



STYLES OF COPING WITH STRESS AND LOCUS OF CONTROL IN SPORTING SITUATIONS IN A GROUP OF YOUNG FEMALE FOOTBALL PLAYERS

doi: 10.2478/humo-2014-0004

KATARZYNA RUTKOWSKA^{1*}, JÓZEF BERGIER², ZBIGNIEW WITKOWSKI³

¹ Józef Piłsudski University of Physical Education in Warsaw, Extramural Faculty of Physical Education and Sports, Biała Podlaska, Poland

² Pope John Paul II State School of Higher Education, Biała Podlaska, Poland

³ University School of Physical Education, Kraków, Poland

ABSTRACT

Purpose. The objective of the present study to analyse the styles of coping with stress and the locus of control (LOC) in specific sporting situations of female football players and seeking relationships between the analysed variables. **Methods.** The study included 50 female football players aged 16–18 years. Two psychological instruments were administered: the Polish language Questionnaire for Examining Locus of Control in Sports Activity (PKSPwS) and the Polish version of the Coping Inventory for Stressful Situations (CISS). **Results.** The mean level of the investigated LOC dimensions as well as the styles of coping with stress showed that behaviour associated with avoidance and emotions predominated over task-oriented style. However, task-oriented style was positively related to the locus of control in specific situations that occur in sport. **Conclusions.** The results of the study suggest that social support and educational initiatives adapted to female athletes are required. These include mental training and the psycho-pedagogical intervention of coaches, where emphasis should be placed on enhancing internal locus of control as well as the development and improvement of effective stress-coping styles.

Key words: sport psychology, psychology resources, coping stress, locus of control, woman's football

Introduction

In stressful circumstances, a number of remedial measures may be triggered by an individual. These measures are the result of, on the one hand, the specificity of a given stressful situation, and, on the other hand, the style of coping with stress. Stress-coping style is a personal, relatively stable predisposition, inclination or tendency towards the conscious triggering of specific strategies in response to a difficult situation. These strategies are aimed at decreasing the effect of external stressors, the elimination or reduction of the stress experienced, and increasing the effectiveness of and/or enhancing the inner resources of coping with a specified stressful situation [1–5]. In the relevant literature, there are many reports on how athletes cope with stress. However, few of the studies have dealt simultaneously with the cognitive aspect, i.e. interpreting the subjective assessment of a given situation (stressor) by those engaged in sport [6, 7].

An important resource in the process of coping with stress is the locus of control (LOC). This allows, among other things, the interpretation and categorization of potential stressors and may act as a stress buffer and mediator, as well as also contributing to the holistic understanding of health [7, 8]. In line with current knowledge, stress is treated as the relationship between the environment and an individual and between external

factors and inner resources [9]. Thus, if an individual possesses an internal locus of control, i.e. they believe in the possibility of being able to control a situation and thereby perceive stress to a lesser degree. LOC is treated as a specific dimension of personality (although it is also interpreted as a cognitive mechanism), a *continuum* between above-mentioned internal control at one end and external control on the other, where an individual with an outer locus of control feels that the course of life is dependent on external factors outside of their own control – whether by other individuals, destiny, or coincidence. Generally, LOC is the effect of various life experiences and developed beliefs, which, in time, become generalized and used to explain personal successes or failures. However, attempts have been undertaken to examine LOC as a multi-dimensional aspect, and at the same time, to identify specific locus of control with reference to selected spheres of life, for example, occupational activity or sport [8, 10–13].

Football is an activity stereotypically perceived as being for males only. Women who participate in this sport face challenges from a variety of fronts. Some are unable to adapt to its demands and stop participating; others continually struggle with the challenges and difficult situations inherent in practising football on a regular basis [14–17]. Detailed psycho-social analysis of the scope of problems and stresses faced by this group (including analysis of their personal resources) may help to recognize the specificity of this activity and indicate the need for modifying training climate so as to better suit the needs of female football players.

* Corresponding author.

The objective of the present study was to therefore analyse the specificity of the styles of coping with stress among young female football players and their locus of control in specific sporting situations as well as recognize the relationships between these variables.

