

Artigo Original

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# Factors that influence the non-use of Open Fitness Zones in the city of Apucarana-PR

Fatores que influenciam a não utilização das Academias ao Ar Livre na cidade de Apucarana-PR

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#### Resumo

Introdução: As Academias ao Ar Livre são espaços públicos que objetivam promover atividade física de forma gratuita à população, tendo sido instaladas no Brasil desde o ano de 2005, baseado no modelo chinês. Já na cidade de Apucarana, seu início é datado de 2006, havendo, atualmente, 42 delas. Objetivo: O presente trabalho objetiva conhecer os fatores pelos quais a população de Apucarana utiliza as Academias ao Ar Livre. Materiais e Métodos: Foi utilizada uma abordagem do tipo quantitativa, cuja coleta dos dados foi realizada através da utilização de questionário semiestruturado contendo perguntas fechadas aplicado a 384 pessoas da localidade onde as Academias ao Ar Livre estão instaladas. A análise e os gráficos foram elaborados através do Software Epi Info™ 7.2. Resultados: Os motivos que levaram a população a utilizar a Academias ao Ar Livre foram: Promoção à saúde (38,31%), Lazer (25,87%), Qualidade de vida (20,40%), Estética (7,46%), Prazer (4,48%), Outros (2,49%), Interação Social (1%). Conclusão: É necessário o poder público manter as Academias ao Ar Livre em funcionamento, pois este tipo de política se estabelece em longo prazo, haja vista um número significativo de usuários, assim como aqueles que não usam, mas tem intenção de utilizar futuramente. **Palavras-chave:** espaço público; população; atividade física.

#### Abstract

Introduction: Open Fitness Zones are public spaces that aim to promote free physical activity to the population, which have been implemented in Brazil since 2005, based on the Chinese model. In the city of Apucarana, Open Fitness Zones began to be implemented in 2006, and there are currently 42 of them. Objective: The present work aims to understand the factors by which the population of Apucarana uses Open Fitness Zones. Materials and Methods: A quantitative approach was used, whose data

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collection was carried out through the use of a semi-structured questionnaire containing closed questions applied to 384 people from neighborhoods where Open Fitness Zones are installed. Analyses and graphs were performed using the Epi Info TM 7.2 software. Results: The reasons that led the population to use OFZ were: Health promotion (38.31%), Leisure (25.87%), Quality of life (20.40%), Aesthetics (7.46 %), Pleasure (4.48%), Others (2.49%), Social Interaction (1%). Conclusion: Public authorities should keep Open Fitness Zones in operation, as this type of policy is established in the long term, considering the significant number of users, as well as those who do not use them, but intend to use them in the future.

Keywords: public space; population; physical activity.

## Introduction

Any body movement that results in energy expenditure performed by the skeletal musculature, whether in fights, games or dances, sports, leisure activities or commuting, which have biopsychosocial aspects related to behavior or culture, can be understood as physical activity <sup>1</sup>.

At the present time, it is proven that more active people have less physical limitations, and several studies have associated active lifestyle with increase in longevity <sup>2-3</sup>. It has been observed that maintaining active lifestyle favors the aging process in a positive way, and it is possible to understand that the regular practice of physical activity develops several physical capacities <sup>4</sup>.

As a result, it is understood that Open Fitness Zones (OFZ), as a Public Sport and Leisure Policy, designed to encourage the practice of physical exercises can be seen as a tool that aims to improve the population's health in an integral way, since physical exercises have physiological effects that improve the individual's health and minimize harmful effects, being also a space for social interaction  $^{2,3,5}$ .

These activities have low injury rate for their practitioners <sup>6</sup>. In a study carried out in order to observe morphofunctional parameters, it was found that there were no improvements with the practice of physical activity in OFZ, but cardiovascular changes were pointed out as a contributing factor for lowering blood pressure <sup>7</sup>.

