



Cognitive Scripts, Anxiety and Styles of Coping with Stress in Teenagers Practising Sports

by

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The aim of the study was to present the relationships between the way of perceiving oneself and the world by young athletes, the cognitive anxiety and the ways of coping with stress. The target group consisted of 222 participants (114 boys and 108 girls) aged 16–20, students of sports-profiled secondary schools. The participants specialised in both winter and summer sports, as well as in individual and team sport disciplines. The following tools were implemented: Attitudes to Intrapersonal, Interpersonal and to the World Questionnaire, Coping Inventory for Stressful Situations (CISS) and Sport Anxiety Scale. The study showed that negative perception of oneself and others increases the level of cognitive anxiety and decreases the tendencies to search for social contacts in the face of stress. With regard to the positive image of oneself and others, the opposite was observed. The above relationships refer mainly to girls who practise sports.

Key words: *image, image of the world, coping with stress, cognitive and somatic anxiety, youth, sport.*

Introduction

Sports activity is full of difficult and stressful situations. Even athletes with long-term experience often face problems with emotional regulation, coping with stress and with very strong pre-competition emotions such as anxiety. Thus, young, adolescent athletes seem to be even more prone to these problems. Adolescence is a period of intensive changes and remarkable sensitivity to social assessment, which may lead young people to feel social anxiety. Maturing individuals shape their self-image and the image of the world upon their previous life and sports experiences. The way they perceive themselves and others together with their beliefs, will also become the basis of their social interactions and their general health. Negative and maladaptive beliefs may lead to depression disorders. These occur due to a misinterpretation of events and negative representations of oneself, the world and the future (called the cognitive triad) (Knapp and Beck, 2008). The way of perceiving oneself and the surrounding world plays an important role in

coping with stress, including the stress related to sports competition.

Drawing from the Lazarus' model, the strategies of coping with stress can be divided into the task-focused (focused on a problem) and emotions-focused (Folkman and Lazarus, 1985). The task-focused strategies are related to an activity directed at the difficulties encountered. Tenenbaum et al. (2008) give examples of such activities: planning the next step, identifying goals, making strategic plans, etc. The emotions-focused strategies are aimed at regulating a person's emotional state. According to Tenenbaum et al. (2008) emotional strategies comprise relaxation, meditation, inner talk and imaginative techniques. The escapist strategies are also mentioned, however, their effectiveness is strongly limited in time.

Psychologists have sought the relationships between coping strategies and various personal traits, including the cases of athletes. Anshel et al. (2000) focused on the

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relationship between coping strategies and different kinds of stressors. Similarly, Madden et al. (1990) observed that when athletes perceived their situation as extraordinarily stressful, they attempted to solve the problem by means of task-focused strategies. They also looked for social support and presented wishful thinking.

Different kinds of sports disciplines were similarly researched as factors determining the ways of coping with stress. It was shown that in individual sports, an athlete focuses more on the inner traits and individual performance than on the surrounding environment, and therefore, a task-focused strategy is required (Panahi and Ramazani-Nejad, 2011). Another study investigated the relationship between the age of athletes and their coping styles. Bäckman and Molander (1986) claim that older players show deficits in compensating the negative effects of extreme (high or low) levels of emotional activation, as opposed to younger players, who deal with it significantly better.

Furthermore, in the research focused on the relationships between sex and coping with stress, it was observed, among other things, that sex influenced the assessment of stressors, which, in turn, was related to coping. Women were more inclined to experience the threat of challenge appraisals than males (Anshel et al., 2001). Sex may prove to be a mediating factor in coping styles, although the results are ambiguous. Several studies have shown that women prefer emotional coping styles, while men tend to avoid such strategies (Lawrence et al., 2006). Nwankwo and Onyishi (2012), who conducted a study among Nigerian athletes, concluded that females practising sports showed more adaptive coping mechanisms than males. Similar relationships were observed by Nicholls et al. (2007), who proved that women practising sports applied varied coping strategies more often than men. According to Panahi and Ramazani-Nejad (2011), men tend to use emotions-focused strategies such as self-blaming and avoiding. It seems appropriate to assume that culture is a crucial factor moderating the relationship between coping with stress and sex.

