Epidemiology

Public spaces leisure in Rio Claro - SP (Brazil): quality, distribution, and social vulnerability

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Abstract - Aim: Describe public leisure spaces in a city in the state of São Paulo, associating distribution, quantity, and quality of attributes to the São Paulo Index of Social Vulnerability (IPVS). **Methods:** Descriptive observational study in Rio Claro (Brazil), evaluating aspects of comfort, aesthetic accessibility, and fitness for physical activity through the Physical Activity Resource Assessment (PARA) instrument in squares, parks, and habitable beds in the urban area of the municipality, using the IPVS 2010, as a basic instrument for social vulnerability. The analysis of variance (ANOVA) was adopted to verify the difference in the number of attributes and the Kruskal-Wallis test for the quality of attributes in each location evaluated according to the IPVS. **Results:** One hundred thirty-two squares, 2 parks, and 10 flower beds were evaluated. The ANOVA results showed that attributes related to comfort, cleanliness, aesthetics, and safety, and accessibility proved to be significant in squares and parks, while cleanliness, aesthetics, and safety showed significance in construction sites, both before the IPVS 2 - Very low vulnerability. For quality, Kruskal test Wallis identified significance in places for the practice of PA and comfort structures in parks and squares and places for the practice of PA and cleaning, aesthetics, and safety in construction sites. 92.4% of spaces are in places of low social vulnerability, with only 2.1% in places of high vulnerability. **Conclusion:** Our findings show poor quality of the structures, considering the attributes of comfort, cleanliness, aesthetics, and safety, and accessibility structure. In addition, most of the structures were distributed in the central areas with less social vulnerability.

Keywords: leisure public spaces, physical activity, green areas, social vulnerability.

Introduction

The World Health Organization (WHO) recognizes the influence of external factors as issues relevant to the health of the population[1]. Thus, the availability of public leisure spaces, such as parks and green areas, with arboreal vegetation such as public gardens, have been presented as important elements associated with the population's health indicators[2], considering that they favor social practices and manifestations of life urban in general, and may even contribute to the increase in levels of physical activity (PA) total or leisure[1,3,4].

This recognition aims to contribute with evidence that has highlighted the benefits of changing behavior associated with the search for healthy lifestyles in order to minimize mortality from preventable causes, through environments that favor social practices, manifestations of urban life, and the relationship between people, in addition to factors related to health promotion in this population[5], based on benefits independent of a biological, behavioral

and social approach and can be closely related to the practice of activities in public spaces[6].

Thus, the formulation and strengthening of public policies that encourage adaptations in urban centers, providing the installation of adequate environmental attributes, in order to contribute to the development of cities and the population[7] are highlighted. From this perspective, the quantity and quality of public spaces with the presence and distribution of facilities that favor socialization, and the practice of PA can have important impacts, both on adherence, maintenance, and motivation for healthy choices during life[8].

Spaces such as parks, squares, bike paths, and multi-sport complexes represent an alternative for democratizing access to favorable places for PA practice[9]. However, studies conducted in municipalities large[10,11,12,13] show us that the distribution of public spaces for leisure in cities happens unevenly. The prevalence of these spaces in regions of lesser social vulnerability or central areas has

been observed, which prevents or regulates access to PA in leisure for those who do not live in these regions.

The unequal distribution of public leisure spaces can contribute to reinforcing the inequalities found in PA practice. For example, studies have drawn attention to the fact that vulnerable populations have shown a higher level of PA in the domain of work and lower rates in leisure, which is the opposite when compared to social groups with better financial, living, and access[14,15].

Therefore, it is necessary thinking strategies for a comprehensive distribution of these spaces, as well as ensure quality and enough attributes for enjoyment of the population. Seeking to make its access possible for the entire population, highlighting vulnerable groups since these have been the least favored in this relationship.

Thus, this study aimed to describe the public leisure spaces in a city in the state of São Paulo, associating their distribution, quantity, and quality of attributes to the Paulista Social Vulnerability Index - IPVS.