OFZ are understood as public spaces, as they are installed in parks, squares or sports complexes<sup>8</sup>. In this sense, the use of these spaces has been a tool widely used for sports activities or simple moment of relaxation <sup>9</sup>. In this context, there is need to reorganize and defragment these spaces, as they are seen as health promoters that improve quality of life, being places of collectivity and, their absence is related with little practice of leisure physical activity by people, which should provide different body practices <sup>10</sup>. When thinking about encouraging body practices, one must provide ways of planning actions that guarantee the safety and comfort of practitioners, that is, places must have accessibility and coexistence conditions in order to guarantee their use. Another strategy that can be used is the intersectoral relationship, taking advantage of these spaces as true places of social coexistence, making their management a challenge for SUS managers, using them for people to practice physical exercises <sup>11-</sup> 12

Another condition that may prevent the frequent use of OFZ would be the absence Physical Education of Professionals, and although their presence is recommended, it is generally not observed in OFZ<sup>13</sup>. Most public entities prefer to install OFZ close to Basic Health Units, where there are large number of people with Chronic Non-Communicable Diseases (NCDs) such as hypertension and diabetes, as many health professionals report that, spaces that promote nonmedication therapy for these or other diseases will favor the recovery of these patients and promote health without large

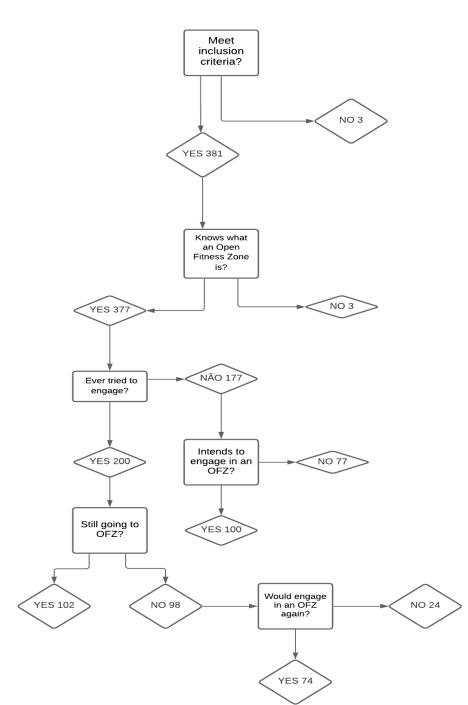
investments <sup>14</sup>. People who do not have the habit of practicing physical activity, when they receive guidance to do it, they tend to improve regularity, and those who are already regular, tend to increase practice even further <sup>14</sup>. The importance of hiring specialized professionals in order to maximize the use of public equipment and enhance the results acquired by the population should be emphasized <sup>15</sup>.

OFZ started in Brazil as a pilot project within the "Maringá Saudável" Program in 2005, having its first unit installed in 2006. OFZ were adapted by a civil engineer with background in Physical Education, inspired by the Chinese model, which aimed to promote the practice of physical activity in the population of that country, mainly due to the coming of the Olympic Games <sup>16</sup>. Currently, there are approximately 42 OFZ in the city of Apucarana spread over several neighborhoods, according to IDEPPLAN (Institute of Development, Research and Planning of Apucarana). There are no official records of when OFZ were first installed in Apucarana. Therefore, the present work aims to know the factors by

which the population of Apucarana uses OFZ.

# Materials and methods Sample and study type

The methodology used was an quantitative descriptive exploratory approach through the application of semistructured questionnaire containing closed questions in a sample obtained through sample calculation based on population of 131,571 thousand inhabitants <sup>17</sup>, obtaining 384 samples (Flowchart). Before the interview, the Informed Consent Form (ICF) was delivered and read to research participants, explaining procedures, the purpose of the study and possible risks and This study complies benefits. with Resolution No. 466, of December 12, 2012, of the National Health Council, which establishes the guidelines and regulatory standards for research involving human beings, and has been approved by the Ethics Committee on Research with Human Beings (CETi) of the Faculty of Apucarana under protocol number 1957080.



#### Flowchart 1. Interviewed samples.

### **Research design**

Interviewees were randomly chosen in different places such as bus stops, commercial establishments, streets and squares and the questionnaire was applied during business hours (08:00 am to 06:00 pm).

#### **Inclusion and Exclusion Criteria**

Interviewees were randomly chosen during business hours, being interviewed at bus stops, commercial establishments, streets and squares.

#### Procedures

Questionnaires were applied to residents of neighborhoods nearby OFZ in the city of Apucarana / PR.

