Mental Imagery and Attentional Style in Senior Mini-Football Players

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Abstract: The purpose of this study was to determine the level of mental imagery ability and attentional style in senior mini-football players and to identify mental behavioral patterns. The study included a number of 38 senior mini-football players, with an average age of 27.36 years, with a playing experience in the super league of 9.38 years. In the study, two standardized questionnaires were applied, one aimed at identifying the level of mental imagery called the Questionnaire for the Assessment of Mental Imaginative Abilities in Athletes (QMLA) with 16 items and one for identifying the attentional style with the aim of determining internal or external dimensions, called the Questionnaire for Assessment of the Attentional Style in Athletes (QASA) with 6 items, structured in two subscales A and B. The calculated reliability of the questionnaire: QMLA had the Cronbach’s α value of 0.811 and QASA registered a good reliability evidenced by Cronbach’s α of 0.765 for the entire questionnaire; the internal attentional subscale of 0.728, and for the external attentional subscale of 0.726. After analyzing the results, a good level of mental imagery was found that can be perfected, identifying four behavioral patterns. The attentional style highlighted an internal dimension, which highlighted 3 behavioral patterns. At the level of senior mini-football players, in addition to physical, technical and tactical training, psychological training plays an essential role. Cognitive abilities regarding mental imagery and attention are psychological foundations whose development contributes to obtaining significant sports performances in the mini-football game.

Keywords: mental imagery; attentional style; mini-football players; behavioral patents.

Introduction

The present study aims as innovative aspects to determine the psychological quality, mental imagery and the determination of the attentional style in the game, in senior mini-football players. In sports games, in addition to the level of development of the motor capacity components with an effect on the technical performance, a decisive role is played by the psychological abilities of the athletes, with an effect on the tactical performance. The mini-football game is a team sport, played on a field with a narrow surface compared to football, which requires the performance of technical-tactical actions with higher indices of speed and technicality, performed individually but also depending on the evolution of teammates and the game phase (Halouani et al., 2020; Guță & Orțănescu, 2023). The effectiveness of athletes requires fundamental psychological skills, in order to successfully perform motor tasks, but also mental pressures due to the performance context focused on recording victories (Nimmerichter et al., 2016). The adoption by coaches of a proactive role of raising awareness and fixing psychological skills, in addition to physical and technical training, is the essential condition for obtaining sports performance in relation to the established objectives.

Performance in sports involves four components, namely: physical condition, technical training, tactical training and psychological training, which are interrelated, creating a complete, complex and efficient sports profile (Sariati et al., 2021).

Among the psychological components specific to sports games, we identify: stress management, regulation of activation, selection of objectives, mental imagery, attention in the game, etc. (McNeil et al., 2021; Ryan et al. 2018). In team games, where mini-football also falls, taking into account the psychological aspects, two areas of commitment can be found: the external game with the aim of overcoming external barriers and recording the specific predetermined objectives requiring an internal or external attentional style (Borst & Kosslyn, 2008; Guillot et al., 2012; Hall, 2001), and the internal game, having its location in the athlete's mind to overcome self-imposed barriers, such as: fear of failure, decreased concentration, expectations inconsistent with individual and team potential, hesitations, etc.

Mental imagery

Specialists in the field of sports psychology define mental imagery "as a process of internalized repetition of a sports experience that involves multisensory representations (Craciun, 2012); "as a repetitive mental practice
denoting the mental representation of the performance of a motor pattern without simultaneous production of the muscle activity normally required for the motor action” (Deschaumes-Molinaro et al., 1991). Di Corrado et al., (2020) considers that at the basis of mental imagery are the complex immersive multisensory processes, based on an accumulation of senses that make possible the creation and processing of the mental image in the absence of external factors and stimuli.

Studies have highlighted that the production of mental images in the case of athletes takes place in the state of exercising certain motor skills specific to technical elements through imagination, in the sense of making it possible to achieve it in the context of improving individual performances and optimizing future tasks, based on previous motor experiences (McNeil et al., 2021; Jansen & Lehmann (2013); Schmidt et al. (2016); Whitehead & Basson (2006).

The use of mental imaging techniques such as self-reflection, self-talk, relaxation, setting own goals, etc., completes physical training in order to improve performance in relation to the practiced sport (Weinberg, 2008; Di Corrado et al., 2014).

