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Dental Pain in Homeless Adults in Porto Alegre, Brazil



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ABSTRACT

Objective: To evaluate the association of dental pain with time living on the street in a sample of homeless people in the city of Porto Alegre, Brazil.

Methods: A cross-sectional study was carried out with homeless people who accessed social services in 2017. A questionnaire was administered covering socioeconomic variables and including questions about general health, use of tobacco/alcohol/drugs, use of dental services and history of dental pain. The decayed, missing, and filled teeth (DMFT) index was calculated in an oral examination. The association between socioeconomic characteristics, health status, time of homelessness and dental pain was evaluated using chi-square, t-, and Mann-Whitney tests.

Results: A total sample of 214 homeless people was surveyed. Most were male (76.2%), had a low level of education (67.6%) and experienced many episodes of dental pain during life (91.0%). The last episode of pain was moderate or intense (79.7%) and do-it-yourself measures for pain relief were preferred (62.3%). Individuals who were homeless for longer than 1 year had more dental pain in the past ($P < 0.001$), more frequency of a recent episode of dental pain ($P = 0.03$), and sought a dentist or healthcare service to relieve pain less frequently ($P = 0.03$).

Conclusions: Dental pain is frequent in the context of homelessness and does not necessarily result in seeking dental services, even where there is universal oral health care.

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Introduction

Homelessness is a global problem that has serious social consequences and is described as a reflection of a human rights crisis that requires immediate attention.¹ Homeless people face systemic discrimination and social exclusion and often become invisible on the decision-making agenda of policy-makers.¹ The homeless population is diverse and described as a heterogeneous group that lives in extreme poverty and with no regular and conventional housing, using public places and irregular areas as housing and livelihood space, temporarily or permanently, as well as shelter services for temporary overnight stays or as temporary housing.² It is known that the context of social vulnerability experienced by this population leads to an increased risk of illness, given

that life on the street or in shelters exacerbates existing health issues and increases the risk of new diseases.³

The high prevalence of chronic diseases,⁴ infectious diseases,⁵ mental disorders⁶ and abuse of tobacco, alcohol and other psychoactive substances^{7,8} among homeless people has been extensively described. In addition, homeless populations have a high prevalence of oral diseases,^{9–11} with a high impact on their quality of life.¹² Although homeless people report high levels of self-perceived need of oral health care,¹³ they also make little use of dental services.¹⁴ In addition, homeless people face barriers at different levels when accessing health services, such as chaotic lifestyles, competing priorities, dental anxiety/fear, stigma, refusal or inability to register with a dentist and lack of regular care for the homeless.^{11–15} The multiple barriers encountered are conceptually similar and are seen in different contexts, regardless of time and health environment. They are present in various locations, including high-income countries⁴ and those with a

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universal health system, such as England¹² and Canada.^{13,15} This pattern is explained by the fact that the access barriers can be related both to the organisation of the health systems and to the experience of homelessness itself.¹⁶ This complex interaction prevents homeless people from seeking timely care, enabling health conditions to worsen and making homelessness an independent risk factor for hospitalisation and emergency visits,⁴ including for oral health care demands.¹⁷ The difficulty accessing healthcare may result in high prevalence of acute and chronic pain,^{18,19} which is corroborated by studies showing that among the main health complaints in this population, toothache is one of the most frequent.^{20–22} In the general adult population, dental pain can vary according to age, gender, and race,²³ and generally increases with reduced levels of education and income,²⁴ increased number of lost teeth,²⁵ presence of mental health problems²³ and alcohol/tobacco^{24,26} consumption. However, in the context of homelessness, most studies do not evaluate dental pain beyond its presence/absence. Despite limited evidence, studies show that homeless people have highly urgent needs for dental care²⁷ and frequent episodes of dental pain, which are associated with poor self-reported oral health²⁸ and neglect of self-care routines,¹⁴ but not necessarily related to clinical oral health status.¹² Furthermore, those who have been on the street for more than a year appear to have a worse oral health-related quality of life.¹³