### Results

The sample consisted of 384 individuals, three of whom were excluded by the exclusion criterion, being the first question referring to the knowledge of the individual about what is a Fitness Zone. If the participant answered not knowing what it was, the research with this participant ended from that point, with only this information being collected. Thus, of the 381 participants, only 0.79% responded that they did not know about OFZ and the remaining 99.21% responded positively to this question, who participated in the other research variables. Of the total sample, 61.94% were women and 38.06% men.

Participants' mean age was 42 years (standard deviation - SD = 17.31). Regarding schooling, 9.19% had complete elementary school, 31.23% incomplete high school, 14.44% incomplete high school, 6.56% complete higher education, 7.35% incomplete higher education and 2.10% no schooling or illiterate.

Variables	Simple Frequency
Gender	
Men	38%
Women	62%
lge	
Years	$42 \pm 17,31$
level of Education	
Complete Elementary School	9,19%
Incomplete Elementary School	31,23%
Complete High School	23,13%
Incomplete High School	14,44%
Complete University Education	6,56%
Incomplete University Education	7,35%
No Education or Illiterate	2,10%

With regard to occupation, 10.76% responded that they were retired, 3.67% unemployed, 13.65% housewives (only for women), 65.35% employed and 6.56% students. Regarding income, 37.53% responded to have individual income of up to one minimum wage; 51.18% between 1 and 3 MW; 4.46% between 3 and 6 MW; and 6.82% of participants declared they had no income.

When data on income and use of OFZ were crossed, the following results were obtained in relation to those that most use OFZ according to individual income, as can be seen in the figure below:

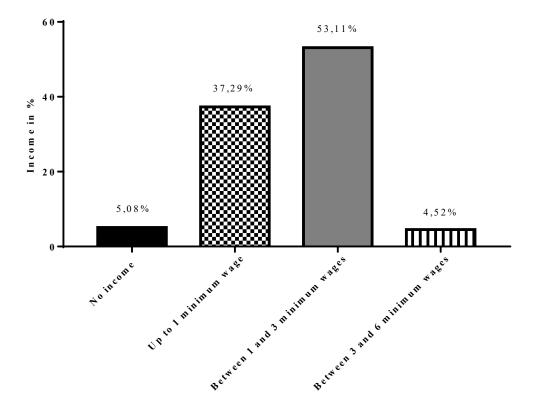
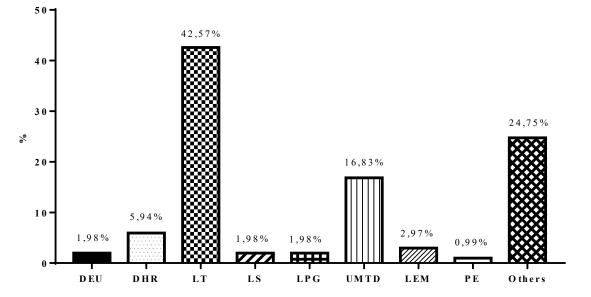


Figure 1. Income use OFZ/Income.

Regarding the use of OFZ, 46.83% responded that they never used them and 53.17% had already used them. Among Figure 2. Why never went to OFZ?

those who never used them, the main reasons are shown in the figure below:



Subtitles: DEU: Difficulty in Equipment Usage; DHR: Didn't Have Results; LT: Lack of time; LS: lack of security; LPG: Lack of professional guidance; UMTD: Unmotivated; LEM: Lack of equipment maintenance; PE: Place for elderly and Others.

Regarding those who never used them, when asked if they intended to use

them: 54.8% responded yes; 38.42% responded no; and 6.78% responded

perhaps. For respondents who responded that they used them at least once, the

objectives are shown in the following figure:

