



Leisure physical activity and barriers perceived by homosexual men in a mid-sized city in Southeast Brazil

Atividade física de lazer e barreiras percebidas por homens homossexuais em uma cidade de meio porte do Sudeste do Brasil

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ABSTRACT

Objective: To investigate the level of leisure-time physical activity, the types and places where it is practiced, the perceived barriers and the homophobia reported by homosexual men. **Methods:** This is a cross-sectional study carried out using an online form. The final sample consisted of 62 homosexual men (27.8 ± 6.0 years old) living in the municipality of Uberaba, Minas Gerais. **Results:** The final sample prevalence of physically active men was high (62.9%). The level of physical activity was not associated with demographic variables or perceived health. The most practiced types of physical activity were walking (46.8%) and resistance training (46.8%), while the most cited locations were private gyms (56.5%) and public roads (40.3%). The most perceived barriers were long working hours (62.9%), household chores (40.3%) and lack of energy (35%), the first two being associated with level of physical activity and age ($p < 0.05$). Among the participants, 37% reported having suffered prejudice in places where they practiced physical activity, mainly on the street and in private gyms. **Conclusion:** It was found that despite the barriers (long working hours, household chores and lack of energy) perceived by homosexual men, the prevalence of physical activity is high, with the majority practicing walking and/or resistance training. Prejudice is still present in different places where physical activity is practiced.

Keywords: Sexual and gender minorities; Barriers to access of health services; Homophobia.

RESUMO

Objetivo: Investigar o nível de atividade física de lazer, modalidades e o locais de prática, as barreiras percebidas e a homofobia relatada por homens homossexuais. **Métodos:** Trata-se de estudo transversal realizado por meio de formulário. A amostra final foi composta por 62 homens homossexuais ($27,8 \pm 6,0$ anos de idade), residentes do município de Uberaba, Minas Gerais. **Resultado:** A prevalência de fisicamente ativos foi alta (62,9%). O nível de atividade física não foi associado às variáveis demográficas e à percepção de saúde. As modalidades mais praticadas foram caminhadas (46,8%) e musculação (46,8%), enquanto os locais mais citados foram academias particulares (56,5%) e vias públicas (40,3%). As barreiras mais percebidas foram a jornada extensa de trabalho (62,9%), tarefas domésticas (40,3%) e falta de energia (35%), sendo as duas primeiras associadas ao nível de atividade física e a idade ($p < 0,05$). Entre os participantes, 37% relataram ter sofrido preconceito em locais de prática de atividade física, principalmente em ruas e academias privadas. **Conclusão:** Constatou-se que pensar as barreiras (jornada extensa de trabalho, as tarefas domésticas e a falta de energia) percebidas por homens homossexuais, a prevalência de fisicamente ativos é alta, sendo que a maioria pratica caminhada e/ou musculação. Ainda o preconceito é presente em distintos locais da prática de atividade física.

Palavras-chave: Minorias sexuais e de gênero; Barreiras ao acesso aos cuidados de saúde; Homofobia.

Introduction

The process of changing behavior towards a physically active lifestyle during leisure time is influenced by various factors such as gender, age, motivation, barriers and facilitators, as well as public policies on access to practices and the availability of places to practice physical activity¹⁻³. In Brazil, access to physical activity as a form of leisure is greater among social groups with higher incomes, schooling and professional qualifications⁴, which shows

that guided practice and focused on healthy experience is accessible to a small privileged portion of the population⁵.

The policies to promote equity in the Unified Health System (*Sistema Único de Saúde - SUS*) aim to reduce the vulnerabilities faced by population groups, such as the LGBTQIAPN+ population (Lesbian, Gay, Bi, Trans, Queer/Questioning, Intersex, Asexual/Aromantic/Genderqueer, Pan/Poly, Non-binary and more)⁶. This population, often neglected in health care, faces discrimination

and stigmatization in various social contexts⁷. Issues such as adoption by same-sex parents and civil marriage have been widely debated, reflecting the inequalities and discrimination faced by this community⁸.

Silva⁸ points out that stigmatized individuals are often exposed to internal and external stressors, such as discrimination and institutionalized prejudices, which negatively affect their self-esteem and self-image. Prado and De Souza⁵ point out that this discrimination and violence also occurs in health institutions, highlighting the need for ethical care practices free from discrimination. In order to reduce inequalities and strengthen the principles of universality, comprehensiveness and equity of the SUS, the National LGBT Comprehensive Health Policy was instituted in Brazil in 2011⁹.

According to the National Health Survey, 1.9% of the Brazilian population identifies as homosexual or bisexual¹⁰. However, the Brazilian Institute of Geography and Statistics warns that this prevalence may be underestimated due to the prejudice that prevents many people from declaring themselves openly¹¹. Data collection and monitoring are important for recognizing demands and formulating effective public policies, guaranteeing equality rights¹². In particular, the LGBTQIAPN+ community faces significant barriers, such as discrimination, violence and, in some cases, lack of access to health and education services¹³. In this context, the aim of this study is to investigate the level of leisure-time physical activity, the types and places where it is practiced, the perceived barriers and the homophobia reported by homosexual men. The collection and analysis of this data is intended to support the public and private sectors and can direct management and health care strategies in order to promote quality of life and health for this population.