Most of the published studies on the oral health of homeless people were conducted in countries in the northern hemisphere, without a major focus on dental pain experienced by the homeless. In Brazil, there is a universal system of publicly funded healthcare which provides general and dental health care for all, including specific policies that aim to meet the needs of homeless people.² Nevertheless, the National Survey on Homeless People, carried out in 2008,² showed that the majority of the homeless people sought health care primarily in hospital and emergency departments. Studies on the oral health of homeless people are scarce and little is known about the dental pain experienced by this population in the country. Although it is known that poor oral health can affect homeless people's daily lives, impacting their quality of life,¹² the relationship between the lived experience of homelessness and dental pain still remains unclear. Understanding the impact of homelessness on experiences of dental pain and on the search for relief when having episodes of pain would provide relevant evidence for the formulation of oral health care programs that include and facilitate access to dental care for the homeless. Therefore, the objective of this study was to describe the dental pain and its association with time living on the street, of a sample of homeless adults in the city of Porto Alegre, Brazil.

Methods

This was a cross-sectional study conducted with homeless adults who access social services in the city of Porto Alegre, in southern Brazil. The inclusion criterion was any person over the age of 18 who was sheltered and/or in a condition of temporary shelter in the municipal social service facilities provided for the protection of homeless people. A

convenience sample was used for the recruitment of the participants, as a probability sample of homeless people is usually not feasible due to the transient nature of this population. The sampling project took into consideration the number of homeless people in the last census conducted in the city in 2016, which registered 2,115 individuals²⁰ as homeless. For this study, the participation of at least 10% of this population was expected, taking into consideration that in Porto Alegre, 49% of the homeless access social services.²⁰ The facilities chosen were those that were most accessed by homeless people in the city and that provided universal access for adults living on the street, not being carried out in places that could lead to biased samples dominated by subgroups (such as services only for women, for example). These sites were located in multiple areas of the city and offered different services, improving the research capacity to reach a wider range of the experience of homelessness.

Data collection was conducted from May to August 2017 in five different facilities, specifically one homeless hostel (overnight stay), two shelters (homeless shelter), and two day-care centres (food, bath, clothing). In all of these locations, the individuals were collectively invited to participate in the study and also individually approached. In order to achieve the maximum representativeness of the sample, several strategies were adopted when designing the study, with the help of fieldworkers who deal closely with homeless people in the city. These key workers helped to promote the study and everyone attending the facilities had the opportunity to participate as it was widely advertised. The visits were done at different times throughout the four-month data collection period and the number of people who refused to participate was recorded. The locations were visited until a response rate of at least 50% of the number of vacant spots offered in each service was attained. Those who agreed to participate in the study signed an informed consent form. Data were collected through interviews and oral exams, both conducted by a trained team. The oral examination was performed by a dentist who used artificial lighting, gauze, and wooden spatulas. The training and calibration of clinical conditions were performed using the *in lux* method (by projection). The calibration technique adopted was calculated from the intra-examiner agreement coefficient, and the weighted kappa coefficient was 0.89 for the decayed, missing, and filled teeth (DMFT) index.

The instrument comprised a structured questionnaire, and was followed by a clinical exam. The following three groups of variables were assessed.

1. Socioeconomic and demographic variables: Age (in years), sex, self-reported skin colour/race, marital status (single, married, or divorced/widowed), schooling (in years – classified as illiterate/incomplete elementary school, complete elementary school, incomplete high school, and complete high school or more), weekly income (in Reais), time living on the street (in months – categorised into > or < than 1 year), reason that led the person to live on the street (open-ended question – categorised into family problems, alcohol/drug use, unemployment, or others), places of day stay (job, street, or institutions), current location of overnight stay.