The most interesting, from the standpoint of this study, seem to be findings related to the relationships between coping with stress, emotional regulation and styles of thinking and

explaining events. Hatzigeorgiadis and Biddle (1999) claimed that the athletes' cognitive area was related to their functioning during a competition. The research on dispositional optimism and coping with stress revealed that adopting the task-focused strategies was a mediating factor between optimism and positive states after the competition. Ben-Zur and Debi (2005) claim that there is a relationship between positive thinking and effective coping with stress in the face of failure. They postulate that positive thinking and optimism are the predictors of effective coping with stress. Hatchett and Park (2004) observed that optimism and positive thinking correlated positively with coping strategies based on providing social support. At the same time negative thinking was related to emotional and escapist strategies. Nicholls and his team (2010) found a positive correlation between the feeling of certainty of being able to deal with difficult situations and factual applying of task-focused strategies by athletes. The strategies were deemed to be effective. Other researchers (Scheier et al., 1986) also suggest that optimism is positively correlated with coping strategies focused on problem solving, social support seeking, and emphasising the positive aspects of stressful situations. At the same time, pessimism and a negative way of interpreting stressful situations were connected with denial, distancing oneself and other non-adaptive coping styles. The research on athletes' coping strategies and positive imagery was carried out by Mohd et al. (2009). It remains consistent with Grove and Heard (1997) who found that optimism was related to task-focused coping strategies.

The relationship between the self-esteem and coping styles has also been investigated. Nwankwo and Onyishi (2012) discovered that high self-esteem corresponded to more effective coping strategies adopted during sports situations. On the basis of the above results, it may be concluded that a positive way of thinking may be a predictor of effective adaptation to stressful events.

In the process of analysing the relationships between styles of thinking and coping with stress, it is of great importance to take into consideration the emotion that influences the assessment of a particular situation. Its importance was shown by Ben-Ari and others

(2006) who conducted a research study on Israeli athletes. It was observed that the perception of stress as a kind of challenge was accompanied by such positive emotions as enthusiasm and hope. The perception of stress as a threat induced negative emotions (e.g., anxiety and fear). Individuals who practise sports often experience strong emotions before a competition – anxiety, in most cases. The level of anxiety influences the athletes' efficacy (Parnabas et al., 2013). Cognitive anxiety is a tendency to focus on failure; these are negative thoughts related to the performance accompanied by attention disruption. Somatic anxiety is a spectrum of reactions that may occur to an individual. They include excessive sweating, an increased heart rate, shakiness, and tension. It has a definitely negative effect on performance and seems to support the catastrophe model of Fazy and Hardy, according to which physiological activation influences performance, as an effect of the interpretation of physiological symptoms. Together with the increase of cognitive anxiety, physiological activation also increases. A positive or negative performance depends on the degree of this activation. Therefore, cognitive anxiety plays a significant role in modulating performance (Binboga et al., 2012).

Anxiety may also increase the intensity of individual's expectations of threat in a task situation, which leads to pessimistic styles of explaining events. The consequence of cognitive anxiety is a decrease in effectiveness of performance and a decrease in cognitive functioning, which is particularly undesirable in sports. Individuals with high anxiety traits will also direct their attention towards the threat, both external and internal (e.g., worrisome thoughts) (Eysenck et al., 2007).

The main purpose of this study was to determine the relationship between cognitive schemas (referring to oneself and the surrounding world), and coping with stress and pre-competition anxiety among boys and girls practising sports. The following research questions were formulated: 1) What is the relationship between dominating cognitive schemas and coping styles for athletes (boys and girls); 2) Is there a relationship between cognitive schemas for athletes (boys and girls) and their emotional reactions (including cognitive and

somatic anxiety)?

Methods

Participants

The research was conducted among teenage athletes from the south of Poland. The group of participants comprised 222 individuals, aged 16–20 (18.1 ± 1.01) who were male and female students of seven different secondary sports schools. 114 of them were boys (age 18.47 ± 0.81) and 108 were girls (age 17.52 ± 0.96).