Material and Methods

A descriptive, cross-sectional observational study was carried out in spaces for leisure and PA practice in the city of Rio Claro, located in the state of São Paulo/SP, Brazil. In order to have more cohesive results about the city's leisure spaces, it was decided to assess the population of these spaces, evidencing their participation based on the scope of the inclusion criteria in the study.

Description of the municipality

The municipality of Rio Claro is in the central region of the São Paulo State, Brazil. In 2019, it had an estimated 206,424 inhabitants, and a demographic density of 373.69 inhabitants/km^2. It is considered a medium-sized municipality as it is in the range between 100,000 and 300,000 inhabitants[16].

The city has a Human Development Index (HDI) of 0.803, considered high for the state of São Paulo. The Gross Domestic Product (GDP) revolves around the provision of services, being approximately US$1,300,861.7342 for the year 2013[16].

Population collection process

The survey of the locations took place between August and November, 2018. Data collection took place through observation, carried out in the first half of 2019, during the late afternoon and early evening, between 5:30 pm and 7:00 pm, being the busiest time in such places.

The public spaces were selected based on the information and municipal maps from the maintenance and landscaping secretariats and municipal works secretariat who were informed of the number of existing locations in the city and their exact location, regardless of whether it is in the urban area or of the municipality, guided by the norms of the secretariats. At this point, the choice for places considered to be usable is evident, these being spaces that contained minimum quality attributes (safety, cleanliness, aesthetics, and comfort structures) and accessibility adaptations to the population[9].

To assess the spaces, the evaluators underwent a 10-h training to learn about the application of the collection instrument. The evaluations were carried out by two evaluators, with evaluator **A** evaluating in a clockwise direction, while evaluator **B** in a counterclockwise direction, taking into account the starting point in space. When they were at the starting point of the assessment, the instruments were attached together for later tabulation. Data tabulation was performed separately, avoiding any contamination by application together, in separate spreadsheets, and then grouped for analysis of results.

Identification of leisure spaces

Two hundred fourteen public spaces or green areas present in public documents made available by the secretariat were listed. Of these, 186 were structured for PA practice, and thus categorized into wide flowerbeds on little busy avenues (n = 14), hiking trails (4 paved and 2 trails), parks (n = 2), squares (n = 146), fields or sports courts (n = 11), and other diversified spaces such as skate parks (n = 7).

As an inclusion criterion, public spaces that could be used in the urban context of the city were considered, while, as an exclusion criterion in the study, spaces allocated in the rural area of the municipality were considered, or spaces that could be used in the urban area were in situations that prevented its evaluation, such as renovation (n = 17), re-urbanization of the environment (n = 8), the non-existence of such a space (n = 11), due to its relocation and walking paths and bike paths since these structures could present great distances. Walking tracks found in the study (n = 6) were also excluded from the analyses. Faced with these spaces found, 144 locations in the urban area of the municipality were evaluated.

As a way of categorizing the spaces evaluated, the same criteria adopted in studies carried out in the Brazilian context were used[9], in which construction sites that could be used were defined by the presence of attributes such as benches, paving (paving or trails), among others. Public beds without attributes for use in PA practice, usually narrower and difficult to access, were not evaluated. The differentiation between parks and squares was based on the size of the public space used, with parks being considered those with dimensions greater than two blocks.

Multi-sport courts, soccer fields, skating, or walking tracks were only included in the assessment if they were in a park, square, or construction site. Fulfilling these criteria, they were evaluated only once and jointly with space, avoiding duplication of evaluations from the same location.

Description of the assessment tools

The assessment was performed using the translated and adapted version of the Physical Activity Resource Assessment (PARA) instrument. This instrument assesses the following attributes: availability, user comfort, safety offered in the evaluated environment, cleanliness of the space, aesthetics of the place, services offered for practice in the environment. Reliability tests of 10% overlap proved to be good based on their degree of confidence - gc (gc > 0.77)[17]. This instrument underwent adaptation in the Brazilian reality, in which it is already possible to find studies that used it to investigate the quality of leisure spaces[7,9].