Material and methods

Fifty female football players, aged 16–18 years ($M = 16.74$, $SD = 0.90$) who had been training for 1–11 years ($M = 5.34$, $SD = 2.59$) were asked to participate in the study conducted in 2012. Nearly two-thirds (37) of the girls attended the Secondary School Football Training Centre in Biała Podlaska, Poland, the remaining 13 competitors were representatives of Poland’s women’s national under-16 football team. Two psychological instruments in the Polish language (acronyms of the tests’ subscales are from the original Polish names) were administered to the participants:

- the Questionnaire for Examining Locus of Control in Sports Activity (PKSPwS), divided into subscales to allow for the diagnosis of the general locus of control in sports (Og), in situations of success (Suk) and defeat (Por), in situations during competition (S) and training (T) and interpersonal relations with coaches or other athletes (R); the design of the instrument assumes that the higher the result in points (raw/calculated) the more internalized the locus of control [13],
- the Polish version of the Coping Inventory for Stressful Situations (CISS), which identifies the various styles of coping with stress: task-oriented (SSZ), emotion-oriented (SSE), and avoidance-oriented (SSU) with its two sub-factors: engaging in replacement activities (ACZ) and seeking social contacts (PKT) [4].

Results

Table 1 presents the mean scores (as sten scores) obtained by the football players for each scale as a raw (RR) and calculated (CR) result based on the methods in the literature [4, 13]. The mean calculated results obtained for the individual scales found that all the measured psychological characteristics were at an average level.

Statistical analysis was performed with the Wilcoxon signed-rank test to allow for intra-group comparisons (Tab. 2) of the results obtained within the selected subscales of the PKSPwS and CISS.

Considering the data presented in Table 2, it may be presumed that the football players in the study present a more internalized locus of control in situations of success than defeat. LOC in training was higher than that in competitive situations and interpersonal relations occurring within the sport. Additionally, a task-oriented style was less preponderate than the styles oriented with emotion and avoidance.

Table 1. Mean scores (sten scores) of the PKSPwS and CISS subscales as a raw (RR) and calculated (CR) result

Instrument	Scale	RR (Mean ± SD)	CR (Mean ± SD)
PKSPwS	Suk	38.66 ± 3.54	5.74 ± 1.81
	Por	34.86 ± 3.12	4.62 ± 1.77
	S	28.16 ± 2.77	5.18 ± 1.52
	T	25.34 ± 2.45	6.18 ± 2.01
	R	20.02 ± 2.57	4.80 ± 1.69
	Og	73.52 ± 5.97	4.98 ± 1.74
CISS	SSZ	55.98 ± 7.40	5.36 ± 1.73
	SSE	49.90 ± 9.18	6.52 ± 1.55
	SSU	54.78 ± 8.67	6.52 ± 1.75
	ACZ	24.40 ± 5.47	6.46 ± 1.92
	PKT	19.50 ± 4.06	6.10 ± 2.02

- PKSPwS – Questionnaire for Examining LOC in Sports Activity
- Suk – locus of control in a situation of success
- Por – locus of control in a situation of defeat
- R – interpersonal relations with other athletes/coaches
- S – in competitive situations
- T – in training situations
- Og – generalized LOC sports index
- CISS – Coping Inventory for Stressful Situations
- SSZ – task-oriented style
- SSE – emotion-oriented style
- SSU – avoidance-oriented style
- ACZ – engaging in replacement activities
- PKT – seeking social contacts

Table 2. Intra-group comparisons between the results of the PKSPwS and CISS

Instrument	Scales compared	W	p
PKSPwS	Suk – Por	–3.97*	$p \leq 0.01$
	S – T	–3.11*	$p \leq 0.01$
	S – R	–1.45	x
	T – R	–3.68*	$p \leq 0.01$
CISS	SSZ – SSE	–2.88*	$p \leq 0.01$
	SSZ – SSU	–3.07*	$p \leq 0.01$
	SSE – SSU	–0.28	x
	ACZ – PKT	–1.20	x

* statistically significant differences at $p \leq 0.01$

x – no statistically significant difference

- PKSPwS – Questionnaire for Examining LOC in Sports Activity
- Suk – locus of control in a situation of success
- Por – locus of control in a situation of defeat
- R – interpersonal relations with other athletes/coaches
- S – in competitive situations
- T – in training situations
- Og – generalized LOC sports index
- CISS – Coping Inventory for Stressful Situations
- SSZ – task-oriented style
- SSE – emotion-oriented style
- SSU – avoidance-oriented style
- ACZ – engaging in replacement activities
- PKT – seeking social contacts

