

# Street and drug use experiences among sheltered children and adolescents in the Federal District of Brazil

Nadja Maryelly de Oliveira Gomes<sup>1</sup> | Eloisa Dutra Caldas<sup>2</sup> 

<sup>1</sup>Federal Highway Police Department, Brasília, Federal District, Brazil

<sup>2</sup>Laboratory of Toxicology, Department of Pharmacy, Faculty of Health Sciences, University of Brasília, Brasília, Federal District, Brazil

## Correspondence

Eloisa Dutra Caldas, Laboratory of Toxicology, Department of Pharmacy, Faculty of Health Sciences, Campus Darcy Ribeiro, University of Brasília, Brasília, Federal District 70910-900, Brazil.  
Email: [eloisa@unb.br](mailto:eloisa@unb.br)

## Abstract

**Problem:** The use of drugs by street children and adolescents is a problem found in most large cities around the world.

**Methods:** This is a cross-sectional study of street children and adolescents living in shelters in the Federal District, Brazil. An objective questionnaire was applied to 84 individuals from September 2016 to October 2017; 14 of them participated in the qualitative study.

**Findings:** Most participants were adolescents (84.5%) and males (64.3%), with a history of abandonment, domestic violence, and family drug abuse. All spent some time on the street; boys had a higher chance of being behind the school level and using drugs than girls. Over 60% had used drugs in the previous year, mainly alcohol and marijuana. Over 70% understand the health consequences of this behavior, but most have never tried or failed to stop. About 40% consider themselves dependent on drugs.

**Conclusions:** The results showed that street-life experience, peer pressure, and exposure to drugs within the family had an important impact on respondent's drug use behavior, reinforcing the importance of education programs that focus on the family.

## KEYWORDS

Brazil, children and adolescents, drug use, shelters, street experience

## 1 | INTRODUCTION

Street children are a problem in most large cities, including the biggest and richest cities in the industrialized world (UNICEF, 2006). The term may include children under the age of 18 living on the streets without stable family bonds, or those who live with their families or in shelters but spend most of their time on the streets (Paludo & Koller, 2008).

The presence of socially vulnerable children and adolescents on Brazilian streets is a reality that can be witnessed in most large cities. There are some studies that investigated this population in the country (Rizzini & Couto, 2019), but few have focused on drug use behavior (Fernandes & Vaughn, 2008). The last national Brazilian survey was conducted in 2003 with 2807 street children and adolescents and showed that most maintained family bonds, but over one-third slept on the streets; most were frequent or heavy drug users (Moura et al., 2012).

Studies that investigated the use of drugs among children and adolescents living on the streets have been conducted elsewhere, including Philippines (Njord et al., 2010), Nepal (Kakchapati et al., 2018), India (Dhawan et al., 2020), and Turkey (Kaplan & Çuhadar, 2020). A meta-analysis of combined lifetime substance use from studies conducted mainly in Africa, Asia, and South America, including Brazil, showed an overall drug use pooled-prevalence estimate of 60% (Embleton et al., 2016).

Embleton et al. (2016) showed that poverty was the main reason why children and youths from developing countries go to the streets, in addition to abuse and family conflict; abuse was equally reported in developing and developed countries. Once on the street, young people are often involved in illegal activities, including robbery and drug trafficking, are exposed to sexually transmitted infections, and to drug use/abuse (Asante 2016; de Carvalho et al., 2006; Dejman et al., 2015; Raffaelli et al., 2018; Sherman et al., 2005).



This study aimed to characterize the profile of the street children and adolescents population living in shelters in the Federal District, Brazil in 2016/2017 and their relationship with the streets and with drugs. Furthermore, the results were compared with those from a similar study conducted previously in the region to evaluate the impact of the shelter environment on the drug use behavior. The questions to be answered in this study are: (1) What are the characteristics of the population? (2) What are the factors that impact their street experience and drug use behavior? (3) What are the main drugs used and how is their risk perception related to drugs? (4) Did sheltering have a positive impact on street life and drug use? To the best of our knowledge, this is the first study that was conducted with street children and adolescents living in shelters.

## 2 | METHODS

### 2.1 | Participants and settings

The Federal District is in the Midwest region of Brazil and is the location of the country's capital, Brasília. The study was conducted from September 2016 to October 2017 with children and adolescents who were assisted by the Host Family Service (*Serviço de Acolhimento Familiar*, SAF) for vulnerable children and adolescents (up to 18 years old). The SAF was introduced in the country in 2009 and includes two types of institutional hosts—safe houses (*casa-lar*) and institutional shelters, which are residential units with up to 10 or 20 individuals, respectively, that provide a familiar and community environment for this population. Some SAFs have criteria for admittance (age and/or gender) and some do not accept individuals under influence of drugs or serious mental problems (Assis & Farias, 2013).

In the period of the study, the Federal District had 10 of these social institutions, of which six agreed to participate in the study, by signing a Free Informed Consent Form. In the presence of an institutional representative, the children and adolescents were invited to participate, and those who agreed received a verbal explanation of the objectives of the study, procedures, and privacy in data handling policy, and signed a consent form. The study population was a result of a convenience sampling, depending on the compliance of individuals who were available and agreed to participate (nonprobability sampling). The study was approved by the Research Ethics Committee of the Faculty of Health Science of the University of Brasília (no. 1.651.110).