Methods

This is a cross-sectional, quantitative-qualitative study, approved by the Research Ethics Committee of the Federal University of the Triângulo Mineiro under CAAE registration: 49850021.0.0000.5154 and technical opinion number: 4953417. Data collection was conducted online, with participants living in the municipality of Uberaba-Minas Gerais. Technological communication tools such as e-mails and social networks were used to publicize the survey and to send a Google Forms[®] link, which contained the Informed Consent Form and the survey questionnaire for self-completion.

Uberaba is a medium-sized municipality located

in the *Triângulo Mineiro* region, in the state of Minas Gerais, in the southeast of Brazil. The estimated population is 340,277 in 2021 and the Municipal Human Development Index is 0.77 according to the Brazilian Institute of Geography and Statistics¹⁴.

The study population consisted of homosexual men. The inclusion criteria for the study were: being male, declaring or recognizing themselves as homosexual, living in the municipality of Uberaba-Minas Gerais and being between 18 and 60 years old. The exclusion criteria were: participants who declared themselves bisexual, women, men who did not declare themselves homosexual, who did not live in Uberaba-Minas Gerais and who answered the questionnaire in duplicate.

The sample group was recruited using the virtual snowball method^{15,16}, from the contacts and social media of the researchers and the research group (Whatsapp[®] and Instagram[®]) to create reference networks for this study. Participants were encouraged to share the link with other homosexual men, broadening the scope of the sample. In addition, the study was publicized in specific groups related to the LGBTQIAPN+ community on social media. Data collection took place between January and February 2022.

The survey's online form collected sociodemographic information, such as age, gender identity, marital status, number of children and schooling, self-reported health, level of leisure-time physical activity and barriers to physical activity, where physical activity is practiced, what types of physical activity are practiced and prejudice in places where physical activity is practiced. For this purpose, the International Physical Activity Questionnaire (IPAQ)¹⁷ and the Barriers to Physical Activity Questionnaire were used¹⁸.

To assess the level of leisure-time physical activity, the leisure section of the long version of the IPAQ was used, consisting of questions relating to the frequency and duration of physical activities (walking, moderate and vigorous) carried out during leisure time and referring to the last week from the day they answered the questionnaire.

The IPAQ was validated in Brazil by Matsudo et al.¹⁷ and is useful as a global tool for determining the level of physical activity of a given population. The sample's level of physical activity was calculated by multiplying the frequency by the duration of each activity/intensity (walking, moderate and vigorous) and adding up the total volume. The level of physical activity was classified based on the recommendation of the Physical Activity Guide for the Brazilian Population¹⁹

as physically active (≥ 150 minutes per week) and insufficiently active (< 150 minutes per week).

The Barriers to Physical Activity Questionnaire, proposed by Martins and Petroski¹⁸, contains a central question: “Considering the factors below, indicate how often they represent factors that make it difficult for you to practice physical activity”. It consists of a table of nineteen affirmative items answered on a likert scale, where the individual respondent gives their degree of agreement as to whether or not they represent a factor that hinders the practice of physical activity. The answers were then dichotomized into two categories: “presence of the barrier” (always and almost always) and “absence of the barrier” (sometimes, rarely and never)¹⁸.

In addition to the validated questionnaires, another questionnaire was drawn up with four questions: 1) *Which physical activity or activities do you usually practice in your free time or leisure time?* 2) *Which places do you usually go to in order to practice physical activities in your free time or leisure time?* 3) *Have you ever suffered prejudice for being homosexual in any of the environments mentioned above?* 4) *In which environment(s) do you suffer or have you suffered prejudice while practicing physical activity in your leisure time?* The survey participants had the option of marking some pre-existing suggestions in the questionnaire, in relation to places and modalities, to get a visual idea and thus make it easier to fill in, but they could also describe other places and modalities in the ‘other’ option. It is important to note that, given the semi-structured nature of the questionnaire, it did not go through a formal validation process. However, it was carefully designed to capture relevant information about the practice of physical activity and the experience of prejudice by the participants.

A descriptive analysis of the data was carried out using absolute frequency (n) and proportion (%). The association between the independent variables (age, marital status, children, schooling, perception of health and prejudice suffered) with leisure-time physical activity and the main perceived barriers was analyzed using the Chi-square test with continuity correction. For the inferential analyses, the categories regular and poor were combined for the health variable. The analyses were carried out using the Jamovi program, version 2.5, adopting a significance level of $p < 0.05$.

Results

A total of 77 responses were obtained from the online form during the data collection period (January and

February 2022). Of this total, 15 responses were excluded (n = 4 people declared themselves to be women, n = 3 did not declare themselves to be homosexual, n = 5 did not live in Uberaba and n = 3 filled in the questionnaire in duplicate). The final sample consisted of 62 homosexual men, with a mean age of 27.8 ± 6.0 years. Table 1 shows the data characterizing the sample.

Table 1 – Prevalence of sociodemographic variables, perception of health and classification of the level of leisure-time physical activity of the study participants (n = 62).

