Public Sports Policies: A Tool for Characterization of Municipal Sports Services in Mozambique

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Abstract

Over the past 40 years, the municipalities have been the main promoters of sport development in several parts of the world. They were also crucial in the definition of sport policies with actions focused on the promotion of healthy lifestyles through physical activity and sport practice for all sectors of society. Nevertheless, in the municipalities of Mozambique, the intervention in sport is a relatively new activity. Research in these fields is very rare, so it is urgent to proceed with disaggregated studies on sport reality in municipalities of Mozambique. The aim of this study was to design and validate a specific tool for characterization of municipal sports services. For this purpose, an ad hoc instrument based on a previous literature review was designed and submitted to validation process by academic experts. After the instrument obtained a positive evaluation, a pilot study was conducted. Forty-one items, divided into nine dimensions, compose the final version. The instrument showed a good validity indices (V of Aiken = 0.85), and reliability (W of Kendall = 0.82). The tool will help and guide policy makers for best practices in sport programs in their municipalities, since it provides feedback about the overall development of sport services and identifies which resources they have and which are needed in each municipality to ensure that all activities can successfully deliver and respond to the demands of the citizens. The final tool was named Fer Cas DemuP.

Keywords: Sport policies, Municipal sport services, Municipalities, Designed and evaluation, Instrument.

Introduction

The municipalities have an important role in development of sport, because they are boosters of sports policies at local level, they are close to the citizens and know the local sport reality [1-4]. Thereby, the increased interest of the population in physical activity and sport practice as part of their lifestyle requires governments, whether central or local, to delimit sports policies centred on improving quality of life of the citizens.

The strategy adopted by developed countries to respond to this demand has been the development of sports policies and programs based on international recommendations, in good practices for health promotion through physical activity and sport [5-7]. The municipalities, together with central Government, are main promoters and organizers of these activities.

Regarding developing countries, distinct reality were found; municipalities are mere repeaters of the programs defined at central level, without due observance of the local reality and context. Associated to this, the
process of municipalities’ creation in Mozambique is relatively recent, and the services offered present deficiencies, in particular the sports services [8].

In a meticulous analysis about municipal sport policies in Mozambique, some studies found [9-11] were performed in two southern municipalities and one in the centre of the country. They present a general characterization of sport policies carried out by the municipalities.

These studies applied instruments validated in other contexts and realities. There has been no tool validated in Mozambique which allows studying the reality of the municipalities sport services, while taking into account its characteristics and the local context.

Thus, there is a need to create a tool that allows characterization of municipal sports services in Mozambique, taking into account the context and local reality. To this end, it is pertinent that the tool amasses a series of indicators to make possible an in-depth analysis about the deployment and organization, programs, as well as sports and physical activities offered in municipal sports services.

For those reasons, the aim of this study was to design and validate a tool for characterization of municipal sports services and sport policies undertaken to promote physical activity practice and sport development at the local level.

As set out by Gutierrez [12], one of the key issues in the study of sports policies is the need to qualify the political action in its ability to provide adequate and quality responses to the demands of the population. This requires knowing the sports reality, needs of the population, existing structures and the potential of sports sector in each region to invest adequately in sports services.

Therefore, the decision makers need to have knowledge about sports in order to discern which sports activities or sport disciplines can be offered in each region [13].

Thus, a review of the literature was conducted in order to develop a tool that would allow policy makers set sports policies based on local reality.

Researches about municipal sports services or municipalities sport policies, [14-23] focus on human resources, financial resources, organizational culture, sports facilities management, relationship with other organizations, sport and sustainability, sporting opportunities, creation and evolution of services, information management, service management, quality of services, and sports policies.

After a thorough literature review, the following 10 dimensions were selected to integrate the tool: 1) Creation of the services; 2) Human resources; 3) Economic resources; 4) Sports facilities; 5) Management of the service; 6) Municipal sports offer; 7) Organizational culture; 8) Relationship with other entities; 9) Information and communication management; 10) Sport and environment. These dimensions have been submitted to the evaluation and validation process in three phases, which we describe below.

Method

The research purpose of this study required a methodology, which was multidisciplinary in approach and essentially inductive. The mix of research methodologies chosen was necessary in order to determine the dimensions of the questionnaire, followed by identification of items for each dimension.

In order to achieve this objective, a systematic and progressive approach was developed, involving a focus group, high-ranking officials from the Ministry of Youth and Sport, academic experts and a pilot study carried out with municipal directors from municipalities of Mozambique [24-26].