### 2.2 | Data collection

The individuals who participated in the study were interviewed privately and answered a questionnaire containing 26 objective questions to provide information on social and demographic characteristics (schooling, source of income, where and with who is living, beliefs/religion), life on the streets (for how long, reasons,

frequency, period, with who), drug use (first used, age when first tried, which was ever used, which in the last 12 months, used before going to the streets?, streets favor the use?, why started using?, why keep on using?, how you get it?, what your family think about it?, someone you live with uses it?), and risk perception related to drugs (what happen after using?, consider yourself as drug dependent?, how many times tried to stop and why?, someone encourages you to stop?, drugs harm your health?). All questions had options to choose from. The questionnaire was adapted from the national survey study conducted with a similar population (Moura et al., 2012) and was adjusted after being tested with a small number of individuals, who were not included in the final study. The questionnaire was applied during a structured/narrative interview, when personal histories, experiences, and the social context were described by the participant and used to complete the questionnaire. The interviews lasted from 5 to 20 min and were audio-taped and transcribed verbatim in Portuguese.

### 2.3 | Data analysis

Data from the 84 objective questionnaires were inserted in the IBM SPSS Statistics V. 27 program for analysis. Binary logistic regression was performed for independent binary variables, expressed in odds ratio (OR [lower level - upper level at 95% confidence];  $p$ ). Correlation between continuous nonparametric variables was tested using Spearman's test ( $\rho$ ). Variables with more than 10% of no answers were not tested to avoid any bias in the analysis. The results were considered significant when  $p$  value was  $\leq 0.05$ .

Most participants, mainly the younger ones, were not willing to speak out much and the information given was enough only to fill out the objective questionnaire. Testimonies from 14 individuals (13–17 years old) who were more outspoken during the interview were analyzed (textual analysis) using the discussion technique described by Fairclough (2003); information from the other participants did not produce any changes on the themes, indicating that saturation had been reached (Guest et al., 2006). The testimonies were translated into English as close as possible to the language used during the interview.

## 3 | RESULTS

### 3.1 | Population characteristics

This study interviewed 84 children and adolescents who were hosted in safe houses or shelters of the Federal District, Brazil, within a familiar and community environment where they had access to their basic needs and could attend school. Table 1 shows the main characteristics of the studied population. Most of the participants were adolescents (12–17 years) and males (64.3%), all had been to school, and 73.8% were going to school at the time of the interview. Most (80%) were at least 2 years behind the expected school levels



**TABLE 1** Social and demographic characteristics of the children and adolescents (N = 84)

Variable	%
Age (year)	
8–11	15.5
12–17	84.5
Gender	
Male	64.3
Female	35.7
Going to school	
Yes	73.8
No	26.2
Years behind the school level <sup>a</sup>	
0–1	16.5
2–3	36.9
4–5	23.8
6–8	20.2
No answer	3.6
Living before going to shelter	
In a house	71.4
In another shelter	17.9
On the streets <sup>b</sup>	10.7
Time going to the streets (years)	
Less than 1	37.0
1 to less than 3	21.4
3 to less than 5	9.5
Over 5	32.1
Frequency of going to the streets (days per week)	
Up to 2	9.5
Over 3 to less than 5	4.8
Over 5	51.2
No answer	34.5

<sup>a</sup>Estimated based on the age and the expected school level.<sup>b</sup>Two 8–9-year-old children and seven adolescents.

(Table 1; 3.5 years behind, on average). There was a positive correlation between age and years behind the school level ( $p = 0.677$ ;  $p < 0.0001$ ).

Before going to the shelter, most participants (71.4%) were living with their adopted or biological family (56% of them with the mother) and about 18% in another shelter (Table 1). All participants reported having at least one source of money, mainly getting it from relatives or other donors (55.9%). Working in odd jobs, including guarding cars and selling goods at traffic lights, was reported by about one-third of them, drug trafficking by 21.4%, and 11.4% reported stealing to get

money. Almost 90% affirmed they believed in God, of which 43% followed a religion.

### 3.2 | Street experience

All participants had spent some time on the streets, over 30% with family members and 45% alone. At the time of the interview, almost one-third had been going to the streets for over 5 years, and most (51.2%) were doing so 6–7 days per week (Table 1). Nine went to the shelter only to sleep. For over 20% of them, the reason for going to the streets (before and/or during the time of the study) was to work.

There were significant associations between time going to the streets and age ( $p = 0.533$ ;  $p < 0.0001$ ) and the number of years behind the expected school level ( $p = 0.677$ ;  $p < 0.0001$ ). Boys were more behind the school level (OR: 1.59 [1.091–2.314];  $p = 0.016$ ) and had been going to the streets for a longer time than girls (OR: 2.824 [1.342–5.941];  $p = 0.006$ ).

### 3.3 | Drug use experience

About 30% of the participants did not know/answer whether being on the streets encouraged the use of drugs, but most who answered this question believed so (63.3%). When the 84 participants were asked what their family thought about drugs, 46.4% said they consider drug use wrong, 29.8% never talked about this issue, 5.9% had the approval of the family, and 17.9% did not answer this question. About 52% of the participants stated that family members use drugs, mainly marijuana (59%), crack/cocaine (40.9%), and/or alcohol (31.8%).