Variable	n	%
Age		
18-27 y.o.	31	50.0
28-49 y.o.	31	50.0
Marital status		
Single	45	72.6
Married or with a partner	17	27.4
Children		
No	58	93.5
Yes	04	6.5
Schooling		
Completed high school	31	50.0
Higher education completed	31	50.0
Perception of health		
Very Good	17	27.4
Good	26	41.9
Fair	15	24.2
Poor	04	6.5
Leisure physical activity level classification		
Physically active	39	62.9
Insufficiently active	23	37.1
Experienced prejudice		
Yes	23	37.1
No	39	62.9

Caption: n = absolute frequency; % = relative frequency.

Note: There were no participants with less than high school education.

Most of the survey participants were single (72.6%) and had no children (93.5%). The sample group have access to education, where 50% of those interviewed had already completed an undergraduate degree. With regard to the participants’ level of physical activity, the majority (62.9%) were considered to be physically active. Figures 1 and 2 show the results of the types of physical activity practiced by the sample under study and the places where they carry out their physical activities.

The most frequently mentioned sports were walking and resistance training, both accounting for 46.8% of the total, followed by running (29%), cycling (19.4%) and team sports (16.1%). Private gyms stood out among

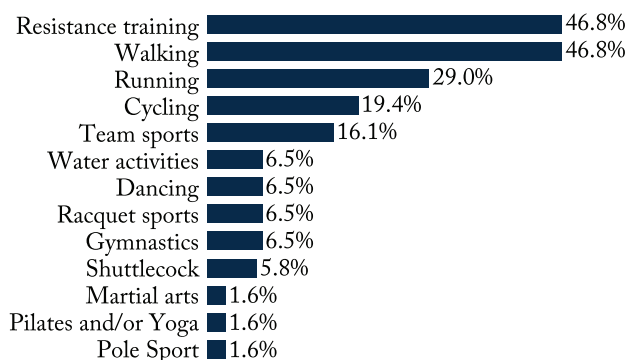


Figure 1 – Percentage of physical activities practiced during leisure time by study participants (n = 62).

the venues, with 56.5% of the total. Activities carried out on streets, sidewalks or avenues (40.3%), parks (29%), public squares (24.2%), and bike paths or cycle lanes (12.9%) are also among the places most used for leisure-time physical activity by the study participants.

Table 2 shows the comparison between the proportion of homosexual men who are physically active and those who are insufficiently active during leisure time according to demographic variables. The statistical analysis showed no association between leisure-time physical activity and the marital status, schooling, perception of health and prejudice suffered.

Figure 3 shows the prevalence of perceived barriers to leisure-time physical activity among the survey participants. The most perceived barriers were long working hours (62.9%), household chores (40.3%), lack of energy (35.5%) and concern about appearance (30.6%). The least perceived barriers were fear of injury (11.3%), insufficient environment (11.3%) and physical limitations (8.1%).

Table 3 shows the comparison of sociodemographic variables, perceived health and level of leisure-time physical activity in the barriers most perceived by the survey participants.

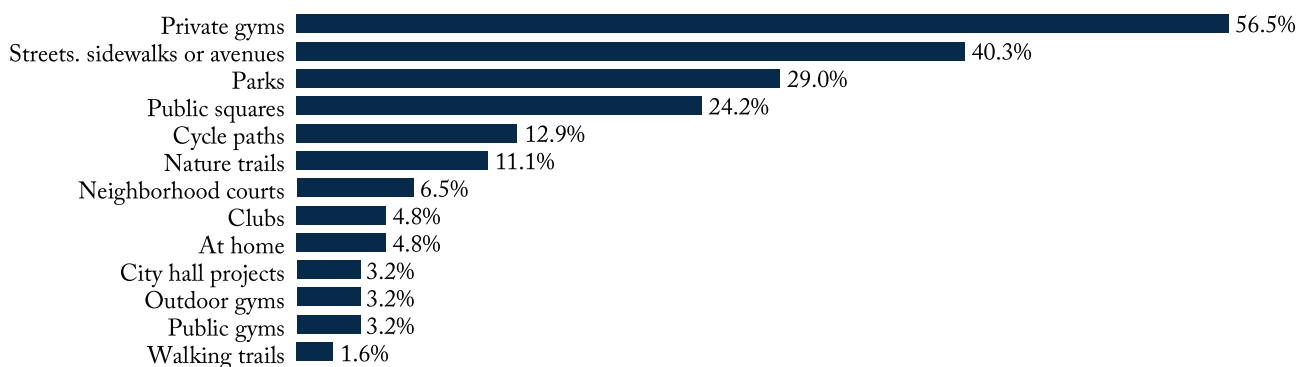


Figure 2 – Percentage of leisure-time physical activity locations of study participants (n = 62).

Table 2 – Comparison of the proportion of homosexual men who are physically active and insufficiently active during leisure time according to age, marital status, schooling and perception of health (n=62).

