THE CORRELATIONS OF RITUALS WITH PRE-COMPETITION ANXIETY IN TEENAGE FOOTBALL PLAYERS

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Abstract

Aim. Rituals are sequences of thoughts and activities which lead to automatic performance [1]. They can sometimes be mal-adaptive. The aim of the study was to present the relationships between rituals before a football match and cognitive and somatic anxiety of young athletes.

Basic procedures. The target group consisted of 100 football players, students of sports-profiled secondary schools. The following tools were implemented: Rituals in Sport, Routine Behaviour in Sport, Sport Anxiety Scale.

Results and main findings. The study showed that the most common rituals are: “I touch the grass by my hand” and “I make the sign of the cross”. The study also showed that an increase in somatic and cognitive anxiety, concentration disruption and compulsive behaviours was correlated with the increasing level of rituals.

Conclusions. Before sport competitions, rituals lead to a reduction of anxiety level but they cannot be inflexible in nature.

Introduction

Immediately before the start, players often say that they behave routinely or have their rituals, which, in their opinion, help them to mentally prepare for a competition. But are all rituals beneficial and helpful in adaptation? This article deals with the subject of rituals in sport.

The term ritual comes from the Latin word *ritus* which means: worship, religious ceremony, custom. Rituals are also referred to as specific behaviours related to specific situations and rules. They are characterized by repeatability. Maisonneuve [2] divides them into religious, secular, collective, private, regarding the behaviour of everyday life, as well as superstitions (these are related to magic).

Rituals can be reduced to routine and stereotypic behaviours. There is also a distinction between rituality and ritualism: rituality can be associated with routine, whereas ritualism with stereotypical behaviour, mechanically repeated, demonstrating an “ossificative” tendency. While this first understanding seems to be useful in relation to sports activities and psychological preparation of an athlete, the latter, in relation to rigid, stereotypical attitudes, is de-adaptive. Observing the behaviour of athletes, it can be stated that the rituals they take on – including the Maisonneuve typology [2] – are both religious, private, secular, collective or superstitious.

Poczwardowski [3] treats ritual and routine as the same mechanism denoting the phase of using the pre-execution ritual (i.e. actions taken immediately before the actual performance of a sport). However, he still uses only the term “ritual” in the context of repeated behaviours that allow the player to reach a state of optimal start-up readiness to perform a motor task. Also, according to Smith and Kays [1], rituals in sporting activities are carefully planned sequences of thoughts and actions that help a player perform them automatically. They then have an adaptive function. According to Morris and
Summers [4], routine behaviours include key activities in an athlete's preparation, such as: word or movement (help control the action or thoughts), quick techniques of coping with stress and attention steering, elements that restore the positive direction of thoughts and feelings. They also occur in the form of routine activities performed in the imagination. Routine activities make up a mental plan, as defined by Orlick [4].

The stiff, compulsive, stereotypical rituals, repeated according to certain "rules" of superstitious character, play a completely different role. They are defined as atypical, repetitive behaviours that are perceived by humans as having positive influence on the effect of an action, while in reality, they is no cause-and-effect relationship between behaviour and the outcome of an event [5]. Superstitions, on the other hand, are unjustified beliefs that some actions have a future effect without any logical cause-effect relationship [6]. Rituals, superstitious in nature, differ from routine actions in that they have a special, magical meaning for man [5]. A ritual activity in this sense is more a natural necessity than a voluntary and conscious act [7]. Frequently, a person feels a strong compulsion to perform specific activities. This type of ritual activity is associated with the concept of compulsions, or "repeated behaviours or psychological acts that are undertaken to reduce anxiety" [8]. And here, an important concept seems to be the definition of anxiety. Ritual behaviours, especially those compulsive in nature, lead to the reduction of anxiety and tension [9]. They are usually performed unconsciously. Routine rituals also reduce anxiety but are deliberately, consciously undertaken to achieve an optimal emotional state before a start.