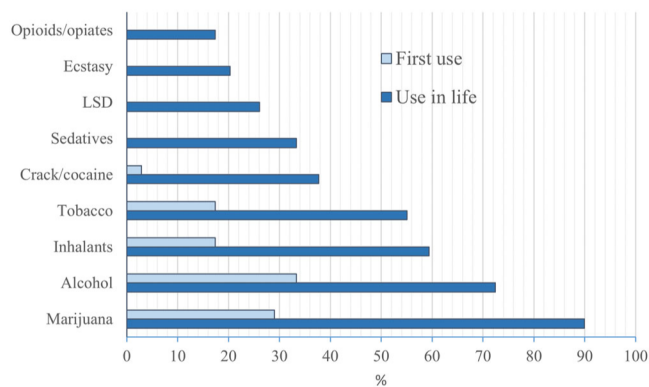
About 82% of the studied population had used drugs at least once in their life ( $N = 69$ ). Marijuana and/or alcohol were the first drugs used by about 30% of them, and were also the preferred drugs later in life, followed by inhalants (Figure 1). About 38% used crack/cocaine, although this was the first choice for less than 3% of the users. Other drugs used at least once in their lives included sedatives, LSD (lysergic acid diethylamide), ecstasy, and opiates (morphine and codeine).

Over 40% of the users were from 8 to 11 years old when they first tried drugs (Table 2). Most of those who had used drugs in the past had also used them the previous year ( $N = 51$ ; 73.9), and almost one-third of the last year's users used drugs almost daily or daily and 27.4% more than once a day (Table 2). Most (74.5%) got the drugs from drug dealers.

Boys had a higher chance of using drugs in the previous year than girls (OR: 3.106 [1.227–7.862];  $p = 0.017$ ), and being older was predictive of using drugs at least once in life (OR: 1.986 [1.204–3.277];  $p = 0.007$ ) and in the previous year (OR: 1.805 [1.364–2.388];  $p = 0.000$ ). Being behind the expected school level increased the chances to use drugs at least once in life (OR: 2.975 [1.645–5.380];  $p = 0.000$ ) and in the previous year (OR: 2.036 [1.458–2.843];  $p = 0.000$ ). The longer time going to the street







**FIGURE 1** Drug use in life and first use by the participants. Percentage related to the 69 lifetime users. [Color figure can be viewed at [wileyonlinelibrary.com](https://onlinelibrary.wiley.com)]

increased the chance to use drugs in the previous year (OR: 2.540 [1.482–4.355];  $p = 0.001$ ).

### 3.4 | Risk perception related to drugs

Table 2 also shows the risk perception of the population regarding drug use. About 45% of the individuals who have used drugs at least once in their life ( $N = 69$ ) said nothing abnormal happened during or after the use, 39.1% got into a fight, and 26.1% found themselves in a risky situation. When only the last year's users were considered ( $N = 51$ ), a smaller group considered that nothing happened (35.3%) and a higher percentage got into a fight (47.1%). In both groups, about 16% found that their health was affected when using drugs, but committing a robbery was more frequent among the more recent drug user group (Table 2). Over 70% of the 51 recent users recognized that drugs had a negative impact on their health and about 30% had never tried to stop using it (Table 2). Over 40% had tried to stop at least once (Table 2), mainly encouraged by social workers and religious groups (68.6%) and by their parents (22%).

### 3.5 | Textual analysis

The analysis was grouped into three main themes: personal history, street and drug use experiences, and risk perception. The codes used in the testimony transcriptions were: [] comment from the transcriber; ... pause;/.../partial transcription; *local language*.

#### 3.5.1 | Personal history

The personal histories of the 14 participants are summarized in Supporting Information: Table S1. Abandonment and domestic

**TABLE 2** Drug use experience of children and adolescents and risk perception

Variable	%
Age of first use (years) ( $N = 69$ )	
4–7	13.0
8–11	43.5
12–14	36.2
15–17	7.2
Frequency of use last year ( $N = 51$ )	
Less than once/month	5.9
1–2 times/month	17.6
1–2 times/week	5.9
Almost daily/daily	31.4
More than once/day	27.4
No answer	11.8
What happened when you used drugs <sup>a</sup> (once in life, $N = 69$ /last year, $N = 51$ )	
Nothing abnormal	44.9/35.3
Got into a fight	39.1/47.1
Was in a risky situation <sup>b</sup>	26.1/27.4
Affected my health	15.9/15.7
Committed a robbery	7.2/13.7
Unsafe sex	2.9/2.9
What do drugs do to your health ( $N = 51$ )	
It is not good <sup>c</sup>	73.8
Have no impact	11.9
It is good <sup>d</sup>	8.4
No answer	5.9
How many times tried to stop using drugs? ( $N = 51$ )	
Never	29.4
1–2 times	9.8
3–5 times	9.8
More than 6 times	23.5
No answer	27.5

<sup>a</sup>More than one option was allowed.

<sup>b</sup>Robbed, attacked, or sexually abused.

<sup>c</sup>Including addiction and idleness.

<sup>d</sup>To keep calm.

violence were experienced by all, as illustrated by the testimony of DCS (17-year-old male):

My biological parents ... said they would come back to get me.... They never did.... He [adopted father] beat





me a lot, my older brothers too... I prefer to be here [in the shelter] than with my family...

RAF (14 years male) explained the problems he faced to maintain his position as a car keeper on the streets:

/.../I used to guard cars in the lan house, in the supermarket... Sometimes I got into a fight with the other guys because they wanted to take my place.