The use of the IPVS took the step of identifying the location of leisure areas and PA practices, as well as their distribution based on population areas and their level of vulnerability. In addition, we chose to use the IPVS due to its legitimacy within the context of the state of São Paulo and the specific objectives that we seek to achieve with the study results. We sought to identify this distribution in the context of the city, highlighting the specific points in each neighborhood and community present in the city, thus, the IPVS was presented as the most appropriate index to be used for conducting the research.

This is presented as an extension of the São Paulo Social Responsibility Index (IPRS), aiming to contemplate the parameter for measuring the degree of human development and the situation of its areas of concentration of poverty in the state of São Paulo and its municipalities[18]. Its classification varies between Group − Extremely low Vulnerability; Group 2 - Very Low Vulnerability; Group 3 - Low Vulnerability; Group 4 - Medium Vulnerability; Group 5 - High Vulnerability and Group 6 - Very High Vulnerability19. In the present study, no regions with IPVS 6 were found in the city, with classifications only between groups 1 and 5 of the indices used.

This document is a project that began in 2000, in which SEADE Foundation disseminates the results, innovating in aspects that seek to support local management, in order to improve the situation of the population residing in the state of São Paulo, to provide support for reflection to respect for the elements that induce economic and social performance of São Paulo municipalities. The IPVS is a well-constructed indicator, based on studies and theories on the phenomenon of poverty, which consider not only income but also the various factors that determine the situation of social vulnerability (education, health, family arrangement, possibilities of insertion in the labor market, access to public goods and services)[19].

For each of the attributes, the amount of the presence of these items in squares/parks and flower beds was verified according to the IPVS group. In addition, the attributes were qualitatively evaluated, considering the existence or not of each attribute according to a score: 0 - the absence of the attribute; 1- the presence of the attribute with poor quality; 2- the presence of the attribute with average quality; 3- the presence of the attribute with good quality. Qualitatively, we used criteria that were based on Brazilian studies9, which classified according to the following conditions:

> (a) without conditions of use (poor quality), (b) with conditions of use, but lacking some structure/equipment, and (c) with conditions of use and with all structures/equipment present properly. (Silva et al.[11] p. 84)

Data analysis

For the present study, data were collected for all leisure spaces located in the urban context of the city of Rio Claro, thus, consisting of a population and not a sample collection, as these met the appropriate criteria for inclusion in the study. Thus, there was no need to perform the normality test for data processing. Then, the variance test (ANOVA) was performed to verify the difference in the number of attributes arranged in each square/park and flowerbeds according to the IPVS, since its data are quantitative and proportional, and the Kruskal- Wallis and Welch's post-tests were used for the quality data of attributes in each square/park and flowerbeds according to the IPVS, since their data are qualitative and ordinal, we chose to use a non-parametric test. The findings were tabulated in Excel and processed in the IBM SPSS (Statistical Package for Social Sciences) software for Windows®, version 21.0, considering a significance level of 5%.

Results

In the evaluated municipality, we identified that a portion referring to 53.4% of the total population are in areas of very low social vulnerability, as well as the largest portion of public spaces that can be used for leisure (70.1%). Of the 144 sites listed in the study, 132 squares, two parks, and ten flowerbeds that could be used for PA were evaluated. As a matter of convenience, it was decided to analyze parks and squares together for better visualization in the analyses. Table 1 presents the data referring to the description of comfort, aesthetics, cleanliness, and safety characteristics of parks/squares and construction sites in the evaluated places (Table 1).

Regarding the distribution of spaces in the municipality and the IPVS, it was identified that 101 public spaces (70.1%) are in an area with a very low vulnerability index (IPVS 2), responsible for the coverage of 53.4% of the population, approximately 110,230 inhabitants[18]. Contrary to this finding, only three places (2.1%) are located in areas considered to be highly vulnerable (IPVS 5), which cover 10.7% of the municipality's population, corresponding to approximately 22,000 inhabitants.

Table 1 - Description of comfort, aesthetics, cleanliness, and safety characteristics of parks/squares and flowerbeds (n = 144). Rio Claro/SP/Brazil, 2019.

