



MOTIVATIONAL FACTORS FOR SPORT: THE CASE OF SOCCER ATHLETES AGED BETWEEN 12 AND 17 YEARS

original paper

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ABSTRACT

Purpose. The purpose of the study was to identify the reasons why training athletes practise soccer, as well as verify changes in motivation in under-15 and under-17 athletes.

Methods. Overall, 100 male training athletes from a 2nd division soccer club of the Brazilian Men's Soccer Championship in the state of Goiás participated in the research. The subjects were divided into 2 categories: under-14 (aged 12–14 years) and under-17 (aged 15–17 years). The mean age equalled 14.3 ± 1.4 years and the experience time was 10 ± 4 months. The instrument for data collection was the Motives for Physical Activity Measure – Revised scale.

Results. The results showed that the main reason for practising soccer was fun, followed by competence, fitness, social aspects, and appearance, successively [$F(3,195,316,349) = 60.036; p < 0.05$]. However, when analysing the category of 12–14 years, no difference was observed between the fun and competence dimensions, between competence and fitness, or between fitness and social aspects. The comparison between the categories proved that there were differences in appearance and social aspects dimensions, and that these aspects motivated more the athletes aged 15–17 years.

Conclusions. Consequently, the intrinsic motivation, specifically the reasons related to fun and competence, were the factors considered most important for soccer practice among young training athletes aged 12–17 years.

Key words: soccer, motivation, young

Introduction

Currently, the researches on soccer, specifically in relation to children and adolescents, focus on health, life quality, motor learning, psychosocial qualities, autonomy, and reasons for practising this sport [1–8]. Among these themes, motivational factors are the main aspects for the persistence of children and adolescents in team sport practices, specifically in soccer [1].

According to the theory of self-determination [9], the reasons that lead to sport practice can be extrinsic or intrinsic, and on this basis it is possible to determine the motivation for the sports practice. In this con-

text, motivation is considered as the reasons that direct the behaviour of individuals when they participate in some experience, be it in sport, leisure, or work [10]. From that point, intrinsic motivation relates to internal personal factors, which refer to the individual's autonomy in making their choices according to the interest, pleasure, and satisfaction inherent to a particular sport activity or practice [9]. It is therefore possible to verify that intrinsic motivation is based on the aspects related to the fun and competence in the practice of sports [11]. On the other hand, extrinsic motivation relates to factors external to the subject – such as the environment, coaches and parents – which

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allow specific results through behaviour driven by pressure or external rewards [9]. Extrinsic motivation shows itself related to social aspects, appearance, and fitness [12, 13].

In this context, motivation provides an understanding of the reasons why children and adolescents practise soccer, since it makes possible to gain knowledge about the reasons that initiate, regulate, sustain, direct, and interrupt the behaviour during the experience in this sport [7, 8, 14]. The literature of the area shows that sports practice is motivated by the autonomy, competence, performance, pleasure, and psychosocial skills of young athletes [1, 4, 7, 8, 11, 12, 15, 16]. When analysing soccer, the reasons related to pleasure, motivational environment, and self-determined motivation [10, 17] are of greatest importance for practice, and Brazilian soccer athletes present the pleasure of playing this sport as their main reason for practising [14].

For that reason, among children and adolescents, the practice of soccer should be based on fun, the acquisition of motor skills and sports competences, consideration of the social relations with peers, parents, and coaches [3, 18]. In consequence, we hypothesized that the soccer athletes in training would be intrinsically motivated to practise this sport, with fun as the main reason. Therefore, knowing that the understanding of motivational factors allows to determine the adhesion to the sport practice [1], that there are differences in the motivation for soccer practice related to age [19], and that there is a gap in the literature on the motivation of young athletes, we aimed in the current study to identify the reasons why young training athletes practise soccer, as well as to verify changes in motivation in under-15 and under-17 athletes.