Variable	Physically active (n = 39)		Insufficiently active (n = 23)		P
	n	%	n	%	
Age					
18-27 y.o.	22	56.4	08	34.8	0.167
28-49 y.o.	17	43.6	15	65.2	
Marital status					
Married or with partner	10	25.6	07	30.4	0.909
Single	29	74.4	16	69.6	
Children					
No	37	94.9	21	91.3	0.986
Yes	02	5.1	02	8.7	
Schooling					
Completed high school	21	53.8	10	43.5	0.599
Higher education completed	18	46.2	13	56.5	
Perception of health					
Very Good	11	28.2	06	26.1	0.057
Good	20	51.3	06	26.1	
Fair or Poor	08	20.5	11	47.8	
Suffered prejudice					
Yes	15	38.5	08	34.8	0.754
No	24	61.5	15	65.2	

Legend: n = absolute frequency; % = relative frequency; chi-squared test of association; p = significance level of $p < 0.05$.

Statistical analysis showed an association between age and the barriers of working hours and household chores ($p < 0.05$). Perceived health was associated with long working hours. Finally, the classification of the level of leisure-time physical activity was associated with the barriers of working hours and household chores ($p < 0.05$).

In addition to the results already presented in the figures and tables, this study found that of the 62 participants in the survey, 37% reported that they had already

suffered prejudice for being homosexual in a physical activity environment (Table 1). The places where participants experienced the most homophobia were in the street (n = 7) and private gyms (n = 5). Other places

mentioned were: public courts, sports competitions, public gyms and clubs, all with n = 2; and squares, parks, school physical education classes with n = 1.

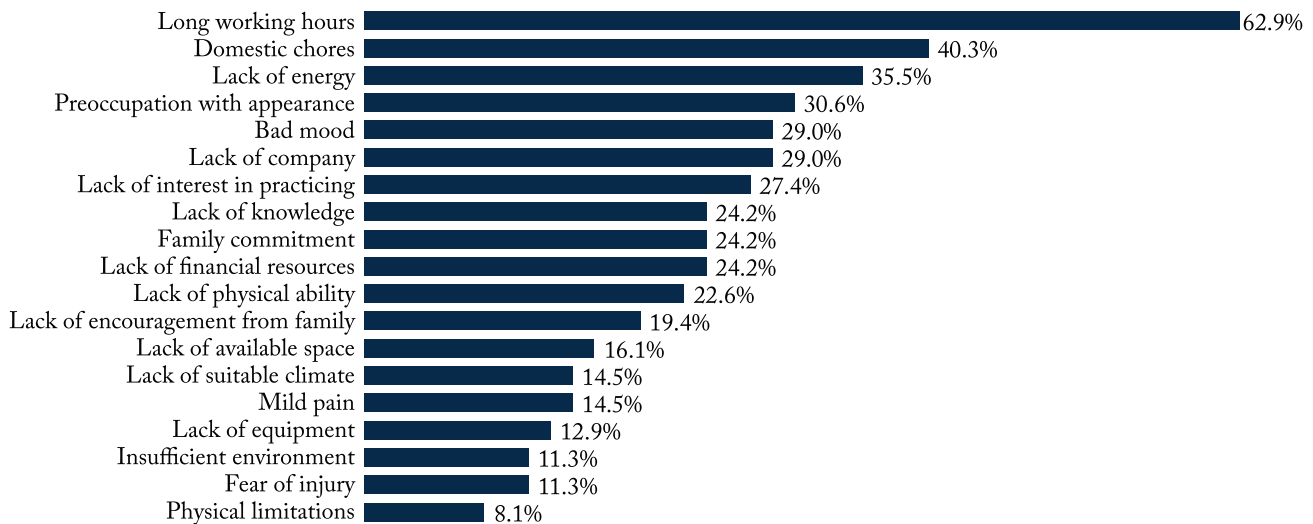


Figure 3 – Prevalence of perceived barriers to practicing leisure-time physical activity by homosexual men (n = 62).

Table 3 – Main perceived barriers to practicing physical activity according to age, marital status, schooling and perceived health of homosexual men (n = 62).

Variable	Long working hours (%)	Domestic chores (%)	Lack of energy (%)	Preoccupation with appearance (%)
Age				
18-27 y.o.	45.2	19.4	22.6	19.4
28-49 y.o.	80.6	61.3	48.4	41.9
p	0.011*	0.004*	0.095	0.072
Marital Status				
Married or with partner	64.7	47.1	47.1	17.6
Single	62.2	37.8	31.1	35.6
p	0.962	0.708	0.382	0.368
Children				
No	92.1	92.0	90.9	94.4
Yes	7.9	8.0	9.1	5.6
p	0.059	1.000	0.931	1.000
Schooling				
High School	54.8	35.5	29.0	29.0
Higher Education	71.0	45.2	41.9	32.3
p	0.192	0.605	0.426	0.780
Perception of Health				
Very Good	52.9	29.4	32.0	29.4
Good	52.0	40.0	29.4	28.0
Fair or Poor	85.0	50.0	45.0	35.0
p	0.047*	0.354	0.428	0.943
Leisure physical activity level classification				
Physically active	48.7	28.2	25.6	23.1
Insufficiently active	87.0	60.9	52.2	43.5
p	0.004*	0.024*	0.067	0.102

Legend: n = absolute frequency; % = relative frequency; chi-squared test of association; p = significance level of p < 0.05.

