

Scientific support to elite sports in Brazil: a preliminary analysis

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Aim of the paper

Scientific research and innovations are considered one of the key issues that show that nations are strategically developing elite sport toward the international sports success. The aim of this study was to analyze the scientific input into elite sport in Brazil to succeed in the 2016 Summer Olympic Games. This study was built from the initial data analysis provided by the SPLISS (Sports Policy Factors Leading to International Sporting Success) Consortium Group 2011-2012, that includes Brazil.

Theoretical background

Some studies examined different countries programs in order to propose models based on the similarities among the structures of the considered nations. Several factors were identified like financial support, role of the sporting organizations involved and the simplicity of their management, nation's sports participation, talent development process, high performance athlete support, organized sportive schedule, trainers preparation, environment of elite sport, sport facilities and scientific support. The role of science in the development of elite sports system has been considered relevant to support training system and sports training itself (Green, Oakley, 2001, Digel, 2002, De Bosscher; De Knop; Van Bottenburg; Shibli, 2006), as well as a key element of elite sport success in the former Soviet Union and East Germany (De Bosscher, De Knop, Van Bottenburg, Shibli, Bingham, 2009).

Methodology

The used instruments were elaborated by the SPLISS Consortium Group 2011-2012: and comprised an Overall Elite Sport Policy Inventory, and two questionnaires about the Elite Sports Climate Survey related to sport policies and specifically elite athletes and coaches development that are supported by applied scientific research and innovation projects (Pillar 9). The Inventory was completed by the cooperating researchers in the country. The Survey was sent to 449 athletes and 57 coaches. It was analyzed in this paper: A) a question about the opportunities to use applied scientific research, new technology developments and innovation for both, athletes and coaches, and B) two questions about: 1) network to communicate and disseminate scientific information and 2) scientific information from NGBs and other organizations, for coaches.. Qualitative analysis was made with the documents at the Inventory. Descriptive statistical analysis was made about the answers in each question through the application SPSS version 17.0. Finally, in order to verify the different views

regarding the issues, a comparison was made between the information obtained through the two instruments.

Results/discussion

The Inventory showed that the knowledge produced in the field is not sufficient to the preparation of elite athletes, resulting in a deficiency in the field of applied research to sport in Brazil. In addition, there are no field laboratories and/ or involved scientists to develop, test and/or apply new technologies, in cooperation with coaches and athletes, in training centers for elite sports. These results were confirmed by the descriptive analysis of valid responses of the 276 athletes (61.2 %) and 38 coaches (66.7 %). The use of applied scientific research was considered good and sufficient for 10.5 % of coaches, and 10.9% of athletes. Regarding the use of new technology developments, the responses were 10.5 % and 9.2 %, respectively, for coaches and athletes. Finally, 10.5 % of coaches and 9.1 % of athletes considers the opportunities for use of innovation good or sufficient. Concerning the dissemination of scientific information, the analysis of the Inventory showed that Brazil does not have a national coordinated and regularly updated database for elite sport available for coaches and NGBs. This finding is supported by 89.6 % of coaches who affirms that not receives scientific knowledge from your national governing body or club. Furthermore, 94.6 % of the coaches consider that scientific knowledge is not disseminated sufficiently well amongst the elite coaches. Although the results are preliminary, Brazilian reality can be considered to be worse than that of countries with similar sporting performance in Olympic sports, studied by De Boscher et al. (2009).

Implications/conclusions

The results of this study indicate an important gap with regard to the support of science and innovation in the development of sport in the country. Due the variety of sports considered, is necessary the analysis of other factors together in order to contextualize and develop specific actions for some sports. This deficiency may impair the development of Brazilian sport, which aims to sporting success, particularly in 2016 Summer Olympics Games.

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