The ethical council of the Faculty of Sport of the University of Porto approved the research protocol with process number CEFAD 05.2015.

Management Lab of the Faculty of Sport Sciences of the University of Castilla-La Mancha, Toledo, Spain. The purpose of the focus group was; first, to analyse the importance of the dimensions for the
questionnaire; second, to set out the items that will constitute these dimensions; and third, the hierarchical order in which they would be organized.

The group was briefed with findings of the literature and given the opportunity to debate the philosophy of whether or not it was reasonable to integrate the questionnaire.

The group was also asked to place the dimensions in hierarchical order. In addition, they were asked to identify the items that would integrate the dimensions. The group met twice per week over three months in order to refine the constituent items of the dimensions and a primary document.

The primary document was composed by 41 items distributed in 10 dimensions: “Creation of the services; Human resources; Economic resources; Sports facilities; Management of the service; Municipal sports offer; Organizational culture; Relationship with other entities; Information and communication management; Sport and environment”.

Following the methodology proposed in other researches, [27-30] and in order to verify if the dimensions had an impact in characterization of municipal sports services, the document was submitted to high-ranking officials of Ministry of Youth and Sport familiar with national sport organization and other key activities undertaken in Mozambique.

**Phase Two:** analyses by high-ranking officials. The second phase of the research was to submit the first document to high-ranking officials of the Ministry of Youth and Sport to further examine and refine the dimensions and its items prepared by previous focus group. Once again, it was asked the officials to add to the list or adjust the order as they saw fit. Due to the distance, the document was sent by email.

After the first document was analysed by the officials, it was recommended to change the name of the economic resources dimension to financial management, and to unify the dimensions of sport facilities with management of the service, as approaching these two dimensions separately could be redundant. The new dimension was designated, “Sports facilities and management”, and the document turned into nine analysis dimensions.

At the end of both phases, we summarized the evidence obtained from the focus group and the officials from the Ministry to refine the list in order to assess which dimensions and items would precede or follow other, as shown in Table 1.

<table>
<thead>
<tr>
<th>Table 1: Order of dimensions and its items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions</td>
</tr>
<tr>
<td>------------</td>
</tr>
<tr>
<td>Creation of the services</td>
</tr>
<tr>
<td>Human resources</td>
</tr>
<tr>
<td>Organizational culture</td>
</tr>
<tr>
<td>Relation with other entities</td>
</tr>
<tr>
<td>Sport facilities and management</td>
</tr>
<tr>
<td>Municipal sport offer</td>
</tr>
<tr>
<td>Financial Management</td>
</tr>
</tbody>
</table>
After this, the final document was sent to the sport academics experts, in order to continue with the validation process as recommended by literature [31-33]. The experts profile is described in Table 2.

### Table 2: Experts profile

<table>
<thead>
<tr>
<th>Experts</th>
<th>4 University lectures, researchers in management and sport organizations, public and private facilities; 1 University lecturer, researcher and consultant in public sport policy.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>2 women 3 Men</td>
</tr>
<tr>
<td>Nationality</td>
<td>3 Spanish 2 Portuguese</td>
</tr>
<tr>
<td>Professional profile</td>
<td>University lectures, PhD in Physical Activity and Health, and PhD in Sport Sciences, more than 10 years of experience in sports management, as well as in the direction of public and private sports entities. Large experience in research and accredited in research centres with prestige.</td>
</tr>
</tbody>
</table>

The selection of the expert group followed criteria suggested by literature [34,35]: i) Experience in issuing criteria and evidence based on decision making and expertise (academic degree, research and publications, experience and awards); ii) Reputation in the academic community, and; iii) Availability and motivation to participate in the validation process.

For the validation process, a systematic process organized in five steps was followed:

- **Validation Process**

  In order to be considered valid, a questionnaire should be: a) reliable; b) able to detect and measure changes; c) simple and acceptable by the respondents and other researchers; d) suitable for measuring the phenomenon that aims to study and, e) reflect the theory under the phenomenon studied. These properties are summarized in two properties: reliability and validity.

  After the validation process by academic experts, a pilot study was carried out. The aim of pilot study was to test the validity of the tool, to estimate response rate, to test the questionnaire wording and sequencing as well as to verify the plainness of its language [30,33].