Many got involved in illegal activities, which brought contradictory feelings. Committing a robbery was closely related to drug use. EGL (17-year-old male):

I did all crimes... trafficking, robbery, guns, those things... I was a danger to society... I'm someone that think. To enter crime, you got to be clever. If not, you die!.../I don't regret.../I'm not afraid of anyone. Not afraid of dying. I'm just afraid of God's punishment... I'll go to church only when God touches my heart. It is not worth going to church and continuing to sin.

MMV (17-year-old male):

Once I was angry... I went to rob a woman's car. I had a gun./.../I'm a good person, you know... She didn't want to get out of the car ... I was going to shoot her. Then she got out of the car and left it on for me ... I used to rob every day because I snorted too much powder.

### 3.5.2 | Street and drug experiences

The relationship between the street and drug experiences can be seen in most testimonies, with a clear influence from their peers:

YRMQ (13-year-old male):

The street is for everyone to walk. Anyone who wants to. I go every day./.../My cousin offered me and I smoked. It was on the street.

ABT (15-year-old female):

They offer a lot of drugs to you on the streets. I was at school, then some boys offered me. I asked if it was good. The girls said it was, so I tried.

VE (13-year-old male):

I only used thinner [solvent] when I was on the street. But I don't use it anymore. Changed my voice, I felt strange, thought I was somewhere else...

VRA (14-year-old female) did refuse the drug offered by her peers on the street, after seeing what happened to her mother:

They did offer me, and I did not accept... my mother is a drug user. What do I want for my life? The same path as hers? Finish with the crack, finish with her body, finish with my life, my hopes, my expectations... everything!

The use of crack in the family was also in the statement of FMMG (16-year-old male):

My mother cannot say anything. Because she is messed up, crazy on crack. She needs help because if she doesn't help herself, she will go down more, more and more...

RAN (14-year-old male) reported his first experience with drugs within the family, which quickly progressed to addiction:

My brother started to use first, then I saw him using, then I started using it... I liked the feeling... each time. I would go crazier, wanted more, I went there and bought it.

Many participants discriminated against crack cocaine users, who were called *noiado*, as can be seen in the testimony of RAF (14-year-old male), who also shows respect for the outlaws who prefer "better drugs":

Are you crazy? crack users are not respected... Bandit don't use crack... bandits who are bandits smoke, drink whisky. *Noiado* drink *cachaça* [alcohol made of sugar cane] and smoke stone [crack]. They don't work, they do nothing in life.... One day, a *noiado* arrived close to me very crazy... Then, the *oreiona* [big ear, the drug dealer] called him a tramp and scared him away.

### 3.5.3 | Risk perception

Some did find some benefits of using drugs, and others have a feeling of control over the use, as can be seen in the testimony of various participants related to the use of marijuana, for which the risk perception is low.

ABT (15-year-old female):

I feel stressed when I don't smoke marijuana.

EGL (17-year-old male):

I smoke since I was six... Everyone says that drugs damage the brain, the person goes crazy. But I think that only those who use various drugs, not a regular





type... How you don't go crazy if you have a lot of chemistry? My only chemistry is marijuana inside the plant... I stop whenever I want to... it's under my control.

TP (14-year-old male):

I smoke since I was four ... If there is a lot, I use a lot, if there isn't much, I use just a little. But I can go one, two, three days without using. It is good from one side, but bad from the other...

FMMG (16-year-old male):

Apart from marijuana? The last time I had a paper [probably LSD] and got too crazy, beating on everybody on the street... I don't know... I got used to those things too much since I was little./.../Then, I got attached.

The youths do not have a clear perception of alcohol and tobacco being drugs, as shown by the testimony JSL (17-year-old male), which also shows a positive influence from peers:

I've never used drugs, *tia*. The only thing is tobacco and drinks. Drinks are a kind of drug, right?... Today, when the guys see me smoking they say don't go... Then I think a little and stop.

IWS (17-year-old male) also thinks tobacco is not a drug and has conflicts about using drugs. He also shows a strong and positive connection with his mother and has plans for the future.

I used a lot of drugs. Then I stopped... only smoke tobacco... Sometimes I don't buy tobacco. I buy drugs.... I use marijuana... Every weekend I go there [mother's house] to avoid using drugs. She tells me to finish school, take care of myself and help her... I want to finish school and get a decent job.

## 4 | DISCUSSION

The street children who participated in this study were living in a shelter (SAF), which is a different situation from that described in a study conducted in 2006/2007 in the region (Nascimento, 2009), with 134 children and adolescents living on the streets alone or with family members, and spending some time in public institutions or religious groups to get support. Although the situations are different, both populations are considered street children, as they spent a substantial part of their lives on the streets (UNICEF, 2006).

Most of the participants in the present study were adolescents and males, which agrees with previous studies conducted with street

children and adolescents in Brazil (Moura et al., 2012; Nascimento, 2009) and elsewhere (Embleton et al., 2016). All participants had been to school, and most were going to school at the time of the interview, at a higher percentage than that found previously by Nascimento (2009; 73.8% vs. 57.6%), indicating a positive impact of sheltering this population. Most of the individuals were at least 2 years behind the expected school levels, which was expected due to the unstable conditions faced by this population, mainly before going to the SAF.

According to a Brazilian National Survey (Assis & Farias, 2013), children and adolescents arrive at the SAF mostly due to family negligence, parents' chemical addiction, and family abandonment, reasons that are confirmed by the histories and testimonies of the participants in this study. In principle, they should stay in the SAF enough time for reintegration with the family, and when this is not possible, they are placed for adoption; on average, the length of stay is one and a half years (Assis & Farias, 2013).