The participants represented summer and winter sports; 126 of them specialised in individual disciplines and 96 – in team sports. Altogether, there were representatives of the following disciplines: basketball, volleyball, handball, soccer, floorball, acrobatics, biathlon, cross country skiing, boxing, cheerleading, artistic gymnastics, judo, cycling, nordic combined, athletics, speed skating, MMA, alpine skiing, swimming, ski jumping, snowboarding, sport shooting, taekwondo and tennis. Due to the limits of the text content, the analyses of differences between individual and team competitors were not included in this paper. They can be found in other publications.

Procedures

All the participants had to obtain their parents' written consent before taking part in the research. They were also informed about the aim of the research and about the possibility of receiving feedback. Therefore, the procedure was not anonymous.

The first procedure included the Attitudes to Intrapersonal, Interpersonal and to the World Questionnaire; the second one was the Coping Inventory for Stressful Situations (CISS), which was finally followed by the Sport Anxiety Scale. The research was conducted in groups, in the classrooms and with no time limits.

Measures

At the beginning of the research, the participants were asked to provide information on their sex, age (the year of birth) and the sports discipline they specialised in. Afterwards, the following research methods were used:

the *Attitudes to Intrapersonal, Interpersonal and to the World Questionnaire* by Wysocka (2011). The questionnaire consists of 137 items. It measures the basic beliefs concerning oneself (intrapersonal), others (interpersonal) and

attitudes towards the world. Although there were 137 questions, no problems occurred during the classroom procedure. The students were motivated and interested in answering all the questions. They were also informed about the possibility of receiving the research results in a form of their individual psychological diagnosis. 85 participants out of 222 were interested in such feedback.

Intrapersonal attitudes are understood here as the image of oneself, and they represent the global self-esteem as a system of beliefs about one's own "self". The system comprises the general (non-specific) self-esteem (Cronbach alpha = 0.87, Average inter-item correlation = 0.03) and partial self-esteem: specific – the cognitive-intellectual sphere (Cronbach alpha = 0.77, Average inter-item correlation = 0.26), the physical sphere (Cronbach alpha = 0.77, Average inter-item correlation = 0.26), the socio-moral sphere (Cronbach alpha = 0.65, Average inter-item correlation = 0.18), and the characterological sphere (Cronbach alpha = 0.59, Average inter-item correlation = 0.13) – which form the picture of the global, specific self-esteem (Wysocka, 2011).

Interpersonal attitudes depict the image of other people and relations with them, as well as the beliefs concerning functioning in interpersonal relations: "others towards me". These relations include: support from others (Cronbach alpha = 0.72, Average inter-item correlation = 0.22) and appreciation (Cronbach alpha = 0.63, Average inter-item correlation = 0.15) versus indifference of others and unappreciation (Cronbach alpha = 0.69, Average inter-item correlation = 0.19); others as a threat versus feeling of safety in relations: "I towards others" – acting in favour of others, pro-social attitude, altruism, sociability (Cronbach alpha = 0.55, Average inter-item correlation = 0.12) versus egocentrism, isolating; aggression (Cronbach alpha = 0.81, Average inter-item correlation = 0.30) versus lack of aggression (Wysocka, 2011). The attitudes towards the world illustrate the image of the world, the beliefs related to its sense and its favour to people (Cronbach alpha = 0.66, Average inter-item correlation = 0.18) (Wysocka, 2011). The last of the analysed items – attitudes towards one's own life – show the image of life and, on its background, the beliefs related to one's own performance's effectiveness and the ability to control (Cronbach

alpha = 0.78, Average inter-item correlation = 0.26), or learned helplessness (Cronbach alpha=0.78, Average inter-item correlation = 0.30) (Wysocka, 2011).