  The questionnaire was applied face-to-face in the municipalities of Dondo, Inhambane and Xai-Xai, with three directors of municipal sports services. All of them were male, aged between 34 to 42 years, and with over 5 years of experience. The general characteristics of the municipalities are presented in Table 3.
The pilot study was conducted in June 2015. Findings of pilot study indicate no need to change any dimension or item of the questionnaire.

Content validity was calculated using the mean scores attributed by academic experts [20] and the test of V of Aiken [38,39] according to the methodology described by Gómez, Sainz de Baranda, Ortega, Contreras and Olmedilla.

Results

Once the instrument was approved by the focus group and the officials from the Ministry of Youth and Sport, it was submitted for evaluation and validation process by academic experts on three different occasions.

The results are presented in Table 4. The evaluation of each dimension was given in Likert scale of 5 points. The average and the V of Aiken were subsequently calculated during its development to ensure the validity.

Table 4: Results of evaluation by experts

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>First evaluation</th>
<th>Second evaluation</th>
<th>Final version</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>V. Aiken</td>
<td>M</td>
</tr>
<tr>
<td>Creation of the services</td>
<td>2.6</td>
<td>0.65</td>
<td>4</td>
</tr>
<tr>
<td>Human resources</td>
<td>1.8</td>
<td>0.45</td>
<td>3.6</td>
</tr>
<tr>
<td>Financial management</td>
<td>2.8</td>
<td>0.70</td>
<td>3.6</td>
</tr>
<tr>
<td>Sports facilities and management</td>
<td>2.8</td>
<td>0.70</td>
<td>4</td>
</tr>
<tr>
<td>Municipal sports offer</td>
<td>2.8</td>
<td>0.70</td>
<td>3.8</td>
</tr>
<tr>
<td>Organizational culture</td>
<td>2.4</td>
<td>0.60</td>
<td>3.6</td>
</tr>
<tr>
<td>Relationship with other entities</td>
<td>2.4</td>
<td>0.60</td>
<td>3.6</td>
</tr>
<tr>
<td>Information management and communication</td>
<td>2.8</td>
<td>0.70</td>
<td>3.8</td>
</tr>
<tr>
<td>Sport and the environment</td>
<td>2.8</td>
<td>0.70</td>
<td>3.6</td>
</tr>
</tbody>
</table>

In the first evaluation, the dimensions had an average of 2.57 scores. It is equivalent to a rate of 0.64 in the table of critical values of Aiken [40] with suggestions to improve the questions.

In the second evaluation of the questionnaire, there was significant improvement in the scores assigned to the dimensions, obtaining an overall average of 3.73, equal to 0.93 in table of critical values of Aiken [41].

Even with a high level in this evaluation, a perfect agreement between academic experts was not achieved, because suggestions were given in most questions of the dimensions. The exceptions were the dimensions Creation of the services and Sports facilities and management, which reached the maximum score.

Once assimilated the suggestions made by experts, we sent the questionnaire by email for new evaluation. It ended up being the final version of the tool, as all dimensions were accepted without suggestions and an index of agreement between 0.95-1.00.

Besides evaluating the dimensions, some questions regarding to general structure, order and relevance of dimensions, degree of interrelation, and language used, were also evaluated in three different occasions, as shown in Table 5. The evaluation of each question also was given in a Likert scale of 5 points. Then, the average values of each question was determined to calculate V of Aiken.
A careful analysis of the table above shows that in the first evaluation of general questions the overall mean was 2.7, equivalent to 0.65 in the table of critical values of Aiken [40].

However, and taking into account the observations made by the experts, the averages were increasing from one evaluation to another, and a perfect agreement was obtained in the third evaluation, with Aiken index reaching the highest score in all questions [40].

Despite the high index of agreement, it was relevant to calculate the degree of agreement among experts throughout all process of evaluation and validation of the construct, since this process is very subjective [42,43].

So, in order to determine the degree of agreement among experts and provide greater reliability to the validation process, it was calculated the index of concordance W of Kendall during the three moments of evaluation. This ensured the internal consistency of the questionnaire, while seeking to control and to minimize a bias throughout all process.

With the level of significance in 0.05, the results of W of Kendall varied from 0.65 to 1, as presented in the table 6. For each dimension, the sig was statistically significant.

Analysing the table above, we verify that the coefficient of W of Kendall varies from 0.65 to 1. The dimensions of financial
management, information management and communication, organizational culture, sports and environment, present relatively low indices of agreements.

Despite these values, it does not mean that there is no agreement among experts. It is likely to obtain extreme values in all dimensions during the validation process, when we evaluate the index of agreements from experts [44,45].