Cocks et al. (2014) considers that high-performance athletes' mental images are better structured compared to those at the level of sports initiation, having a more efficient visual ability of moving images due to the ability to assimilate information processing techniques during mental practice sessions and based on long experience.

Previous studies have highlighted that the application of certain mental imaging techniques in the absence of the practical performance of technical elements specific to sport, do not have an optimal effect, these two components being complementary aimed at obtaining superior performances (Kosslyn et al., 2001; Pearson, 2007).

In football and mini-football, certain specific programs based on motor technical images are applied at the high-performance level during training, for the improvement of perceptual-cognitive skills such as visualization, tactical awareness and anticipation, with significant effects (Lloyd & Oliver, 2012; Van Hooren & De Ste Croix, 2020). The researchers highlighted, based on the research carried out, that no significant results were recorded in seniors following the application of techniques for the development of cognitive abilities specific to the practiced sports, mentioning the solution is that the specific techniques and programs must be implemented mainly in the initiation stages in sports (Munroe-Chandler et al., 2018; Post et al., 2018; Sariati et al., 2021).
In sports activity, the development of imagery is dependent on motivational and volitional aspects. In this idea Hale et al. (2005) taking into account the individual motivational aspects, specific to athletes, mentions that the development of mental images requires cognitive skills that should be guided towards: motor skills, motor movements; general cognitive applied in tactics from below, general motivational and specifically related to the general and individual objectives; general motivational-affective regarding negative vegetative states such as anxiety, fear, failure, etc. and general motivational with an emphasis on positive affective states: self-confidence, self-control, etc. (Yu & Liu, 2021).

Attentional style for athletes

The concept of the attentional process in sports uses terms such as: attention, concentration, focus, etc., but which directs the athlete towards information detectable through the senses, whose mental processing initiates actions that require mental attention (Craciun, 2012).

In the opinion of specialists, attention or concentration have the following definitions: it aims at perceiving sensory information and using it in order to make optimal decisions or to choose appropriate answers (Craciun, 2012; Zhuravleva et al., 2023); it refers to the conscious individual mental effort on a stimulus. Attention has two forms, namely: selective attention, which is the ability to select a stimulus for focus in the presence of distractions, and divided attention, which is the ability to simultaneously focus on two or more things, performing two skills simultaneously (Hill et al., 2019; Taylor & Beach, 2019).

Nideffer (1998), studying the psychology of sports, considers that athletes tend to change their category of attentional style depending on the sports practiced and on the target performance. These categories have two dimensions: direction (internal-external) and width (wide-narrow). The internal and external direction of the attentional style implies an introspective perspective and an extrospective perspective respectively, and the second dimension aims at an integrative (expansive) orientation versus an extremely selective orientation. Starting from this fundamental theoretical aspect, the specialists (Boutcher, 2002) consider that these attentional dimensions do not manifest themselves uniquely but they interfere, creating four aspects of attentional focus: (1) wide external, in which the athlete evaluates the situation regarding the environment and its various elements; (2) wide internal, where the athlete processes information and develops a strategy; (3) narrow internal, where the athlete mentally repeats the
upcoming action; and (4) narrow external, where the athlete focuses specifically on one or two external clues to generate action.

In the preparation process, it is recommended to know the theoretical aspects with practical-methodical connotations of the attentional styles of the athletes, in order to provide an optimal and complex mental framework in obtaining sports performances (Dosil, 2004; Drugau et al., 2022).

In the mini-football game, human interaction takes place both within one's own team and with athletes from the opposing team, athletes being permanently exposed to a multitude of internal and external factors that require the complex activation of human senses and perceptions (McNicholas & Comyns, 2020).

In team sports games, as part of psychological training, an important emphasis should be focused on the ability to ignore distractions, which will significantly require the ability of mental attention and focus (Moran & Toner, 2018). From the category of internal stimuli, we mention a few examples: the thoughts and emotions of athletes; anticipating the movements of teammates or opponents, fear of failure, missing a motor action, insecurity of individual performance, among external stimuli: the playing surface, inappropriate language from competitors, noise from the crowd, etc.

