




Oral health and access to dental services in old quilombolas: a population-based study


Leonardo de Paula Miranda¹ 

Thatiane Lopes Oliveira¹ 

Patrícia de Souza Fernandes Queiroz¹ 

Pâmela Scarlatt Durães Oliveira¹ 

Luciana Santos Fagundes¹ 

João Felício Rodrigues Neto¹ 

Abstract

Objective: to investigate the oral health conditions, access to dental services and sociodemographic factors associated with this accessibility in rural quilombolas elderly in the north of the state of Minas Gerais, Brazil. **Method:** this is an analytical and cross-sectional population-based study, in which cluster sampling was used with probability proportional to size (n=406). Data collection involved structured interviews and clinical dental examinations. **Result:** it was found that the majority of the elderly had low income and low level education. It was observed that a significant portion of individuals reported access to a dental surgeon (97.5%) and that they had had their last dental appointment three years or more ago (60.4%). It was also found that the majority of the elderly were edentulous (52.0%) and that the majority of respondents need prostheses (88%). A high DMFT index was found in the individuals studied (mean value of 27.25). Advanced age, absence of partner e retirement were associated with irregular access to dental services. **Conclusion:** the local quilombolas elderly had poor oral health and restricted access to dental services. Age, marital status and employment status demonstrated association with low accessibility to oral health services in the elderly investigated.

Keywords: Oral Health.

Health of the Elderly. Ethnic

Groups. Risk Groups.

Public Health. Public Policy.

Quilombolas. Vulnerable

Communities.

¹ Universidade Estadual de Montes Claros (Unimontes), Hospital Universitário Clemente de Farias (HUCF / Unimontes), Programa de Pós-graduação em Ciências da Saúde. Montes Claros, MG, Brasil.

There was no funding to carry out the present study.

The authors declare no conflicts to carry out the present study.

Correspondence
Leonardo de Paula Miranda
leodepm@gmail.com

Received: June 3, 2020
Approved: October 1, 2020

INTRODUCTION

The number of epidemiological studies addressing the relevance and implications of the ethnic-racial dimension in the field of health is increasing^{1,2}. Focusing on public health management and planning, it is noteworthy that the subsidiary establishment of a diagnosis related to the reality of minority groups is beneficial since they usually suffer from social and health inequalities, as it is the case of the quilombola population²⁻⁴.

Quilombola communities are characterized as spaces inhabited for centuries by free black people and descendants of slaves⁵. Thus, the remnants of quilombo communities are conceptualized as “ethnic-racial groups according to the criteria of self-attribution, with their own history endowed with specific territorial relations and the belief of black ancestry related to the resistance to the historical oppression suffered.”⁶. Furthermore, it is emphasized that said communities are distinguished by their ethnic identity, the peculiarity of their social organization, and the predominant rural location⁷.

As estimated by Fundação Palmares, there are about 2 million people living in approximately 3,212 remaining certified quilombo communities in Brazil, with 527 communities located in the southeast and 366 located in Minas Gerais⁸.

Apparently, the quilombola communities commonly have a low socioeconomic level, and live with precarious social infrastructure, notably lack of paving, basic sanitation, water supply, and waste disposal^{2,3}. These communities still show a high prevalence of basic health problems related to poor living conditions^{7,3}, they have a lower life expectancy when compared to the white population⁹, and live with restricted access to health services, including dental care²⁻⁴.

It is noteworthy that oral health plays a key role in people’s general health and quality of life. Poor oral conditions can affect the nutritional level, physical and mental well-being, as well as interfere negatively in people’s social lives¹⁰. However, it is observed that there is little research in the literature on the subject of oral conditions of quilombolas, mainly involving the old people. The limited data available related to

the aforementioned age group reveals individuals with poor oral health and a high prevalence of edentulism^{4,11} regarding the epidemiological condition of the Brazilian old people¹².

The international literature also emphasizes that diverse rural populations often have low socioeconomic level, restricted access to oral health services, and a high prevalence of oral diseases^{13,14}, showing an intricate scenario with ethnic issues that is not exclusive to developing countries.

It is noticed that the conditions experienced by quilombola communities denote a scenario of social vulnerability that needs and urgently demands epidemiological studies to characterize the health situation of this population^{2,3,15} aimed at the development and implementation of local public policies.

Thus, it seems that the sociodemographic and epidemiological profiles presented by the present study can plausibly subsidize the planning and execution of oral health actions at the regional level.

Thus, the main objective of the present study was to investigate the condition of oral health, access to dental services, and the sociodemographic factors associated with this accessibility in rural old quilombolas in the north of the state of Minas Gerais, Brazil.