On the basis of observation, also from the perspective of a practical psychologist working with football players, it can be noticed that in this, a series of rituals can be found, the character of which may often be described as stiff and stereotypical. And thus, from the perspective of psychology - unfavourable and maladaptive.

Observation of an action or statements of players even at the highest-level allows to distinguish between irrational, symbolic and rigid behaviours related to the preparation of athletes for a match. One can here cite the statements of two outstanding players: Andreas Iniesta: “I'm not a total maniac when it comes to pre-match rituals. It seems to me that I am quite normal in this matter. All I need is to make the sign of the cross three times before I go out and kick the ball with my right and left shoe - exactly in that order. And basically, that's all” [10], or Iker Casillas: “I do not have any particular superstitions or rituals, but just in case, I always wear a short-sleeved shirt. I also shorten my T-shirt at the bottom, I wear it tucked into my shorts. I use worn gloves until they are completely destroyed” [11].

As can be seen in the examples presented above, even high-class athletes use rituals "just in case" – as Casillas does, or activities that can be routine – as presented by Andreas Iniesta.

Study aim

The aim of the work is to explore if there are dependencies between behaviours about the nature of rituals and pre-start anxiety (in the form of somatic and cognitive anxiety) and compulsive behaviours in young football players.

Research material and methods

The following research questions were posed:
1. Which of the analysed rituals most often occur before a match in young football players?
2. What is the relationship between pre-start anxiety and ritual behaviours in young football players?
3. What is the relationship between compulsive behaviour and ritualized behaviours in young football players?

Anonymous group research was carried out in the spring of 2017. 100 people were examined. They were boys, football players, students of the Football Sports Championship School in Krakow (SMS) and the Football Sports School in Kraków (junior-high and general secondary schools with football profiles). The students represented different club colours. The research was carried out with the consent of parents and school office. The footballers played matches in the younger and senior junior categories. There were also junior athletes that had already debuted in senior competitions. The mean age of the subjects was 16.5 years. The youngest player was 15 years old and the oldest 19 years old.

The following research methods were used:

Rituals in sport (own elaboration). The scale initially consisted of 35 questions, after the statistical analysis, 3 questions were removed. Reliability of the full scale (35 questions) amounted to αCronbach =0.864, and the average correlation between items was r =0.16. 3 questions were negatively correlated with the scale and decreased the overall reliability of the test, which is why another version of reliability analysis was carried out after removing these 2 questions. The reliability of the full scale (version analysed in the presented research), after the removal of question 1, question 2 and question 10 (from the original version), amounted to αCronbach =0.880, and the average correlation between items was r =0.20.

The final scale contains 32 questions that describe possible behaviours - pre-match rituals. The list of rituals was based on the observation of my own, of trainers and football players themselves (not covered by the present-
The correlations of rituals with pre-competition... 

ed tests). In addition, the average score for the scale was \( \bar{x} = 74.32 \) with a high standard deviation: \( \sigma = 19.48 \). The scale can be found at the end of the article.

**Behaviours in sport** (own scale based on the Structured Interview Questionnaire by Bryansk and Wolaniczky). The original version diagnoses the occurrence of obsessive-compulsive symptoms [12].

The scale used in the presented research is to determine the level of compulsion of activities performed before a match. Its reliability amounted to \( \alpha_{Cronbach} = 0.817 \), and the average correlation between items was \( = 0.34 \).

**Reactions to Competition** by Smith, Smoll, Schutz in the Polish adaptation by Krawczyński [13] is used to measure the level of pre-start anxiety, describing it in detail as: somatic, worrying (component of cognitive anxiety) and distraction (also an element of cognitive anxiety).

**Research results**

The descriptive analyses presented in Table 1 relate to the results obtained in the area of compulsory behaviour, somatic anxiety, cognitive anxiety (worrying and distractions) and rituals.