Attentional focus styles refer to the different ways in which athletes direct their attention during performance (McNicholas & Comyns, 2020). Previous studies found that at the beginner level they have an external predominance of the attentional style (Zhuravleva et al., 2022). At the level of high performance, the predominance of the attentional style of athletes and coaches is more difficult and complex because a sporting and cognitive maturity intervenes, recommending the use and creation of complex strategies to improve specific attention (Yu et al., 2019).

Previous researches regarding the determination of attentional style were carried out both in individual and team sports, in different age categories such as: basketball, athletics, handball, shooting, golf, badminton, etc. (Zhuravleva et al., 2023; Vafaeimanesh et al., 2023; Bahrami et al., 2020; Kashani et al., 2016; Bernier et al., 2011).

Analyzing the specialized literature, we find that the study of mental imagery, although extensive, should be focused on the specifics of the practiced sport and on the particularities of athletes in relation to the sports experience. Based on the previous arguments, we consider that our study will contribute to expanding the knowledge of how mental imagery
contributes to the optimization of sports performances in mini-football, at the senior level.

The purpose of this study was to determine the level of mental imagery ability and the attentional style of senior mini-football players and to identify behavioral patterns.

Material and methods

Participants

The present study is an observational one. 38 mini-football athletes participated in this study, the anthropometric data and experience are shown in Table 1.

Table 1 Subjects data centralizer

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Age (years)</th>
<th>Height (cm)</th>
<th>Total experience (years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of subjects</td>
<td>38</td>
<td>38</td>
<td>38</td>
</tr>
<tr>
<td>Mean</td>
<td>27,36</td>
<td>175,36</td>
<td>11,68</td>
</tr>
<tr>
<td>Median</td>
<td>28,50</td>
<td>173,00</td>
<td>11,50</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>4,96</td>
<td>5,09</td>
<td>2,59</td>
</tr>
<tr>
<td>Variance</td>
<td>24,67</td>
<td>25,97</td>
<td>6,70</td>
</tr>
<tr>
<td>Skewness</td>
<td>.014</td>
<td>.72</td>
<td>-.18</td>
</tr>
<tr>
<td>Minimum</td>
<td>21,00</td>
<td>170,00</td>
<td>6,00</td>
</tr>
<tr>
<td>Maximum</td>
<td>36,00</td>
<td>188,00</td>
<td>15,00</td>
</tr>
</tbody>
</table>

From the total experience as performance athletes, the duration of playing mini-football was 9.38 years. We mention that all participants in the study practiced the game of football before performing in mini-football. In Romania, mini-football is not practiced at the junior level, only at the senior level. Inclusion criteria: performance athletes, seniors, healthy and who have fully completed the applied questionnaires. All subjects participated in the study voluntarily. Group asymmetry shows a normal probability distribution, between -1 and 1.

Study design

The present study is an observational one, carried out between May and June 2023. Both questionnaires were applied physically, in a technical session with the agreement of the coaches and athletes.

Before completing the questionnaires, the athletes were instructed on the main theoretical aspects of the two targeted mental abilities: imagery and attention. Also, they were explained how to complete the
questionnaires, because certain items required mental exercises of thinking and concentration for 1-4 minutes before awarding the score.

**Study questionnaires**

Two standardized questionnaires were applied, which we will present below:

1. *Questionnaire for the assessment of mental imaginative skills in athletes* (QMIA) (Craciun, 2020), which determines the level of mental imagery development, includes 16 items, with a scoring scale from 1-4, where:
   1. You cannot see the images and you do not have any kind of experiences or sensations;
   2. The images, sounds or experiences are vague and undefined. You have considerable difficulties in maintaining images or sensations;
   3. Only part of the images or sensations are clear. You have some difficulties in keeping images, sounds or experiences;
   4. You imagine the images in detail and you can keep them for a long time. Live every experience, feeling or sensation in detail.

   The questionnaire addressed aspects related to mental reproductions of some colors, geometric shapes, own body segments or of another known person; sounds, smells, etc. Also, recalling sensations such as: touching an ice cube, ball; slowed movements of some motor actions; an exceptional evolution; a problematic situation with negative experiences, etc.

   The points awarded for each item were added up, and the rating of the final result represents the following levels of mental imagery: between 17-30: special attention is needed to improve the ability; 31-43: improvement is needed; 44-56: good skills; 56-64: excellent skills.