Material and methods

Sample

The total of 100 training athletes from a 2nd division soccer club of the Brazilian Men's Soccer Championship in the state of Goiás participated in the research. All the participants were male. They were divided into 2 categories: under-14 (aged 12–14 years) and under-17 (aged 15–17 years). The mean age of the subjects was 14.3 ± 1.4 years and the experience time 10 ± 4 months. Of these athletes, 70% participated in regional competitions, 21% in state competitions, 3% in national competitions, and 6% in international competitions.

Instrument

The instrument for data collection was the Motives for Physical Activity Measure – Revised (MPAM-R) scale, translated into Portuguese and validated to the Brazilian context [20]. The scale presents 7 items that measure the fun dimension (e.g. pleasure, taste for practice, and happiness), 4 items that measure the competence dimension (e.g. like physical challenges and learn new skills), 6 items that measure the appearance dimension (e.g. improve appearance and attraction), 4 items that measure the fitness dimension (e.g. having more energy, improving cardiovascular condition, and maintaining physical health and well-being), and 5 items that measure the social dimension (e.g. meeting friends, liking the company of other people, and meeting new people).

The MPAM-R scale is composed of 26 items, each describing reasons for the sports activity, with the assigned numbers from 1 to 7, where level 1 denotes 'nothing true for me,' and level 7 'totally true for me.'

Procedures

After presenting the purpose of the study and obtaining authorization to the data collection by having the terms of free consent signed by the athletes and their respective guardians, the questionnaires were applied at the beginning of a class by the responsible researcher in order to avoid an exalted emotional state and/or inattention caused by tiredness. The confidentiality of the answers was guaranteed, and the athletes were told that there was no right or wrong answer, so that they could answer sincerely. After that, the instructions were read, eventual questions were answered, and only then the athletes started to respond the questionnaires. If any doubts aroused, the researcher was called for help.

Statistical analysis

The analysis of the data was performed with the use of descriptive statistics: mean and standard deviation. It should be noted that weighted mean of the reasons for practising was applied, in accordance with the dimensions proposed in the instrument [20]. Thus, the dimensions were calculated by means of the following description:

1 – fun: $[(Q1 \cdot 0.18) + (Q6 \cdot 0.18) + (Q9 \cdot 0.12) + (Q15 \cdot 0.06) + (Q19 \cdot 0.16) + (Q22 \cdot 0.12) + (Q25 \cdot 0.18)]$;
 2 – competence: $[(Q2 \cdot 0.26) + (Q3 \cdot 0.14) + (Q7 \cdot 0.30) + (Q11 \cdot 0.30)]$;

3 – appearance: [(Q4*0.13) + (Q8*0.19) + (Q14*0.21) + (Q17*0.19) + (Q21*0.13) + (Q23*0.15)];

4 – fitness: [(Q10*0.18) + (Q13*0.27) + (Q16*0.27) + (Q20*0.28)];

5 – social aspects: [(Q5*0.19) + (Q12*0.20) + (Q18*0.22) + (Q24*0.16) + (Q26*0.23)].

Analysis of variance (ANOVA) with repeated measures was used to compare the dimensions, and the *t*-test for independent samples served to compare the groups. The level of significance was assumed at $p < 0.05$ and the effect size (*ES*) was calculated by Cohen's *d*. The data collected were treated in the SPSS 20.0 (Statistical Package for the Social Sciences) software.

Ethical approval

The research related to human use has been complied with all the relevant national regulations and institutional policies, has followed the tenets of the Declaration of Helsinki, and has been approved by the authors' institutional review board according to the protocol of the Federal University of Goiás No. 2.667.526.

Informed consent

Informed consent has been obtained from all individuals included in this study and their legal guardians.

Results

The overall results show that the main reason for the soccer practice (Table 1) was fun, followed by competence, fitness, social aspects, and appearance, successively [F(3,195,316,349) = 60.036; $p < 0.05$].