METHOD

This is an analytical, cross-sectional, population-based study carried out in the extension of the northern health macro-region located in the north of the state of Minas Gerais, Brazil. The macro-region expressed comprises 86 municipalities grouped into nine health micro-regions defined in the present study as conglomerates⁸.

Local quilombos were identified using data available on the websites of Fundação Cultural Palmares⁸ and Centro de Documentação Eloy Ferreira da Silva - CEDEFES¹⁶, as well as on the local Municipal Health and Social Development Secretaries and Centro de Agricultura Alternativa (CAA) located in the municipality of Montes Claros-

MG. Thus, there were 79 quilombola communities encompassing approximately 19 thousand inhabitants. Regarding the total number of old people in these communities, and considering the lack of official data, a proportion of 14% of individuals in this age group was estimated in relation to the general population (19,000), following the national estimate of the proportion of old people in the Brazilian population¹⁷. Thus, the universe of old people (N) estimated in the communities expressed was 2,660 individuals.

Regarding the sample size and for the purpose of calculation, we estimated a prevalence of 50% of oral diseases in a finite population due to the heterogeneity of the events measured, confidence level of 90%, margin of error of 5%, design effect (*deff*) equal to 1.5, and an estimated 10% loss, thus considering individuals who did not accept to participate on the survey or gave up during it, thus making up a minimum necessary sample (*n*) of 406 old people.

For the selection of the sample, sampling by conglomerates with probability proportional to size (PPS) was adopted, thus selecting a total of 30 communities. Thus, the probability of selecting each community (primary sampling unit) during the drawing process was directly proportional to its number of inhabitants. The selection of households in each community was based on a previous definition of the central community region, with subsequent displacement of researchers *in loco* in a spiral direction (considering the prevalent geographic distribution spaced between residences in these rural communities), traversing the households, identifying the old people, and conducting interviews and exams until reaching the sample established for each community. All the old people (≥ 60 years old) of the houses visited were invited to participate in the survey.

The inclusion criteria were to be at least 60 years old, self-declare as quilombola, and live in a quilombola community certified by Fundação Cultural Palmares⁸. In addition, the old people manifesting cognitive deficits were excluded from the survey; this condition could hinder or prevent the transmission of information regarding the

variables studied. The cognitive impairment was screened using the Portuguese version - translated and modified - of the Mini Mental-State Examination (MMSE)¹⁸, considering cutoff points of 19 and 25 according to the absence (illiterate) or presence of prior formal schooling, respectively. Thus, illiterate old people who obtained a score ≤ 19 and literate individuals with a score ≤ 25 ¹⁸ were considered to have cognitive deficit.

The variables of the present study are related to sociodemographic characteristics, access to dental services, and oral health condition of the local quilombola old people. The prevalence of dental cavities was investigated using the DMFT Index, considering the number of decayed (D), Missing due to caries (M) and filled (F) teeth. The periodontal condition was assessed using Community Periodontal Index (CPI) and Periodontal Insertion Loss (PIL).

In the bivariate and multiple analyses, access to dental services was adopted as a dependent variable, and the sociodemographic factors of the investigated were adopted as independent variables. The dependent variable was dichotomized in regular and irregular access, having as standard reference the criteria adopted in the Survey of Oral Health Conditions of the Brazilian Population (SB Brazil 2010)¹⁹. Thus, the regular category included the old people who reported the last visit to the dentist occurred in the last two years; the irregular category comprised those who reported the last visit with dentist occurred three years or more ago. In addition, the old people who had never consulted with the aforementioned professional were excluded in this analysis.

It is emphasized that this dental survey is an integral part of a broad matrix study carried out with the quilombolas of the region addressing a varied theme related to the field of health and work. The matrix study had the participation of six researchers (four nurses and two dentists), and six undergraduate students from health areas.

Visits to the communities were previously scheduled by contact between researchers and local representatives of the Municipal Health Secretaries, community leaders, and family health strategy professionals. Dental data was collected between

January and August, 2019 by two examiners (dentists), and involved structured interviews and clinical dental examinations. The interview followed a structured questionnaire was used to collect information regarding the sociodemographic variables, access to dental services, and oral conditions of the investigated. The definition of the items of the data collection instrument, as well as the definition of the criteria adopted in the survey followed basically those adopted in the Survey of Oral Health Conditions of the Brazilian Population (SB Brazil 2010)¹⁹.