Discussion

The aim of this research was to investigate the level of leisure-time physical activity, the types and locations of practice, perceived barriers and homophobia reported by homosexual men living in the municipality of Uberaba-Minas Gerais. The main results of this study include the high prevalence of physical activity (62.9%) and the frequency of reports of prejudice, with 37% of participants reporting having suffered homophobia while practicing physical activities. The main barriers perceived in this study were intrapersonal ones, such as long working hours, household chores, lack of energy and preoccupation with appearance.

Unlike other populations, the results of this study showed that the prevalence of homosexual men analyzed in the sample who are considered physically active during leisure time is high compared to the Brazilian adult population²⁰, 62.9% and 36.7% respectively²¹. The types of physical activity most practiced by the participants in the survey were walking and resistance training, and the most frequented places were private gyms and activities in public spaces such as sidewalks, streets, avenues, parks and squares.

The perceived barriers to practicing physical activity by the sample in our study do not seem to differ from the barriers pointed out by other populations. The study by Rech et al.²⁰ aimed to synthesize and analyze scientific evidence of the perceived barriers to leisure-time physical activity in the Brazilian population, points out that in all age groups, intrapersonal barriers are the most prevalent, and in adults and the elderly this proportion is higher when compared to adolescents. The most reported barriers among adults (men and women) were lack of time and lack of motivation.

Lack of time may be related to the main barriers reported in this study (long working hours plus household chores) and this may have an impact on the individual's lack of energy, disposition and motivation to practice physical activity during leisure time. Thus, it can be seen that there may be a relationship between the most reported barriers.

However, another literature review on the barriers and facilitators to physical activity in the Brazilian population, by Christofoletti et al.², showed that various personal factors are associated with leisure-time physical activity, but there are not enough studies to conclude that lack of time and competing behaviors (such as work and household chores) are associated barriers. In addition, the authors point out that social

factors, such as family support, were associated as facilitators for practicing physical activity during leisure time, corroborating this study, as the lack of family encouragement was a barrier that was rarely mentioned.

The classification of the level of physical activity during leisure time was not associated with age, marital status, schooling, perception of health, children or prejudice suffered. Individuals classified as insufficiently active during leisure time perceived the barriers of working hours and household chores more strongly. These barriers are also perceived more by individuals in the older age groups²².

With regard to working hours, the perception of this barrier is higher among individuals who perceive their health as fair or poor. According to Câmara et al.²³, the perception of health comes from all the experiences acquired throughout life, associated with attitudes or behaviors of the individual in relation to their health in processes that need to be modified, such as working hours and physical activity.

The participants in this study were aged between 18 and 40 and had a high level of schooling, corroborating the National Health Survey¹⁰ which indicated that the Brazilian population of homosexuals or bisexuals is higher among those with higher schooling and aged between 18 and 29 (4.8%). It is assumed that the participants in the survey are either in the job market or are starting or finishing higher education or postgraduate courses, or are working and studying at the same time. According to Nascimento, Alves and Souza²⁴, both nationally and internationally, university students have insufficient levels of physical activity. Despite having access to the internet, scientific reading and up-to-date information on health and the importance of regular physical activity and exercise, this group has extensive study hours²⁵; a lack of energy/tiredness²⁶; a lack of company²⁷; long working hours^{25,28}; and a lack of interest²⁷, which supports the findings in relation to the adult homosexual population in this study.

With regard to prejudice in the environments mentioned, a total of 37% of the homosexual men analyzed in the sample suffered homophobia for being while practicing some type of physical activity, with the street and a private gym being the most cited places.

However, more studies are needed on how homosexual men face barriers to physical activity, especially with regard to the impact of homophobia. It is important to investigate whether this population stays away from certain places or types of physical activity when

they suffer or have suffered discrimination, and whether they continue to be active in other ways. In addition, Physical Education professionals should promote a safe and prejudice-free environment, with special attention to the mental health of this population, which can involve issues such as suicidal thoughts, anxiety, low self-esteem and even self-harm²⁹.

Homophobia can be explained from different perspectives, such as verbal, psychological and physical aggression, or the combination of these hostile behaviors, which can trigger psychological and social problems and abandonment of sports and leisure physical activities³⁰. One of the ways to combat homophobia is to discuss professional ethics in the curriculum, enabling students to work in the job market with equity and diversity. Biondo et al.³¹ showed that health academics are aware of the principles of bioethics, however, when they are inferred about the concepts of bioethics, some participants had divergent answers, which is why it is essential to promote spaces for reflection and knowledge on this issue.

Jaeger et al.³² discuss the perception of Physical Education students about homophobic and heterosexist behaviors in professional training. They identified a strong perception of these behaviors, especially among male students. In addition, they observed that teachers often ignore or remain silent in the face of these behaviors during educational practices. This scenario provides an opportune environment for disrespect and the perpetuation of harmful actions in the academic community.