Rated items	Safety, cleaning, and aesthetics							
	Parks and squares n = 134 (100%)				Flower beds n = 10 (100%)			
	Non-existence n (%)	Low quality n (%)	Medium quality n (%)	Good quality n (%)	Non-existence n (%)	Low quality n (%)	Medium quality n (%)	Good quality n (%)
Broken Glass	37	46	32	19	1	3	3	3
	(27,6%)	(34,3%)	(23,9%)	(14,2%)	(10%)	(30%)	(30%)	(30%)
Dog refuse	2	84	31	17	0	5	5	0
	(1,5%)	(62,7%)	(23,1%)	(12,7%)	(0%)	(50%)	(50%)	(0%)
Dogs Unattended	5	83	32	14	0	5	5	0
	(3,7%)	(61,9%)	(23,9%)	(10,4%)	(0%)	(50%)	(50%)	(0%)
Evidence of alcohol use	14	29	54	37	0	2	8	0
	(10,4%)	(21,6%)	(40,3%)	(27,6%)	(0%)	(20%)	(80%)	(0%)
Graffiti tagging	11	44	46	33	1	1	5	3
	(8,2%)	(32,8%)	(34,3%)	(24,6%)	(10%)	(10%)	(50%)	(30%)
Litter	18	51	31	34	4	4	2	0
	(13,4%)	(38,1%)	(23,1%)	(25,4%)	(40%)	(40%)	(20%)	(0%)
Vandalism	7	71	31	25	4	4	2	0
	(5,2%)	(53%)	(23,1%)	(18,7%)	(40%)	(40%)	(20%)	(0%)
Overgrown grass	8	83	30	13	1	2	6	1
	(6%)	(61,9%)	(22,4%)	(9,7%)	(10%)	(20%)	(60%)	(10%)
Confort structures								
Bathrooms	131	2	1	0	9	1	0	0
	(97,8%)	(1,5%)	(0,7%)	(0%)	(90%)	(10%)	(0%)	(0%)
Benches	17	62	44	11	4	2	4	0
	(12,7%)	(46,3%)	(32,8%)	(8,2%)	(40%)	(20%)	(40%)	(0%)
Lighting	9	65	60	10	2	7	1	0
	(6,7%)	(48,5%)	(37,3%)	(7,5%)	(20%)	(70%)	(10%)	(0%)
Trash containers	20	63	40	11	0	5	3	2
	(14,9%)	(47%)	(29,9%)	(8,2%)	(0%)	(50%)	(30%)	(20%)

Based on the number of PA practice locations stratified by IPVS, we are presented with a greater distribution of PA practice locations in regions classified as very low vulnerability (IPVS 2), usually arranged in more central locations in the assessed municipality. For clarification of the population in the data on construction sites, there were no structures evaluated with IPVS 1 or 5. Of the facilities found in these spaces, exercise stations and playgrounds were the most frequent structures in parks and squares in the city, respectively 13.8% and 8.3% of the total population of sites assessed.

As for PA services offered in these places, the existence of public classes and private services in parks and squares in the city was identified (3% and 4.5%, respectively). However, no services for loaning or leasing materials were found in these locations. Accessibility in these places is also an important data to be analyzed, in which 80.6% of squares and 60% of construction sites have

access to a bus stop in their vicinity, as well as wide access to bike paths and cycle lanes present in the municipality. Table 2 presents the data regarding the offer of services related to PA practice and accessibility to the evaluated spaces (Table 2).

The evaluation of the number of spaces related to each IPVS group through ANOVA identified significant differences within the determinant attributes for the practice of PA in these places, after being identified through the data variance test. The amount of comfort structures $f(4.40) = 0.011$, cleanliness, aesthetics, and safety $f(4.35) = 0.000$, and accessibility in parks/squares $f(4.20) = 0.000$ were higher in IPVS 2 ($p < 0.001$) when compared with the other IPVS, showing the inequality in the distribution of attributes in the places. For the flowerbeds, only cleaning, aesthetics, and safety $f(2.21) = 0.000$ were more present in places with IPVS 2 ($p < 0.001$) when compared to the other IPVS. Services

Table 2 - Offer physical activity and accessibility services for the user in public spaces for leisure and physical activity (n = 144). Rio Claro/SP/Brazil, 2019.