In this paper statistically essential results were analysed, which were obtained for the following Questionnaire scales: the general self-esteem (a sense of self-worth) – Cronbach alpha = 0.87, Average inter-item correlation = 0.40; the cognitive-intellectual scale of self-esteem (a sense of one's abilities and intellectual capacities) – Cronbach alpha = 0.77, Average inter-item correlation = 0.26; the physical sphere of self-esteem (a sense of one's appearance and physical fitness) – Cronbach alpha = 0.77, Average inter-item correlation = 0.26; the characterological sphere of self-esteem (a set of mental traits which appear in the way a person acts, the way the person behaves towards others, and in the person's lifestyle) – Cronbach alpha = 0.59, Average inter-item correlation = 0.13; the socio-moral sphere of self-esteem (moral beliefs which appear in self-oriented and others-oriented actions) – Cronbach alpha = 0.65, Average inter-item correlation = 0.18; a sense of efficacy (subjective belief in the ability to act in a certain situation, to complete a task) – Cronbach alpha = 0.78, Average inter-item correlation = 0.26; a sense of social acceptance (a tendency to attribute to oneself socially desired statements, and rejecting those, which are socially undesired) – Cronbach alpha = 0.63, Average inter-item correlation = 0.15; a sense of threat from others (beliefs connected with the perceived or received/experienced threat) – Cronbach alpha = 0.69, Average inter-item correlation = 0.19; aggression (behaviour directed against certain people or objects, which may take the form of verbal and/or physical attack) – Cronbach alpha = 0.81, Average inter-item correlation = 0.30; the helplessness attitude (a sense of inability to control events) – Cronbach alpha = 0.78, Average inter-item correlation = 0.30.

The participants were to mark the statements with digits according to the following pattern: I agree (4), I rather agree (3), I rather disagree (2), I disagree (1), to show which statements were closest to their own beliefs.

Another method applied was the *Coping Inventory for Stressful Situations* (CISS) in Polish adaptation by Szczepaniak, Strelau, Wrześniewski. This reliable method measures the style of coping with stress (Endler and Parker,

1994). The questionnaire consists of 48 statements. The participants are to determine how strongly they engage in activities when they find themselves in a difficult, unpleasant and stressful situation. The answers are provided on a scale 1–5 (where 1 stands for “never” and 5 for “very often”). The questionnaire allows to determine the behavioural styles in stressful situations on three scales (Parker and Endler, 1996):

Task-focused coping style (Cronbach alpha = 0.87, Average inter-item correlation = 0.31) - aimed at solving a problem or reformulating the meaning of a stressful situation; Emotions-focused coping style (Cronbach alpha = 0.84, Average inter-item correlation = 0.25) - a tendency to concentrate on oneself in a stressful situation instead of focusing on the problem itself; Avoidance-focused coping style (Cronbach alpha = 0.82, Average inter-item correlation = 0.23) - a tendency to avoid thinking and to face the stressful situation (Han et al., 2009). The avoidance-focused coping style has two forms: Distraction (Involvement in displacement activities) (Cronbach alpha = 0.78, Average inter-item correlation = 0.31) and Social Diversion (Cronbach alpha = 0.79, Average inter-item correlation = 0.43). The avoidance-focused style is more often used when a situation is perceived as important (Rutheford and Endler, 1999).

Finally, the participants filled in the *Sport Anxiety Scale* (Smith et al., 1990) in the Polish adaptation (with the authors' consent) by Krawczyński. They were to determine to what extent they experienced the presented feelings and thoughts in starting situations (competition). The questionnaire consists of 21 items and the participants are to ascribe the statements on the scale to a digit from 1 to 4, where 1 stands for „Absolutely no” and 4 means „Absolutely yes”. The reference point is the way they “usually feel before or during competitions”. This is to measure the anxiety as a trait by determining somatic anxiety (Cronbach alpha = 0.89, Average inter-item correlation = 0.47), worrying (Cronbach alpha = 0.86, Average inter-item correlation = 0.47), which are components of cognitive anxiety and attention disruption (together with cognitive anxiety) (Cronbach alpha = 0.52, Average inter-item correlation = 0.19).

Statistical Analysis

The statistical analyses were conducted

with IBM SPSS 21 software, with the use of macro created by Newsom (<http://www.upa.pdx.edu/IOA/newsom/macros.htm>). The interaction analyses were conducted in order to determine whether sex was a significant moderating factor in relations between cognitive schemas and pre-competition anxiety, as well as between cognitive schemas and coping strategies. Furthermore, two-way interaction analyses between continuous and binary variables were also performed. Next, the standardised simple slopes were calculated (and tested for significance) to determine the relations between cognitive schemas, anxiety and coping strategies, separately for men and women. The Alpha level was set at 0.05 (Judd et al., 2014).