Table 3. Correlations between results of the PKSPwS and CISS subscales

<i>r</i>		Instruments										
		PKSPwS						CISS				
Instruments	Scale	Suk	Por	S	T	R	Og	SSZ	SSE	SSU	ACZ	PKT
	PKSPwS	Suk	X	0.56**	0.76**	0.58**	0.67**	0.89**	0.36**	-0.43**	-0.18	-0.18
Por			X	0.65**	0.72**	0.54**	0.86**	0.53**	-0.28	-0.06	-0.13	0.10
S				X	0.40**	0.44**	0.81**	0.28*	-0.30*	-0.12	-0.17	0.07
T					X	0.25	0.74**	0.45**	-0.25	0.07	-0.01	0.17
R						X	0.68**	0.38**	-0.38**	-0.21	-0.23	0.01
Og							X	0.47**	-0.41**	-0.15	-0.19	0.05
CISS	SSZ							X	-0.09	0.12	0.06	0.17
	SSE								X	0.30*	0.38**	-0.01
	SSU									X	0.85**	0.69**
	ACZ										X	0.32*
	PKT											X

* statistically significant differences at $p \leq 0.05$, ** statistically significant differences at $p \leq .01$
 PKSPwS – Questionnaire for Examining LOC in Sports Activity, Suk – locus of control in a situation of success
 Por – locus of control in a situation of defeat, R – interpersonal relations with other athletes/coaches
 S – in competitive situations, T – in training situations, Og – generalized LOC sports index
 CISS – Coping Inventory for Stressful Situations, SSZ – task-oriented style, SSE – emotion-oriented style
 SSU – avoidance-oriented style, ACZ – engaging in replacement activities, PKT – seeking social contacts

Correlations between the results of the individual scales were then analysed using Spearman’s rank-order correlation. Apart from many inter-correlations, significant correlations were observed between the results of the PKSPwS and CISS subscales (Tab. 3). Significant Spearman’s rank correlation coefficients (*r*) were noted between the level of the locus of control concerning all of the analysed sporting situations and the task-oriented style of coping with stress. All correlation values were positive. However, negative values were observed in the relationship between emotion-oriented style and the general sport locus of control, as well as the locus of control in situations of success, competition and interpersonal relationships (Tab. 3).

Discussion

The results of the present study show that the group of female football players have more poorly developed task-oriented style of coping with stress. Instead, more predominate were the emotion-oriented style, where individuals “in stressful situations (...) more often reveal the tendency to focus on themselves, (...) emotions experienced, such as anxiety, feeling of guilt, tension (...) wishful thinking and fantasizing” and the avoidance-oriented style (including engaging in replacement activities or seeking social contacts), where “the tendency to avoid thinking, going through and experiencing this situation” [4, p. 17].

These results are in line with that reported in other studies. Female football players, compared with males, are more prone to using an emotion-oriented style,

which has been related to females’ higher emotional sensitivity especially with respect to interpersonal issues [18, 19]. In addition, when considering the differences between female and male football players, another aspect that may be particularly significant is the represented level of sporting skills. In a group of athletes at an intermediary level, females, compared with males at a similar skill level, revealed a stronger tendency towards the avoidance-oriented style [2].

When analysing the styles of coping with stress among the study’s participants, the influence of using so-called ineffective strategies should be emphasized [4], where, as the unskilful selection of a strategy to difficult situation, they may exert an unfavourable effect when competing in sport by, for example, increasing muscular tension or experiencing problems with staying focused [5]. In the context of reports indicating that stress, apart from anxiety, is among the predictors of injury in football, the discussion concerning the styles of coping with stress takes on a new light [20, 21]. Confirmed in part by the results of the present study, the literature shows information that the avoidance style of coping with stress is more predominant among athletes. According to these studies, there are situations, especially those that are considered to be uncontrollable and unpredictable, when avoidance is situationally beneficial for athletes and primarily helps to reduce the level of experienced anxiety [5, 22, 23].

