







## Health risk conditions: people on the streets

*Condições de risco à saúde: pessoas em situação de rua*

*Condiciones de riesgo de salud: personas en la situación de la calle*

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### ABSTRACT

**Objective:** to examine the clinical conditions and health risk behavior of homeless people. **Method:** this cross-sectional study was conducted at two referral centers for homeless people in northeast Brazil. Information on sociodemographic and clinical variables, and vulnerable behaviors when falling ill was elicited from 100 participants by scripted interviews. Chi-Square and Anova tests were used. **Results:** type of sexual partner influenced the presence of symptoms of sexually-transmitted infection; the presence of symptoms related to the partner's sexually-transmitted infections influenced the participant's symptomatology; alcoholism influenced the practice of sex with drug users; sex in exchange for money correlated with physical violence; and oral sex influenced the presence of a sexually-transmitted infection symptom. **Conclusion:** people on the street display conditions and behaviors that potentiate illness.

**Descriptors:** Health Vulnerability; Homeless Persons; Health status; Health Risk Behaviors.

### RESUMO

**Objetivo:** analisar condições clínicas e comportamentos de risco à saúde de pessoas em situação de rua. **Método:** estudo transversal, realizado em duas instituições de referência para pessoas em situação de rua na região nordeste do Brasil. Aplicou-se um roteiro de entrevista referente a variáveis sociodemográficas, clínicas e comportamentos vulneráveis ao adoecer para 100 participantes. Utilizou-se o teste Qui Quadrado e ANOVA. **Resultados:** o tipo de parceiro sexual influenciou na presença de sintomas de infecção sexualmente transmissível, a presença de sintomatologia relacionada à infecção sexualmente transmissível do parceiro influenciou na sintomatologia do próprio indivíduo, o etilismo influenciou na prática de sexo com usuário de drogas, a prática de sexo em troca de dinheiro apresenta correlação com a violência física, o sexo oral influenciou na presença de sintoma de infecção sexualmente transmissível. **Conclusão:** pessoas em situação de rua apresentam condições e comportamentos que potencializam o adoecimento.

**Descritores:** Vulnerabilidade em Saúde; Pessoas em Situação de Rua; Nível de saúde; Comportamentos de Risco à Saúde.

### RESUMEN

**Objetivo:** examinar las condiciones clínicas y el comportamiento de riesgo para la salud de las personas sin hogar. **Método:** este estudio transversal se realizó en dos centros de referencia para personas sin hogar en el noreste de Brasil. La información sobre las variables sociodemográficas y clínicas, y los comportamientos vulnerables cuando se enferma se obtuvo de 100 participantes mediante entrevistas con guión. Se utilizaron pruebas de Chi-Cuadrado y Anova. **Resultados:** el tipo de pareja sexual influyó en la presencia de síntomas de infección de transmisión sexual; la presencia de síntomas relacionados con las infecciones de transmisión sexual de la pareja influyó en la sintomatología del participante; el alcoholismo influyó en la práctica del sexo con consumidores de drogas; sexo a cambio de dinero correlacionado con violencia física; y el sexo oral influyó en la presencia de un síntoma de infección de transmisión sexual. **Conclusión:** las personas en la calle exhiben condiciones y comportamientos que potencian la enfermedad.

**Descriptores:** Vulnerabilidad em Salud; Personas sin Hogar; Estado de Salud; Conductas de Riesgo para la Salud.

## INTRODUCTION

Homeless People (HP) live in a context of many deprivations that directly affect the fragility of basic human needs. They present behaviors that are vulnerable to health and that deserve prominence and scientific relevance<sup>1</sup>.

In the federal government's registration data there are 101,854 homeless people in Brazil, with the Northeast represented by 22,864 individuals, considered the second with the highest number of HP in the country, second only to the Southeast region<sup>2</sup>.

In the context that permeates these individuals, there are health risk behaviors, such as isolation, fragility in family ties, drug use, prostitution in search of money to survive, sharing sharps, physical violence, unprotected sex, access to health care services denied for not having identification number or fixed residence, submission to inhuman work without fixed income to be able to eat, and social discrimination<sup>3</sup>.

Therefore, this study becomes relevant to public health, health professionals, and specifically nurses, who are mandatory members of the street office teams, and develop care aimed at HP that involves physical-biological, spiritual and social affective aspects. In addition, by means of the nursing consultation, they can identify the real needs and expectations of these people in relation to health care.

According to a study conducted in Porto Alegre-RS, the number of HP is growing considerably in Brazil, and there is still scarcity of studies in this field<sup>4</sup>. This study contributes to the process of disseminating the main clinical conditions and vulnerable behaviors of these individuals, providing possible elaboration or restructuring of public policies targeted at this population.