It is important to note that the questionnaire on barriers to practicing physical activity used in this study is not aimed at the homosexual population, which can be considered a limitation of the study. Items that could be considered barriers, such as “prejudice” and “homophobia”, are not included in the questionnaire, limiting the understanding of this population. The construction and validation of specific instruments for the LGBTQIAPN+ population is necessary. In addition, this study did not explore the influence of other sociocultural factors, such as social class, race and ethnicity, which can have an impact on the practice of physical activity and the experience of homophobia. Our study recognizes a sampling bias due to the virtual snowball methodology^{15,16}, given the high educational level of the participants, but this is something that is also observed in the Brazilian homosexual population¹⁰. This sampling bias resulted in a homogeneous sample in terms of age and schooling, making more robust analysis difficult. The lack of specific data on the

LGBTQIAPN+ population in Uberaba-Minas Gerais up until the date of data collection limited a non-probabilistic sample selection.

One of the strengths of this work is the study's novelty, given the lack of studies on the subject of physical activity in the LGBTQIAPN+ population and other people who identify themselves in the corresponding acronyms. Furthermore, we recommend that future studies be carried out with better methodological content for a more careful analysis of the practice of physical activity in the population of homosexual men, especially: i) including a mixed approach (quantitative and qualitative), through content analysis, focus groups, interviews and their experiences in these places; ii) exploring the influence of other sociocultural factors that can impact the practice of physical activity and the experience of homophobia; iii) with more robust sample calculation and data analysis.

Future research could better understand prejudice and behavior related to physical activity among homosexual men and women, exploring perceptions of barriers and the motivations behind the choice of types and places, considering factors such as affinity, health, quality of life, aesthetic aspects, opportunities, among others.

Conclusions

Despite the perceived barriers, the individuals in the sample were physically active during leisure time. Among the barriers to leisure-time physical activity identified were long working hours, household chores and lack of energy, which were more prevalent among insufficiently active individuals. Furthermore, there was no association between the classification of the level of leisure-time physical activity and sociodemographic factors.

In order to mitigate these barriers and promote a more equitable environment for practicing physical activity among homosexual men, it is important that Physical Education professionals are trained in equity and diversity. This training should be incorporated into undergraduate courses in order to prepare them to identify and meet the specific needs of this population, ensuring the creation of safe and welcoming spaces where prejudice is actively combated.

In addition, public policies that promote the provision of free or low-cost physical activity programs in public spaces, aimed specifically at vulnerable populations such as the LGBTQIAPN+ community, can help overcome the barriers identified. These initiatives are essential to ensure that everyone, regardless of their

sexual orientation, has equal access to opportunities for physical activity.

Conflict of interest

The authors declare no conflict of interest.

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Author's contributions

Alves JH: Conceptualization; Methodology; Software; Validation; Formal analysis; Investigation; Data curation; Project administration; Visualization; Writing – original draft; Writing – review & editing; Approval of the final version. Tannús FMS: Investigation; Visualization; Writing – review & editing; Approval of the final version. Brunheroti KA: Investigation; Visualization; Writing – review & editing; Approval of the final version. Sasaki JE: Investigation; Visualization; Writing – review & editing; Approval of the final version. Papini CB: Conceptualization; Methodology; Validation; Formal analysis; Investigation; Data curation; Supervision; Project administration; Visualization; Writing – original draft; Writing – review & editing; Approval of the final version.

Declaration regarding the use of artificial intelligence tools in the article writing process

The authors did not use artificial intelligence tools for preparation of the manuscript.

Availability of research data and other materials

The contents are already available at the time of publication of the article. Below are the titles and respective URLs, accession numbers or DOIs of the files of the contents underlying the text of the article (use one line for each data): <https://docs.google.com/spreadsheets/d/1cMTdSvIbAqaPfoCcaTrsbRrQIZQ1IH5W/edit?usp=sharing&ouid=117315459894572188812&trtpof=true&csd=true>

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Prudente, São Paulo, Brasil.**Cite this article as:**

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Reviewers' assessment

The reviews of this article were originally conducted in Portuguese. This version has been translated using ChatGPT and subsequently reviewed by the Chief Editors.

Reviewer A

Anonymous

Format

- Does the article comply with the manuscript preparation guidelines for submission to the Revista Brasileira de Atividade Física e Saúde?
Yes
- Is the manuscript well-structured, containing the following sections: introduction, methods, results, and discussion (with the conclusion as part of the discussion)?
Yes
- Is the language appropriate, and is the text clear, precise, and objective?
Yes
- Was any indication of plagiarism observed in the manuscript?
No

Suggestions/comments:

- Yes, the manuscript appears to be well-structured, containing the essential sections: introduction, methods, results, and discussion (with the conclusion integrated into the discussion). Furthermore, the text is clear and objective!

Abstract

- Are the abstract and summary appropriate (including: objective, information about study participants, studied variables, main results, and a conclusion) and do they reflect the content of the manuscript?
Yes
- The abstract is appropriate as it contains all the necessary elements: objectives, participants, studied variables, main results, and a conclusion that reflects the manuscript's content. It provides a clear and concise overview of the study.

Introduction

- Is the research problem clearly stated and defined?
Yes
- Is the research problem properly contextualized in relation to existing knowledge, moving from gener-

al to specific?

Yes

- Are the justifications (including the authors' assumptions about the problem) for the need for the study well established in the writing?
Yes
- Are the references used to support the research problem up-to-date and relevant to the topic?
Yes
- Is the objective clearly presented?
Yes

Suggestions/comments:

- The justifications and assumptions of the authors regarding the need for the study are well-articulated and substantiated, which strengthens the relevance of the research and its contribution to the field.