Results

The study results of 222 young athletes were analysed considering two categories: the self-image and image of the world versus pre-competitive anxiety and coping strategies.

Table 1 presents correlations between the self-image, the image of the world, the level of somatic and cognitive anxiety (worrying and attention disruption), and sex. The analyses of moderation showed a few statistically significant relations. It was observed that among girls the level of somatic anxiety decreased with an increase of self-esteem in the following spheres: cognitive-intellectual ($p = 0.004$), physical ($p = 0.026$), characterological ($p = 0.006$), and with an increase of feeling of self-efficacy ($p = 0.006$). Interestingly, among boys these relationships did not reach the level of statistical significance.

On the other hand, the somatic anxiety level among girls practising sports tended to increase with an increase in feeling of helplessness ($p = 0.001$). With regard to boys, no statistically significant relationships were found. Therefore, sex moderates the correlation of somatic anxiety with cognitive-intellectual, physical and characterological spheres of self-esteem, as well as with the feelings of self-efficacy and helplessness.

The level of attention disruption versus sex

During the analyses of the relationship between the self-image, the image of the world and others, and the cognitive anxiety dimension in a form of attention disruptions, sex was also found to be a moderating factor. The results show that only in girls practising sports, the increase in

the level of self-esteem in the socio-moral sphere ($p = 0.005$) was accompanied by a decrease in the level of attention disruptions. However, attention disruptions increased with an increase of feeling of threat from others ($p = 0.005$), feeling of

helplessness ($p = 0.040$) and with an increase of aggressive attitude towards others ($p = 0.037$).

Table 1
Analyses of moderation of cognitive scripts with pre-starting anxiety and sex

Predictor	Moderator	Dependent var.	Beta	BS	t	p	Interaction
Global self-esteem – cognitive-intellectual sphere	Sex	Somatic	-0.28	0.09	-2.94	0.004	$\hat{\alpha}_M = 0.06$ $\hat{\alpha}_K = -0.32^{***}$
Global self-esteem – physical sphere	Sex	Somatic	-0.24	0.11	-2.24	0.026	$\hat{\alpha}_M = 0.08$ $\hat{\alpha}_K = -0.24^{**}$
Global self-esteem – socio-moral sphere	Sex	Concentration disruption	-0.26	0.09	-2.83	0.005	$\hat{\alpha}_M = -0.15$ $\hat{\alpha}_K = -0.51^{***}$
Global self-esteem – characterological sphere	Sex	Somatic	-0.28	0.10	-2.80	0.006	$\hat{\alpha}_M = 0.05$ $\hat{\alpha}_K = -0.32^{***}$
Interpersonal functioning “Others towards me” – threat	Sex	Concentration disruption	0.23	0.10	2.35	0.005	$\hat{\alpha}_M = 0.09$ $\hat{\alpha}_K = 0.40^{***}$
Interpersonal functioning “I towards others” – aggressiveness	Sex	Worry	0.18	0.09	1.98	0.049	$\hat{\alpha}_M = 0.08$ $\hat{\alpha}_K = 0.34^{***}$
Interpersonal functioning “I towards others” – aggressiveness	Sex	Concentration disruption	0.20	0.09	2.09	0.037	$\hat{\alpha}_M = 0.07$ $\hat{\alpha}_K = 0.35^{***}$
Image of life – feeling self-efficacy	Sex	Somatic	-0.28	0.10	-2.76	0.006	$\hat{\alpha}_M = 0.09$ $\hat{\alpha}_K = -0.28^{**}$
Image of life – feeling of helplessness	Sex	Somatic	0.31	0.09	3.30	0.001	$\hat{\alpha}_M = 0.01$ $\hat{\alpha}_K = 0.42^{***}$
Image of life – feeling of helplessness	Sex	Worry	0.19	0.09	2.13	0.034	$\hat{\alpha}_M = 0.27^{**}$ $\hat{\alpha}_K = 0.52^{***}$
Image of life – feeling of helplessness	Sex	Concentration disruption	0.19	0.09	2.06	0.040	$\hat{\alpha}_M = 0.21^*$ $\hat{\alpha}_K = 0.47^{***}$

