

HOW DO FOOTBALLERS COPE WITH STRESS?

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Abstract

Background: Stress is an inseparable attribute of sports activities. The answer to the question of how to effectively cope with stress in a competition is one of the most important challenges of sports psychology. The aim of this research is to analyze the stress-management strategies used by football players.

Methods: Participants in the study were 32 students of physical education specializing in football and 39 students of management, aged between 19 and 27 years ($M = 21.41$, $SD = 1.76$), including 24 women (34% of all respondents). Coping strategies were assessed through application of the multi-dimensional COPE inventory.

Results: In comparison with the sample of management students, the group of footballers use the strategy of positive reinterpretation and growth significantly more often, and less frequently use alcohol or other psychoactive substances in a stressful situation. Women use the strategy of seeking emotional support significantly more often than men, while significantly less often using psychoactive substances and humor.

Conclusion: This research revealed that trainers and sport psychologists should take into account gender differences and the specificity of the sports discipline of the athletes when working on selection of the best strategies for coping with stress during competitions.

Key words: COPE inventory, coping with stress, football, gender differences, sports stress.

Introduction

Obesity and Stress are defined as states of mental or emotional strain or tension resulting from adverse or demanding circumstances. Stress is caused by an imbalance between the requirements and abilities of the individual (both real and perceived subjectively). Lazarus and Folkman [23] emphasize the contextual dimension of stress, which occurs as a result of a specific relationship between a person and their environment, which is assessed by the person as aggravating or exceeding resources and threatening their well-being. Stress is a two-way process; it involves the production of stressors by the environment, and the response of an individual subjected to these stressors. According to theory of cognitive appraisal, stress involves the production of stressors by the environment, and the response of an individual subjected to these stressors. Experience of

stress consists of two factors: the threatening tendency of the stress to the individual (primary appraisal), and the assessment of resources required to minimize, tolerate or eradicate the stressor (such as opportunities, competences, social support, material resources) and the stress it produces (secondary appraisal).

Coping with stress may be defined as the behavioral and cognitive efforts to manage the internal and external demands encountered during a specific stressful situation [23]. Lazarus and Folkman [23] distinguished two basic functions of coping: (1) instrumental: focused on solving the problem that is the source of stress; it serves to master the stressor in order to reduce or eliminate its stressful properties; (2) regulatory: focused on the emotions accompanying states of stress; helps in controlling the emotional response associated with a given stressor. Referring to the transactional theory of stress [23], Endler and

Parker [9] distinguished (apart from the task and emotional style) another style of coping which focuses on avoidance, and which primarily serves to reduce the effects of the stressor.

The basis for the construction of the COPE inventory [7] is the concept of coping with stress, referring to the self-regulatory behavior model [23]. Several strategies for coping with stress can refer to both disposable coping, which reflects a certain constant tendency to cope in a particular way in a stressful situation, as well as to the methods used in a particular stressful situation, referred to as situational coping [7]. This concept combines two approaches to coping, understood as a style and as a strategy. The COPE Inventory has been used in numerous research projects among athletes [10, 12, 18, 27].

Each coping strategy may be adaptive or maladaptive, depending on the situational context and resources available [26]. Strategies can be particularly dysfunctional if they are used continuously over a long period of time, and which are inadequate in relation to the situation and to real coping capabilities [7]. Avoidance strategies such as denial, lack of commitment, use of psychoactive substances or venting of emotions are positively correlated with symptoms of mental disorders such as depression, anxiety, anger, fatigue or disorientation [22].

The coping process in sport performance consists of an individual's cognitive and behavioral efforts to manage stress [6, 24]. In sport psychology, styles and strategies for coping with stress have been widely explored, inter alia in the context of sport disciplines [4, 5, 8, 25], or gender [2, 3, 11, 14, 17, 25]. Research on gender differences in coping with stress among athletes has shown that men more often experience stressors related to injuries and errors, whereas women are more often stressed with communication in a team, and with the coach [25]. Compared to men, women more often use strategies related to planning, seeking social support, and focussing on technology and communication [3, 17, 25].

Stress is strongly related to sports competition and significantly affects sports achievements. The question of how to effectively deal with stress during a competition is one of

the most important challenges of sports psychology. Although the strategies and styles of coping with stress have been explored in the perspective of sports psychology and physical activity in England and the US, little is known about the styles of coping with stress among Polish athletes representing various sports disciplines.

