A Comparative Study of Motivation in Sports Training among Senior and Junior Professional Football Players in Bosnia and Herzegovina during the COVID-19 Pandemic

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Abstract

The Covid-19 pandemic has brought significant changes to the lives of athletes, particularly regarding the uncertainty surrounding the continuation of sports training and the postponement of sporting events. Given these disruptions to athletes’ routines, the role of motivation in sports participation is considered even more crucial. Therefore, this study aimed to examine the differences in motivation for sports participation during the Covid-19 pandemic between senior and junior professional football players. The sample consisted of 358 elite football players from the Premier League of Bosnia and Herzegovina. The players were divided into two groups: senior (n=193, 24.87±3.78 years) and junior (n=165, 18.08±1.00 years) football players. The Participation Motivation Questionnaire (PMQ) was utilized, comprising 19 items classified into six motivational dimensions: “Sports success”, “Social status”, “Friendship”, “Physical health”, “Sports activity”, and “Support”. A five-point Likert scale was used in the questionnaire, which was administered electronically via Google Forms. Results revealed that junior football players achieved significantly higher values in only three out of the 19 items: “Want to be popular” (.005), “Want to get status” (.001), and “Wished for friendly games” (.000). However, there were no differences between the senior and junior football player groups in the remaining 16 items. Also, both groups displayed exceptionally high motivation levels in the dimensions of “Sports success”, “Physical health”, and “Friendship”, while the weakest results were observed in the dimension of ‘Support’ for both groups. Despite the specific challenges posed by the Covid-19 pandemic, the motivation to play football remains very high among both senior and junior football players. This study is essential as it provides insights into football players’ motivation and identifies differences in motivation levels between junior and senior players. The findings can be valuable for practical purposes, aiming to enhance motivation among football players, especially during circumstances where training conditions are disrupted, such as the Covid-19 pandemic.

Keywords: soccer, sports motivation, training, Covid-19 lockdown, PMQ, questionnaire, elite athletes

Introduction

The Covid-19 pandemic has had a significant impact on athletes’ lives, particularly in terms of the uncertainty surrounding the continuation of sports training and the postponement of sporting events (Mon-Lopez, de la Rubia, Hontoria, & Refoio, 2020; Parm, Aluoja, Tomingas, & Tamm, 2021). The negative consequences of social isolation are the absence of organized training and competitions, lack of adequate commu-
Motivation between athletes and coaches, the inability to move freely, and unsuitable training conditions (Chen et al., 2020). These challenges have also affected football, leading to match cancellations and players training in isolated home environments (Brooks et al., 2020). During this period, professional football clubs devised home training programs for their players (Pena et al., 2021). These efforts aimed to minimize the impact of the pandemic on sports careers and enable athletes to remain active and ready for the return of competitions.

However, despite coaches’ efforts to devise appropriate training plans and programs, athletes mostly had to exercise at home without supervision (Sarto et al., 2020), which made training more challenging. Several researchers have suggested the harmful effects of isolated individual training, indicating that it can reduce the volume and quality of training and, consequently, decrease physical fitness (Girardi et al., 2020; Sarto et al., 2020; Mohr et al., 2022). Athletes who previously relied on their daily routines and enjoyed their teammates’ company were forced to stay at home. This feeling of isolation significantly impacted their well-being, and they needed support. It is noticeable that home training faces multiple challenges, such as inadequate training conditions, poorly organized workouts, restricted movement, and lack of communication with coaches (Jukic et al., 2020), which can negatively impact football players’ motivation to exercise and engage in sports activities.

Motivation involves initiating human activity and directing that activity toward specific objects and goals (Lazarević, 2001). It is a complex process that encompasses the following elements: activated needs, identification of needs, situation analysis, selection of one of the possible goals, planning activities that lead to the goal, and goal achievement (Tubić, 2004). Wigfield and Eccles (2000) emphasize that motivation influences our choices, behavior, perseverance, and achievements, thus playing a crucial role in our daily lives.

Motivation is the critical factor that drives athletes to participate in sports activities (Roychovdhury, 2018) and influences their success in sports (Bollok, Takacs, Kalmar, & Dobay, 2011). Therefore, more and more authors are paying attention to this problem (Ruffault, Bernier, Fournier, & Hauw, 2020; Leyton-Román, de la Vega & Jiménez-Castuera, 2021; Katanic, Bjelica, Corluka, Preljevic & Osmani, 2022; Posavac, Katanic, Sebic, & Bjelica, 2023).