The clinical examinations were carried out in an airy place, under natural light, and using explorer probe no. 5, flat dental mirror, periodontal probe developed by the WHO (Golgran[®]), wooden spatulas, and personal protective equipment. Individuals with dental needs were duly referred to local reference health care units. A pre-test study was carried out involving 5% of the sample in order to verify the applicability of the data collection instrument. The examiners were previously trained and calibrated.

Data was tabulated and analyzed using a specific statistical program. Initially, the descriptive analysis of the data was made. Subsequently, a bivariate analysis was conducted using the chi-square test of *Pearson - X²* to verify the association between access to dental services and variables related to sociodemographic characteristics. Finally, a multiple analysis was performed adopting the Bivariate Logistic Regression Model, and using the variables presenting a *p*-value ≤ 0.20 in the bivariate analysis. In the multiple analysis, the category adopted as reference of the dependent variable was the *regular access*. After regression, the magnitude of association between variables was estimated in the final model using the crude and adjusted Prevalence Ratio (PR) (with 95% confidence interval), and the significance level α considered was 5%. The adjustment quality of the model was assessed using the *Hosmer-Lemeshow* test.

The present study was developed according to the precepts determined by resolutions No. 466/2012 and 510/2016 of the National Health Council of the Ministry of Health, and in line with those dictated by resolution CFO 179/91 of the Dental Professional Code of Ethics. The present study was analysed

by the research ethics committee of Universidade Estadual de Montes Claros (COEP-Unimontes), which approved it by the embodied opinion No. 2,821,454. All participants were duly informed about the research, and instructed to sign the free and informed consent form for permission to participate and analyze the data.

RESULTS

Table 1 shows data on the sociodemographic characteristics of the quilombolas old people surveyed. There was a predominance of young old people (aged 60 to 69 years - 64.4%), with spouse (58.3%), literate (61.4%), with black skin color (58.1%), retired (77.1%), and with monthly family income of up to two minimum wages (53.4%).

Table 2 shows data on access to oral health services in the quilombola old people investigated. We found that the majority of the surveyed had access at least to a dental appointment (97.5%), with a report of occurrence of the last appointment 3 years or more ago (60.4%). The largest proportion of old people (52.2%) reported that the last dental appointment was in the private service, and 45.2% declared assistance received in the public service. Tooth extraction was reported as a relevant reason to search for a dentist (38.1%). The old people were satisfied with the last dental care received, with 89.4% rating it as good or excellent.

Table 3 expresses the data concerning the oral health conditions of quilombola old people. There was a predominance of edentulism (52.0%), and 53.5% of individuals used some type of dental prosthesis, as well as a significant portion of the old people (88.0%) needed some kind of prosthesis. Additionally, we observed that the majority of the old people had the oral sextants excluded in the periodontal evaluation (49.5%) for not having at least two functional teeth per sextant, and that 45.3% manifested the presence of periodontal alterations. The absence of alterations in oral soft tissues (89.1%) and the lack of need for immediate dental care (82.8%) also predominated. The most prevalent DMFT Index was 32, found in 50.7% of the old people.

Table 1. Sociodemographic characteristics of rural quilombola old people in northern Minas Gerais (n=406), Brazil, 2019.

Sociodemographic characteristics	n (%*)
Gender	
Male	175 (41,1)
Female	231 (58,9)
Age group (years)	
≥ 80	53 (11,9)
70 to 79	103 (23,6)
60 to 69	250 (64,4)
Marital status	
Without spouse	179 (41,7)
With spouse	224 (58,3)
Skin color	
Not black	190 (41,9)
Black	214 (58,1)
Education	
Non-literate	170 (38,6)
Literate	234 (61,4)
Work	
Not working	45 (8,0)
Retired	286 (77,1)
Working	75 (15,0)
Family income (minimum wage)	
≤ 1	82 (21,4)
Between 1 and 2	224 (53,4)
>2	90 (25,2)
Religion	
Catholic	352 (87,6)
Evangelical	50 (12,4)

*Corrected by the design effect; minimum wage (current value at the time: R\$998.00).

Table 2. Access to dental services by rural quilombola old people from northern Minas Gerais (n=406), Brazil, 2019.

Access to dental services	n (%*)
Have already been to the dentist.	
Yes	397 (97,5)
No	9 (2,5)
Time since the last appointment	
Have never been to the dentist	9 (2,5)
3 years or more	270 (60,4)
2 years or less	127 (37,1)

to be continued

Continuation Table 2

Access to dental services	n (%*)
Reason for the last appointment	
Have never been to the dentist	9 (2,5)
Pain	26 (9,0)
Extraction	170 (38,1)
Treatment/checkup/others	201 (50,4)
Where was the last appointment	
Have never been to the dentist	9 (2,5)
Public	181 (45,2)
Private	213 (52,2)
Evaluation of care service	
Have never been to the dentist	9 (2,5)
Regular/bad/terrible	27 (8,0)
Good/great	369 (89,4)

*Corrected by the design effect.

