a statistically significant association ($p <0.000$) with the type of substance used, as shown in Table 2.

**Table 1** – Association between the type of substance used and sociodemographic, clinical and behavioral variables – São Paulo, SP, Brazil, 2011.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Type of substance used</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Alcohol MDE ‡ MDI †</td>
<td></td>
</tr>
<tr>
<td></td>
<td>N  %   N  %   N  %   N  %</td>
<td></td>
</tr>
<tr>
<td>Occupation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed</td>
<td>18   46.2   30   38.5  33   18.3</td>
<td></td>
</tr>
<tr>
<td>Unemployed</td>
<td>21   53.8   64   61.5  147  81.7</td>
<td></td>
</tr>
<tr>
<td>Housing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Owned or rented</td>
<td>18   62.1   52   67.5  56   39.4</td>
<td></td>
</tr>
<tr>
<td>Homeless shelter/streets</td>
<td>11   37.9   25   32.5  86   60.6</td>
<td></td>
</tr>
<tr>
<td>Losses in adolescence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>7    29.2   44   50.6  61   58.1</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>17   70.8   43   49.4  44   41.9</td>
<td></td>
</tr>
<tr>
<td>HIV ‡</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>0    0.0    2    2.0   16   11.5</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>35   100.0  96   98.0  123  88.5</td>
<td></td>
</tr>
<tr>
<td>Family member substance users</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alcohol</td>
<td>22   68.8   43   49.4  22   20.6</td>
<td></td>
</tr>
<tr>
<td>Tobacco</td>
<td>0    0.0    5    5.7   8    7.5</td>
<td></td>
</tr>
<tr>
<td>Alcohol and Tobacco</td>
<td>4    12.5   13   14.9  12   11.2</td>
<td></td>
</tr>
<tr>
<td>Illicit substances</td>
<td>6    18.8   26   29.9  65   60.7</td>
<td></td>
</tr>
</tbody>
</table>

* Multiple drug use excluding cocaine and crack.
† Multiple drug use including cocaine and crack.
‡ Human Immunodeficiency Virus.
Women receiving specialized treatment for psychoactive substance use: a cohort study

Table 2 – Analysis of variance and multiple comparisons according to the type of substance used and the variables of age and age of first sexual intercourse – São Paulo, SP, Brazil, 2011.

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Overall</th>
<th>Alcohol MDE†</th>
<th>Alcohol MDI‡</th>
<th>MDE MDI‡</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>&lt; 0.001</td>
<td>0.134</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Alcohol</td>
<td>47</td>
<td>46.32</td>
<td>9.68</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MDE</td>
<td>135</td>
<td>42.90</td>
<td>12.37</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MDI</td>
<td>224</td>
<td>30.43</td>
<td>9.50</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age at first intercourse</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>&lt; 0.001</td>
<td>0.076</td>
<td>0.002</td>
</tr>
<tr>
<td>Alcohol</td>
<td>21</td>
<td>19.24</td>
<td>4.82</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MDE</td>
<td>84</td>
<td>16.68</td>
<td>3.54</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MDI</td>
<td>107</td>
<td>15.02</td>
<td>3.08</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Games-Howell post hoc analysis of variance.
† Multiple drug use excluding cocaine and crack.
‡ Multiple drug use including cocaine and crack.
SD: standard deviation

The result of the Ordinal Logistic Regression (Table 3) showed a statistically significant relationship between the treatment adherence time and the variables: type of substance used (p=0.013), having family member users of psychoactive substances (p=0.014) and having suicidal ideation (p<0.000). Table 3 presents the five categories (described in the method) and the odds ratio of moving from one category to another, in which the greatest predictors for this association were: having MDI as the substances used (OR=0.22), having family members who use illicit substances (OR=0.36), and reporting the presence of suicidal ideation (OR=2.7).