**Table 1.** Descriptive statistics of quantitative variables

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Median</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forced/compulsive behaviour</td>
<td>100</td>
<td>10.97</td>
<td>12.00</td>
<td>0.00</td>
<td>24.00</td>
<td>5.93</td>
</tr>
<tr>
<td>Somatic anxiety</td>
<td>100</td>
<td>17.75</td>
<td>17.00</td>
<td>9.00</td>
<td>32.00</td>
<td>5.27</td>
</tr>
<tr>
<td>Worrying</td>
<td>100</td>
<td>15.93</td>
<td>15.00</td>
<td>7.00</td>
<td>27.00</td>
<td>4.64</td>
</tr>
<tr>
<td>Distractions in attention</td>
<td>100</td>
<td>9.91</td>
<td>10.00</td>
<td>5.00</td>
<td>18.00</td>
<td>2.74</td>
</tr>
<tr>
<td>Rituals</td>
<td>100</td>
<td>74.32</td>
<td>73.00</td>
<td>35.00</td>
<td>149.00</td>
<td>19.48</td>
</tr>
</tbody>
</table>

**Table 2.** Friedman test analysis – comparison of all rituals with one another

<table>
<thead>
<tr>
<th>Ritual</th>
<th>Rank</th>
<th>Median</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immediately before the game, I pray and ask God (or someone who has passed) for help</td>
<td>22.30</td>
<td>3.00</td>
<td>3.26</td>
<td>1.40</td>
</tr>
<tr>
<td><em>“I obey numbers” e.g. I usually have the same number on my uniform, I bounce the ball a certain number of times, I jump up, etc.</em></td>
<td>21.93</td>
<td>4.00</td>
<td>3.29</td>
<td>1.52</td>
</tr>
<tr>
<td>I avoid the number “13” – on my uniform, I also do not like playing as number 13</td>
<td>16.27</td>
<td>1.00</td>
<td>2.28</td>
<td>1.63</td>
</tr>
<tr>
<td>I try to do everything starting with the same foot (for example, putting on shoes, socks, going onto the pitch)</td>
<td>13.84</td>
<td>1.00</td>
<td>1.89</td>
<td>1.38</td>
</tr>
<tr>
<td>I have preferences related to clothing, for example, I only play in a long-sleeved shirt for luck</td>
<td>12.41</td>
<td>1.00</td>
<td>1.71</td>
<td>1.23</td>
</tr>
<tr>
<td>My socks must be stretched to the same height</td>
<td>18.81</td>
<td>3.00</td>
<td>2.80</td>
<td>1.64</td>
</tr>
<tr>
<td><em>Some item of my clothing must be “inside out”</em></td>
<td>10.40</td>
<td>1.00</td>
<td>1.34</td>
<td>0.86</td>
</tr>
<tr>
<td>I try to be the last player going onto the pitch</td>
<td>16.71</td>
<td>2.00</td>
<td>2.31</td>
<td>1.35</td>
</tr>
<tr>
<td><strong>I try to go onto the pitch in a certain, relatively consistent manner</strong></td>
<td>22.84</td>
<td>4.00</td>
<td>3.32</td>
<td>1.35</td>
</tr>
<tr>
<td>I occupy the same spot in the locker room</td>
<td>21.30</td>
<td>3.00</td>
<td>3.09</td>
<td>1.46</td>
</tr>
<tr>
<td><strong>Going onto the pitch, I touch the grass</strong></td>
<td>25.52</td>
<td>5.00</td>
<td>4.02</td>
<td>1.38</td>
</tr>
<tr>
<td><strong>Going onto the pitch, I make the sign of the cross</strong></td>
<td>25.96</td>
<td>5.00</td>
<td>4.08</td>
<td>1.33</td>
</tr>
<tr>
<td>During a penalty shot, I do not look into the eyes of the goalkeeper/forward</td>
<td>19.97</td>
<td>3.00</td>
<td>2.78</td>
<td>1.40</td>
</tr>
<tr>
<td>I listen to the same music</td>
<td>21.78</td>
<td>3.00</td>
<td>3.10</td>
<td>1.22</td>
</tr>
<tr>
<td>The day of the game, I watch the same film I watched when I won</td>
<td>12.54</td>
<td>1.00</td>
<td>1.64</td>
<td>1.02</td>
</tr>
<tr>
<td>I talk to the same person</td>
<td>16.66</td>
<td>2.00</td>
<td>2.27</td>
<td>1.35</td>
</tr>
<tr>
<td>I wear “lucky clothing” (shirt, underwear, etc.)</td>
<td>14.03</td>
<td>1.00</td>
<td>1.88</td>
<td>1.22</td>
</tr>
<tr>
<td>The day of the game, I do not wear “unlucky” clothing that I wore when I lost</td>
<td>12.20</td>
<td>1.00</td>
<td>1.65</td>
<td>1.21</td>
</tr>
<tr>
<td>I take “something lucky” with me, a photo of a loved one or some talisman</td>
<td>14.36</td>
<td>1.00</td>
<td>1.98</td>
<td>1.43</td>
</tr>
<tr>
<td>I do not shave before a match</td>
<td>15.70</td>
<td>2.00</td>
<td>2.12</td>
<td>1.35</td>
</tr>
<tr>
<td>I eat or drink the same thing I did before a game during which I played very well</td>
<td>16.54</td>
<td>2.00</td>
<td>2.23</td>
<td>1.29</td>
</tr>
</tbody>
</table>
As the results presented in Table 1 show, in the subjects, the mean score on the scale of compulsive behaviour was $\bar{x} = 10.97$, with the standard deviation of $OS = 5.93$. The highest result obtained here was $max = 24$, while the lowest was $min = 0$.