Methods

- Are the methodological procedures, in general, appropriate for studying the research problem?
Yes
- Are the methodological procedures adopted for conducting the study sufficiently detailed?
Yes
- Is the procedure for selecting or recruiting participants appropriate for the studied problem and described clearly and objectively?
Yes
- Are details provided about the instruments used for data collection, their psychometric properties (e.g., reproducibility, internal consistency, and validity), and, where relevant, the operational definition of variables?
Yes
- Is the data analysis plan appropriate and adequately described?
Yes
- Are the inclusion and/or exclusion criteria for the sample described and appropriate for the study?
Yes
- Do the authors provide clarification on the ethical procedures adopted for conducting the research?
Yes
- In the excerpt "Sociodemographic information was

collected, such as age range, economic class, gender, education level and income, self-reported health status, leisure-time physical activity level, and barriers to physical activity, as well as characteristics of the institution or location frequented for physical activity and whether they had experienced discrimination in these locations,” the term “gender” is used broadly. To ensure precision and clarity, it is necessary to specify that the correct term to use is “gender identity.”

Results

- Is the use of tables and figures appropriate and does it facilitate the proper communication of study results?

Yes

- Is the number of illustrations in the article in accordance with the journal’s submission guidelines?

Yes

- Are the number of participants at each stage of the study, as well as the number and reasons for drop-outs and refusals, presented in the manuscript?

Yes

- Are the characteristics of the participants presented and sufficient?

Yes

- Are the results presented adequately, highlighting the main findings while avoiding unnecessary repetitions?

Partially

Suggestions/comments:

- The conclusions are consistent with the study objectives and the results presented. They effectively summarize the findings related to the studied population. Including recommendations for future research or interventions could further strengthen the conclusion section.

Discussion

- Are the main findings of the study presented?
- Yes
- Are the study’s strengths and limitations presented and discussed?

Partially

- Are the results discussed in light of the study’s limitations and existing knowledge on the topic?

Yes

- Do the authors discuss the potential contributions of the main study findings to scientific develop-

ment, innovation, or real-world interventions?

Partially

Suggestions/comments:

- The discussion should begin with a clear summary of the main results obtained, such as the prevalence of physical activity among participants, the most commonly practiced activities (walking and weight training), and the incidence of discrimination (37% of homosexual men reported experiencing homophobia).
- The study could have further explored the influence of sociocultural factors, such as social class, race, and ethnicity, which may impact physical activity participation and experiences of homophobia.

Conclusion

- Is the study conclusion adequately presented and consistent with the study objective?

Partially

- Is the study conclusion original?

Yes

Suggestions/comments:

- The study’s conclusion is adequately presented and aligns with the study objective. It summarizes the main findings, discusses perceived barriers and their implications, and provides a general perspective useful for future research and practice.
- Although the study mentions the importance of creating safe environments for physical activity, practical recommendations for physical education professionals and public policies are limited. A more detailed discussion on how to implement these changes would be beneficial.

References

- Are the references up-to-date and sufficient?
- Yes
- Are most of them original research articles?
- Yes
- Do the references comply with the journal’s guidelines (quantity and format)?
- Yes
- Are in-text citations appropriate, meaning that statements in the text cite references that indeed substantiate them?

Yes

Suggestions/comments:

- The article does not explicitly discuss the study’s limitations, which is an important aspect of any re-

search. Recognizing limitations helps contextualize the results and suggest directions for future studies.

Comments to the Author

- The manuscript makes a significant contribution to the literature on health and physical activity in minority populations. With some revisions and improvements, I believe the article can be a valuable addition to the journal.

Final Decision

- Revisions Required

Reviewer B

Anonymous

Format

- Does the article comply with the manuscript preparation guidelines for submission to the Revista Brasileira de Atividade Física e Saúde?
Partially
- Regarding formal aspects, is the manuscript well-structured, containing the sections: introduction, methods, results, and discussion (with the conclusion as part of the discussion)?
Partially
- Is the language appropriate, and is the text clear, precise, and objective?
No
- Was any indication of plagiarism observed in the manuscript?
No

Suggestions/comments:

- This is an observational study that investigated the locations, modalities, leisure-time physical activity level, homophobia, and perceived barriers among 62 homosexual men from the city of Uberaba, Minas Gerais. The study addresses a relevant and highly significant topic in the field of physical activity and health by focusing on a group that is underrepresented in population-based and health-related research. However, the article needs a complete revision to ensure better clarity and fluency:
- A grammatical review is necessary to improve agreement, punctuation, and spelling.
- Paragraph structure and transitions should be improved to ensure fluid reading.
- Consideration should be given to the specific textual and scientific aspects pointed out below.

Abstract

- Do the abstract and summary adequately reflect the content of the manuscript (including the objective, participant information, studied variables, key results, and a conclusion)?

Partially

Suggestions/comments:

- A grammatical review is needed to address excessive commas.
- Insert the prevalence of perceived barriers, as well as the most practiced modalities and practice locations.

Introduction

- Was the research problem clearly stated and defined?