The analysis of the reasons that lead athletes aged 12–14 years to the soccer practice shows the same tendency as the overall results: the main reason for the

Table 1. Overall means of motivational factors

| Dimension | Mean | Standard deviation |
|----------------|--------|--------------------|
| Fun* | 6.4568 | 0.75259 |
| Competence** | 6.0486 | 1.16795 |
| Appearance*** | 4.5613 | 1.52321 |
| Fitness**** | 5.6865 | 1.41186 |
| Social aspects | 5.2452 | 1.48393 |

* difference between the fun dimension and the other dimensions for $p = 0.0001$

** difference between the competence dimension and the other dimensions for $p = 0.0001$

*** difference between the appearance dimension and the other dimensions for $p = 0.0001$

**** difference between the fitness dimension and the other dimensions for $p = 0.0001$

Table 2. Motivational factors for athletes aged 12–14 years

| Dimension | Mean | Standard deviation |
|----------------|--------|--------------------|
| Fun* | 6.3876 | 0.74850 |
| Competence** | 5.8376 | 1.29213 |
| Appearance*** | 4.2268 | 1.67287 |
| Fitness**** | 5.5420 | 1.57897 |
| Social aspects | 4.8498 | 1.58087 |

* difference between the fun dimension and the other dimensions for $p = 0.0001$

** difference between the competence dimension and the other dimensions, except the fitness dimension, for $p = 0.0001$

*** difference between the appearance dimension and the other dimensions for $p = 0.007$

**** difference between the fitness dimension and the other dimensions, except the competence dimension, for $p < 0.02$

Table 3. Motivational factors for athletes aged 15–17 years

| Dimension | Mean | Standard deviation |
|----------------|--------|--------------------|
| Fun* | 6.5260 | 0.75783 |
| Competence** | 6.2596 | 0.99780 |
| Appearance*** | 4.8958 | 1.28874 |
| Fitness**** | 5.8310 | 1.22132 |
| Social aspects | 5.6406 | 1.27703 |

* difference between the fun dimension and the other dimensions, except the competence dimension, for $p < 0.004$

** difference between the competence dimension and the other dimensions, except the fun and fitness dimensions, for $p < 0.001$

*** difference between the appearance dimension and the other dimensions for $p < 0.001$

**** difference between the fitness dimension and the other dimensions, except the competence and social dimensions, for $p < 0.017$

soccer practice (Table 2) was fun, followed by competence, fitness, social aspects, and appearance, successively [F(2,984,146,194) = 35.086; $p < 0.05$]. However, there was no significant difference between the competence and fitness dimensions.

The analysis of the reasons that lead athletes aged 15–17 years to the soccer practice shows a tendency similar to the overall results: the main reason for the soccer practice (Table 3) was fun, followed by competence, fitness, social aspects, and appearance, successively [F(2,984,146,194) = 35.086; $p < 0.05$]. How-

Table 4. Comparison of motivational factors between groups

| Dimension | Age (years) | <i>n</i> | Mean | Standard deviation | <i>t</i> | <i>p</i> | <i>ES</i> |
|----------------|-------------|----------|--------|--------------------|----------|----------|-----------|
| Fun | 12–14 | 50 | 6.3876 | 0.74850 | -0.919 | 0.36 | 0.009 |
| | 15–17 | 50 | 6.5260 | 0.75783 | | | |
| Competence | 12–14 | 50 | 5.8376 | 1.29213 | -1.828 | 0.07 | 0.18 |
| | 15–17 | 50 | 6.2596 | 0.99780 | | | |
| Appearance | 12–14 | 50 | 4.2268 | 1.67287 | -2.24 | 0.027* | 0.23 |
| | 15–17 | 50 | 4.8958 | 1.28874 | | | |
| Fitness | 12–14 | 50 | 5.5420 | 1.57897 | -0.289 | 0.31 | 0.10 |
| | 15–17 | 50 | 5.8310 | 1.22132 | | | |
| Social aspects | 12–14 | 50 | 4.8498 | 1.58087 | -2.752 | 0.007* | 0.27 |
| | 15–17 | 50 | 5.6406 | 1.27703 | | | |

* difference for $p < 0.05$

ever, there was no significant difference between the fun and competence dimensions, between competence and fitness, or between fitness and social aspects.