There were significant associations between time going to the streets, age, and number of years behind the expected school level; boys were more behind the school level and had been going to the streets for a longer time than girls. Over 20% of the participants used to work on the streets, mainly guarding cars and/or selling small things at traffic lights, a situation that is commonly seen in other Brazilian cities (Hoffmann et al., 2017; Maciel et al., 2013; Mello et al., 2014; Moura et al., 2012) and other countries (Pinzon-Rondon et al., 2009; Taib & Ahmad, 2019). While begging was referred by 84% of the street children interviewed by Nascimento (2009), it was not mentioned by the population of the present study, probably because over 50% of them received money from parents, relatives, or others. However, unlike the present study, drug trafficking was not mentioned by Nascimento (2009).

Lack of family bonds and domestic abuse were the reasons given by almost 40% of the participants for spending time on the streets, which were also mentioned by other studies conducted in the region (Nascimento, 2009) and in the country (Hoffmann et al., 2017; Moura et al., 2012; Raffaelli et al., 2018). Some authors have pointed out that the freedom provided by street life also pulls children into this environment (Asante & Nefale, 2021; Embleton et al., 2016). This freedom was also mentioned by one of the study participants (The street is for everyone to walk).

Over 80% of the present studied population had used drugs at least once in their life, within the same range found previously in the region (Moura et al., 2012; Nascimento, 2009), but higher than at the national level (60%; Moura et al., 2012). Boys had a significantly higher chance of using drugs in the previous year than girls, and being older, behind the expected school level, and been going longer to the street increased the chance to use drugs in the previous year. Being older, male, having been on the streets for a longer time, without family contact, and sleeping on the street was indeed associated with drug use in the review study conducted by Embleton et al. (2013) with street children and youths (up to 24 years old) conducted in various countries, including Brazil. In a study included in this review, Filipino street children were shown to be at greater risk of abusing





drugs than nonstreet children, and street children with no family contact were at the greatest risk (Njord et al., 2010). Embleton et al. (2013) also found that the main reasons why street children engage in drug use were peer pressure, to forget their problems, to escape reality, and to feel good or experience pleasure, which were reasons also mentioned in the testimonies of the participants of the present study.

The use of drugs by family members was confirmed by the participants, and many indicated that they have started using drugs with them. Various studies have shown that children and adolescents of addicted parents are at higher risk of addiction and of having other psychiatric disorders than other children (Figlie et al., 2004; Njord et al., 2010; Raffaelli et al., 2018; Snyder & Smith, 2015). On the other hand, seeing the negative impact of drug use by the parents, mainly crack cocaine, showed to some participants the devastating consequences of this behavior, which may keep them from using it (My mother.... is messed up, crazy on crack) (...my mother is a drug user. What do I want for my life? The same path as hers?...).

Marijuana and alcohol were the main drugs used by lifetime users (90% and 72%, respectively), followed by inhalants (59%). In the previous work conducted in the region, inhalant use ranked within the range of alcohol and/or tobacco (70%–74%; Nascimento, 2009), followed by marijuana (59%), similar to what was found in the region by the 2003 National Survey (Moura et al., 2012), indicating a change in drug use profile over time in the Federal District. In a study conducted in 2004/2005 in Rio Grande do Sul (RS), in the southern region of Brazil, alcohol was by far the most used drug among the street children (84%), followed by tobacco, marijuana, and inhalants (32%–48%; de Carvalho et al., 2006), showing a clear regional difference for drug use preference in Brazil. In a representative sample of street children in the state of Delhi (India), a large majority of ever-drug users were also using the substances currently, with tobacco, alcohol, and inhalants being the most used in the last 12 months (Dhawan et al., 2020).

The first drugs used by the present study population were marijuana and alcohol (~30%), followed by inhalants (~18%), while inhalants were the first substance used by 54.1% of the street children in Turkey (Kaplan & Çuhadar, 2020). The use of inhalants by street children and adolescents occurs in a variety of cultures and contexts around the world, with a pooled prevalence of 47% (Embleton et al., 2013). The decrease in the importance of inhalant use observed among the street children of the Federal District from the period of 2007/2008 (Nascimento, 2009) to 2017/2018 (present study), as discussed earlier, was also observed in the national surveys with students (10–19 years old), dropping from about 15% in 2004 to 8.7% in 2010, while the marijuana prevalence remained constant (~6%; Carlini et al., 2010). The use of inhalants by adolescents has also declined in the United States (Lipari, 2014), and although most states have passed laws to minimize inhalant abuse, the impact of legislation on this decline is uncertain (Batis, 2017). In Brazil, most inhale solvents from paint

removers (thinner) and shoe glues, and since 2006, only those 18 years or older can buy these products and other solvents in the country (RDC 345/2005; ANVISA). However, the impact of this law on the lower use of inhalants over the years in Brazil is also not clear.

The use of inhalants by the street population of the Federal District was thoroughly investigated by Nascimento (2009). The author found that being alone on the streets increased threefold the chance of using this drug. Over 80% of the users said they could stop whenever they wanted to, but recognized that being on the streets encourages inhalant use.

As also shown by the testimony of one participant of the present study (...Changed my voice, I felt strange, thought I was somewhere else...), the population investigated by Nascimento (2009) had a high-risk perception about inhalant use; more than half had previously got intoxicated, and some had witnessed or heard about street children dying due to solvent inhalation.