A task-oriented style is associated with “the tendency to undertake efforts aimed at solving a problem by cognitive transformation or an attempt to change the situation, where the main emphasis is placed on

the task or planning how to solve the problem” [4, p. 17]. Therefore, it is naturally associated with a feeling of control over a particular situation. Despite the fact that the styles of coping with stress are generalized characteristics and relate to various social, not sporting, situations, and that the locus of control examined herein referred exclusively to sport-related situations, significant positive correlations were found between the two in the study. However, it is still worth considering the possibility of constructing a new Polish instrument for investigating the style of coping with stress in specific sporting situations similar to those considered when constructing the PKSPwS questionnaire on locus of control [13]. The advisability of such suggestion was confirmed by the results of studies carried out in the United Kingdom that pertained to the styles of coping with stress in specific situations typical for athletes [6].

The relatively low scores of the examined variables within the context of the specific challenges experienced by female football players suggests that targeted supportive and educational strategies should be implemented in this group of athletes. In order to help this group with coping, it is recommended that an expanded system of social support be considered, as it is noteworthy that females, compared with males, possessed a higher need for seeking social support for emotional reasons [24]. It is also recommended that psycho-pedagogical strategies that focus on strengthening personal independence be implemented in order to enhance inner locus of control [25, 26], both generalized and specific, and especially in the case of competition and relations with others (which is connected with the aforementioned problem of social support). Of additional value would be the introduction of training psychosocial skills oriented towards the development and improvement of strategies of effective styles of coping with stress.

However attention needs to be paid to the fact that, when selecting the most appropriate style of coping with stress, a number of sociological variables need to be considered including gender, culture, race, social group (in this case athletes), as well as the types of stressful situations most likely to occur to this group [5, 27]. In Polish women’s youth football, it would be beneficial to perform comprehensive research on the psychosocial characteristics of this group of competitors. The development of a hypothetical model describing peak mental performance may provide coaches and sport psychologists a baseline on how the training process may be improved.

Conclusions

The present study aimed to recognize the types of relationships between the styles of coping with stress represented by young female football players and their locus of control in situations typically found in sport.

The female football players showed more internalized locus of control in situations of success than defeat. Locus of control during training was higher than that in competitive situations and interpersonal relationships. All analysed dimensions of LOC were at an average level. In addition, an average level of style of coping with stress was noted, oriented more towards avoidance and emotion. These styles clearly prevailed over the task-oriented style, although task-oriented style was positively related with the locus of control referring to specific situations that occur in sport.

References

1. Endler N.S., Parker J.D.A., Assessment of multidimensional coping. Task, emotion and avoidance strategies. *Psychol Assess*, 1994, 6 (1), 50–60, doi: 10.1037/1040-3590.6.1.50.
2. Anshel M.H., Kaissidis A.N., Coping style and situational appraisals as predictors of coping strategies following stressful events in sport as a function of gender and skill level. *Br J Psychol*, 1997, 88, 263–276, doi: 10.1111/j.2044-8295.1997.tb02634.x.
3. Poczwardowski A., Conroy D.E., Coping responses to failure and success among elite athletes and performing artists. *J Appl Sport Psychol*, 2002, 14, 313–329, doi: 10.1080/10413200290103581.
4. Strelau J., Jaworowska A., Wrześniewski K., Szczepaniak P., CISS – coping inventory for stressful situations. Handbook [in Polish]. PTP, Warszawa 2005.
5. Anshel M.H., Kang M., Miesner M., The approach-avoidance framework for identifying athletes’ coping style as a function of gender and race. *Scand J Psychol*, 2010, 51, 341–349, doi: 10.1111/j.1467-9450.2009.00796.x.
6. Nicholls A.R., Levy A.R., Grice A., Polman R.C.J., Stress appraisals, coping, and coping effectiveness among international cross-country runners during training and competition. *Eur J Sport Sci*, 2009, 9 (5), 285–293, doi: 10.1080/17461390902836049.
7. Roddenberry A., Renk K., Locus of control and self-efficacy: potential mediators of stress, illness, and utilization of health services in college students. *Child Psychiatry Hum Dev*, 2010, 41, 353–370, doi: 10.1007/s10578-010-0173-6.
8. Khan A.A., Saleem M., Shahid R., Buffering role of locus of control on stress among the college/university teachers of Bahawalpur. *Pak J Commer Soc Sci*, 2012, 6 (1), 158–167.
9. Lazarus R.S., Folkman S., Transactional theory and research on emotions and coping. *Eur J Pers*, 1987, 1 (3), 141–169, doi: 10.1002/per.2410010304.
10. Rotter J.B., Generalized expectancies for internal versus external control of reinforcement. *Psychol Monogr*, 1966, 80 (1), 1–28, doi: 10.1037/h0092976.
11. Lawrence E., Winschel J., Locus of control implications for special educations. *Exceptional Children*, 1975, 41, 483–490.
12. Chung Y.Y., Ding C.G., Development of the sales locus of control scale. *J Occup Organ Psychol*, 2002, 75, 233–245, doi: 10.1348/09631790260098514.
13. Rutkowska K., PKSPwS – questionnaire for examining LOC in sports activity [in Polish]. *Rev Psychol*, 2011, 54 (3), 289–307.