**Discussion**

As previously mentioned, the aim of this research was to design and validate a tool for characterization of municipal sports services and sport policies undertaken for promoting physical activity practice and sport development at the municipalities of Mozambique.

The design of the questionnaire is not an easy task and all attempts to improve validity and reliability of the instrument might be insufficient. In this sense, using focus groups, officials from the Ministry and academic experts during the design and validation processes of the content of the tool brought a satisfactory result which allowed improving its quality and validity in all phases of evaluation [46].

The results obtained through this experience are a clear example that the methodology applied was useful for ensuring viability of the instrument, as the use of experts’ consensus regarding the dimensions and their relevance allowed to answer the goals defined [47].

As observed in Table 6, the experts participating in the validation process agreed across all phases in the dimensions selected – concerning their designations and the fundamental features which allow a deep characterization of municipal sports.

In other hand, we can affirm that the content has high validity. The decisions of experts were increasingly determinant in different phases, noting a significant increase of the average and the validity index of V of Aiken at all dimensions as well as in its structure, relationship between dimensions and its language.

Taking into account the results of the pilot study, the goal was achieved and it resulted in a flexible and practical instrument in its applicability.

This tool is available to directors and municipal councillors, and it will allow to make a diagnosis regarding the reality of sports, the programs and the sport policies adopted at the municipalities. The success of these activities depends largely on the satisfaction of citizens and the results achieved in promoting physical activity and sports practice.

The definitive tool showed high average of the evaluations from the experts (≥ 4.8 on a scale of 5 points) and a great validity coefficient (≥ 90) in all dimensions in the table of critical values of Aiken. A good correlation coefficient (Kendall's W ≥ 60) in all dimensions, supported it to be a good tool for application [43].

These values demonstrate adequate reliability and validity indices of the tool. It can be used to analyse and characterize a municipal sports service, as well as launched and existing sports policies programs, and it becomes possible to draw comparisons between the different municipalities of Mozambique.

**Conclusions**

Literature review shows that the policy makers should have knowledge about their municipalities regarding to human resources, organizational culture, relation with other entities, sport facilities and management, municipal sport offer, financial management, information management and communication, sport and environment. This allows a plotting of the sports realities and a proper definition of programs and activities plans to local residents.
The participation of a focus group, officials from the Ministry of Youth and Sport and academic experts was decisive during the entire process. It improved the suitability of the dimensions to characterize municipal sports services, as well as the actions taken by municipalities of Mozambique to implement sports policies.

In relation to the reliability of the validation process, the W of Kendall test showed a significant correlation with the V of Aiken, since the two tests showed high levels of validity (V de Aiken = 0.85 e W de Kendall = 0.82) during the process of construct validation.

After the process, we conclude that the questionnaire is a valid and reliable tool for characterization of municipal sports services in Mozambique and it can be used in the future for national and international studies oriented to study municipal sports services, while taking into account the local context and its evolution. The official name of the tool is Fer Cas Demup.

Practical Implications of the Research
This research has formed the basis of a diagnostic tool that has been developed to help analyse the internal and external states of the municipal sport services in terms of their development across the nine dimensions. The intention is that this analysis helps policy makers and directors to make decisions about whether it is appropriate to deliver programmes based on local sports reality.

An analysis of the gap between what the municipality have and what is required for successful delivery of programme will enable to determine the needs before a decision is made to proceed with selected programmes.

Consideration of the literature [48-53] set out the evidence that the success of any organization depends on following four performance scopes that involve all dimensions of the tool:

- Administration: comprising rules and regulations, management, governance, structure, staffing, operations, communication and strategic planning.
- Physical resources: including management of the facilities and equipment for competitions, recreation and play.
- Financial management: specific budget to sport, including income from sponsorship and marketing, support to the local clubs, associations and all initiatives to develop sport.
- Human resources: academic level, sport training and incentives, degree of specialisation, staff and management, and participation in sport at local, regional and national level.

The advantage of this tool is that it can immediately provide feedback to the policy makers on the overall development of the sport services in their municipalities. There is a need to understand the levels of development of each municipality to ensure that the activities can be successfully delivered by all and that it answers the citizens’ needs.

As noted above, this tool identifies the gap between what the municipalities currently have in place and what they need in order to efficiently deliver programs and services. This informs the planning process and allows policy makers to devise and implement plans, which further develop those areas where gaps can be found between what they have and what is required. This will improve organizational capacity, leading to more efficient and better development of physical activity and sport practice programs.

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