Service offer	Parks and squares n = 134 (100%)		Flower beds n = 10 (100%)	
	Physical activity services			
	Non-existence	Existence	Non-existence	Existence
	n (%)	n (%)	n (%)	n (%)
Free PA classes	130 (97%)	4 (3%)	10 (100%)	0 (0%)
PA lessons paid	128 (95.5%)	6 (4.5%)	9 (90%)	1 (10%)
Lending PA materials / Leasing PA materials	134 (100%)	0 (0%)	10 (100%)	0 (0%)
	Accessibility			
Bus Stop	26 (19.4%)	108 (80.6%)	4 (40%)	6 (60%)
Taxi Stop	122 (91%)	12 (9%)	10 (100%)	0 (0%)
Parking Lot	110 (82%)	24 (18%)	6 (60%)	4 (40%)
Bike lane / Cycle lane	54 (40.3%)	80 (59.7%)	4 (40%)	6 (60%)
Bike rack	69 (51.5%)	65 (48.5%)	7 (70%)	3 (30%)

offered did not show significant differences in both analysis groups. (Table 3).

Table 4 presents the results of the evaluation of the quality of leisure spaces according to each IPVS. After analysis by Kruskal Wallis, the data show significant differences between the quality attributes of structures aimed at PA practice and comfort structures in squares and parks, in the quality of dirt or gravel walking trails (p = 0.013), and quality of drinking fountain structures (p = 0.006) and lighting (p = 0.049). As for the flowerbeds, PA structures, and cleaning, aesthetic and safety attributes were also significant, also in the quality of dirt or gravel walking trails (p = 0.011) and the presence of bush or tall grass in the region (p = 0.025) respectively (Table 4).

It is noteworthy that these data were presented through the median since the data presented a non-parametric distribution. Data showed significant differences in the quality of the attributes present in the leisure places in the analysis, considering the IPVS 2, very low vulnerability, compared to the scales present in the IPVS, reinforcing the presence of inequality in its composition.

Discussion

Based on the findings, it was possible to identify an unequal distribution of public spaces in the city, most of which are in regions with very low social vulnerability, serving a portion with the higher purchasing power of the population. In addition, these are not in good condition for use, access, and cleaning, evidencing the need for public investments in different attributes of the evaluated spaces and especially in those suitable for PA practice.

After evaluating the locations, most of them received the classification: low quality, corroborating studies carried out in Brazilian cities[20,21]. Usually, these structures do not receive the necessary maintenance after they are implemented, directly impacting the usual use of such spaces for PA practice, something common for the entire population[22]. Its abandonment and lack of care can negatively influence the population's adherence to active habits, due to users' negative perception of the environment and lack of identification with the space used[23,24].

In results found in this collection, the presence of playgrounds or playgrounds is lower than that found in studies[20] that showed in 31.8%, the presence of these spaces in 63 parks and squares evaluated. The offer of structures for all ages highlights the possibility of greater coverage of the population regarding related practices. A study carried out in Portugal also showed that spaces and activities aimed at the child population can influence a healthier and more active lifestyle over the years[25], directly impacting the choices in adult[26] and elderly life[27].

Among the results presented, the presence of services related to the practice of PA activity, such as PA classes, loan services, or rental of materials, led to a negative result in all areas. Few places offer any type of activity that encourages the population to use the space more actively. Studies carried out in the Brazilian population identified that the practice of free activities such as walking is the most common ones[20,22,23].

In few cases, the presence of activities developed in these locations is associated with private Personal Trainer services or gyms existing in the vicinity of the spaces, evidencing the use of a public space for classes with private characteristics, and profit[27]. This situation sets precedents for the clash of interests present in the context of PA practice, formalizing an activity in a public place, to the marketing interests of academies and self-employed professionals.