Table 3 – Relationship between the adherence time in the specialized service and the variables type of substance used, type of substance used by family members and suicidal ideation – São Paulo, SP, Brazil, 2011.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Category</th>
<th>Sig*</th>
<th>OR†</th>
<th>&lt;95% IC &gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of substance used</td>
<td>Alcohol</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>MD§ excluding cocaine/crack</td>
<td>0.424</td>
<td>0.644</td>
<td>0.211</td>
</tr>
<tr>
<td></td>
<td>MD including cocaine/crack</td>
<td>0.013</td>
<td>0.224</td>
<td>0.067</td>
</tr>
<tr>
<td>Substances used</td>
<td>Alcohol</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Family member)</td>
<td>Tobacco</td>
<td>0.058</td>
<td>0.286</td>
<td>0.078</td>
</tr>
<tr>
<td></td>
<td>Alcohol and tobacco</td>
<td>0.000</td>
<td>0.164</td>
<td>0.063</td>
</tr>
<tr>
<td></td>
<td>Illicit drugs</td>
<td>0.014</td>
<td>0.360</td>
<td>0.158</td>
</tr>
<tr>
<td>Suicidal ideation</td>
<td>Yes</td>
<td>0.004</td>
<td>2.697</td>
<td>1.377</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Statistical significance of the Wald test.
† odds ratio.
§ Multiple drugs.

DISCUSSION

The majority of women who sought a specialized treatment service for psychoactive substance use had a low level of education, with a large portion of them reported as being illiterate, unemployed and living in precarious housing conditions. These variables associated to the use of psychoactive substances can aggravate their condition and bring severe repercussions to different aspects and stages of life related to the areas of health, work, family and social life, as well as psychological well-being.

These characteristics indicate a vulnerable state, and began very early in the lives of these women; most of them reported having suffered violence during childhood and adolescence, and also starting their sex life and having their first contact with drugs at this stage of life. These factors may explain a process already described, in which certain social variables that start early can be reflected or perpetuated in adult life.

Most study participants were MDI users. The higher prevalence of users who sought treatment for MDI may be related to the characteristics of the study site, since this is an area of the city where the concentration of crack users is high. Moreover, epidemiological studies show a significant increase in the consumption of this substance among women, even though such use continues to be more prevalent among men.
Furthermore, in relation to the type of substance used, the use of MDI showed an association with the situation of unemployment, living in homeless shelters/streets, presenting losses in adolescence, having HIV/Aids, having an early start of their sexual life and having family member users of illicit substances. These variables reflect a lack of access to resources and to health and social services for women using MDI, placing them in a vulnerable position\textsuperscript{16}. This finding is consistent with the observations made in a National Survey conducted with crack users, which shows the relationship between vulnerability indicators and the use of this substance\textsuperscript{17}.

These vulnerability conditions may be related to the social exclusion of women who use MDI, with restrictions on their basic rights. It is also possible that the lack of access to resources and social goods result in diverse consequences, including to their health due to the exclusion of their formal participation in society; a scenario that reproduces the historical social exclusion of psychoactive substance users\textsuperscript{18}. Characterizing the social and health conditions of the women in this study reinforces a necessary focus in the areas recommended by public care policies to people with disorders related to psychoactive substance use, mainly in the areas related to reintegrating users into society, which implies access to work, housing and social networks\textsuperscript{19}.

In this regard, it must be considered that women who use psychoactive substances also face challenges attributed to gender issues, which place them in a position of inequality when compared to men\textsuperscript{20}. Women who use crack often resort to prostitution as a means to getting the drug, and as payment they receive little money or the substance itself, in addition to not using condoms\textsuperscript{21}. Other important aspects that translate into barriers for the female population to begin and remain in treatment are the stigma and prejudice they suffer daily because they are seen as criminals by society, which leads them to abdicate their socially constructed role\textsuperscript{22}.

Women using MDI and those who had family member users of illicit substances were more likely to drop out of treatment early. Taking into account the aforementioned association between the vulnerability experienced by women in the MDI group, this factor is probably influenced by the low adherence of these women to treatment. The use of illicit substances by family members has been pointed out in the literature as a condition for abandoning treatment\textsuperscript{23}, especially when the person who uses psychoactive substances is their partner, who in addition to contributing to their addiction by providing money to buy the substance, does not offer emotional support to the companion\textsuperscript{24}, leaving them deprived of family support for continuing treatment.