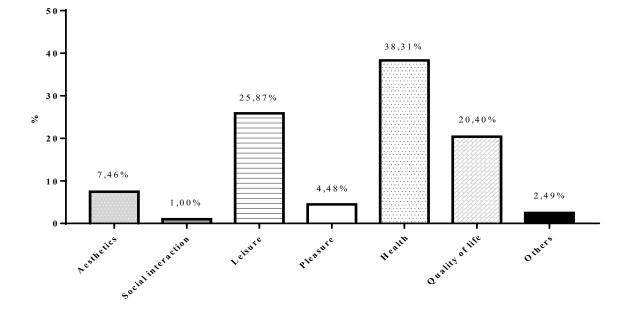
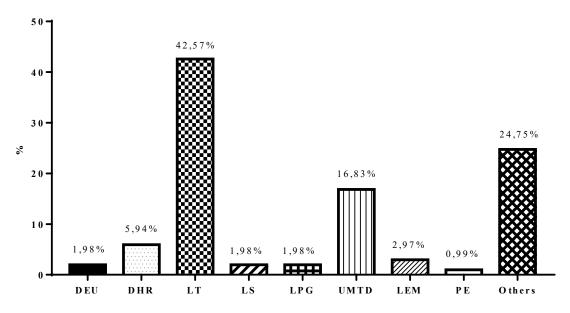


Figure 3. What is the objective?

Of those who responded they used them, 49.75% are still using them and 50.25% have stopped using them. The

main reasons for disuse are listed in the figure below:

Figure 4. Why engaged and stopped going to OFZ?



Subtitles: DEU: Difficulty in Equipment Usage; DHR: Didn't Have Results; LT: Lack of time; LS: lack of security; LPG: Lack of professional guidance; UMTD: Unmotivated; LEM: Lack of equipment maintenance; PE: Place for elderly and Others.



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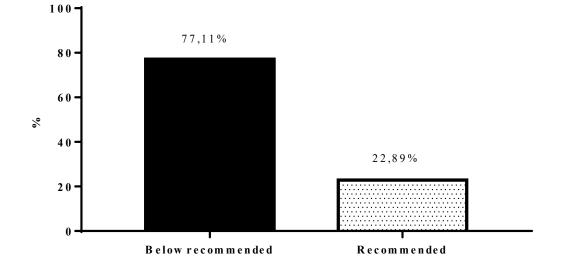
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For individuals who have already used OFZ and stopped using them, it was asked if they would use them again. Responses were as follows: yes 75.25%, no 14.85% and perhaps 9.90%.

Regarding the weekly frequency, results showed that: 28.36% use them twice a week; 27.36% once; 24.88% three times; 14.93% four times; 3.98% five times; and 0.50% use them seven times. Regarding the time of use of OFZ, the

Figure 5. Weekly accumulated time.

following results were obtained: 38.21% use them for 30 minutes; 20.40% for 60 minutes; 18.91% for 40 minutes; 17.91% for 15 minutes; 3.98% for 50 minutes; and 0.50% for 20 minutes. Regarding the weekly time, the figure below shows that 77.11% used them less than 150 minutes per week and only 22.89% reached this time.



#### Discussion

The present study evaluated a sample of the population from the city of Apucarana / PR about the main factors that influence them to use OFZ. The main findings were three factors that are closely related and that predominated in the research, which are those that most influenced people to use OFZ: Health Promotion, Quality of Life and Leisure. Therefore, it is important to emphasize that Health Promotion, as explained in the Ottawa Charter of 1986, is a process to enable the population to improve their quality of life, and above all, leisure should be a source of health for people. The

emphasizes document that health promotion is not the responsibility of public authorities alone <sup>18</sup>. Therefore, people's perception in relation to the use of OFZ seeking the aforementioned factors demonstrates a broad and important view in improving their health. Although people have this perception, physical inactivity levels remain high, and actions from various sectors of society are necessary to improve this situation <sup>19</sup>. It is also important to remember that leisure is present in the 1988 constitution in two moments, in article six as a social right and in article 217, third paragraph, making it clear that the government will encourage leisure as social promotion <sup>20</sup>.

In this sense, the creation and maintenance of public spaces that promote leisure will contribute to health promotion, which is directly linked to quality of life. Thus, the PNPS (National Health Promotion Policy) was created in 2006, in which one of its aims is to promote and improve quality of life <sup>19</sup>. Quality of life can be defined in terms of the distance between individual expectations and reality <sup>21</sup>.