2. *Questionnaire for the assessment of the attentional style of athletes* (QASA) (Craciun, 2020) includes 6 items and evaluates attentional skills from the dimension of internal or external direction. Items 1, 2, 6 evaluate the internal dimension, called the A scale, and items 3, 4, 5 the internal one, called the B scale. The evaluation grid for each item is from 0-4, where 0 - never, 1 - rarely; 2 - sometimes; 3 - frequently and 4 - always. Internal attention focused on the following aspects: the ability to perceive what is happening on the field and with teammates; the ability to focus only on a sports action; the ability to listen to the trainer's instructions with a quick focus, without being distracted by one's own thoughts, ideas, etc. The external dimension refers to: focusing on one player but having the ability to look at things as a whole; the ability to imagine a game situation from other people's information; the ability to know the evolution of teammates at any time.
Statistical analysis

The statistical analysis was carried out with the SPSS 22 program, calculating the following statistical parameters: arithmetic mean, standard deviation, α-Cronbach value for the validity of the questionnaires and subscales, with ANOVA: t-Students test, at a significance threshold of p<.05; Confidence Interval for the mean (CI–95%) with the lower and upper benchmarks. The percent of variance was also calculated, which measures the proportion in which a mathematical model takes into account the variation (dispersion) of a given data set. Depending on the number of identified models, the highest value recorded for each behavioral pattern was considered to define the behavior typology.

Results:

The calculated reliability of the Questionnaire for the Assessment of Mental Imaginative Abilities in athletes (QMIA) had the Cronbach's Alpha value of .811. The Questionnaire for Assessing the Attentional Style of Athletes (QASA) recorded a good reliability highlighted by Cronbach's Alpha of .765 for the entire questionnaire; the internal attentional subscale of .728, and for the external attentional subscale of .726.

After analyzing the answers, we will present the most relevant statistical aspects for each questionnaire. In the questionnaire for the assessment of mental imaginative abilities in athletes (QMIA), the highest percentages were recorded for all items with 4-point answers (Table 2).

<table>
<thead>
<tr>
<th>Items</th>
<th>Score 2</th>
<th>Score 3</th>
<th>Score 4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Freq.</td>
<td>%</td>
<td>Freq.</td>
</tr>
<tr>
<td>I1 Reproduce the following colors in your mind: blue, yellow, red</td>
<td>-</td>
<td>-</td>
<td>16</td>
</tr>
<tr>
<td>I2 Imagine the following geometric shapes: circle, square, triangle</td>
<td>-</td>
<td>-</td>
<td>11</td>
</tr>
<tr>
<td>I3 Imagine the following: a clear sky with a few clouds; a basketball that goes into the basket</td>
<td>-</td>
<td>-</td>
<td>18</td>
</tr>
<tr>
<td>I4 Take an object from the table (pencil, book, glass) and place it in front of you. Look at it for 30 sec. Close your eyes and recreate the image in your mind as clearly as you can</td>
<td>-</td>
<td>-</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>Imagine your own body: face, arms, legs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>--------------------------------------</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>15</td>
<td>-</td>
<td>-</td>
<td>13</td>
</tr>
<tr>
<td>16</td>
<td>Imagine a person you like: face, arms, legs</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>17</td>
<td>Touch the following objects: an ice cube, a basketball, a cat</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>18</td>
<td>Imagine that you wake up from sleep and stretch out your arms. Try to feel all the muscles that make this movement</td>
<td>3</td>
<td>7.9</td>
</tr>
<tr>
<td>19</td>
<td>Try to hear the following sounds: the dog barking, the noise of a motorcycle, the closing of a door</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>20</td>
<td>Try to smell the following things: roses, coffee, cooked steak</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>21</td>
<td>Imagine playing a perfect match in which you perform extremely well. You will see as if you are watching a movie on a TV screen</td>
<td>1</td>
<td>2.6</td>
</tr>
<tr>
<td>22</td>
<td>Imagine that you are making a free throw or some other procedure. Feel like you're doing the movement, not like you're watching it in a movie. Try to feel the movement</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>23</td>
<td>Visualize an exceptional evolution. Try to recreate the feelings</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>24</td>
<td>Create a mental state that triggers the following emotions and experiences: determination, relaxation, aggressiveness</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>25</td>
<td>Imagine yourself in slow motion practicing a certain motor skill such as the tennis serve. Slow down the movement so you can see every part of the action</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>26</td>
<td>Choose a certain sports situation that creates problems and negative emotions. Imagine how you will respond to such a situation when it arises</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