Home training presents more significant challenges due to the lack of equipment and space, limited opportunities for interaction with other athletes, and a lack of motivation (Tingaz, 2021). However, some athletes have adapted to the new circumstances and found ways to maintain motivation and regular training (Parm et al., 2021).

Although motivation plays a crucial role in athletes’ training, a limited number of studies have examined the motivation of football players to train during the Covid-19 pandemic (Washif et al., 2022; Posavac et al., 2023). However, studies that explored differences in motivation between junior and senior football players are yet to be found. Therefore, this study aimed to determine whether there are differences in the level of motivation for sports training during the Covid-19 pandemic between junior and senior football players. If differences in between younger and older football players’ motivation are found, this study could also have practical implications by highlighting different approaches to motivation for engaging in sports across age categories.

**Methods**

**Participants**

The sample consisted of 358 football players from Bosnia and Herzegovina (B&H), who were divided into two groups (table 1), senior football players (n=193, 24.87±3.78 years) competing in the Premier League and junior players (n=165, 18.08±1.00 years) competing in the top junior league in B&H. All participating football players were healthy, without serious injuries, and had been training for over five years. Ethical review and approval required for the study on human participants were obtained in accordance with local legislation and institutional requirements. Prior to participation, all participants were informed about the experimental procedures. The research was following the Helsinki Declaration.

**Table 1.** Descriptive parameters of the groups.

<table>
<thead>
<tr>
<th></th>
<th>Senior</th>
<th>Junior</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>193</td>
<td>165</td>
</tr>
<tr>
<td>Age (Mean±SD)</td>
<td>24.87±3.78</td>
<td>18.08±1.00</td>
</tr>
</tbody>
</table>

**Note:** n – number, Mean - Arithmetic mean, SD - Standard deviation

**Measurements**

The questionnaire on motivation for sports and sports training during the COVID-19 pandemic was used. The questionnaire consisted of 19 items classified into six dimensions (table 2) and it was based on the modified Participation Motivation Questionnaire (PMQ) (Gill, Gross, & Huddleston, 1983; Zahariadis & Biddle, 2000). In previous research (Katanic et al., 2022), the internal structure of the questionnaire was examined using factor analysis, and variables were grouped into factors based on their calculated factor weights. Factor analysis identified dimensions such as “Sports Success”, “Support”, “Social Status”, “Friendship”, “Physical Health”, and “Sports Activities” which were used in this study. The questionnaire used a 5-point Likert scale, and responses were identified as “very important”, “important”, “somewhat important”, “not important”, and “not at all important” (Joshi, Kale, Chandel, & Pal, 2015). The questionnaire was in electronic form and was sent to the football players via Google Form.

**Statistics**

Data were analyzed using the SPSS statistical analysis program (IBM SPSS Statistics for Windows, version 26.0, Armonk, NY: IBM Corp.). Descriptive analysis was used to distribute the data based on the number of participants, means, and standard deviation. An independent-sample T-test was used to determine differences in the level of motivation for sports training between junior and senior football players. Statistical significance was assumed at p>0.05.

**Results**

Participant motivation for exercise was assessed using 19 items divided into six factors (sporting success, social status,
friendship, physical health, and sports activity). A significant difference was found in only 3 out of the 19 items, specifically "Want to be popular" (.005), "Want to get status" (.001), and "Wished for friendly games" (.000). However, there was no difference between the senior and junior football player groups in the remaining 16 items (Table 2).

It is also worth noting that both groups achieved exceptionally high scores in the dimensions of "Sports success," "Physical health," and "Friendship," while the weakest results were obtained in the dimension of "Support" for both groups.