In this way, when there are spaces that promote the practice of physical activity for the population, this distance can be reduced and reality can be achieved. In this sense, some factors that influenced the use of OFZ such as aesthetics, pleasure and social interaction, which appear in smaller percentage, but which were listed by the population, can also become reality. However, in order for some of the aforementioned objectives to be achieved, there is an extremely important factor that should be highlighted, the weekly use time. Analyzing this variable, is was observed that only 22.89% used them for 150 minutes, while 77.11% did not reach this level. It is recommended that adults should perform 300 minutes of aerobic physical activity during the week with moderate to intense intensity or 75 minutes of vigorous aerobic physical activity or a combination of both to have health benefits, and maintaining these levels can delay functional declines <sup>22</sup>.

Regarding participation in physical activity programs, a study that evaluated a physical activity program in the city of Recife / PE, found that 65.7% of users responded participating to obtain health benefits, while only 0.7% participated for leisure, perhaps the latter is due to the fact that there are other spaces that can be used for such activity in that city <sup>15</sup>. During contact with research participants in the city of Apucarana, there were many reports about the lack of spaces that encourage this practice. Although both populations have similar perception of physical activity as something beneficial for promoting health, there is a significant difference in relation to the use of spaces of this type as a leisure practice.

In another study conducted in the city of Recife that sought to identify the search for health promotion programs by older adults, it was found that 84.2% seek these programs to improve health, 47.5% reported that they participate PE to improve self-esteem and to relax. If we consider that leisure is used as a form of relaxation, it is possible to conclude that this population indirectly seeks these spaces for this purpose <sup>23-24</sup>.

In a study on adherence to the practice of physical activity, results showed that medical recommendation, leisure, quality of life, aesthetics and physical conditioning are the main reasons for this practice <sup>25</sup>. The search for these spaces can also be related to socioeconomic aspects, and the present study found results similar to those found by another author <sup>19</sup>.

The main reason reported by participants for not using OFZ was lack of time, both for those who never used them and for those who used them and stopped the practice, followed by other reasons (diseases, withdrawal due to medical recommendation, pregnancy, laziness, lack professional guidance and of demotivation). As most of the sample is composed of employed people, when occupation was related to the lack of time, 81.33% of those who responded not using OFZ due to lack of time are in this condition. Among those who used and stopped using, 72.09% are also employed. Although most of the sample is composed of employees, it is necessary to discuss the relationship between time and the current way of living, that is, to what extent lack of time or lack of organization are barriers for healthy attitudes? Time is related to days, hours, minutes and to past, present and future, but also with the appropriate moment or occasion for something to be accomplished <sup>15</sup>. The Taylorist model of organization, which is still very present in

society, destroys human individuality, so individuals use specialized time at work, organizing themselves too much for it and leaving aside other activities <sup>26</sup>. Lack of time is a matter of priority, so that a physical activity program must be sufficiently attractive to minimize this factor; the lack of energy seems to be more related to a mental issue than to a physical one, being one more reason to practice physical activity from the knowledge of its benefits; regarding demotivation, it is the sum of two factors, that is, tiredness and the dedication of time in other activities <sup>24</sup>. Thus, professional guidance was reported as an important factor for adherence, where users reported (57.5%) that they would like to receive guidance from a professional and (62.5%) receive incentives <sup>23</sup>. Therefore, the presence of a professional to explain the benefits and prescribe the exercises so that the user can enjoy this benefit is extremely important. Fragmentation and work individualization have led to new working times, so the individual has less social time, that is, the worker leaves aside family, leisure, education and even rest. There is a veiled extension of working time, so, more and more the worker would be at the service of the company, taking tasks home and reducing social time  $^{26}$ .

A possible limitation of this study is the possibility of future research in a longitudinal character assessing the importance or not of the presence of Physical Education Professionals in these spaces.

# Conclusion

According to data presented, significant part of the study population still does not make use of OFZ, so there is need for public authorities to keep OFZ in operation by providing public spaces that offer the practice of healthy habits. This type of policy is established in the long term, considering a significant number of OFZ users, as well as those who reported not using them, but intend to use them in the future, mainly due to the fact that the reasons alleged for practicing physical activity by the population go against the agenda of international bodies, which encourage active behavior as a means of promoting health and reducing public spending.

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