Table 3. Oral health condition of rural quilombola old people in northern Minas Gerais (n=406), Brazil, 2019.

Oral health condition	n (%*)	Mean (\pm SD)
Edentulism		
No	192 (48,0)	
Yes	214 (52,0)	
Use of prosthesis		
Does not use	202 (46,5)	
Uses	204 (53,5)	
Needs prosthesis		
Does not need	63 (12,0)	
Needs	343 (88,0)	
DMFT		27,25 (\pm 6,97)
32	235 (50,7)	
21 to 31	90 (25,2)	
\leq 20	81 (24,1)	
Periodontal alteration (CPI)		
All sextants excluded	230 (49,5)	
Present	152 (45,3)	
Absent	24 (5,2)	
Periodontal alteration (PIL)		
All sextants excluded	230 (49,5)	
Present	147 (42,6)	
Absent	29 (7,8)	
Alteration of soft tissue		
Yes	48 (10,9)	
No	358 (89,1)	
Needs immediate care		
Yes	76 (17,2)	
No	330 (82,8)	

*Corrected by the design effect; SD: standard deviation.

Table 4 shows the bivariate analysis of data revealing the statistical association between the dependent variable (access to dental services) and the independent variables (sociodemographic factors). In this phase, the variables age, marital status, education, work, and religion were associated with the outcome at the significance level of 20%.

It is clarified that in the bivariate and multiple analyses, a total of 397 old people were considered, since 9 were excluded because they declared *never* having used dental services. Thus, the following absolute and relative frequencies were obtained:

regular access (n=127 - 32.0%); irregular access (n=270 - 68.0%). Thus, a high prevalence of irregular access = 68.0% was observed: IC95% [63.4 -72.6].

Table 5 expresses the logistic regression analysis, demonstrating the statistical associations between the dependent variable (irregular access category) and the independent variables included in the final model. At this stage, there was a statistically significant association ($p < 0.05$) between irregular access to dental services and the sociodemographic variables related to age group, marital status, and work.

Table 4. Distribution according to access to dental services and sociodemographic characteristics (bivariate analysis) related to the rural quilombola old people from northern Minas Gerais, Brazil, 2019.

Sociodemographic characteristics	Use of dental services		<i>p</i> -Value**
	Irregular n* (%)	Regular n* (%)	
Gender			0,546
Male	112 (60,1)	56 (39,9)	
Female	158 (63,2)	71 (36,8)	
Age group (years)			0,029
≥ 80	44 (79,4)	6 (20,6)	
70 to 79	78 (73,2)	24 (26,8)	
60 to 69	148 (54,9)	97 (54,1)	
Marital status			0,094
Without spouse	131 (68,6)	43 (41,4)	
With spouse	138 (57,9)	82 (42,1)	
Skin color			0,496
Not black	125 (65,4)	63 (34,6)	
Black	145 (60,2)	62 (39,8)	
Education			0,004
Non-literate	125 (73,0)	38 (27,0)	
Literate	144 (55,5)	88 (44,5)	
Work			0,021
Not working	25 (63,6)	18 (36,4)	
Retired	206 (66,5)	73 (33,5)	
Currently working	39 (38,7)	36 (61,3)	
Family income (minimum wage)			0,376
≤ 1	56 (72,0)	24 (28,0)	
Between 1 and 2	148 (57,6)	70 (42,4)	
>2	59 (61,2)	30 (38,8)	
Religion			0,079
Catholic	233 (61,6)	110 (38,4)	
Evangelical	35 (71,1)	15 (28,9)	

*Totals vary due to information losses;**Chi-Square Test; Percentages corrected by the design effect.

Table 5. Result of the logistic regression analysis related to data from rural quilombola old people in northern Minas Gerais, Brazil, 2019.