The results point to great negative impacts related to the safety, cleanliness, and aesthetic attributes of the places evaluated. Usually, the evaluated structures were

Table 3 - Number of attributes in each IPVS for parks / squares and flowerbeds (n = 144), Rio Claro/SP/Brasil, 2019.

Parks/squares		
Group	**IPVS**	**Average-SD[1]**
Comfort structures	1	3.4-3.6*
	2	29.8-40.7
	3	6.3-8.6
	4	2.0-3.0*
	5	1.0-1.5*
Cleaning, aesthetics and safety	1	7.6-1.5*
	2	76.2-6.2
	3	17.6-2.0*
	4	5.7-1.0*
	5	2.7-0.4*
Services	1	2.1-1.9
	2	19.5-31.5
	3	5.0-7.5
	4	1.0-1.6
	5	0.1-0.4
Accessibility	1	4.8-4.0*
	2	40.4-27.7
	3	8.6-5.9*
	4	3.2-2.3*
	5	1.2-0.8*
Flower beds		
Confort structures	1	0.0-0.0
	2	2.0-2.8
	3	0.5-0.8
	4	0.2-0.4
	5	0.0-0.0
Cleaning, aesthetics and safety	1	0.0-0.0*
	2	6.2-1.1
	3	1.8-0.3*
	4	1.0-0.0*
	5	0.0-0.0*
Services	1	0.0-0.0
	2	1.5-1.9
	3	0.6-1.0
	4	0.1-0.4
	5	0.0-0.0
Acessibility	1	0.0-0.0
	2	2.8-1.9
	3	1.0-1.0
	4	1.5-0.4
	5	0.0-0.0

* $p < 0.05$ with difference in relation to IPVS 2. [1]Analysis of variance (ANOVA ONE WAY).

found with tall grass, evidence of alcohol use, graffiti, and signs of vandalism. Such findings go against those of a study carried out in the city of Pelotas, in southern Brazil[9], showing that more than half of the squares and parks evaluated did not present broken glass, graffiti, tall grass, or signs of vandalism. However, the findings regarding the presence of loose animals and their waste in the spaces, are negatively evidenced in both evaluations.

The attributes of comfort structure, cleanliness, aesthetics, and safety and accessibility of parks or squares evaluated showed significant differences in regions within the IPVS 2. Construction sites also presented significant data on this IPVS from the attributes of cleanliness, aesthetics, and safety. The quality of these places is closely related to their geographic distribution in the city, in which central areas or areas of residents with greater purchasing power, have better qualities and availability of attributes related to PA. Studies[28,29] reinforce that the urban public space must be organized as a space for expression and contestation of social values and that although there is a centralization of spaces in cities, territorial expansion is aimed at providing quality and fair services to all populations in various points. from the municipality, is required.

When dealing with the distribution of these places, we are focused on thinking about the portion of the population that benefits most from the presence of these spaces close to their homes and with easy access for their use. According to studies carried out in other regions such as the Northeast[30,31] and South[32] of Brazil, the majority of the population that attends public leisure spaces is from the middle or lower classes, earning up to two minimum wages.

In the evaluated municipality, we found that most public spaces (70.1%), including the two city parks, are located in areas of very low social vulnerability, corresponding to a portion of 53.4% of the population. As a study carried out in the city of Cuiabá, in the state of Mato Grosso, the predominance of spaces was in the eastern region, an area that covers the population with the highest purchasing power, as well as the best results regarding the built environment (fence around, points of buses and floors in good condition), natural environment (afforestation) and safety (lighting)[10], reaffirming data from the central region in the city of Rio de Janeiro[11] or the region with greater purchasing power in Curitiba, in the state of Paraná[13].

From this perspective, it is shown that "the location of infrastructure is the result of a planning that is mainly of interest to the hegemonic actors of the economy and society"[33]. This leads us to reflect how much the public administration values the distribution of public facilities and services in the city in order to privilege regions with greater purchasing power when compared to areas with greater population domain, as well as areas of greater tourist interest and culturally visual framework of the

Table 4 - Quality of attributes related to IPVS in parks/squares and flow-erbeds (n = 144), Rio Claro/SP/Brasil, 2019.