The unhealthy living conditions in which HP live contribute to a wide vulnerability, revealing health inequalities that could be avoided or minimized if there was better articulation between the places destined to these people (shelters, support cases, street offices)<sup>3</sup> and trained professionals for service considering the whole context in which they are inserted<sup>5</sup> in order to welcome, assist health in its biopsychosocial aspect<sup>6</sup>, as well as encouraging basic and technological education.

A number of research studies show that HP are more vulnerable to the development of diseases such as Tuberculosis and Sexually Transmitted Infections (STIs), in addition to mental disorders<sup>7</sup>.

As a consequence, the high prevalence of diseases among HP, whether transmissible or not, can be justified by the presence of vulnerable behaviors and by the deprivation of rights<sup>1</sup>.

Determinants and conditioning factors of the health of homeless people such as housing, schooling, transportation, leisure, work, and access to essential goods and services, among others, can directly influence illness<sup>7</sup>.

Thus, the following question emerged: What are the clinical conditions and health risk behaviors of homeless people? Thus, the objective was to analyze clinical conditions and health risk behaviors of homeless people.

## METHOD

A cross-sectional and quantitative study, conducted in two reference centers for homeless people in the Northeast region of Brazil. The data collection period was between the months of February and May 2018.

The eligibility criteria consisted of being HP, being 18 years old or older, being registered at the data collection sites, and not consuming drugs, alcohol or cigarettes at the time of data collection. Those who were aggressive and did not offer availability to receive the researchers were excluded.

To define the sample, the starting point was a population comprised of 110 homeless people, using a sample calculation according to the proposed formula<sup>8</sup>, considering the variables of population (N) equal to 110, sample (n), proportion of the population (p.q) with a value of 0.25, 95% confidence, error (E) of 3%, critical value (Z) of 1.96, in which the value of  $n = N$  multiplied by p.q and  $Z^2$ , and divided by  $p.q (Z^2) + (N-1)$  multiplied by  $E^2$ . In this way, the sample was found to be 99.801, rounded to the nearest upper integer, in this case, 100 homeless people.

The data collection instrument was applied in the form of an individual interview in a calm environment and lasted 60 minutes. The data collection team was made up by six people, two nurses and four undergraduate Nursing students who received a four-hour prior training session including an explanation and simulation of the application of the questionnaire.

The interview script was composed of the following variables: age, information regarding clinical conditions (tachycardia, pain, sadness, cough, diabetes, stroke, hypertension, acute myocardial infarction, pulmonary tuberculosis, pneumonia, symptom of Sexually Transmitted Infections, cough, secretion, wheezing, fever, dizziness, fainting, forgetfulness, blurred vision, headache), vulnerable behaviors when falling ill (alcoholism, smoking, type of sexual partner, sex with drug users, sex for money, type of sex performed, number of sexual partners, sex with a person with an injury to the genitals, sex with a partner with STI symptoms, sharing sharps, physical and sexual violence, number of baths and daily tooth brushing, dirty aspect, exposure to rain).

It is emphasized that a pilot study was carried out with ten HP, excluded from the population of the present study. The purpose of the pilot study was to test the data collection instrument, allowing for alteration, improvement, and review.

Data were processed in a descriptive manner with absolute and relative frequencies. The normality of the data was verified through the Kolmogorov-Smirnov test. Tests were also applied to verify associations or influence between variables. The chi-square test was performed in the following associations: to identify if the type of sexual partner (sex worker, girlfriend, wife, casual partner) is associated with the presence of STI symptoms, as well as to verify if the

presence of STI-related symptoms in the partners is associated with STI symptoms of the individuals themselves. In addition, the chi-square test was applied to verify if alcoholism was associated with the practice of sex with drug users, as well as to verify if the practice of sex in exchange for money was associated with physical violence and to test if oral sex influenced the presence of STIs.

To verify if the presence of STIs varied with the number of partners, the ANOVA test was performed, since it is an interval variable with more than two answer possibilities regarding the number of partners. It was considered significant for all the statistical tests when  $p \leq 0.05$ .

The study followed all the ethical requirements of Resolution 466/2012 of the National Health Council that determines parameters of research studies with human beings, being approved by the Research Ethics Committee according to opinion No. 2,456,847.

## RESULTS

HP showed important characteristics which can be associated with the daily customs experienced that directly reflect in the illness process of this population group.

Table 1 refers to aspects related to clinical conditions of symptoms and previous diseases of the studied group.

**TABLE 1:** Aspects related to clinical conditions of symptoms and previous illnesses of homeless people (n=100). João Pessoa, Paraíba, Brazil.