The comparison of the reasons that lead athletes to the practice of soccer (Table 4) shows that there were differences in the social aspects and appearance dimensions: these aspects motivated more the athletes aged 15–17 years.

Discussion

The objective of the current study was to identify the reasons why training athletes practise soccer, as well as to verify changes in motivation in under-15 and under-17 athletes. The results showed that there were differences between fun, competence, fitness, social aspects, and appearance, which confirmed the initial hypothesis of the study. It was observed that the reasons related to intrinsic motivation, specifically fun and competence, were directly bound with the demand for practice of sports in athletes aged 12–17 years, as well as their persistence in it. These results corroborate studies in the area that prove the demand in young athletes for sport practice for fun, pleasure, and improvement of competences [11, 21, 22]. In this context, intrinsic motivation allows athletes to experience activities as if they were the originators of their own actions and chose to engage in that activity [9]. So, the sense of personal satisfaction, competence, and achievement makes intrinsic motivation relevant to the athletes [8], maintaining their adherence to trainings, which frequently do not present external rewards and demand high intrinsic motivation [23].

The analysis of the extrinsic reasons proved that the social aspects and fitness were less motivating for the practice of the sport, probably because they do not directly predict pleasure of playing sports or the acquisition of competences for it. However, studies in the field of sports psychology show that the persistence in the practice of sports depends on extrinsic reasons, such as relationship with peers and coaches, level of training requirement, and improvement of life quality [15, 16, 24, 25]. So, it can be seen that the extrinsic reasons, although they present themselves as less motivating for sports, exert a positive impact on the personal and sports development in the young athlete, as well as are necessary for the improvement of psychomotor skills and for the internal and external social team relationships [26].

When comparing athletes aged 12–14 years with the ones aged 15–17, we observed that there were differences in the social aspects and appearance dimensions; these aspects motivated more the athletes aged 15–17 years. These results are in line with studies of the area which demonstrate, in young people aged 15–17 years, that sport practice promotes a more positive body image, stimulating athletes to contemplate their bodies, with reference to their functionality rather than beauty [27, 28]. Another fact that may justify the difference found between the groups is that athletes aged 12–14 years aim at professionalization more than 15–17-year-olds, owing to the stages of development [29]. On the other hand, the similarity between the aspects related to intrinsic motivation disagrees with studies of the area that demonstrate an increase of intrinsic motivation with the time of practice and an increase of deliberate practice [8]. Probably, the differ-

ence found between this and other studies is referred to the reduced opportunities of athletes aged 15–17 years to become professionals. So, when these young people analyse the sporting and social context in which they are placed, they realize their own potential to reach their goals and change their aspirations of life [29], fact that may justify the similarity in the results.

Conclusions

The presented research provided evidence that the intrinsic reasons for the practice of sports, specifically those related to fun and competence, were considered more important for the search and stay of young athletes, aged 12–17 years, in the practice of soccer; extrinsic reasons also influenced their decisions, though on a smaller scale. Thus, in an indirect way, it is possible to verify that intrinsic motivation becomes fundamental for the adhesion to sport, specifically soccer.

However, some limitations must be recognized in this work, such as the influence of parents and some socio-cultural aspects, as well as the restriction referring to the male sex.

Among the practical implications of the study, there is the opportunity for coaches to support their training with the knowledge about the reasons that lead the athletes to practise soccer, that is, mainly fun. At the same time, coaches should choose, modify, and adapt the teaching models so that the training is more enjoyable and provides competence for soccer.

Disclosure statement

No author has any financial interest or received any financial benefit from this research.

Conflict of interest

The authors state no conflict of interest.

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