Sociodemographic Characteristics	PR _b (95% CI)	PR _{to} (95% CI)	p-Value
Age group (years)			
≥ 80	4,81 (1,97-11,71)	4,18 (1,57 -11,12)	0,004
70 to 79	2,13 (1,26 -3,60)	1,68 (0,96 -2,94)	0,069
60 to 69	1,00	1,00	
Marital status			
Without spouse	1,81 (1,17-2,81)	1,76 (1,11-2,80)	0,017
With spouse	1,00	1,00	
Work			
Not working	1,28 (0,60-2,73)	1,16 (0,53-2,53)	0,716
Retired	2,61 (1,54-4,41)	2,16 (1,24-3,78)	0,007
Currently working	1,00	1,00	

Hasmer-Lemeshow' Test = 0.994; Crude prevalence ratio (PR_b) and Adjusted prevalence ratio (PR_{to}) with respective 95% confidence intervals (95% CI).

DISCUSSION

Focusing on the descriptive analysis of the data presented, we found that a significant portion of the investigated were old people without spouse, corroborating the data found for Brazilian old people^{20,21}. It should also be noted that certain diseases in old people are associated with the absence of a partner, such as depression²², a condition that is also associated with oral alterations in old people²³.

The results of the present study demonstrated a notorious prevalence of illiteracy, approximately 39%. In Bahia, researchers found a similar rate of illiterate in local quilombolas². It should be noted that old people with low education has been associated with a worse oral health condition²⁴.

Regarding skin color, the majority of the respondents self-declared as black, consistent with the results of the studies carried out in Minas Gerais, Bahia, and Pará^{3,4,2,25}. These data denote the preponderance of this skin color in the quilombolas studied in the country.

It is important to point out that the literature relates skin color to access to oral health services. Thus, when analyzing data related to Brazilian old people and from the National Survey of Oral Health, researchers²⁶ demonstrated that self-declared skin color was a limiting factor in the use of dental care

services. According to these authors, the chance of a black old person never going to the dentist is higher (approximately twice) when compared to their white correspondent, and that the chance of a black old person having used oral health services in the last year is lower than their white correspondent²⁶. Thus, it is clearly perceived that the Brazilian black population still lives with discrimination, prejudice, and inequities related to skin color, as is the case of quilombolas^{5,26}.

Regarding the work profile of the sample studied, it was observed that 77.1% of the old people were retired, with a report of predominant labor as farmers. We emphasize that no research was found in the literature expressing labor data related to the old quilombolas. However, we emphasize that the work process in quilombola communities, especially rural communities, is closely linked to the cultivation of swiddens, planting, and harvesting of grains²⁷, which was confirmed in this investigation.

The old quilombolas investigated showed low income, corroborating the findings of other studies with quilombolas^{2,3,25}. A study carried out in Minas Gerais observed that local old quilombolas had low income and bad oral conditions⁴. Moreover, a study on Brazilian old people showed that low education, low income, and living in rural areas can negatively interfere with access to oral health services²⁸.

Focusing on religion, we noticed that most of the sample reported being linked to the Catholic religion (87.6%). A study investigating religiosity in quilombolas from Bahia found that the studied community showed a religious belief matching Catholicism with Afro-Brazilian cults²⁹. The present investigation also showed that the local communities manifested and nurtured typical cultural traditions that were mixed with religious aspects.

The discussion on dental care services showed that almost all of the sample has been to the dentist at some point in life. However, a significant part of the old people (60.4%) reported that the last dental appointment had been more than 3 years before denoting lack of longitudinal attention in oral health. This data coincides with the findings of another study⁴. In India, it was observed that 32% of the old people living in rural communities had visited the dentist more than a year before³⁰.

In a counterproductive way, it is noteworthy that 52.2% of the old quilombolas reported that the last dental appointment was in the private service, and 45.2% in the public one. These values may indicate a local restriction to access and offer of public oral health services, generating a demand and consequent search for the private dental care service. It is also noted that the population studied had low income. Another study carried out in Minas Gerais showed opposite findings, revealing that 58.2% of old quilombolas surveyed reported that the last dental appointment took place in the public system, and 41.8% in the private system.

Regarding the reason for the last dental appointment and evaluation of this service, a significant portion (38.1%) reported tooth extraction as the main reason for seeking the service, and most were satisfied with the service offered. The data expressed confirms the findings of another study⁴. It should be emphasized that the relevant rate of self-reported demand by the oral health service for dental extraction denotes a probable dental impairment in this population. A study involving rural old people in India identified that the majority of respondents reported pain in the teeth and gums as the reason for the last visit to the dentist³⁰.

The individuals surveyed revealed a prevalence of edentulism of 52.0%, confirming the results of another study carried out with old quilombolas⁴. In a homologous manner, the National Oral Health Survey (Project SB Brazil 2010) showed that Brazilian old people showed a high prevalence of edentulism (63.1%)¹². Thus, in view of the data observed, it is inferred that the high rate of tooth loss still impacts negatively the oral health and quality of life of the Brazilian old people, including the quilombolas.