On the streets, solvents are inhaled for a long period from a thinner bottle or a soaked tissue, leaving the user in a constant state of torpor. Inhalant users were clearly discriminated against by their peers in the study by Nascimento (2009). In the present study, the discrimination was against crack users, who were called *noiado* (They don't work, they do nothing in live...), in opposition to the drug dealers who ranked high in the street hierarchy and smoke marijuana and drink whisky.

The prevalence of crack/cocaine lifetime users observed in this study (37.7%) was similar to that reported in the previous study conducted in the region (Nascimento, 2009), but higher than what was found in the 2003 National Survey (24%; Moura et al., 2012) and in the RS study (20% used last year; de Carvalho et al., 2006). The prevalence of crack/cocaine use by street children in Brazil is also higher than elsewhere. The pooled prevalence of crack/cocaine use estimated from 12 studies from six countries by Embleton et al., (2013) was 7%, the majority concentrated in five Brazilian studies (16% crude estimated). The street is indeed the preferred location to use crack cocaine (Bastos & Bertoni, 2014; Valdez et al., 2015), and the prevalence for the Brazilian population in household surveys and among students is much lower (<4%; Abdalla et al., 2014; Bastos et al., 2017; Carlini et al., 2010; Madruga et al., 2012).

In the last revision of the Diagnostic and Statistical Manual of Mental Disorders Classification (DSM 5), issued by the American Psychiatric Association, drug abuse and dependence were merged into a single category of substance abuse disorder (Hasin et al., 2013). To be diagnosed with the disorder, the individual must respond positively to at least 2 of 11 criteria, which include social/interpersonal problems related to use, repeated attempts to quit/control use, and much time spent using. In this study, at least half of the recent users reported social/interpersonal problems (got into a fight, was in a risk situation and/or committed a robbery), over 40% tried to stop using drugs and about one-third used almost daily/daily/more than once a day. Indeed, about 40% of the participants of the present study consider they have a drug





dependence problem, and probably would fill the DMS requirements for substance abuse disorder.

## 5 | STUDY LIMITATIONS

This study presents some limitations that are inherent to the studied population and most cannot be avoided or eliminated. First, the convenience sampling limits the number of participants, it does not allow extrapolation to the entire population of children and adolescents in SAF in the Federal District and can be liable to bias. Although a narrative interview was used to bring the participant into a trusted and comfortable environment, and the interviewer was empathic and nonjudgmental, it is possible that many gave socially acceptable answers and were not confident about reporting the use of illegal drugs or carrying out illegal activities. Furthermore, some answers and narratives might have been limited by the ability of the participant to understand the question, mainly among children, and by memory bias.

## 6 | CONCLUSIONS

To the best of our knowledge, this is the first study that assessed the street experience and drug use of children and adolescents living in shelters. Despite being under the protection of a Federal District host institution, this population continues to be exposed to the risks normally found on the street, and drug use is part of their lives, although being in the shelter had a positive impact on school attendance. Boys had a higher chance of being behind the expected school level, which increased their chances of being on the streets and using drugs. Although alcohol use remained an important issue even in the shelter, the profile of illegal drug use has changed in the last decade in the region, with marijuana replacing inhalants as one of the main drugs used by this population.

Despite the limitations of the study, the results are important to help government authorities and social and health workers, including nurses, to develop programs that could prevent street involvement and reconnect the children with their families, along with education programs to reduce violence and drug use at home. Furthermore, in addition to guaranteeing access to school, the programs should enroll the adolescents in training programs so they can gain technical skills that could be used when they leave the shelters.

## AUTHOR CONTRIBUTIONS

All authors contributed to the conception and design of the study. Material preparation, data collection, and analysis were performed by Nadja Maryelly de Oliveira Gomes, who also prepared the first draft of the manuscript. Eloisa Dutra Caldas performed the data curation and final analysis, and revised and finalized the manuscript. All authors read and approved the final manuscript.

## ACKNOWLEDGMENTS

The authors sincerely thank the institutions and the children and adolescents that participated in the study.

## CONFLICT OF INTEREST

The authors declare no conflict of interest.

## DATA AVAILABILITY STATEMENT

The data are not publicly available due to privacy or ethical restrictions.

## ETHICS STATEMENT

The study protocol was by the Research Ethics Committee of the Faculty of Health Science of the University of Brasilia (no. 1.651.110) and informed consent was obtained from all participants.