2. Health: Self-reported general health [no diseases, chronic diseases (diabetes, high blood pressure, heart disease, body aches, disability, asthma, skin disease)], transmissible diseases (tuberculosis, STD, HIV/AIDS, hepatitis), mental illness, drug addiction, comorbidities, health service visit in the last year, dental visit (never, more than 1 year ago or less than 1 year ago), frequency of oral hygiene (never/rarely, once a day, two or more times a day), and the pattern of tobacco/alcohol/drug use in the last 3 months as assessed by means of the Alcohol, Smoking and Substance Involvement Screening Test (ASSIST).²⁹ The scores of the pattern of substance use in the last 3 months were categorised adopting the final values as light (0–10 for alcohol and 0–3 for the others), moderate (11–26 for alcohol and 4–26 for the others) and heavy (above 27), the last level being an indicator of probable dependence.²⁹
3. Oral health status and dental pain: Oral health status was assessed using the DMFT index, according to WHO criteria.³⁰ The prevalence of dental pain was verified for two different categories. Participants were asked if they had ever had an episode of dental pain during their lifetime and if so, when the last episode had happened (open-ended question – categorised into >6 months ago or <6 months ago), duration of the pain (minutes/hours and days/weeks/months/years), intensity (visual analogue scale, from 0 to 10, in which 10 is the worst pain endurable) and the approach used to relieve it [open-ended question – categorised into alcohol/drug use, search for a dentist/health service, and do-it-yourself measures (e.g. self-medication, tooth scraping with toothpicks, placing something that relieves the pain inside the tooth, removing the tooth with pliers, waiting for the pain to decrease)]. They were also asked about the number of dental pain episodes in the past (few times or many times), the current frequency of pain (never/rarely and sometimes/repeated/always) as well as its impact (with pain/no impact, and with pain/with impact – combining the answers as ‘had pain, but did not stop doing anything because of it’ and ‘had pain and the pain prevented the individual from doing a daily task’).

Participants' answers to open questions were categorised for data analysis purposes. The aggregation was based on the similarities of meaning between the individual responses observed by the researcher, and each answer was inserted in an equivalent category or resulted in a new category. Simple and relative absolute frequencies were calculated for qualitative variables, in addition to mean and standard deviation or median and 25 and 75 percentiles for quantitative variables. The statistical analysis was carried out to compare the characteristics/health conditions for people who live on the street for less or longer than one year. The chi-square test and t-test for independent samples were conducted and the Mann-Whitney test was done when there was no normal distribution. Statistical significance was set at $P < 0.05$. Analyses were carried out in SPSS version 21.0.

The project was approved by the Ethics Committees of the Federal University of Rio Grande do Sul and the Municipal Health Secretariat of Porto Alegre, under the number 63683817.4.3001.5338. Participants who had dental treatment

needs were referred to the oral health services of the municipal healthcare network.

Results

A total number of 242 homeless people were invited and 214 agreed to participate in the study, generating a response rate of 88.4%. The socioeconomic and demographic characteristics are presented in [Table 1](#). The mean age was 42.5 (SD = 13.3) years and the median time living on the streets was 40 (8–120) months. Most were male (76.2%), not white (58.3%), had incomplete elementary school (67.6%) and became homeless mainly due to family/relationship problems (41.0%). These results are similar to the findings of the census of homeless people conducted in the city in 2016,²⁰ which identified a homeless population formed mostly by males (85.7%), not white (65.6%), older than 35 years of age (61.4%), with incomplete primary education (57.4%) and who became homeless due to family problems (36.4%). The present study's results showed no statistically significant difference between the time living on the street and sex, colour/race, marital status, education, place of daytime stay, weekly income and age.

The most frequent comorbidities were mental health issues (38.0%) and drug addiction (38.5%). In relation to the pattern of substance use, most participants used tobacco at a moderate level (57.0%), and alcohol (57.2%), marijuana (56.3%) and cocaine/crack (66.0%) at a low level. Most participants reported they brushed their teeth 2 or more times a day (60.8%). The associations between the health characteristics of the participants and their time experiencing homelessness are described in [Table 2](#). People who were homeless for longer than 1 year reported more general health issues ($P = 0.01$), more alcohol use ($P < 0.001$), more search for a health service in the year prior to data collection ($P = 0.01$), and brushed their teeth less frequently ($P = 0.03$). The oral conditions verified using the DMFT index revealed that the mean number of affected teeth was 10.95 (SD = 8.43), composed mostly of missing teeth (8.24, SD = 8.12), as seen in [Table 3](#).