It was noticed that approximately 54% of the sample used some type of dental prosthesis, coincident with the findings of another study⁴. In India, 97.8% of rural old people who had no dental absence did not use any type of prosthesis³⁰.

The present study found that 88.0% of the elderly needed dental prosthesis. Similar findings were observed in old quilombolas in another study in Minas Gerais⁴. These data indicate the relevant need for rehabilitation in oral health manifested by this population group that could be mitigated with the consolidation of local public policies and effective implementation of oral health teams linked to family health teams, and directed to longitudinal community care.

The average DMFT index found was 27.25 matching the results obtained for old quilombolas and Brazilian old people^{4,12}. It is noteworthy that the component lost due to dental caries was the most prevalent in the index given the large amount of old people who showed edentulism and partial tooth loss. A study carried out with Japanese rural old people showed that the geographical distance between the place of residence and the place of dental care is a risk factor for tooth loss³¹.

Said study showed that 10.9% of those investigated had alterations in the soft tissues of the oral cavity. Old people living in a rural area in Brazil showed a higher prevalence of alterations in the oral mucosa (40.79%)³². The difference observed between prevalences may be linked to the lifestyle or behavioral factors peculiar to members of these communities. In Minas Gerais, old quilombolas reported the local habit of chewing tobacco and using this product and ash from wood stoves to clean their

teeth routinely. Said habit may increase the risk of alterations in the oral mucosa of these individuals¹¹.

A Brazilian study carried out with old quilombolas in rural areas corroborated these findings, and showed individuals with low education, low income, restricted access to dental care services and a high prevalence of tooth loss, with the majority being edentulous in need of a complete dental prosthesis. The study authors also pointed out that the majority of those investigated reported dissatisfaction with oral health⁴.

Regarding the multiple analysis, it was found that irregular access to dental care services was associated with the variables of age group, marital status, and work. Thus, old quilombolas with older age (80 years old or more) showed greater chances of having irregular access to dental care services (PR=4.81) when compared to younger old people (60 to 69 years old). Furthermore, individuals without spouses were more likely (PR=1.81) to have irregular access to the aforementioned services when compared to those who had spouses. In addition, retired old people showed greater chances of having irregular access to the aforementioned services (PR=2.61) when compared to those who worked. Therefore, it seems that oral health care directed to the local old quilombolas should have an equitable focus, and action aimed primarily at individuals with greater age progression, those who mentioned not having spouse, and retired, as exposed, in order to guarantee greater accessibility to dental care services.

National studies based on multiple analysis have shown that the lack of access to dental care services was more intense among individuals with older age and among those more socially vulnerable^{33,34}. Extensive research on Brazilian old people has also shown that the use of public oral health services decreases with age, proving a low prevalence of access to dental care services among older people³⁵.

The results obtained in the present study show the need for a greater offer of oral health promotion services, disease prevention, and curative/rehabilitation care services focused on the population group investigated. We found that several local quilombola communities manifested geographic isolation and were far from urban centers, thus lacking accessibility, integrality, and longitudinality

of health care. In addition, it was observed that most of these communities experience situations of social vulnerability, thus having a direct impact on the health and quality of life of their residents.

It is important to emphasize that the data found in the present study have external validity. Therefore, they are extensible to old quilombolas resident in the northern macro-region of health of Minas Gerais. Additionally, the difficult geographical and road access to communities stood out as obstacles to the execution of the present study. It should be added that the self-reported information obtained in this investigation proved to be susceptible to interference from the memory bias of the interviewees, with possible impacts on the accuracy of the data collected. However, it should be emphasized that this type of bias is commonly manifested in cross-sectional epidemiological surveys. It is also emphasized that the methodology and criteria used in this cross-sectional design basically followed those adopted by the Ministry of Health in the latest national epidemiological surveys on oral health. Furthermore, in view of the scarcity of studies addressing the issue of oral health in old quilombolas, it is suggested that further studies are carried out focusing on this population group and with the primary purpose of public health.

CONCLUSION

It was observed that the old quilombolas presented a precarious oral health condition, and had restricted access to dental care services revealing a scenario of social and health inequities in urgent need of specific public policies. It was also found that irregular access to dental care services proved to be associated and with a high magnitude among old people with more advanced age, and among those without a spouse and retired. Furthermore, the results found indicate the community existence of dental demands that lack longitudinal professional care. Thus, we emphasize that this local deficit of oral health care can be mitigated by expanding the accessibility and comprehensiveness of care offered by the public health system, which must be based on resolute primary care, and based on a health strategy of the proficient family.