* $p < 0.05$; ** $p < 0.01$, *** $p < 0.001$

Table 2
*Analyses of moderation of the relationships between cognitive scripts,
 coping strategies, and sex.*

Predictor	Moderator	Dependent var.	Beta	BS	t	p	Interaction
General self-esteem – non-specific	Sex	Avoidance-Oriented Coping – Social Diversion	0.32	0.10	3.10	0.002	$\hat{\alpha}_M = -0.09$ $\hat{\alpha}_K = 0.35^{***}$
Global self-esteem – cognitive-intellectual sphere SSZ: task-oriented coping style	Sex	Avoidance-Oriented Coping – Social Diversion	0.26	0.09	2.81	0.005	$\hat{\alpha}_M = -0.10$ $\hat{\alpha}_K = 0.26^{**}$
Global self-esteem – physical sphere	Sex	Avoidance-Oriented Coping – Social Diversion	0.38	0.11	3.61	<0.001	$\hat{\alpha}_M = -0.20$ $\hat{\alpha}_K = 0.30^{***}$
Global self-esteem – characterological sphere	Sex	Task-oriented coping style	0.23	0.09	2.55	0.011	$\hat{\alpha}_M = 0.34^{***}$ $\hat{\alpha}_K = 0.63^{***}$
Interpersonal functioning “Others towards me” – threat	Sex	Avoidance-Oriented Coping – Social Diversion	-0.26	0.10	-2.67	0.008	$\hat{\alpha}_M = 0.03$ $\hat{\alpha}_K = -0.32^{***}$
Image of world – sense, organization of the world	Sex	Avoidance-Oriented Coping – Social Diversion	0.24	0.09	2.77	0.006	$\hat{\alpha}_M = -0.20^*$ $\hat{\alpha}_K = 0.16$
Image of world – feeling of self-efficacy	Sex	Avoidance-Oriented Coping – Social Diversion	0.22	0.10	2.26	0.025	$\hat{\alpha}_M = -0.01$ $\hat{\alpha}_K = 0.29^{**}$
Image of world – feeling of helplessness	Sex	Avoidance-Oriented Coping – Social Diversion	-0.30	0.09	-3.17	0.002	$\hat{\alpha}_M = 0.07$ $\hat{\alpha}_K = -0.33^{***}$
Social approval scale	Sex	Avoidance-Oriented Coping – Social Diversion	0.22	0.10	2.28	0.023	$\hat{\alpha}_M = -0.03$ $\hat{\alpha}_K = 0.27^{**}$

* $p < 0.05$; ** $p < 0.01$, *** $p < 0.001$

The level of worrying versus sex

The last of the analysed relationships for the components of cognitive anxiety was the relation between the level of worrisome thoughts and the image of self and others. It also proved to be moderated by sex.

The relationship between an aggressive attitude towards others ($p = 0.049$), the feeling of helplessness ($p = 0.034$) and the level of worrying was moderated by sex. In girls, together with an increase in aggressive attitude towards others, the level of worrying increased as well. As for boys, this particular relation did not reach statistical significance. With regard to the feeling of helplessness, its increase was accompanied by an increase in the levels of worrisome thoughts, both for boys and girls. However, in girls this relationship was significantly stronger.

Further analyses were connected with the relationship between coping strategies and the image of oneself and the world. The results are presented in Table 2.

Analyses of moderation showed a few statistically significant relationships. It was observed that the relationship between the characterological sphere of self-esteem and the task-focused coping style was moderated by sex ($p = 0.011$). In both groups (boys and girls), along with an increase of the results in the characterological sphere, the task-focused coping also raised. However, this relationship was significantly stronger in girls compared to boys.

The relationship between the coping style in a form of *Search for social contacts* and each of the self-esteem dimensions was also moderated by sex. Among girls, with the increase of the general self-esteem sphere ($p = 0.002$), the cognitive-intellectual sphere ($p = 0.005$), the physical sphere ($p < 0.001$), the feeling of self-efficacy ($p = 0.025$) and the social approval ($p = 0.023$), the coping style based on searching for social contacts also increased. Among boys, this relationships did not reach the level of statistical significance. In girls, with the increase of feeling of threat posed by others ($p = 0.008$) and feeling of helplessness ($p = 0.002$), the coping strategy focused on social contacts seeking decreased. For boys these findings did not reach the level of statistical significance.