[Table 4](#) summarises the frequency of distribution of variables related to dental pain. The majority of the participants reported having experienced dental pain during their lifetime (91.0%), with the majority having several episodes of pain (75.8%) and some having at least one episode of dental pain in the previous 6 months (48.9%). The last episode of dental pain was rated between moderate and intense by most of respondents (79.7%), and the majority also reported that they attempted to solve the pain on their own (62.3%). Individuals who were homeless for longer than 1 year had more dental pain in the past ($P < 0.001$), more frequency of a recent episode of dental pain ($P = 0.03$), and did self-management of pain more often ($P = 0.03$).

Discussion

The main contribution of this study was the description of the dental pain and its relationship with time living on the street in a sample of homeless people in Brazil. To the best of

Table 1 – Distribution of socioeconomic and demographic characteristics in relation to time living on the streets (N = 214)

Variables	≤1 year living on the street n (%)	>1 year living on the street n (%)	Total N (%)	P-value
Sex				
Male	84 (51.5)	79 (48.5)	163 (76.2)	0.25
Female	31 (60.8)	20 (39.2)	51 (23.8)	
Skin colour/race self-reported				
White	48 (54.5)	40 (45.5)	88 (41.7)	0.81
Black/multiracial/indigenous	65 (52.8)	58 (47.2)	123 (58.3)	
Marital status				
Single	69 (51.5)	65 (48.5)	134 (62.6)	0.43
Married	14 (50.0)	14 (50.0)	28 (13.1)	
Divorced/widowed	32 (61.5)	20 (38.5)	52 (24.3)	
Education				
Illiterate/incomplete elementary	74 (51.4)	70 (48.6)	144 (67.6)	0.12
Complete elementary school	14 (46.7)	16 (53.3)	30 (14.1)	
Incomplete high school	10 (58.8)	7 (41.2)	17 (8.0)	
Complete high school	17 (77.3)	5 (22.7)	22 (10.3)	
Location of overnight stay				
Homeless hostel	23 (40.4)	34 (59.6)*	57 (26.6)	<0.001
Homeless shelter	881 (64.8)*	44 (35.2)	125 (58.4)	
On the streets	11 (34.4)	21 (65.6)*	32 (15.0)	
Places of day stay				
Street	43 (57.3)	32 (42.7)	75 (35.0)	0.40
Workplace	16 (61.5)	10 (38.5)	26 (12.1)	
Institutions	56 (49.6)	57 (50.4)	113 (52.8)	
Reason that led to homelessness				
Family problems	45 (52.3)	41 (47.7)*	86 (41.0)	<0.01
Alcohol/drugs use	17 (34.0)	33 (66.0)*	50 (23.8)	
Unemployment	29 (65.9)*	15 (34.1)	44 (21.0)	
Other	20 (66.7)*	10 (33.3)	30 (14.3)	
	Mean (SD)	Mean (SD)	Mean (SD)	
Weekly income (reais) [†]	109.25 (±137.72)	134.88 (±140.32)	121.44 (±139.21)	0.13
Age [‡]	41.92 (±13.54)	43.27 (±12.99)	42.54 (±13.27)	0.46

SD, standard deviation.

* P < 0.05.

[†] Mann-Whitney test.