Edited by: Ana Carolina Lima Cavaletti

REFERENCES

1. Kabad JF, Bastos JL, Santos RV. Raça, cor e etnia em estudos epidemiológicos sobre populações brasileiras: revisão sistemática na base PubMed. *Physis*. 2012;22(3):895-918.
2. Bezerra VM, Medeiros DS, Gomes KO, Souza R, Giatti L, Steffens AP, et al. Inquérito de Saúde em Comunidades Quilombolas de Vitória da Conquista, Bahia, Brasil (Projeto COMQUISTA): aspectos metodológicos e análise descritiva. *Ciênc Saúde Colet*. 2014;19(6):1835-47.
3. Oliveira SKM, Pereira MM, Guimarães ALS, Caldeira AP. Autopercepção de saúde em quilombolas do norte de Minas Gerais, Brasil. *Cien Saude Colet*. 2015;20(9):2879-90.
4. Sandes LFF, Freitas DA, Souza MFNS. Saúde oral de idosos vivendo em comunidade de descendentes de escravos no Brasil. *Cad Saúde Colet*. 2018;26(4):425-31.
5. Costa ES, Scarcelli IR. Psicologia, política pública para a população quilombola e racismo. *Psicol USP*. 2016;27(2):357-66.
6. Brasil. Decreto no. 4887, de 20 de novembro de 2003. Regulamenta o procedimento para identificação, reconhecimento, delimitação, demarcação e titulação das terras ocupadas por remanescentes das comunidades dos quilombos de que trata o art. 68 do Ato das Disposições Constitucionais Transitórias. Brasília, DF. 2020. Disponível em: http://www.planalto.gov.br/ccivil_03/decreto/2003/D4887.htm
7. Silva JAN. Condições sanitárias e de saúde em Caiana dos Crioulos, uma comunidade Quilombola do Estado da Paraíba. *Saúde Soc*. 2007;16(2):111-24.
8. Brasil. Ministério da Cultura, Fundação Cultural Palmares. Quadro Geral de Comunidades Remanescentes de Quilombos (CRQs) [Internet]. Brasília, DF. 2018. [acesso em 05 dez. 2018]. Disponível em: <http://www.palmares.gov.br/wp-content/uploads/2015/07/quadro-geral.pdf>
9. Chor D, Lima CRDA. Aspectos epidemiológicos das desigualdades raciais em saúde no Brasil. *Cad Saúde Pública*. 2005;21(5):1586-94.
10. Ferreira AKA, Argôlo IFT, Soares MSM, Melo ABP. Alterações salivares, sintomas bucais e qualidade de vida relacionada à saúde bucal em pacientes com doenças neuromusculares. *Rev Ciênc Salud*. 2020;18(1):82-95.
11. Souza MFNS, Sandes LFF, Araújo AMB, Freitas DA. Self-perception and popular practices of oral health among black slave descendants elderly women in Brazil. *Rev Bras Med Fam Comunidade*. 2018;13(40):1-10.
12. Brasil. Ministério da Saúde, Secretaria de Vigilância em Saúde. SB Brasil 2010: Pesquisa Nacional de Saúde Bucal: resultados principais. Brasília, DF: Ministério da Saúde; 2012.
13. Castañeda H, Carrion IV, Kline N, Tyson DM. False hope: effects of social class and health policy on oral health inequalities for migrant farmworker families. *Soc Sci Med*. 2010;71(11):2028-37.
14. Ogunbodede EO, Kida IA, Madjapa HS, Amedari M, Ehizele A, Mutave R, et al. Oral health inequalities between rural and urban populations of the African and Middle East Region. *Adv Dent Res*. 2015;27(1):18-25.
15. Bidinotto AB, D'Ávila OP, Martins AB, Hugo FN, Neutzling MB, Bairros FS, et al. Autopercepção de saúde bucal em comunidades quilombolas no Rio Grande do Sul: um estudo transversal exploratório. *Rev Bras Epidemiol*. 2017;20(1):91-101.
16. Centro de Documentação Eloy Ferreira da Silva [Internet]. Belo Horizonte: CEDEFES; 2018 [acesso em 11 fev. 2018]. Disponível em: <https://www.cedefes.org.br>
17. Instituto Brasileiro de Geografia e Estatística. Projeções da População. [Internet]. Rio de Janeiro: IBGE; 2018 [acesso em 10 out. 2018]. Disponível em: <https://www.ibge.gov.br/estatisticas/sociais/populacao/9109-projecao-da-populacao.html?=&t=resultados>.
18. Lourenço RA, Veras RP. Mini-Exame do Estado Mental: características psicométricas em idosos ambulatoriais. *Rev Saúde Pública*. 2006;40(4):712-9.
19. Brasil. Ministério da Saúde. Projeto SB 2010: Pesquisa Nacional de Saúde Bucal. Manual da Equipe de Campo. Brasília, DF: MS; 2009.
20. Miranda GMD, Mendes ACG, Silva ALA. O envelhecimento populacional brasileiro: desafios e consequências sociais atuais e futuras. *Rev Bras Geriatr Gerontol*. 2016;19(3):507-19.
21. Neri AL, Yassuda MS, Araújo LF, Eulálio MC, Cabral BE, Siqueira MEC, et al. Metodologia e perfil sociodemográfico, cognitivo e de fragilidade de idosos comunitários de sete cidades brasileiras: Estudo FIBRA. *Cad Saúde Pública*. 2013;29(4):778-92.
22. Gato JM, Zenevicz LT, Madureira VSF, Silva, TG, Celich KLS, Souza SS, et al. Saúde mental e qualidade de vida de pessoas idosas. *Av Enferm*. 2018;36(3):302-10.