X- mean, SD- standard deviation; Min- minimum; Max. – maximum; Freq- Frequency; %percent

The total score recorded for the mental imagery questionnaire (QMIA) by the senior mini-football players, compared to the mental imagery rating grid, shows a good level of this ability, with an average value of
55.684, below the maximum threshold between 56-64. The analysis of the results highlights that the arithmetic means fell within the confidence interval 95% CI lower and upper for all items, according to Table 3. For all the items of the questionnaire, the results were statistically significant, where \( p < 0.05 \). The highest arithmetic average was recorded for items: 2, 5, 16.

Table 3. Descriptive statistics of Questionnaire for the Assessment of Mental Imaginative Abilities in Athletes (QMIA)

<table>
<thead>
<tr>
<th>Items</th>
<th>Mean</th>
<th>SD</th>
<th>Variance</th>
<th>t</th>
<th>p</th>
<th>CI 95% Lower</th>
<th>CI 95% Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>I1</td>
<td>3.579</td>
<td>0.500</td>
<td>0.25</td>
<td>44.093</td>
<td>.000</td>
<td>3.414</td>
<td>3.743</td>
</tr>
<tr>
<td>I2</td>
<td>3.711</td>
<td>0.460</td>
<td>0.211</td>
<td>49.767</td>
<td>.000</td>
<td>3.559</td>
<td>3.861</td>
</tr>
<tr>
<td>I3</td>
<td>3.526</td>
<td>0.506</td>
<td>0.256</td>
<td>42.959</td>
<td>.000</td>
<td>3.360</td>
<td>3.692</td>
</tr>
<tr>
<td>I4</td>
<td>3.421</td>
<td>0.500</td>
<td>0.250</td>
<td>42.148</td>
<td>.000</td>
<td>3.256</td>
<td>3.585</td>
</tr>
<tr>
<td>I5</td>
<td>3.658</td>
<td>0.481</td>
<td>0.231</td>
<td>46.900</td>
<td>.000</td>
<td>3.499</td>
<td>3.815</td>
</tr>
<tr>
<td>I6</td>
<td>3.184</td>
<td>0.393</td>
<td>0.154</td>
<td>49.964</td>
<td>.000</td>
<td>3.055</td>
<td>3.313</td>
</tr>
<tr>
<td>I7</td>
<td>3.605</td>
<td>0.495</td>
<td>0.245</td>
<td>44.865</td>
<td>.000</td>
<td>3.442</td>
<td>3.768</td>
</tr>
<tr>
<td>I8</td>
<td>3.500</td>
<td>0.647</td>
<td>0.419</td>
<td>33.335</td>
<td>.000</td>
<td>3.287</td>
<td>3.712</td>
</tr>
<tr>
<td>I9</td>
<td>3.553</td>
<td>0.504</td>
<td>0.254</td>
<td>43.461</td>
<td>.000</td>
<td>3.387</td>
<td>3.718</td>
</tr>
<tr>
<td>I10</td>
<td>3.421</td>
<td>0.500</td>
<td>0.250</td>
<td>42.148</td>
<td>.000</td>
<td>3.256</td>
<td>3.585</td>
</tr>
<tr>
<td>I11</td>
<td>3.605</td>
<td>0.547</td>
<td>0.299</td>
<td>40.614</td>
<td>.000</td>
<td>3.425</td>
<td>3.785</td>
</tr>
<tr>
<td>I12</td>
<td>3.342</td>
<td>0.481</td>
<td>0.231</td>
<td>42.851</td>
<td>.000</td>
<td>3.184</td>
<td>3.500</td>
</tr>
<tr>
<td>I13</td>
<td>3.395</td>
<td>0.495</td>
<td>0.245</td>
<td>42.246</td>
<td>.000</td>
<td>3.231</td>
<td>3.557</td>
</tr>
<tr>
<td>I14</td>
<td>3.290</td>
<td>0.460</td>
<td>0.211</td>
<td>44.120</td>
<td>.000</td>
<td>3.138</td>
<td>3.440</td>
</tr>
<tr>
<td>I15</td>
<td>3.211</td>
<td>0.413</td>
<td>0.171</td>
<td>47.902</td>
<td>.000</td>
<td>3.074</td>
<td>3.346</td>
</tr>
<tr>
<td>I16</td>
<td>3.684</td>
<td>0.471</td>
<td>0.222</td>
<td>48.212</td>
<td>.000</td>
<td>3.529</td>
<td>3.839</td>
</tr>
<tr>
<td>Total score</td>
<td>55.684</td>
<td>-</td>
<td>-</td>
<td>367.897</td>
<td>.000</td>
<td>55.377</td>
<td>55.990</td>
</tr>
</tbody>
</table>
Table 4. Component Matrix* of *Questionnaire for the Assessment of Mental Imaginative Abilities in Athletes (QMLA)*