[‡] t-test for independent samples.

our knowledge, no prior study has reported on the dental pain experienced by a homeless population in the country. Furthermore, in most studies conducted with this group of the population around the world, dental pain has not been included in a focus research question. The present study showed that homeless people have a poor oral health status, with the sample's DMFT score mostly composed of missing teeth. Although the mean DMFT was lower when compared to other studies,^{12,13} the number of filled teeth in this sample was lower, while the number of missing teeth was considerably higher. The missing component may consist either of widely compromised teeth that needed to be extracted or of teeth that were literally missing. In the latter case, the high number of missing teeth may have been due to tooth extractions that were actually needed, or by teeth that could have been treated but had been extracted. The oral health status of the participants contextualises the results of the study, showing episodes of long-term dental pain, with significant impacts on daily activities. However, this did not result in a search for a dental professional, but rather in self-management measures for pain relief. Moreover, the results revealed

an association between time living on the street and the frequency of dental pain and measures to deal with it.

Although it is difficult to gather a probabilistic sample in this type of population, due to its transitory character, the present study obtained a sample with a wide range of experience of homelessness, including from people who sleep strictly on the street and access services only during the day and are often not included in surveys. Furthermore, socioeconomic and demographic characteristics (sex, age, education, income) were similar to those reported in the census carried out in Porto Alegre,²⁰ improving the sample's representativeness. Although participants were recruited in five social service facilities for the homeless in Porto Alegre, data must be interpreted with caution, since those who do not access these main social services were not evaluated. Nevertheless, this study being the first one to our knowledge carried out in Brazil, in addition to the lack of literature on the oral health status and dental pain experience of the homeless worldwide, the findings presented here are a relevant source of information for oral health care planning for this vulnerable group.

Table 2 – Distribution of health characteristics in relation to time living on the streets (N = 214)

Variables	≤1 year living on the street n (%)	>1 year living on the street n (%)	Total N (%)	P-value
Self-reported general health problems				
No problems	27 (71.1)*	11 (28.9)	38 (17.8)	0.01
Chronic disease	16 (72.7)*	6 (27.3)	22 (49.3)	
Transmissible disease	3 (33.3)	6 (66.7)*	9 (4.2)	
Mental health problem	12 (57.1)*	9 (42.9)	21 (9.9)	
Substance dependency	11 (61.1)	7 (38.9)	18 (8.5)	
Comorbidity (more than one)	45 (42.9)	60 (57.1)*	105 (49.3)	
Pattern of tobacco use				
Light	44 (58.7)	31 (41.3)	75 (35.9)	0.45
Moderate	61 (50.4)	60 (49.6)	121 (57.0)	
Heavy	8 (6.5)	5 (38.5)	13 (6.2)	
Pattern of alcohol use				
Light	76 (63.9)*	43 (36.1)	119 (57.2)	<0.001
Moderate	26 (39.4)	40 (60.6)*	66 (31.7)	
Heavy	10 (43.5)	13 (56.5)	23 (11.1)	
Pattern of marijuana use				
Light	69 (59.0)	48 (51.0)	117 (56.3)	0.24
Moderate	34 (46.6)	39 (53.4)	73 (35.1)	
Heavy	9 (50.0)	9 (50.0)	18 (8.7)	
Pattern of cocaine/crack use				
Light	82 (59.4)	56 (40.6)	138 (66.0)	0.08
Moderate	21 (41.2)	30 (58.8)	51 (24.4)	
Heavy	10 (50.0)	10 (50.0)	20 (9.6)	
Visit to health service in the last year				
No	28 (70.0)	12 (30.0)	40 (19.0)	0.01
Yes	84 (49.4)	86 (50.6)	170 (81.0)	
Visit to the dentist				
Never	6 (37.5)	10 (62.5)	16 (7.9)	0.12
>1 year ago	57 (58.2)	41 (41.8)	98 (48.5)	
≤1 year ago	40 (45.5)	48 (54.5)	88 (43.6)	
Frequency of oral hygiene				
Never/rarely	11 (42.3)	15 (57.7)*	26 (13.8)	0.03
Once/day	20 (41.7)	28 (58.3)*	48 (25.4)	
Twice or more/day	71 (61.7)*	44 (38.3)	115 (60.8)	

* Variables where statistically significant differences were found.