Analysing the results for somatic anxiety, it was noted that the mean of the results was $\bar{x} = 17.75$ with $max = 32$ and $min = 9$, where the standard deviation was $OS = 5.27$. The smallest variation of $OS = 2.74$ in the group was found for attention disturbances (element of cognitive anxiety). The average values for this variable were $\bar{x} = 9.91$ at $max = 18$ and $min = 5$. However, the greatest variation among the tested football players was observed regarding rituals - $OS = 19.48$. The average of the results was $\bar{x} = 74.32$ at the $max = 149$ and $min = 35$.

**Table 3.** Analysis of ritual, compulsive behaviours and pre-start anxiety correlations

<table>
<thead>
<tr>
<th>Rituals</th>
<th>Forced/compulsive behaviour</th>
<th>Somatic anxiety</th>
<th>Worrying</th>
<th>Distractions in attention</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rituals</strong></td>
<td>$r = 0.43; p &lt; 0.001$</td>
<td>$r = 0.26; p = 0.009$</td>
<td>$r = 0.12; p = 0.251$</td>
<td>$r = 0.40; p &lt; 0.001$</td>
</tr>
<tr>
<td>I play wearing a bandage although I am not injured (I played very well when wearing one)</td>
<td>10.96</td>
<td>1.00</td>
<td>1.45</td>
<td>1.03</td>
</tr>
<tr>
<td>I wear different coloured shoes because that brings luck</td>
<td>14.08</td>
<td>1.00</td>
<td>1.87</td>
<td>1.29</td>
</tr>
<tr>
<td>Before a match, I do not speak to anyone</td>
<td>21.56</td>
<td>3.00</td>
<td>3.17</td>
<td>1.52</td>
</tr>
<tr>
<td>Before a match, I sit in the same spot on the bus</td>
<td>12.58</td>
<td>1.00</td>
<td>1.66</td>
<td>1.12</td>
</tr>
<tr>
<td>Before a match, I perform the same actions with my teammates, e.g. I high-five the same teammate</td>
<td>13.34</td>
<td>1.00</td>
<td>1.82</td>
<td>1.40</td>
</tr>
<tr>
<td>Before a match, I use the same restroom or the same stall</td>
<td>16.85</td>
<td>2.00</td>
<td>2.37</td>
<td>1.42</td>
</tr>
<tr>
<td>I believe that the presence of a woman on the bus before a game brings bad luck</td>
<td>12.11</td>
<td>1.00</td>
<td>1.60</td>
<td>1.11</td>
</tr>
<tr>
<td>I believe that the presence of a woman in the locker room before a game brings bad luck</td>
<td>12.20</td>
<td>1.00</td>
<td>1.62</td>
<td>1.20</td>
</tr>
<tr>
<td>Before each match, I shave my head</td>
<td>11.76</td>
<td>1.00</td>
<td>1.51</td>
<td>1.05</td>
</tr>
<tr>
<td>Before a match, I perform the same sequence of movements allowing me to concentrate</td>
<td>14.02</td>
<td>1.00</td>
<td>1.90</td>
<td>1.32</td>
</tr>
</tbody>
</table>
| Subsequent analyses concern the comparison of statistical significance levels regarding all rituals (Table 2). It was shown that the level of rituals is statistically significantly different (Friedman’s ANOVA Chi² ($N = 100$, $df = 31$) = 866.29, $p < 0.001$). The most frequently applied rituals are marked in bold, and the least often, in italics.