Parks/squares				
Group	Attribute	IPVS	Median	p* [1]
Physical activity locations	Running Track / Dirt or Gravel Walk	1	2	0.013*
		2	2	
		3	0	
		4	0	
		5	0	
Confort structures	Drinking Fountain Structure	1	4	0.006*
		2	6	
		3	3	
		4	0	
		5	0	
Confort structures	Lighting Structure	1	1	0.049*
		2	47	
		3	7	
		4	5	
		5	0	
Flower beds				
Physical Activity Locations	Running Track / Dirt or Gravel Walk	1	0	0.011*
		2	0	
		3	0	
		4	1	
		5	0	
Cleaning, aesthetics, and safety	Presence of bush or tall grass	1	0	0.025*
		2	0	
		3	2	
		4	1	
		5	0	

* $p < 0.05$ with a difference in relation to IPVS 2. [1]Kruskal Wallis test.

municipality. Studies corroborate findings[9,34], presenting the idea of "inverse care", in which the highest prevalence of such spaces is in regions with higher socioeconomic indexes, increasing the access of populations with better economic indexes to leisure, causing impacts negative in the appreciation and use of these places by the poorest population and who do not have easy access to other private places.

This approach directly impacts the perception of the community environment, as well as its appropriation by its users. In a study carried out with a representative sample of adults residing in the 27 state capitals of different regions of Brazil, a beneficial effect was identified, in different magnitudes, in the association between the presence of a public space close to the residence and a greater chance of practicing physical activity in leisure at least one once a week[35].

This leads us to think about the need for adjustments regarding the existence and use of such places, especially in regions whose socio-economic profile of the population presents itself as a limiting factor in PA practice and the use of these spaces in their leisure. A study presented in Brazil[36] presents results that are in line with the findings of this study, evidencing the greater presence of public spaces in census tracts with higher income and low residential density. This study also associates a higher proportion of elderly people with a greater chance of having these places, inversely to the finding, census sectors with a high proportion of children and adolescents were less likely to have more than two PA facilities[36].

Greater investment in these spaces is necessary and presents itself as a very interesting way to reduce impacts on the health situation of the population who frequent these places. As well as its implementation and maintenance are of great importance, the necessary attention must be given to the identification of the interests of the users of these spaces, placing projects to be executed based on the population's desires, based on policies and program strategies that have as starting point, the promotion of health and leisure within public spaces[32]. The need to improve and expand the range of public leisure spaces must take into account the inequalities in their distribution, as well as the sociodemographic characteristics of the population that live in its surroundings and that use this space, aiming at direct impacts on the promotion of physical activity and, consequently, improved health and closer social equity[37].

The study presented some limitations in its development, such as the instrument used, designed for contexts of greater socioeconomic development, compared to the reality of most Brazilian cities. Even after it was translated and adapted to the national context, it presented us with the difficulty of finding certain attributes in the researched areas, mainly regarding comfort items, in the installation, as well as expressed in other studies using the same instrument[9].

Conclusion

The results found in the study suggest that the public spaces aimed at leisure in the city of Rio Claro-SP/Brazil, did not show good rates related to quantity and quality in the evaluated structures, showing a lack of adequate spaces for the practice of PA in leisure concerning the attributes comfort structure, cleanliness, aesthetics and safety, and accessibility, whether in squares and parks or habitable flowerbeds. Based on the findings of the study, the spaces are in central areas of the city, mostly represented by the area of commerce and sales, and with a social vulnerability, index considered very low in popula-

tion standards (IPVS 2), showing reduced access to quality public spaces in its residential areas, normally inhabited by lower-income populations living in the outskirts of the city.

It is necessary to carry out studies based on the perception of the population that uses these spaces, since the appropriation of the public environment and the access guaranteed by public bodies to its beneficiaries, strengthens the social bonds with space and with those who attend it, demonstrating that, consequently, when well-structured and qualified to the public present in the place, they become motivators for the experience of leisure and PA practices as health promotion strategies.

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