<table>
<thead>
<tr>
<th>Items</th>
<th>Component</th>
<th>Extraction</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>I1</td>
<td>.718</td>
<td>.516</td>
</tr>
<tr>
<td>I2</td>
<td>.600</td>
<td>.672</td>
</tr>
<tr>
<td>I3</td>
<td>.284</td>
<td>-.455</td>
</tr>
<tr>
<td>I4</td>
<td>-.270</td>
<td>.861</td>
</tr>
<tr>
<td>I5</td>
<td>.145</td>
<td>-.241</td>
</tr>
<tr>
<td>I6</td>
<td>-.110</td>
<td>.645</td>
</tr>
<tr>
<td>I7</td>
<td>.697</td>
<td>-.082</td>
</tr>
<tr>
<td>I8</td>
<td>-.783</td>
<td>.500</td>
</tr>
<tr>
<td>I9</td>
<td>-.644</td>
<td>.085</td>
</tr>
<tr>
<td>I10</td>
<td>-.278</td>
<td>-.585</td>
</tr>
<tr>
<td></td>
<td>.629</td>
<td>-.062</td>
</tr>
<tr>
<td>I12</td>
<td>.573</td>
<td>.371</td>
</tr>
<tr>
<td>I13</td>
<td>.800</td>
<td>-.524</td>
</tr>
<tr>
<td>I14</td>
<td>.071</td>
<td>-.415</td>
</tr>
<tr>
<td>I15</td>
<td>-.639</td>
<td>-.347</td>
</tr>
<tr>
<td>I16</td>
<td>-.627</td>
<td>-.140</td>
</tr>
<tr>
<td>Percent of Variance</td>
<td>30.142 %</td>
<td>21.712%</td>
</tr>
</tbody>
</table>

After analyzing the results, it was found the presence of four behavioral patterns regarding the metal image in mini-football players, as follows: the first behavior was defined by item 13: Visualize an exceptional evolution. Try to recreate the feelings with .800; the second behavioral pattern was related to item 4: Take an object from the table (pencil, book, glass) and place it in front of you. Look at it for 30 seconds. Close your eyes and recreate the image in your mind as clearly as possible with .861. The third paternal behavior was defined by item 5: Imagine your own body: face, arms, legs with .852, and the last paternal behavior is defined by item 14: Create a mental state that triggers the following emotions and experiences: determination, relaxation, aggressiveness with .624. Among the highlighted behaviors, taking into account the Percent of Variance, it highlighted the following: behavior 1 with a weight of 30.142%; behavior 2 in a percentage of 21.712%; behavior 3 of 20.843%, and the last behavior of 10.749%.
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Adela BADAU

Table 5. Frequency of responses and percentage weight per item Scale A - internal attentional style and scale B - external attentional style - Questionnaire for Assessment of the Attentional Style in Athletes (QASA)

<table>
<thead>
<tr>
<th>Score</th>
<th>Item 1</th>
<th>Item 2</th>
<th>Item 6</th>
<th>Item 3</th>
<th>Item 4</th>
<th>Item 5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Freq.</td>
<td>%</td>
<td>Freq.</td>
<td>%</td>
<td>Freq.</td>
<td>%</td>
</tr>
<tr>
<td>2,00</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>15,8</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3,00</td>
<td>19</td>
<td>50,0</td>
<td>20</td>
<td>52,6</td>
<td>18</td>
<td>47,4</td>
</tr>
<tr>
<td>4,00</td>
<td>19</td>
<td>50,0</td>
<td>18</td>
<td>47,4</td>
<td>14</td>
<td>36,8</td>
</tr>
<tr>
<td>Total</td>
<td>38</td>
<td>100,0</td>
<td>38</td>
<td>100,0</td>
<td>38</td>
<td>100,0</td>
</tr>
</tbody>
</table>