## ORCID

Eloisa Dutra Caldas  <http://orcid.org/0000-0002-7197-6807>

## REFERENCES

- Abdalla, R. R., Madruga, C. S., Ribeiro, M., Pinsky, I., Caetano, R., & Laranjeira, R. (2014). Prevalence of cocaine use in Brazil: Data from the II Brazilian National Alcohol And Drugs Survey (BNADS). *Addictive Behaviors*, 39(1), 297–301. <https://doi.org/10.1016/j.addbeh.2013.10.019>
- Asante, K. O., & Nefale, M. T. (2021). Substance use among street-connected children and adolescents in Ghana and South Africa: A cross-country comparison study. *Behavioral sciences*, 11(3), 28. <https://doi.org/10.3390/bs11030028>
- Assis, G. A., & Farias, L. O. P. (2013). *Levantamento nacional das crianças e adolescentes em Serviço de Acolhimento*. Hucitec Editora, 368 pp.
- Bastos, F. I. P., & Bertoni, N. (2014). *Pesquisa Nacional sobre o uso de crack: Quem são os usuários de crack e/ou similares do Brasil? quantos são nas capitais brasileiras?* Editora ICICT/FIOCRUZ, 228 pp. <https://www.arca.fiocruz.br/handle/icict/10019>
- Bastos, F. I. P. M., de Vasconcelos, M. T. L., de Boni, R. B., dos Reis, N. B., & Coutinho, C. F. S. (2017). *Third national survey on drug use by the Brazilian population*. ICICT/FIOCRUZ, 532 pp. [https://www.arca.fiocruz.br/bitstream/icict/34614/2/III%20LNUD\\_ENGLISH.pdf](https://www.arca.fiocruz.br/bitstream/icict/34614/2/III%20LNUD_ENGLISH.pdf)
- Batis, J. C. (2017). Effectiveness of inhalant abuse legislation. *Substance Use & Misuse*, 52(2), 175–181. <https://doi.org/10.1080/10826084.2016.1223135>
- Carlini, E. A., Noto, A. R., Sanchez, Z. M., Carlini, C. M. A., Locatelli, D. P., Abeid, L. R., Amato, T. C., Opaleye, E. M., Tondowski, C. S., & Moura, Y. G. (2010). *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*. Centro Brasileiro de Informações sobre Drogas Psicotrópicas (CEBRID). <https://www.cebrid.com.br/vi-levantamento-estudantes-2010/>
- de Carvalho, F. T., Neiva-Silva, L., Ramos, M. C., Evans, J., Koller, S. H., Piccinini, C. A., & Page-Shafer, K. (2006). Sexual and drug use risk behaviors among children and youth in street circumstances in Porto Alegre, Brazil. *AIDS and Behavior*, 10(4, Suppl), 57–66. <https://doi.org/10.1007/s10461-006-9124-4>
- Dejman, M., Vameghi, M., Roshanfekr, P., Dejman, F., Rafiey, H., Forouzan, A. S., Assari, S., Bass, J., & Johnson, R. M. (2015). Drug use among street children in Tehran, Iran: A qualitative study. *Frontiers in Public Health*, 3, 279. <https://doi.org/10.3389/fpubh.2015.00279>