The aim of this study is to analyze stress coping strategies used by physical education students (future physical education teachers and sports instructors) who are currently practicing football. Improper forms of coping can cause difficulties with concentration or inadequate levels of arousal [6], which inevitably leads to errors and low achievement, and in some cases even to injury [13, 20, 30]. It should be noted that football is one of the sports with the highest risk of injury [1, 19].

The following research questions were formulated:

1. Which strategies for dealing with stress are used by footballers most often?
2. Are there differences in coping strategies between students of physical education playing football and those studying management?
3. Does gender affect the student's strategies for coping with stress?

In the light of scientific literature, the following research hypotheses were formulated:

- H1. The players most often use behavioral-avoidance coping strategies.
- H2. There are differences in coping with stress between physical education students and students of management.
- H3. Gender significantly affects students' strategies for coping with stress; women more often than men seek social support and use strategies focused on emotions, while men more often use task-focused strategies.

Materials and methods

Participants were 71 students of the Opole University of Technology with an average age of 21 ($M = 21,41$; $SD = 1,76$; range of age 19 – 27), including 24 women (34% of the total number of respondents) and 43 men (66%). The two groups

of students represented two faculties: Management ($n = 39$; 55%) and Physical Education ($n = 32$; 45%). The sample of physical education students specialized in playing football.

The multidimensional COPE Inventory was used in the study to assess the different ways in which people respond to stress [7]. The inventory is a self-assessment tool, consisting of 60 items grouped into 15 scales (each scale describes a distinct strategy for coping with stress): active coping, planning, use of instrumental social support, use of emotional social support, suppression of competing activities, religious methods of coping, positive reinterpretation and growth, behavioral disengagement, acceptance, focus on and venting of emotions, denial, mental disengagement, restraint, substance use, humour. Participants answered on a 4-point Likert scale, which indicates the frequency of a given behaviour (from 1 = I almost never do this; to 4 = I almost always do this). Cronbach's alpha for the 15 scales of COPE ranged from .37 to .93 [7], but in the Polish adaptation (Juczyński & Ogińska-Bulik, 2009) Cronbach's alpha coefficient was around .80.

The respondents anonymously and voluntarily completed the COPE questionnaire during didactic classes at the university, with the consent of lecturers. The following statistical analyses were performed: analysis of the reliability of the COPE scales by using Cronbach's α coefficient, Kolmogorov-Smirnov D test to examine for normality of the distribution, and analysis of intergroup differences in coping strategies by gender and field of study, by using the Student's t test. All statistical analysis were conducted by using the STATISTICA 12.5 software.

Results

Descriptive statistics for total sample ($n = 71$), such as Range (Min. – Max.), Mean, Standard Deviation, Kolmogorv-Smirnov D statistic, and Cronbach's α , are presented in table 1. Mean scores of the sample of football players ($n = 32$) in coping strategies are shown on figure 1. Footballers most often use strategies: active coping ($M = 2.83$), planning ($M = 2.83$), and positive reinterpretation and growth ($M = 2.82$). Most rarely they use restraint ($M = 1.68$), substance use ($M = 1.68$) and denial ($M = 1.75$) as coping strategies.

Table 1. Descriptive statistics for the COPE in the total sample

Coping strategies	Min.	Max.	<i>M</i>	<i>SD</i>	<i>K-S D</i>	α
Active coping	1.75	3.75	2.83	0.43	0.16	.35
Planning	1.50	4.00	2.83	0.55	0.15	.69
Use of instrumental social support	1.25	4.00	2.68	0.63	0.15	.73
Use of emotional social support	1.25	3.75	2.54	0.64	0.12	.79
Suppression of competing activities	1.25	3.50	2.57	0.56	0.12	.68
Religious coping	1.00	4.00	2.10	0.88	0.15	.91
Positive reinterpretation and growth	1.25	4.00	2.82	0.52	0.13	.63
Behavioral disengagement	1.50	3.75	2.46	0.46	0.11	.44
Acceptance	1.00	4.00	2.42	0.67	0.15	.81
Focus on and venting of emotions	1.25	3.75	2.48	0.55	0.10	.56
Denial	1.00	3.25	1.75	0.55	0.14	.66
Mental disengagement	1.00	3.25	2.09	0.52	0.12	.51
Restraint	1.00	3.25	1.68	0.51	0.14	.75
Substance use	1.00	4.00	1.68	0.81	0.22	.94
Humour	1.00	3.25	1.97	0.62	0.11	.82

The results of the Student's t test indicate that compared to the group of

management students, footballers more often use the strategy of positive reinterpretation and

growth [$t(69) = 2.03$; $p < 0.5$], and less frequently they use alcohol or other psychoactive substances [$t(69) = -2.64$; $p = 0.01$] in a stressful situation. Women use the strategy of seeking emotional support significantly more frequently than men [$t(69) = 2.95$; $p < 0.01$]. Men use the

planning strategy considerably more often [$t(69) = -2.01$; $p < 0.05$] and consumption of alcohol or other psychoactive substances [$t(69) = 3.08$; $p < 0.01$] in stressful situation. The mean scores, standard deviations and t tests coefficients are showed in the table 2.