Clinical conditions		n	%
Tachycardia	Yes	15	15%
	No	85	85%
Pain	Yes	37	37%
	No	63	63%
Sadness	Yes	34	34%
	No	66	66%
Cough	Yes	20	20%
	No	80	80%
Diabetes	Yes	7	7%
	No	93	93%
Stroke	Yes	-	-
	No	100	100%
Hypertension	Yes	5	5%
	No	95	95%
Acute Myocardial Infarction	Yes	1	1%
	No	90	90%
Tuberculosis	Yes	15	15%
	No	85	85%
Pneumonia	Yes	14	14%
	No	86	86%
Secretion in cough	Yes	17	17%
	No	83	83%
Wheezing in chest	Yes	6	6%
	No	94	94%
Fever	Yes	12	12%
	No	88	88%
Dizziness	Yes	37	37%
	No	63	63%
Fainting	Yes	9	9%
	No	91	91%
Forgetfulness	Yes	44	44%
	No	56	56%
Blurred vision	Yes	25	25%
	No	75	75%
Cephalaea	Yes	38	38%
	No	62	62%

Age was classified into four groups, with those between 18 and 30 years old representing 37%; between 31 and 41 years old, 37%; between 42 and 52 years old, 23%; and between 53 and 63 years old, 3% of the sample.

Table 2 refers to the characteristics of the studied group in relation to health risk behaviors related to alcohol consumption, smoking, violence and personal hygiene.

**TABLE 2:** Health risk behaviors related to alcohol consumption, smoking, violence, and personal hygiene of homeless people (n= 100). João Pessoa, Paraíba, Brazil.

Vulnerable behaviors when falling ill		n	%
<b>Alcoholism</b>	Yes	68	68%
	No	32	32%
<b>Smoking</b>	Yes	83	83%
	No	17	17%
<b>Daily consumption of cigarettes</b>	Zero	17	17%
	Two	1	1%
	Three	3	3%
	Five	5	5%
	Eight	1	1%
	Nine	1	1%
	Ten	7	7%
	Fifteen	1	1%
	Twenty	27	27%
	Thirty	12	12%
	Forty	17	17%
	Seventy	6	6%
	Eighty	2	2%
<b>Physical violence</b>	Yes	71	71%
	No	29	29%
<b>Sexual violence</b>	Yes	15	15%
	No	85	85%
<b>Number of daily baths</b>	One	28	28%
	Two	32	32%
	Three	40	40%
<b>Appearance</b>	Dirty	31	31%
	Clean	69	69%
<b>Daily tooth brushing</b>	Does not brush	15	15%
	One	22	22%
	Two	25	25%
	Three	38	38%
<b>Exposure to rain</b>	Yes	63	63%
	No	37	37%

Regarding to aspects connected to health risk behaviors when falling ill related to sexually transmitted infections in the studied group, these are described in Table 3.

**TABLE 3:** Aspects related to health risk behaviors when falling ill related to sexually transmitted infections of homeless people (n=100). João Pessoa, Paraíba, Brazil.

Vulnerable behaviors when falling ill		n	%
Type of sex partner	Sex worker	6	6%
	Boyfriend	18	18%
	Husband	24	24%
	Casual	52	52%
Sex with drug user	Yes	54	54%
	No	46	46%
Sex in exchange for money	Yes	20	20%
	No	80	80%
Type of sex performed			
Oral	Yes	87	87%
	No	13	13%
Anal	Yes	81	81%
	No	19	19%
Vaginal	Yes	99	99%
	No	1	1%
Number of sex partners	Does not have a steady partner	14	14%
	One	74	74%
	Two	3	3%
	Three	3	3%
	Four	6	6%
Sex with a person with an injury to the genitals			14%
	Yes	14	
STI symptoms	No	86	86%
	Yes	43	43%
Sex with a partner with STI symptoms	No	57	57%
	Yes	25	25%
Pain during intercourse	No	75	75%
	Yes	5	5%
Sharing of sharps	No	95	95%
	Yes	5	5%

The association between variables to verify hypotheses through statistical tests found that the type of sexual partner (sex worker, girlfriend, wife, casual partner) is associated with the presence of STI symptoms ( $p<0.001$ ), and that the presence of STI-related symptoms in the partner is associated with the individual's own STI symptoms ( $p<0.001$ ). In addition, it is highlighted that alcoholism is associated with the practice of sex with drug users ( $p<0.001$ ), and that the practice of sex in exchange for money is associated with physical violence ( $p<0.001$ ). It is also noteworthy that oral sex is associated with the presence of STI symptoms:  $p<0.001$ .

## DISCUSSION

Infection by tuberculosis and pneumonia was observed, which can be associated with factors such as rain, clusters of people, poverty, lack of employment, lack of knowledge about the disease, and low immunity. The situation of living on the street is an entrance to the misery of the human condition which, added to the affliction of tuberculosis and pneumonia, becomes a complex issue for both professionals and health managers<sup>9</sup>. The I National Census and Survey on Homeless People reports that among the health problems of these people are tuberculosis, asthma, bronchitis, and pneumonia<sup>10</sup>.