Table 6. Descriptive statistics of Questionnaire for Assessment of the Attentional Style in Athletes (QASA)

<table>
<thead>
<tr>
<th>Scale</th>
<th>Items</th>
<th>X</th>
<th>SD</th>
<th>Variance</th>
<th>Total score±SD</th>
<th>t</th>
<th>p</th>
<th>CI 95% - Lower</th>
<th>CI 95% - Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>item1</td>
<td>3,500</td>
<td>.506</td>
<td>.257</td>
<td>10,184±1,110</td>
<td>42,579</td>
<td>.000</td>
<td>3,333</td>
<td>3,666</td>
</tr>
<tr>
<td></td>
<td>item2</td>
<td>3,473</td>
<td>.506</td>
<td>.256</td>
<td>9,763±1,076</td>
<td>42,218</td>
<td>.000</td>
<td>3,207</td>
<td>3,640</td>
</tr>
<tr>
<td></td>
<td>item6</td>
<td>3,210</td>
<td>.703</td>
<td>.495</td>
<td>9,763±1,076</td>
<td>28,129</td>
<td>.000</td>
<td>2,979</td>
<td>3,441</td>
</tr>
<tr>
<td>B</td>
<td>item3</td>
<td>3,210</td>
<td>.413</td>
<td>.171</td>
<td>9,763±1,076</td>
<td>42,902</td>
<td>.000</td>
<td>3,074</td>
<td>3,346</td>
</tr>
<tr>
<td></td>
<td>item4</td>
<td>3,105</td>
<td>.452</td>
<td>.205</td>
<td>9,763±1,076</td>
<td>42,295</td>
<td>.000</td>
<td>2,956</td>
<td>3,254</td>
</tr>
<tr>
<td></td>
<td>item5</td>
<td>3,447</td>
<td>.760</td>
<td>.578</td>
<td>9,763±1,076</td>
<td>27,946</td>
<td>.000</td>
<td>3,197</td>
<td>3,697</td>
</tr>
</tbody>
</table>

Taking into account the total value of the scores recorded on the subscales, the following values were recorded: scale A with (X±SD) 10.184±1.110, respectively scale B with 9.763±1.076. It was found that senior mini-football players have a predominantly internal attentional style. The difference between the two internal and external styles, compared to the total score, was 0.421, in favor of the internal attention style. The analysis of the results reveals that the arithmetic averages fell within the 95% CI lower and upper confidentiality interval for all items, according to table 6. The results are statistically significant, for p < 0.05. The highest arithmetic mean for subscale A was recorded by item 1, and for subscale B by item 5.
Table 7. Component Matrix$^a$ of *Questionnaire for Assessment of the Attentional Style in Athletes*

<table>
<thead>
<tr>
<th>Items</th>
<th>Component Extraction</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>I1. I am able to &quot;read&quot; what is happening on the field and &quot;feel&quot; the mood of my teammates</td>
<td>.318</td>
</tr>
<tr>
<td>I2. I am able to stop my thoughts while focusing on a certain event, game situation or discussion</td>
<td><strong>.799</strong></td>
</tr>
<tr>
<td>I6. When I listen to the coach's instructions, I am not quickly distracted from my own thoughts or ideas</td>
<td>.495</td>
</tr>
<tr>
<td>I3. Even if I focus on what a certain player is doing, I manage to look at things as a whole</td>
<td>.385</td>
</tr>
<tr>
<td>I4. I manage to get an overview of the game situation from the information received from teammates and the coach</td>
<td>.317</td>
</tr>
<tr>
<td>I5. I know at any moment what the other players are doing on the field</td>
<td>.737</td>
</tr>
<tr>
<td>Percent of Variance (%)</td>
<td>29.629</td>
</tr>
</tbody>
</table>

After analyzing the results, it was found the presence of three behavioral patents of the attention style, presented in order of statistical significance, namely: the first behavior registering a value of .799, defined by item 2: I am able to stop my thoughts while focusing on a certain event, game situation or discussion; the second behavior with .608, referring to item 3: Even if I focus on what a certain player does, I manage to look at things as a whole. The last behavior with .634, defined by item 1: I am able to "read" what is happening on the field and "feel" what mood my teammates are in. Among the highlighted behaviors, two target the internal dimension and one the external dimension of the attention style according to table 7. Percent of Variance was distributed as follows: behavior 1 with a weight of 29.629%, behavior two in a percentage of 25.212, and the last behavior of 20.046.

