

Air Badminton for physical activity and well-being: post-covid19.

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Introduction

Sports commitment is a psychological construct that has been studied since the 1990s to identify the factors that contribute to the continuous participation of athletes in sports, and that in recent years has been used in the educational field (Belando, 2013). Badminton produces benefits for the improvement of anatomical posture, physiological and physical capacities, and health (Aryanti et al., 2020). The main objective of the study is to analyze the suitability of Airbadminton on the acquired sports commitment and the classroom climate generated through the practice of Airbadminton. In addition, it was also proposed to analyze the physical, technical and temporal characteristics of Airbadminton.

Methods

The research was developed with 1298 students between 13 and 15 years of age from the province of Alicante (Spain). One group developed an Airbadminton didactic unit forming the experimental group, and a second group carried out a other net games. being the control group. In order to measure the sports commitment acquired by the participants and the classroom climate generated, the following instruments were used: The Sports Commitment Questionnaire-2: CCD-2. This is the Spanish adaptation of the Sport Commitment Questionnaire-2 (SCQ -two). The Brief Class Climate Scale: EBCC. Regarding the measurement of the physical, technical and temporal characteristics of Airbadminton, video recordings were made and analyzed with the analysis software LongoMatch version 1.10.1. Likewise, the heart rate (HR) and the distance traveled of some participants were monitored with different Polar brand sensors (Polar H10 and Verity Sense) and two SPI-Elite GPS devices from the GPSports brand. In the first session of the study, the EBCC scale on classroom climate was completed in both groups and the video recordings of the matches and the data collection with the GPS and HR sensors were made with the experimental group. The sports engagement CCD-2 was filled out before the second session. At the end of the teaching units, which had a total duration of 12 weeks, the same procedure was followed for the post-test evaluation.

The GLM (General Linear Model) of Repeated Measures was used, which analyzes groups of related dependent variables that represent different measures of the same attribute. The analysis of the video recordings of the Airbadminton matches was carried out with the free software LongoMatch version 1.10.1.

Results

Sports pleasure or enjoyment was the main predictor of sports commitment both in the experimental group ($\mu = 3.09 \pm 1.31$) and in the control group ($\mu = 2.95 \pm 1.37$). Although in the control group this source of compromise was slightly reduced (-0.10), on the contrary, it was increased (+0.17) in the experimental group. It is also observed that the desire to stand out was another notable source of commitment, both in the experimental group ($\mu = 2.72 \pm 1.44$) and in the control group ($\mu = 2.68 \pm 1.39$).

In relation to the results obtained after the analysis of the technical and temporal characteristics of Airbadminton, it should be noted that the matches lasted from 14:06 minutes to 21:49 min-

utes, with an average duration of the games of 5: 23 minutes. In relation to the active playing time of the matches, they were clearly higher in the post-test, especially in the men's match where an active time went from 2:15 to 5:27. Regarding the technical aspects, the matches at the end of the intervention show a greater variety of hits and use all the technical gestures to a greater extent except the service, due to the increase in the continuity of the game.

Discussion

In relation to sports commitment, it has been seen that sports pleasure has been the main source of sports commitment in both groups, and that the Airbadminton didactic unit has served to improve two sources of commitment related to the desire to excel in order to achieve greater degree of mastery of the sport and being superior to their opponents (Íñigo et al., 2015). Regarding the characteristics of Airbadminton, the students have been able to improve the active times and the number of exchanges in just a few sessions, and to reduce the number of errors in the most predominant technical gestures. These improvements in sports proficiency imply higher levels of sports participation, an aspect that positively affects the emotional well-being of adolescents (Donaldson & Ronan, 2006).

Conclusion

Airbadminton shows aspects that are directly and positively related to intrinsic motivation and adherence to sports practice. In addition, it can be a useful sports content to favor the teaching-learning process to the extent that it improves the classroom climate and increases the desire to excel of the participants. In relation to the results on the physical, technical and temporal characteristics of Airbadminton, these make us think that it is an easy sport to learn, capable of being used on several occasions and in different contexts throughout the stage, and that it offers a optimal stimulus to improve student health.

Publication and acknowledgements

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