As seen in other studies, dental pain was frequent in the past^{12,22,28} and in most of the cases it was also present in at least one recent episode.^{11,21,31} Adding to the existing knowledge, the results of the present study revealed that participants suffered some sort of impact due to an episode of dental pain, affecting their ability to perform activities of daily living. Other studies have shown the great role of pain of any kind in poor mental health,³² as well as the negative impact of dental pain on oral health-related quality of life.^{9,12,21,33} Notwithstanding the high frequency of dental pain in the past and its impact on daily activities, participants reported that the current frequency was lower, which may

reflect the typical characteristic of dental pain, namely that it is chronic in nature but exacerbates in acute episodes over time. Regarding the most recent episode of dental pain, participants reported intense pain that lasted for long periods. Nevertheless, as seen in other studies,^{22,31} even with greater intensity, most individuals attempted to resolve the pain on their own or waited for it to subside, and did not seek dental care or other sort of health service for pain relief. This is assumed by the fact that many participants reported the use of alcohol or drugs to alleviate the suffering. It is argued that homeless people cope with pain¹⁴ understanding it as an inevitable feature of homelessness. When pain becomes

Table 3 – Decayed (D), missing (M), and filled (F) teeth (DMFT) scores in relation to time living on the streets

DMFT scores*	≤1 year living on the street Mean (SD)	>1 year living on the street Mean (SD)	Total Mean (SD)	P-value
DMF	10.67 (±8.78)	11.27 (±8.06)	10.95 (±8.43)	0.39
D (decayed)	1.44 (±1.73)	1.49 (±1.77)	1.46 (±1.74)	0.71
M (missing)	7.82 (±8.43)	8.73 (±7.78)	8.24 (±8.12)	0.15
F (filled)	1.41 (±2.33)	1.05 (±2.15)	1.24 (±2.25)	0.13

* Mann-Whitney test.

Table 4 – Distribution of dental pain variables in relation to time living on the streets (N = 214)

Variables	≤1 year living on the street n (%)	>1 year living on the street n (%)	Total N (%)	P-value
Last episode of dental pain				
≤6 months ago	36 (42.4)	49 (57.6)	85 (48.9)	0.03
>6 months ago	52 (58.4)	37 (41.6)	89 (51.1)	
Episodes of dental pain during life				
Few times	34 (73.9)	12 (26.1)	46 (24.2)	<0.001
Many times	64 (44.4)	80 (55.6)	144 (75.8)	
Current frequency of dental pain				
Never/rarely	70 (60.3)	46 (39.7)	116 (60.4)	<0.01
Sometimes/always	30 (39.5)	46 (60.5)	76 (39.6)	
Duration of last dental pain episode				
Minutes/hours	31 (51.7)	29 (48.3)	60 (34.3)	0.79
Days/weeks/months/years	57 (49.6)	58 (50.4)	115 (65.7)	
Management of dental pain				
Dentist/Health service	32 (59.3)*	22 (40.7)	54 (29.5)	0.03
Alcohol/drug use	3 (20.0)	12 (80.0)*	15 (8.2)	
Do-it-yourself measures	59 (51.8)*	55 (48.2)	114 (62.3)	
Impact of dental pain on daily tasks				
No impact	50 (58.1)	36 (41.9)	86 (45.5)	0.06
Impacted	47 (45.6)	56 (54.4)	103 (54.5)	
	Mean (SD)	Mean (SD)	Mean (SD)	
Intensity of last dental pain episode [†]	7.66 (±2.53)	7.90 (±2.48)	7.78 (±2.50)	0.52

[†] t-test for independent samples.