Partially

- Is the research problem appropriately contextualized concerning existing knowledge, progressing from general to specific?

Yes

- Are the reasons justifying the study (including the authors' assumptions about the problem) well established in the writing?

Yes

- Are the references used to support the presentation of the research problem current and relevant to the topic?

Yes

- Was the objective clearly presented?

Yes

Suggestions/comments:

- Paragraphs 1 and 2: Consider merging them into a single, more concise paragraph. The citation of the Guia Brasileiro recommendation may be unnecessary since no prevalence study is presented in this section.
- 3rd paragraph:
- Use a different connector at the beginning, as equity policies in SUS did not emerge within the field of Physical Activity and Health or due to the data presented in the previous paragraph.
- The information from page 4, line 1, onward does not connect well. Suggest linking it with sentences from lines 6–9 to justify the study's focus on homosexual men. Additionally, rephrase the sentence on line 6 to avoid referring to homosexuality as "a topic"; instead, focus on the justification for discrimination faced by homosexuals in different so-

cial contexts.

- Consider integrating the discussion up to line 25 (page 3) with the sentence from lines 6–9 (page 4), followed by studies from Silva¹² and Prado & De Souza⁷.
- Question whether it is necessary to present citations 9 and 10. If the restructuring suggestion is applied, they may no longer be relevant.
- The LGBTQIAP+ acronym is missing the “N” (non-binary), despite the correct inclusion of non-binary individuals in the description. Adding “N” would ensure consistency with the movement.
- Paragraph 5: Include the reference for the Política Nacional de Saúde Integral LGBT.
- Final paragraph: Rewrite to make it more objective and consider grammatical revision.

Methods

- Are the methodological procedures, in general, appropriate for the study of the research problem?
Yes
- Are the methodological procedures for conducting the study sufficiently detailed?
Partially
- Was the procedure for selecting or recruiting participants appropriate for the studied problem and described sufficiently, clearly, and objectively?
Partially
- Were details provided about the data collection instruments, their psychometric qualities (e.g., reliability, internal consistency, validity), and, where relevant, the operational definition of variables?
No
- Is the data analysis plan appropriate and adequately described?
Partially
- Were the criteria for inclusion and/or exclusion of sample participants described and appropriate for the study?
Yes
- Did the authors provide information on the ethical procedures adopted for the study?
Yes

Suggestions/comments:

- 1st paragraph: Rephrase the sentence on how the research was conducted. “The study was conducted remotely in the city of Uberaba-MG” implies that the researchers were physically present in Uberaba.
- Specify the sampling process further. What type of

sampling was used?

- Include a reference for the snowball sampling methodology.
- Page 6, 2nd paragraph: Clarify how the information was collected and specify the variables used. Also, add a reference for IPAQ.
- Page 6, 4th paragraph: Were vigorous activities multiplied by 2 when constructing the physical activity variable?
- 8th paragraph: The paragraph is too long. Suggest rewriting it concisely. If the dichotomization follows Martins and Petroski, mention and reference it.
- Final paragraph: Was an adjusted analysis performed for associations? Suggest structuring the analysis hierarchically, considering sociodemographic variables, health variables, barriers, and outcomes (leisure-time physical activity).

Results

- Are the use of tables and figures appropriate and do they facilitate the proper presentation of study results?
No
- Does the number of illustrations comply with the journal’s manuscript submission guidelines?
Yes
- Is the number of participants in each study stage, along with losses and refusals, presented in the manuscript?
Yes
- Are participant characteristics presented and sufficient?
Yes
- Are results presented appropriately, highlighting the main findings while avoiding unnecessary repetitions?
No

Suggestions/comments:

- Standardize the presentation of data, using both percentages and absolute numbers. Why present only the frequency of the most practiced modalities? The same applies to Figure 2. Suggest combining Figures 1 and 2 and adding percentages.
- Table 3 could be presented as a bar or column chart.
- The last paragraph includes information not shown in figures or tables. Either mention that the data is not displayed or present it as supplementary material.
- Marital status and children variables appear in the

results but were not described in the methods.

- The presentation of tables does not match the text, and the order of results is inconsistent with the methods and study objectives. A structural revision is necessary throughout the article.

Discussion

- Are the study's main findings presented?
No
- Are the study's strengths and limitations discussed?
Yes
- Are results discussed in the context of study limitations and existing knowledge?
Yes
- Do the authors discuss how their findings contribute to scientific development, innovation, or real-world applications?
No

Suggestions/comments:

- First paragraph: Restate the study's objectives and summarize key findings.
- The discussion is too long overall.
- The final paragraph contains information that does not contribute significantly (data related to Uberaba mapping).

Conclusion

- Was the conclusion presented appropriately and aligned with the study's objective?
Partially

- Is the conclusion original?

Yes

Suggestions/comments:

- Briefly restate the study's objective and, at the end, highlight its contributions.

References

- Are the references updated and sufficient?
Yes
- Are most references from original research articles?
Yes
- Do the references comply with the journal's formatting guidelines?
Yes
- Are in-text citations appropriate, meaning that references substantiate the claims made?
Yes

Suggestions/comments:

- A brief review is needed for formatting consistency.

Final Decision

- Substantial revisions required.