**Discussion**

The purpose of this study was to determine the level of mental imagery ability and attention style in senior mini-football players. Based on the results recorded in the present study, the typology of mental behavioral patterns was identified for each of the two cognitive abilities. The present study offers the possibility of expanding the theoretical knowledge regarding the mental abilities of mini-football athletes, providing specialists with useful
information regarding the psychological component of specific sports training, as an important factor in obtaining sports performance.

According to the results of this study, the level of mental imagery, the senior mini-football athletes have a good level, but that can be perfected. The findings of our study align with results recorded in other sports regarding the level of mental imaging skills (Kraeutner et al., 2016). The results of our study highlight the importance of mental imagery in the sports training process, identifying the impact of psychological training in obtaining sports performance. In the multivalent training of athletes, psychological training is essential, targeting complex skills that analyze individual aspects from an internal and an external dimension (Popoveniuc, 2023; Tomich et al., 2023).

Studies have shown that the preponderance of programs including mental imagery development techniques are applied to juniors, because seniors often have already formed and consolidated psychological skills, specific to the sports practiced (Fontani et al., 2006; Gurses et al., 2018). Williams and Davids (1995) in a comparative study on three samples of subjects who practice the game of football: high performance, performance and those who do not practice showed that the elite recorded higher scores compared to the others regarding the ability to recognize and reproduce of specific football movements. In the same way, in a sample of beginners, soccer players, after a 14-week intervention, it was found that mental practice had positive connotations in the technique of specific movements, due to the implemented practices of learning, visualization and application in game actions and preparation trainings (Seif-Barghi et al., 2012).

The attentional style according to our study has an internal dimension, although there is a small difference between the internal dimension, which means a balance between the two. These results are due to the long period of practicing the sports branches and the biological maturity of the athletes. The results recorded in previous studies found that in team sports at the junior level, an external attentional style is predominant (Hill et al., 2019). At the level of seniors, the studies are fewer, but the findings show an alternation of the predominance of the attentional style depending on the complexity, the type of sport: individual or team sport (Passarello et al., 2023; Jankauskiene et al., 2019).

The development of mental imagery facilitates and influences other cognitive skills, which in the practice of sports positively influence the level of development of motor and tactical skills (Gidu et al., 2022; Kryeziu et al., 2023; Morina et al., 2021). The attentional style depends on the level of improvement of the motor skills, on the effort capacity of the athletes, on
the tactical level in which complex cognitive processes favor the achievement of individual and team performances. Previous studies (Fontani et al., 2006; Rahimi et al., 2022) found that by practicing a sports discipline regularly, more precise and faster performances are obtained, taking into account the cognitive processes that require relational memory, attention and executive function. In achieving individual and sports goals, the executive function consists of a set of cognitive processes and mental abilities, based on the following brain functions: memory, mental flexibility and self-control that are interrelated (Stuss et al., 2000; Guo et al., 2017).

The present study has the following limitations: the study included only subjects that are senior mini-football practitioners, due to the small number of teams at the national level; a relevant limitation of the current study was the relatively small number of subjects; the lack of an interventional program focused on the two mental abilities, due to the fact that these athletes have a certain biological maturity and a relevant game experience, which makes psychological behavioral changes difficult.

**Conclusions**

After analyzing the results, it was found that the level of mental imagery skill is good, but it can be perfected. The attention style of senior mini-football players shows a preponderance of the internal dimension, but with a relatively small difference from the external dimension, which allows us to conclude that for senior mini-football players there is a balance between the two dimensions. Analyzing the results regarding the mental imagery, four behavioral patents emerge, defined by certain items; and regarding the attentional style, three behaviors were found that define senior mini-football athletes. The interdisciplinary approach to sports performance is a current trend in scientific research. The theoretical and practical implications of this study will allow the optimization of the sports training methodology from a psychological aspect and mental training, with direct implications on physical, technical and tactical training. Sports performance requires athletes and coaches to focus training on all components of sports training, and the interrelationship and interconditioning between these components contribute to ensuring sports success.
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