* Variables where statistically significant differences were found.

unbearable, self-management measures are extremely frequent, and include the use of drugs/alcohol, or even more radical measures such as chewing painkillers, or attempts to drain abscesses or to remove the tooth on their own with knives or pliers, since these are believed to be 'easier' ways to cope with pain than 'going through' the health system.^{31,34} Another study observed that among homeless people who use drugs, the most common pain management, regardless of its nature, is often the use of drugs.³⁵ Furthermore, those who have had drug prescriptions denied by a health professional in the past, as well as those who have always lived on the street, were even more prone to the self-management of the pain.³⁵ Therefore, the use of substances for relief of dental pain may represent a proxy of barriers in access to oral health care.²⁸

The literature reveals that the longer people live homeless, the more likely they are to access an emergency service for dental problems.³⁶ In this study some outcomes, such as recent episodes of dental pain, frequency of past episodes, current frequency of dental pain, and pain relief measures also presented a significant association with time living on the street, which suggests the difficulty that this population faces in having regular access to oral health services. Although access to health care is a complex topic, Lévesque et al.³⁷ conceptualised it and described different factors that can act as facilitators or barriers to it. Several of these aspects are related to patients' abilities to interact with health services and can be present at various stages of a care episode, from the beginning, or when the patient seeks care, to the effective benefit of the care options available.³⁷ In the context of people who are homeless, some factors are really

important to be addressed, such as how they perceive their health needs, if they know what services are available, if they know how to utilise them, and if there are costs or transportation involved when searching for care, for example. Among these, a factor commonly reported is the perception of stigma felt by people who are homeless, either due to inadequate treatment by the health team or due simply to the fear of stigma.¹⁶ Regarding the characteristics of health systems, another frequent barrier faced by this population is the lack of flexibility in services,¹⁶ such as bureaucratic barriers that prevent homeless people from seeking dental treatment (e.g. a request for a permanent address to register with a dentist).

The lack of access can be interpreted as cause and/or consequence of the context of life on the street. Studies reveal that homeless populations experience several urgent/current life events,²⁸ such as looking for housing, drug use, management of financial issues, medication theft, as well as memory problems or temporal isolation,^{14,38} which can impair the perception of need and adherence to regimens of care and treatment. It is also suggested that the past history of traumatic experiences and the great dental anxiety documented by some studies are factors that contribute to the low demand for dental care among the homeless.^{9,34} Therefore, given the potential chaotic pattern of life, this population usually looks for oral health services at most only when dealing with intense pain.³⁴ Frequently, when there are unbearable episodes of dental pain, access takes place at emergency service facilities, with the request of dental extractions for quick relief.¹⁴ At that moment, emergency extractions have positive effects, since they are an immediate relief from suffering, useful in the short term, allowing these individuals to regain

a sense of control over their lives.¹⁴ However, these measures can lead to long-term consequences due to missing teeth, such as functional and aesthetic problems.

This study highlights the dental pain experiences of homeless people and their lack of access to care. It is suggested that care opportunities should be expanded for homeless populations, through the promotion of health policies that integrate different areas and that focus on prevention, education, bonding, and continued care.⁹ Health services can play a significant role in the primary prevention of oral diseases and potentially prevent tooth loss and future functional or self-esteem problems. Thus, dental services must be an integral part of primary care for this group, integrating a multidisciplinary approach with other areas of health and with other services that work directly with homeless populations.¹⁶ Health care managers and providers must be sensitised to understand the context of homelessness and its impacts on oral health, providing appropriate care when this underserved group seeks it.³⁴ The results of this study may provide guidance to the formulation of policies that aim to address potential gaps in homeless individuals' capabilities when accessing health care services. The results reinforce the importance of eliminating avoidable hurdles to accessing health services and to promoting care strategies that are effectively tailored to the specific needs and circumstances of homeless people, taking into account the short- and long-term consequences of the treatment offered. These results are also useful for discussing health inequities and the need for health policies aimed at those who have been living on the street for a long time or who are at greater risk of disease, have more treatment needs and more difficulty in accessing services. It is suggested that health services should be more flexible, facilitating pathways to accessing appropriate dental treatment,^{10,22} especially before dental problems worsen and become acute. Future studies may be needed to examine the experience of homeless people in their attempts to reach health services when having toothaches and also to assess subsequent continued care. Ultimately, more studies are needed to comprehensively understand how the lived experience of homelessness influences oral health, as well as qualitative research methods to deepen the understanding of the burden of dental pain in the lives of homeless people.

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