14. Guillet E., Sarrazin P., Fontayne P., Brustad R.J., Understanding female sport attrition in a stereotypical male sport within the framework of eccles's expectancy – value model. *Psychol Women*, 2006, 30, 358–368, doi: 10.1111/j.1471-6402.2006.00311.x.
15. Hjelm J., The bad female football player: woman's football in Sweden. *Soccer and Society*, 2011, 12 (2), 143–158, doi: 10.1080/14660970.2011.548352.
16. Jeanes R., I'm into high heels and make up but I still love football: exploring gender identity and football participation with preadolescent girls. *Soccer and Society*, 2011, 12, 402–420, doi: 10.1080/14660970.2011.568107.
17. Stirling L., Schulz J., Women's Football: still in the hand of men. *Sport Management Int J*, 2011, 7 (2), 53–78, doi: 10.4127/ch.2011.0060.
18. Crocker P., Kowalski K.C., Graham T.R., Measurement of coping strategies in sport. In: Duda J.L. (ed.), *Advances in sport and exercise psychology measurement*. Fitness Information Technology, Morgantown 1998, 149–164.
19. Rudolph K.D., Gender differences in emotional responses to interpersonal stress during adolescence. *J Adolesc Health*, 2002, 30 (Suppl.), 3–13, doi: 10.1016/S1054-139X(01)00383-4.
20. Steffen K., Pensgaard A.M., Bahr R., Self-reported psychological characteristics as risk factors for injuries in female youth football. *Scand J Med Sci Sports*, 2009, 19, 442–451, doi: 10.1111/j.1600-0838.2008.00797.x.
21. Ivarsson A., Johnson U., Podlog L., Psychological Predictors of Injury Occurrence: A Prospective Investigation of Professional Swedish Soccer Players. *J Sport Rehabil*, 2013, 22 (1), 19–26.
22. Roth S., Cohen L.J., Approach, avoidance, and coping with stress. *Am Psychol*, 1986, 41 (7), 813–819.
23. Anshel M.H., Anderson D., Coping with acute stress in sport: Linking athletes' coping style, coping strategies, affect, and motor performance. *Anxiety Stress Coping*, 2002, 15(2), 193–209, doi: 10.1080/10615800290028486.
24. Crocker P., Graham T.R., Coping by competitive athletes with performance stress: Gender differences and relationships with affect. *Sport Psychol*, 1995, 9, 325–338.
25. Krasowicz G., Kurzyp-Wojnarska A., KBPK – questionnaire for examining LOC. *Handbook [in Polish]*. PTP, LTP, UW Warsaw 1990.
26. Rutkowska K., Klimczak J., The locus of control and the sense of personal competence in young athletes practicing martial arts. *Pol J Sport Tourism*, 2012, 19 (4), 271–280, doi: 10.2478/v10197-012-0026-x.
27. Zeidner M., Saklofske D., Adaptive and maladaptive coping. In: Zeidner M., Endler N.S. (eds.), *Handbook of coping: Theory, research, applications*. John Wiley and Sons, New York 1996, 505–531.

Paper received by the Editors: November 6, 2013

Paper accepted for publication: February 6, 2014

Correspondence address

Katarzyna Rutkowska
Akademia Wychowania Fizycznego
Józefa Piłsudskiego w Warszawie
Wydział Wychowania Fizycznego i Sportu
w Białej Podlaskiej
ul. Akademicka 2
21-500 Biała Podlaska, Poland
e-mail: kr@psychologsportu.pl