The presence of suicidal ideation was a predictive variable for longer treatment adherence time, and women reporting this condition had a 2.7-times higher chance of remaining in treatment than those who denied such a condition. The high prevalence of suicidal ideation found among women in this study may be related to the number of women who associated MDE and MDI with alcohol, whose dependence has been related to a greater chance of presenting suicidal ideation than those who are not dependent on this substance\textsuperscript{25}. Suicidal ideation as a predictor of treatment adherence is a fact that has not been found in other published studies involving this population, and therefore has not aroused research interest until now. Thus, it is considered that this finding constitutes a phenomenon of interest for future investigations.

It is believed that these women seek to find a place of protection and welcoming in the specialized service, which needs to develop intersectoral actions that contemplate gender specificity such as: approaches to improve their self-esteem, issues related to violence, stigma, feelings of guilt/shame, psychosocial losses, comorbidities, and inclusion of their families in order to produce better treatment results\textsuperscript{26}.

In addition, considering the contribution of the findings in this study to nursing care, it becomes clear that nurses need to be aware of the reality of the demographic and epidemiological profile of this clientele in order to plan singularized actions. Considering the magnitude of the problem that psychoactive substance use brings to the lives of the investigated women, the vulnerability and social exclusion which they are subjected to and which therefore increases the risk situations in which they live, we can point out that investment in assistance care policies to this population need to progress considerably.

The present study presented some limitations that should be considered. The implemented questionnaire was elaborated by the health service and applied by different health professionals, which leads to several differences regarding its completion. A high amount of information was missing in the medical records, which were not collected or registered, hindering the statistical analysis of some variables.

**CONCLUSION**

The sociodemographic and epidemiological factors of the women in this study are associated with the use of psychoactive substances, and the developed therapeutic strategies must take into account the risk stratification in this group, seeking comprehensive and individualized care. Among the most important findings, suicidal ideation was a predictor for the women remaining in treatment, and since suicide behavior is a phenomenon that is highly stigmatized and poorly investigated, implementing screening instruments can have significant repercussions on the treatment process. It can also be pointed out that a family context permeated by psychoactive substance use represents an obstacle to the treatment of these women, challenging therapeutic proposals to include and strengthen families with the purpose of improving treatment adherence.
RESUMO
Objetivo: Verificar a associação entre o perfil das mulheres que buscaram tratamento especializado para uso de substâncias psicoativas, o tempo de permanência no tratamento e os tipos de substância de uso. Método: Coorte retrospectiva realizada com dados de prontuários de mulheres que buscaram atendimento em um serviço de referência para uso de substâncias psicoativas. Resultados: A amostra final foi de 411 prontuários. Houve associação significativa entre desemprego (p<0,000), morar em rua/albergue (p=0,003) e viver com o HIV/AIDS (p=0,004) e o tipo de substância de uso. Os maiores preditores do tempo de permanência no tratamento foram ser usuária de cocaína e crack (OR=0,22), possuir familiares que fazem uso de substâncias ilícitas (OR=0,36) e relatar ideação suicida (OR=2,7). Conclusão: Os fatores sociodemográficos e epidemiológicos das mulheres deste estudo estão associados ao uso de substâncias psicoativas. As estratégias terapêuticas desenvolvidas para esse grupo devem levar em consideração a estratificação de risco, com vistas ao cuidado integral e individualizado. Devem-se considerar abordagens persistentes de inclusão da família no tratamento, principalmente de aqueles familiares que apresentam problemas relacionados ao uso de substâncias psicoativas.

DESCRITORES
Mulheres; Transtornos Relacionados ao Uso de Substâncias; Serviços de Saúde Mental; Centros de Tratamento de Abuso de Substâncias;

REFERENCES

Rev Esc Enferm USP · 2018;52:e03368 www.ee.usp.br/reeusp


This is an open-access article distributed under the terms of the Creative Commons Attribution License.