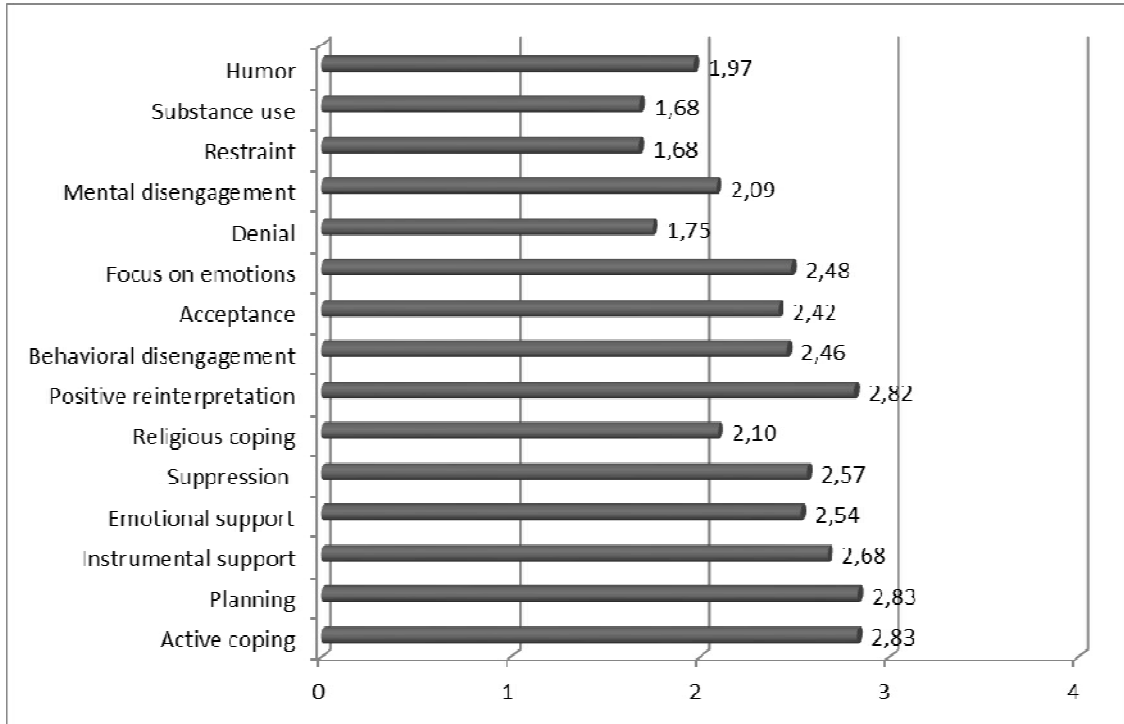


Figure 1. The mean scores of footballers in the COPE strategies.

Table 2. Differences in coping strategies between footballers (students of the Physical Education faculty) and control sample (students of Management faculty) as well as between women and men

Coping strategies	Footballers		Control		$t(69)$	Women		Men		$t(69)$
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Active coping	2.80	0.33	2.85	0.50	-0.47	2.90	0.39	2.80	0.45	0.91
Planning	2.88	0.52	2.79	0.57	0.67	2.66	0.54	2.93	0.54	-2.00*
Instrumental support	2.75	0.56	2.62	0.69	0.89	2.78	0.69	2.62	0.60	1.00
Emotional support	2.56	0.56	2.51	0.71	0.32	2.83	0.56	2.38	0.63	2.95**
Suppression	2.56	0.47	2.57	0.64	-0.06	2.54	0.54	2.58	0.58	-0.27
Religious coping	2.09	0.83	2.10	0.93	-0.01	2.02	0.96	2.13	0.84	-0.51
Positive reinterpretation	2.95	0.48	2.71	0.54	2.03*	2.79	0.55	2.83	0.51	-0.29
Behavioural disengagement	2.42	0.43	2.49	0.49	-0.65	2.39	0.29	2.50	0.53	-0.98
Acceptance	2.45	0.73	2.38	0.63	0.43	2.38	0.63	2.44	0.70	-0.36
Focus on emotions	2.35	0.53	2.59	0.55	-1.84	2.57	0.50	2.44	0.57	0.99
Denial	1.80	0.52	1.71	0.59	0.64	1.64	0.50	1.81	0.58	-1.25
Mental disengagement	2.08	0.51	2.10	0.54	-0.14	2.05	0.58	2.11	0.50	-0.41
Restraint	1.71	0.55	1.65	0.48	0.47	1.65	0.49	1.70	0.52	-0.40
Substance use	1.41	0.62	1.90	0.88	-2.64**	1.29	0.55	1.88	0.85	-3.08**
Humor	2.01	0.61	1.94	0.64	0.48	1.77	0.55	2.07	0.64	-1.95