23. Silva ERA, Kunrath I, Danigno JF, Cascaes AM, Castilhos ED, Langlois CO, et al. A Saúde bucal está associada à presença de sintomas depressivos em idosos? *Ciênc Saúde Colet.* 2019;24(1):181-8.
24. Oliveira MB, Lopes FF, Rodrigues VP, Alves CMC, Hugo FN. Associação entre fatores socioeconômicos, comportamentais, saúde geral e condição da mucosa bucal em idosos. *Ciênc Saúde Colet.* 2018;23(11):3663-74.
25. Freitas IA, Rodrigues ILA, Silva IFS, Nogueira LMV. Perfil sociodemográfico e epidemiológico de uma comunidade quilombola na Amazônia Brasileira. *Rev Cuid.* 2018;9(2):2187-200.
26. de Souza EHA, Oliveira PAP, Paegle AC, Goes PSA. Raça e o uso dos serviços de saúde bucal por idosos. *Ciênc Saúde Colet.* 2012;17(8):2063-70.
27. Sousa MSR, Santos JF. Territorialidade quilombola e trabalho: relação não dicotômica cultura e natureza. *Rev Katálysis.* 2019;22(1):201-9.
28. Tinós AMFG, Sales-Peres SHC, Rodrigues LCR. Acesso da população idosa aos serviços de saúde bucal: uma revisão. *RFO UPF.* 2013;18(3):351-60.
29. Santos JB. Etnicidade e religiosidade da comunidade quilombola de Olaria, em Irará-Bahia. *Rev Bras Hist Relig.* 2009;2(5):171-201.
30. Salunke S, Shah V, Ostbye T, Gandhi A, Phalgune D, Ogundare MO, et al. Prevalence of dental caries, oral health awareness and treatment-seeking behavior of elderly population in rural Maharashtra. *Indian J Dent Res.* 2019;30(3):332-6.
31. Hamano T, Takeda M, Tominaga K, Sundquist K, Nabika T. Is Accessibility to Dental Care Facilities in Rural Areas Associated with Number of Teeth in Elderly Residents? *Int J Environ Res Public Health.* 2017;14(3):322-7.
32. Montandon AAB, Pinelli LAP, Ricci WA, Piveta ACRG, Munoz Chaves OF, Barros LAB, et al. Conditions of oral health in elderly of rural areas. *MOJ Gerontol Geriatr.* 2019;4(2):59-63.
33. Carreiro DL, Souza JGS, Coutinho WLM, Haikal DS, Martins AMEBL. Acesso aos serviços odontológicos e fatores associados: estudo populacional domiciliary. *Ciênc Saúde Colet.* 2019;24(3):1021-32.
34. Carreiro DL, Souza JGS, Coutinho WLM, Ferreira RC, Ferreira EF, Martins AMEBL. Uso de serviços odontológicos de forma regular na população de Montes Claros, MG, Brasil. *Ciênc Saúde Colet.* 2017;22(12):4135-50.
35. Martins AMEBL, Oliveira RFR, Haikal DS, Santos ASF, Souza JGS, Alecrim BPA, et al. Uso de serviços odontológicos públicos entre idosos brasileiros: uma análise multinível. *Ciênc Saúde Colet.* 2020;25(6):2113-26.