In addition, the difficult or denied access to the Family Health Strategy for not having a fixed address or identification card is emphasized<sup>11</sup>.

The results of this study revealed vulnerable behaviors when falling ill: alcohol consumption, smoking, violence, personal hygiene; the first, when associated with drug use, being the main cause of disruptions in life and insertion in the streets. Abusive alcohol consumption can trigger the effects of central nervous system depression, drowsiness and altered reflexes<sup>12</sup>.

The fact that alcoholism is associated with the practice of sex with drug users is justified by alcoholic beverages increasing the tendency of health risk behaviors such as the use of drugs and smoking, being mentioned in studies as one of the factors responsible for unsafe sexual practices, accidents and deaths due to external causes<sup>13</sup>.

A research study carried out in Belo Horizonte/MG detected the influence of alcoholic beverages on risk behaviors and stated the possibility that alcohol reduces the perception of risk, potentiating vulnerable behaviors<sup>14</sup>, such as the non-use of condoms<sup>15</sup> that potentiates syphilis cases, in addition to multiple sexual partners, and sex under the influence of drugs<sup>16</sup>.

Regarding the types of violence experienced by these people, the majority suffered physical violence, being associated with sex in exchange for money ( $p<0.001$ ), a fact mentioned by several authors and in multiple contexts, whether sex worker or not. When selling sexual activity, the individual is afraid to negotiate the use of condoms and may become a victim of physical violence<sup>17</sup>.

On the streets, sexual practice in exchange for money is quite frequent, where it often occurs with drug users. In addition to having the risk of using drugs, sharing syringes and multiple partners, they increase the risk of infection, as they are resistant to negotiating safe sex<sup>18</sup>.

When becoming a victim of physical violence, homeless people often do not find support from institutions to report and when they do, the fact can be omitted or reversed by the authorities themselves, due to social stigmatization, generating feelings of guilt. For this reason, most of these people accept physical violence due to sex in exchange for money for the sake of survival<sup>19</sup>.

The present study identified that the majority of HP have casual sex, corroborating with a study carried out in the city of São Paulo that showed a higher probability of STIs in people who have sex with more than one partner as in casual sex, since they have greater chance of contact with different viral types with each new contact<sup>20</sup>.

It is observed that the majority of the sample of this study practices sex with drug users, which can significantly contribute to the increase in the chances of HIV/AIDS infection or any other STI, as well as in the exposure to physical violence<sup>21</sup>.

With regard to the sexual practice, the current study showed that the most reported type of sex was vaginal, followed by oral and anal sex. It is noteworthy that anal sex increases the chances of infection by human papillomavirus (HPV), which is the main factor in cervical cancer<sup>22</sup>.

As for the presence of symptoms related to the partner's STI, associated with the STI symptoms of the individual ( $p<0.001$ ), it is highlighted that, when having a partner for sexual practice, this cannot imply disregarding individual sexual behaviors to prevent STIs, since it is not possible to concretely assert the sexual practices of the other person because, if any partner has a diagnosis of STIs, it can cause, in the absence of safe sex, the transmission of diseases. Thus, it is essential to use condoms in all sexual relations, without confusing this practice with feelings of fidelity and love<sup>23</sup>.

With regard to oral sex, it is associated with the presence of STI symptoms, a statistically significant hypothesis in this study, which arouses the understanding that this sexual route must also be considered in the dissemination of STIs, as most people perform it unprotected, believing that, because it is the mouth, it is not possible to transmit diseases. When performed without a condom, oral is considered a risk behavior for STIs<sup>24</sup>.

In this perspective, the hypotheses of the study reveal important challenges for Nursing, as well as for public health, in the sense of improving and intensifying care, considering intrinsic aspects of HP. In addition, it demonstrates fragility in the public health policies, requiring the effective implementation of the National Policy for Homeless People in order to guarantee qualified and welcoming assistance, capable of instigating change, empowerment and reintegration into society.

Thus, it is essential to discuss this theme in schools and in the media, so that the general population is able to welcome those who live on the street through non-governmental social projects.

## CONCLUSION

The study showed that HP present clinical conditions and behaviors that favor illness, such as smoking, alcoholism, sex with drug users, practicing oral and anal sex, having sex with casual partners, sex in exchange for money, they are constantly exposed to rain, and had a previous diagnosis of pneumonia and tuberculosis.

It was verified that the type of sexual partner influences the presence of STI symptoms; that the presence of STI-related symptoms in the partner influences the individual's own STI symptoms; and that alcoholism influences sex with



drug users. The practice of sex in exchange for money correlates with physical violence and in that oral sex influences the presence of STI symptoms.

Thus, it is essential to develop strategies that address these specificities and, in addition, to train/qualify the professionals who serve this population in order to minimize harms and vulnerabilities.

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