Discussion

Hypothesis 1 has not been confirmed. This research indicates that footballers most often use approach strategies focussed on the task, such as: active coping, planning, and positive reinterpretation and growth. This is inconsistent with the results of other studies [25], in which team players usually applied behavioral-avoidance strategies. Perhaps this inconsistency stems from the fact that the instruction in American studies [25] concerned coping with stress in a sporting situation, whereas the present research referred to coping strategies in general, in different circumstances, regardless of environmental conditions.

Research [6] showed that the approach style of coping with stress has an adaptive value in such sports, in which one can influence environmental factors that are a source of stress. However, the avoidance style of coping with stress can be highly adaptive in sports requiring continuous and open tasks, in which the environment is unstable and unpredictable, sources of stress are unknown, and the results are of short-term activities. Comparing individual and team sports it was found [25] that representatives of individual sports declared more stress related to training and trainer and more frequent use of emotion-focused strategies (e.g., relaxation, visualization, or blaming) and more effective use of strategies concentrated on sport technique. Players representing team sports showed more stress related to the game in the team (such as selection, team errors, allowing competitors to drop their form), more frequent use of communication and more effective use of behavioural-avoidance strategies (e.g., avoiding the opponent). Further research should be provided in various team disciplines (e.g., basketball, volleyball, handball, football, hockey, etc.) and in a much larger sample size to resolve this issue. The other explanation for results of this study may regard cultural differences. Thus, the study on coping strategies between athletes of various disciplines should

include people from different countries and regions of the world.

According to Hypothesis 2, there are differences in strategies of coping with stress between students of physical education and management faculties. Footballers use positive reinterpretation and growth more often than management students, as well as less frequent use of alcohol or other psychoactive substances. An athlete often has to deal with failure, make reevaluations, or determine the meaning and hierarchy of goals - both sports and life goals, and goals related to learning (as in the case of students of physical education). Perhaps, therefore, the sporting situation tends to make a positive reevaluation of the stressful situation more often, to notice its good sides, to draw conclusions from a difficult situation and treat it as a starting point to improve skills and personal development, in order to cross the borders of human capabilities. The less frequent use of alcohol and psychoactive substances also seems to be related to the sporting situation. In order to maintain fitness, an athlete must train every day. Because stressful situations related to competition and training are presented constantly, the use of psychoactive substances and drinking alcohol would lead to addiction in sportsmen. Due to the low adaptive value of this strategy, the result of this study seems to indicate high skills in coping with stress in footballers.

Hypothesis 3 has been confirmed: this research indicates that women are more likely to seek emotional support than men, and men more often use planning. This probably results from stereotypes about the role of sex, reinforced by learned reactions to stress. According to the stereotypical reaction to stress, women are expected to use emotion-focused strategies, whereas men should use strategies focused on problem solving [17]. In addition, men in these studies more often use alcohol or other psychoactive substances as well as more often using humour in a stressful situation. This result is consistent with many studies [15, 16, 28, 29],

conducted in the field of addiction prevention, which shows that men drink alcohol more often and in greater amounts than psychoactive substances, compared to women (men also have higher binge drinking standards than women).

Conclusion

Approach strategies were most often used by footballers in these studies, as well as lower use of psychoactive substances as a strategy for coping with stress. This result showed a high adaptive value of coping with stress among footballers, and testifies to the good mental

preparation of athletes for sports competitions. The results of the research also indicate that in work on the control of pre-start stress and emotions, trainers and sport psychologists should take into account gender differences and the specificity of the sports discipline of the players. Further research on coping strategies in a sports situation should include a larger sample size and athletes of various disciplines (i.e., representing individual and team sports), who are members of different cultures.

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Received: February 2019

Accepted: March 2019

Published: April 2019

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