As it can be seen from the above analyses, the most common rituals are: “when I am on the pitch, I make the sign of the cross” ($\bar{x} = 4.08$) and “walking onto the pitch, I touch the grass with my hand” ($\bar{x} = 4.02$). In both cases, the median is equal to 5.00. The next frequently occurring rituals are: “I try to go onto the pitch in a certain, relatively consistent manner” ($\bar{x} = 3.32$) and “obey numbers” e.g. I usually have the same number on my uniform, I bounce the ball a certain number of times, I jump up, etc.” ($\bar{x} = 3.29$). For the analysed rituals, the median is 4.00.

However, the least frequently performed among the examined boys were: “I play wearing a bandage although I am not injured (I played very well when wearing one)” ($\bar{x} = 1.45$) and “Some item of my clothing must be ‘inside out’” ($\bar{x} = 1.34$). In both cases, the median is 1.00.

Subsequent analyses concern the relationship between rituals and compulsive behaviour as well as pre-event anxiety (Table 3).
However, no statistically significant relationship was found between engaging in pre-match rituals and cognitive anxiety in the form of "worrying".

**Discussion**

The obtained results show that the tested football players often use ritual behaviours. These rituals are usually religious. Religious rituals have multiple functions. They not only contribute to the reduction of tension, but also constitute a regulator of social interactions. Religious rituals are marked by faith, which cannot be subjected to rational verification [14].

The tendency to undertake rituals is more intense in players who have strong compulsive behaviour, the cause of which is usually anxiety. Rituals are implemented to reduce the level of anxiety before a match - this applies mainly to players with its high levels. It is also worth noting that young football players were mainly characterized by somatic anxiety, i.e. related to bodily problems, pains, autonomic disorders and along with them, disturbances in attention [15]. This refers to physical symptoms, e.g. sweating, increased heartbeat [4]. Under the influence of somatic fear, the athlete sweats, s/he breathes faster and feels that his/her dry mouth, muscle tension increases as well as the urge to urinate, the athlete focuses on him/herself, the possibility of failing, feeling dizzy [16]. When this level is too high at the beginning of the task, it causes deterioration. Hence, the need to reduce the excessive level of anxiety. According to Dolinski and Szmajke [17], a certain level of somatic fear is necessary to motivate a person. At the same time, in the presented research, there was no relationship between engaging in pre-match rituals and "worrying". It can be assumed that routine behaviours help the subjects to obtain a positive pre-match attitude, thus lowering the level of cognitive anxiety. Routine behaviours are considered beneficial when they are an element of mental preparation. They then form a starting plan. Simple routine activities help an athlete maintain concentrated on important activities and signals. A special action plan, which consists of a routine arrangement of activities, helps them achieve the optimal result in a competition [4]. However, these behaviours are conscious. In the course of mental training, a player learns to master specific imaginative techniques, coping with stress, improving concentration. Such technique is, inter alia, that of keys-gestures. The player learns a set of gestures that help him/her concentrate on a task during mental training. Such a sequence of movements may be touching the grass when going onto the pitch. And it is this ritual (routine behaviour) that is very strong among the tested subjects.. It is a repetitive gesture in all conditions - an athlete can always kneel and touch the ground with his hand. Such a coded set of gestures helps reduce tension. A completely different situation occurs when behaviours become rigid rituals, superstitious in nature, associated with magical thinking – thus, they are stiff and often unconscious in nature. These are undoubtedly the athletes mentioned by the respondents as often using rituals: "I try to go onto the pitch in a certain, relatively consistent manner" and "I obey numbers". Although magical thinking sometimes helps in reducing anxiety by adding self-confidence, however, when an athlete neglects to perform a ritual, s/he may have difficulty concentrating as persistent thoughts of failure appear. A similar situation is described by Dolinski and Szmajke [18].