**Table 2. Differences in motivation for sports training between senior and junior football players.**

<table>
<thead>
<tr>
<th>Participant Motivation Questionnaire (PMQ)</th>
<th>Senior (Mean±SD)</th>
<th>Junior (Mean±SD)</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sport success</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Like to compete</td>
<td>4.93±0.28</td>
<td>4.92±0.36</td>
<td>.366</td>
<td>.714</td>
</tr>
<tr>
<td>Want to play at a higher level</td>
<td>4.96±0.22</td>
<td>4.93±0.29</td>
<td>.917</td>
<td>.360</td>
</tr>
<tr>
<td>Like the rewards</td>
<td>4.89±0.35</td>
<td>4.88±0.47</td>
<td>1.67</td>
<td>.086</td>
</tr>
<tr>
<td>Like the sport challenge</td>
<td>4.90±0.41</td>
<td>4.89±0.37</td>
<td>.132</td>
<td>.895</td>
</tr>
<tr>
<td>Need support from colleagues</td>
<td>3.23±1.24</td>
<td>3.13±1.20</td>
<td>.778</td>
<td>.437</td>
</tr>
<tr>
<td><strong>Support</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Need support from a coach</td>
<td>3.43±1.25</td>
<td>3.46±1.16</td>
<td>.238</td>
<td>.812</td>
</tr>
<tr>
<td>Wished for socializing with colleagues</td>
<td>3.95±1.07</td>
<td>4.03±1.13</td>
<td>-.659</td>
<td>.510</td>
</tr>
<tr>
<td><strong>Social status</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Want to be popular</td>
<td>3.66±1.17</td>
<td>3.99±1.06</td>
<td>-2.801</td>
<td>.005*</td>
</tr>
<tr>
<td>Want to gain status</td>
<td>4.49±0.89</td>
<td>4.76±0.62</td>
<td>-3.440</td>
<td>.001*</td>
</tr>
<tr>
<td>Like to meet new friends</td>
<td>4.33±0.88</td>
<td>4.41±0.81</td>
<td>-1.827</td>
<td>.069</td>
</tr>
<tr>
<td>Like the teamwork</td>
<td>4.74±0.50</td>
<td>4.79±0.49</td>
<td>-1.017</td>
<td>.310</td>
</tr>
<tr>
<td>Like being on a team</td>
<td>4.89±0.36</td>
<td>4.88±0.40</td>
<td>.157</td>
<td>.875</td>
</tr>
<tr>
<td>Like the excitement</td>
<td>4.75±0.50</td>
<td>4.73±0.63</td>
<td>.214</td>
<td>.831</td>
</tr>
<tr>
<td>Want to be healthy</td>
<td>4.95±0.23</td>
<td>4.95±0.24</td>
<td>.073</td>
<td>.942</td>
</tr>
<tr>
<td><strong>Physical health</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Want to stay in shape</td>
<td>4.93±0.34</td>
<td>4.97±0.17</td>
<td>-1.330</td>
<td>.185</td>
</tr>
<tr>
<td>Get rid of excessive energy</td>
<td>4.27±0.93</td>
<td>4.08±1.17</td>
<td>-1.733</td>
<td>.084</td>
</tr>
<tr>
<td>Wished of group training</td>
<td>4.85±0.51</td>
<td>4.90±0.34</td>
<td>-1.141</td>
<td>.255</td>
</tr>
<tr>
<td><strong>Sport activity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wished of friendly games</td>
<td>4.16±0.81</td>
<td>4.55±0.65</td>
<td>-5.122</td>
<td>.000*</td>
</tr>
<tr>
<td>Wished of official games</td>
<td>4.93±0.28</td>
<td>4.93±0.28</td>
<td>.006</td>
<td>.995</td>
</tr>
</tbody>
</table>

**Note:** Mean - Arithmetic mean; SD - Standard deviation; t - t test value; p - Statistical significance; * - Significant differences.

**Discussion**

Motivation involves directing human activity toward specific objects and goals, and in sports is expressed through persistence and perseverance (Lazarević, 2001). Athletes face various challenges and obstacles, but their motivation drives them to overcome these difficulties and continue with training and competitions. This resilience in sports can result from a combination of biological, psychological, sensory, and situational factors that influence athletes’ determination to achieve their goals (Lazarević, 2001; Tubić, 2004).

This study examined the difference in the level of motivation for sports training during the Covid-19 pandemic between junior and senior football players. A significant difference was found in only 3 out of 19 items, specifically “I want to be popular” (.005), “I want to gain status” (.001), and “I want friendly games” (.000). However, there was no difference between the senior and junior football player groups in the remaining 16 items (Table 2).

It is also worth noting that both groups achieved exceptionally high scores in the dimensions of “Sports success,” “Physical health,” and “Friendship,” while the weakest results were obtained in the dimension of “Support” for both groups.
Acknowledgments
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Conflict of interest
The authors declare that there is no conflict of interest.

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