- Dhawan, A., Mishra, A. K., Ambekar, A., Chatterjee, B., Agrawal, A., & Bhargava, R. (2020). Estimating the size of substance using street children in Delhi using respondent-driven sampling (RDS). *Asian Journal of Psychiatry*, 48, 101890. <https://doi.org/10.1016/j.ajp.2019.101890>
- Embleton, L., Lee, H., Gunn, J., Ayuku, D., & Braitstein, P. (2016). Causes of child and youth homelessness in developed and developing countries: A systematic review and meta-analysis. *JAMA Pediatrics*, 170(5), 435–444. <https://doi.org/10.1001/jamapediatrics.2016.0156>
- Embleton, L., Mwangi, A., Vreeman, R., Ayuku, D., & Braitstein, P. (2013). The epidemiology of substance use among street children in resource-constrained settings: A systematic review and meta-analysis. *Addiction*, 108(10), 1722–1733. <https://doi.org/10.1111/add.12252>
- Fairclough, N. (2003). *Analysing discourse: Textual analysis for social research*. Routledge, Taylor & Francis Group, 61 pp.
- Fernandes, G. T., & Vaughn, M. G. (2008). Brazilian street children. *International social work*, 51(5), 669–681. <https://doi.org/10.1177/0020872808093344>
- Figlie, N., Fontes, A., Moraes, E., & Payá, R. (2004). Filhos de dependentes químicos com fatores de risco bio-psicossociais: Necessitam de um olhar especial? *Archives of Clinical Psychiatry (São Paulo)*, 31(2), 53–62. <https://doi.org/10.1590/S0101-60832004000200001>
- Guest, G., Bunce, A., & Johnson, L. (2006). How many interviews are enough? An experiment with data saturation and variability. *Field Methods*, 18, 59–82. <http://doi.org/10.1177/1525822X05279903>
- Hasin, D. S., O'Brien, C. P., Auriacombe, M., Borges, G., Bucholz, K., Budney, A., Compton, W. M., Crowley, T., Ling, W., Petry, N. M., Schuckit, M., & Grant, B. F. (2013). DSM-5 criteria for substance use disorders: Recommendations and rationale. *American Journal of Psychiatry*, 170(8), 834–851. <https://doi.org/10.1176/appi.ajp.2013.12060782>
- Hoffmann, E. V., Duarte, C. S., Fossaluzza, V., Milani, A. C. C., Maciel, M. R., Mello, M. F., & Mello, A. F. (2017). Mental health of children who work on the streets in Brazil after enrollment in a psychosocial program. *Social Psychiatry and Psychiatric Epidemiology*, 52(1), 55–63. <https://doi.org/10.1007/s00127-016-1316-2>
- Kakchapati, S., Shrestha, B., Li, D. Y., Rajbhandari, R., & Poudel, T. (2018). Drug use, injecting behaviors, and survival sex among street children and youths in Kathmandu valley, Nepal. *International Journal of STD & AIDS*, 29(6), 588–597. <https://doi.org/10.1177/0956462417746532>
- Kaplan, V., & Çuhadar, D. (2020). The levels of anger and aggression in street children with substance dependence. *Journal of Child and Adolescent Psychiatric Nursing*, 33(4), 239–247. <https://doi.org/10.1111/jcap.12275>
- Lipari, R. N. (2014). *Recent declines in adolescent inhalant use* (The CBHSQ Report). Substance Abuse and Mental Health Services Administration (US). <https://www.ncbi.nlm.nih.gov/books/NBK385062/>
- Maciel, M. R., Mello, A. F., Fossaluzza, V., Nobrega, L. P., Cividanes, G. C., Mari, J. J., & Mello, M. F. (2013). Children working on the streets in Brazil: Predictors of mental health problems. *European Child & Adolescent Psychiatry*, 22(3), 165–175. <https://doi.org/10.1007/s00787-012-0335-0>
- Madruga, C. S., Laranjeira, R., Caetano, R., Pinsky, I., Zaleski, M., & Ferri, C. P. (2012). Use of licit and illicit substances among adolescents in Brazil—A national survey. *Addictive Behaviors*, 37(10), 1171–1175. <https://doi.org/10.1016/j.addbeh.2012.05.008>
- Mello, A. F., Maciel, M. R., Fossaluzza, V., Paula, C. S., Grassi-Oliveira, R., Cavalcante-Nóbrega, L. P., Cividanes, G. C., Soussumi, Y., Soussumi, S. P., Perissinotti, D. N. M., Bordin, I. A., Mello, M. F., & Mari, J. J. (2014). Exposure to maltreatment and urban violence in children working on the streets in São Paulo, Brazil: Factors associated with street work. *Revista Brasileira de Psiquiatria*, 36(3), 191–198. <https://doi.org/10.1590/1516-4446-2013-1185>
- Moura, Y. G., Sanchez, Z. M., Opaleye, E. S., Neiva-Silva, L., Koller, S. H., & Noto, A. R. (2012). Drug use among street children and adolescents: What helps. *Cadernos de Saúde Pública*, 28(7), 1371–1380. <https://doi.org/10.1590/S0102-311X2012000700015>
- Nascimento, A. D. (2009). *Uso de solventes por crianças e adolescentes em situação de rua no Distrito Federal* [Master dissertation, Health Science Graduate Programme, University of Brasília]. [https://www.toxicologia.unb.br/img\\_banners\\_publicidade/1579640368.85-img-Njpg](https://www.toxicologia.unb.br/img_banners_publicidade/1579640368.85-img-Njpg)
- Njord, L., Merrill, R. M., Njord, R., Lindsay, R., & Pachano, J. D. R. (2010). Drug use among street children and non-street children in the Philippines. *Asia Pacific Journal of Public Health*, 22(2), 203–211. <https://doi.org/10.1177/1010539510361515>
- Oppong Asante, K. (2016). Street children and adolescents in Ghana: A qualitative study of trajectory and behavioural experiences of homelessness. *Global Social Welfare*, 3, 33–43. <https://doi.org/10.1007/s40609-015-0039-8>
- Paludo, S. S., & Koller, S. H. (2008). Every child has family: A child in street situation too. *Psicologia & Sociedade*, 20(1), 42–52. <https://doi.org/10.1590/S0102-71822008000100005>
- Pinzon-Rondon, A. M., Koblinsky, S. A., Hofferth, S. L., Pinzon-Florez, C. E., & Briceno, L. (2009). Work-related injuries among child street-laborers in Latin America: Prevalence and predictors. *Revista Panamericana de Salud Pública*, 26(3), 235–243.
- Raffaelli, M., Santana, J. P., de Moraes, N. A., Nieto, C. J., & Koller, S. H. (2018). Adverse childhood experiences and adjustment: A longitudinal study of street-involved youth in Brazil. *Child Abuse & Neglect*, 85, 91–100. <https://doi.org/10.1016/j.chiabu.2018.07.032>
- Rizzini, I., & Couto, R. M. B. (2019). Children and adolescents on the street: main research themes in Brazil. *Civitas—Revista de Ciências Sociais*, 19, 105–122. <https://doi.org/10.15448/1984-7289.2019.1.30867>
- Sherman, S. S. (2005). Drug use, street survival, and risk behaviors among street children in Lahore, Pakistan. *Journal of Urban Health: Bulletin of the New York Academy of Medicine*, 82(3, Suppl 4), iv113–iv124. <https://doi.org/10.1093/jurban/jti113>
- Snyder, S. M., & Smith, R. E. (2015). Do physical abuse, depression, and parental substance use influence patterns of substance use among child welfare involved youth? *Substance Use & Misuse*, 50(2), 226–235. <https://doi.org/10.3109/10826084.2014.966845>
- Taib, N. I., & Ahmad, A. (2019). Boys who work on the streets of Iraq are exposed to more traumatic events such as torture than schoolboys of the same age. *Acta Paediatrica*, 108(4), 725–730. <https://doi.org/10.1111/apa.14530>
- UNICEF. (2006). *The state of the World's children 2006—Excluded and invisible*. United Nations Children's Fund. <https://www.unicef.org/sowc06/>
- Valdez, A., Kaplan, C., Nowotny, K. M., Natera-Rey, G., & Cepeda, A. (2015). Emerging patterns of crack use in Mexico City. *International Journal of Drug Policy*, 26(8), 739–745. <https://doi.org/10.1016/j.drugpo.2015.04.010>

## SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

**How to cite this article:** Gomes, N. M. d. O., & Caldas, E. D. (2022). Street and drug use experiences among sheltered children and adolescents in the Federal District of Brazil. *Journal of Child and Adolescent Psychiatric Nursing*, 1–9. <https://doi.org/10.1111/jcap.12403>