Referring to the most common rituals in the tested players – making the sign of the cross or touching the ground with one's hand helps to achieve better concentration. Conversely, the unfavourable phenomenon would be the conviction that in case of not performing these gestures (for some reason), the match is already lost before the start. Such fears should not appear in the case of athletes characterized by self-confidence – regardless of whether s/he performed the ritual. s/he can succeed. Such a way of thinking seems to be extremely desired, and both trainers and sport psychologists should help the players create such beliefs. In such circumstances, the ritual no longer has such "magical power", it is only a gesture made "out of habit", which does not hurt, but can help in assuming a better pre-start attitude.

**Conclusion**

The examined competitors have a tendency towards certain behaviours – rituals, thus, it seems advisable to develop their routine behaviour (based on science, rational) rather than stiff and superstitious rituals (common, irrational).

References:


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Rituals in sports – developed by Joanna Basiaga-Pasternak

Do you perform the actions described below before a match? If so, how often (mark the number with a circle) do you do them to feel comfortable before a match:

5-always, 4-often, 3-sometimes, 2-rarely, 1-never

1. Immediately before the game, I pray and ask God (or someone who has passed) for help.  
2. "I obey numbers" e.g. I usually have the same number on my uniform, I bounce the ball a certain number of times, I jump up, etc.  
3. I avoid the number "13" – on my uniform, I also do not like playing number 13.  
4. I try to do everything starting with the same foot (for example, putting on shoes, socks, going onto the pitch).  
5. I have preferences related to clothing, for example, I only play in a long-sleeved shirt for luck.  
6. My socks must be stretched to the same height.  
7. Some item of my clothing must be "inside out".  
8. I try to be the last player going onto the pitch.  
9. I try to go onto the pitch in a certain, relatively consistent manner.  
10. I occupy the same spot in the locker room.  
11. Going onto the pitch, I touch the grass.  
12. Going onto the pitch, I make the sign of the cross.  
13. During a penalty shot, I do not look into the eyes of the goalkeeper/forward.  
14. I listen to the same music.  
15. The day of the game, I watch the same film I watched when I won.  
16. I talk to the same person.  
17. I wear "lucky clothing" (shirt, underwear, etc.).  
18. The day of the game, I do not wear "unlucky" clothing that I wore when I lost.  
19. I take "something lucky" with me, a photo of a loved one or some talisman.  
20. I do not shave before a match.  
21. I eat or drink the same thing I did before a game during which I played very well.  
22. Before each match, I shave my head.  
23. I believe that the presence of a woman on the bus before a game brings bad luck.  
24. I believe that the presence of a woman in the locker room before a game brings bad luck.  
25. Before a match, I use the same restroom or the same stall.  
26. I sit in the same spot on the bus.  
27. Before a match, I check my horoscope to make sure I will be successful.  
28. Before a match, I perform the same actions with my teammates, e.g. I high-five the same teammate.  
29. I wear different coloured shoes because that brings luck.  
30. Before a match, I do not speak to anyone.  
31. Before a match, I perform the same sequence of movements allowing me to concentrate.  
32. I play wearing a bandage although I am not injured (I played very well when wearing one).