The only statistically significant relationships observed in boys (which were not

found in girls) were as follows: with the increase of feeling of the world's sense ($p = 0.006$) the coping strategy focused on social contact seeking declined at the same time.

Discussion

The study provided answers to the research questions posed. It became evident that sex acted as a moderating factor in the relationships between cognitive schemas (beliefs concerning oneself and others), somatic anxiety, and attention disruption. It was proved that sex was a moderator of the relationships between cognitive schemas and styles of coping with stress: the task-focused style and the style focused on search for social contacts.

The task-focused coping strategy was more prominent among the participants who showed a positive belief regarding their character (the characterological sphere of self-esteem), that is, the positive traits in the context of social functioning, achieving personal goals and self-development (Wysocka, 2011). Due to the fact that it was found to be stronger in girls, it is reasonable to assume that characterologically strong girls (which is often expected from athletes) will be task-focused when it comes to difficulties, similarly to the way they approach sports tasks.

It is possible that women practising sports undermine the common belief that they are weaker and less professional. Those are stereotypical opinions related to sex, where men are viewed as "strong", while women are seen as delicate and "weaker or more depressive than men" (Appanealet al., 2009). Yet, it needs to be noted that sports challenges undertaken by women are not easier than those taken up by men (Csizma et al., 1988). It is possible that this fact forces women to increase their task focusing under stress (they must deal with both the stressor and the stereotype). It also seems plausible that the participants were convinced about the possibility of realising their plans, which, most probably, comes from their expectation of self-efficacy. Bandura (1982) discovered the relationships between expecting self-efficacy and coping strategies. He assumed that the expectation of one's self-efficacy depended on four main sources of information: performance accomplishments, vicarious experience, verbal persuasion and physiological

states.

Similarly, the participating girls who were characterised by stronger general conviction of their self-worth, satisfaction with oneself and self-acceptance in both spheres: the intellectual sphere (a positive belief related to one's intelligence, creativity and inventiveness) and the physical sphere (related to the feeling of one's physical attractiveness and physical prowess), turned to other people when facing difficulties. Although, as some studies show (Wallen and Lachaman, 2000), both men and women seek social support in order to feel good, yet this tendency is stronger among women. The research by Niefer et al. (2010) conducted on young female competitors showed that social support (parents, friends) provided a great source of coping. Similarly, Hassel et al. (2010) stressed the role of social support in their research on teenage female swimmers.

Self-acceptance works in favour of accepting other people. The female participants did not have problems with turning to others for help in difficult moments. It is also true when it comes to the feeling of self-efficacy. Girls, convinced of their ability to act in a particular situation, when they were unable to deal with it on their own, did not hesitate to seek help from others. They could also overcome very strong pre-competitive anxiety – the group was characterised by the low level of somatic anxiety. Coping and the ability to regulate emotions influence performance (Tenenbaum et al., 2008). The female participants who presented high self-esteem in the socio-moral sphere (individuals focusing on other people) may experience social support, which could lead to the decrease in cognitive anxiety (the level of attention disruptions declined).

Sports activity is related to being a member of social groups on a daily basis. Even female athletes of individual disciplines spend a lot of time with other people (at training camps, etc.). Perhaps the permanent contact with people strengthens the tendencies to seek social support in difficult situations.

At the same time, girls who perceive others and the world as a threat in the face of stress, will avoid help from their environment. The negative image of the world and others causes them to expect neither support nor friendliness from people, therefore, in the group,

the tendency to seek social support in difficult situations decreases. The lack of support and the negative image of the world and oneself result in very strong somatic anxiety in pre-competition situations (it may take the forms of muscular tension, high blood pressure, dry throat, feeling of nervousness, increased heart rate) (Amasiatu and Uko, 2013) and cognitive anxiety (in the forms of attention disruptions and worrisome thoughts). Similarly, the aggressive attitude towards others (including the coach, rivals, and teammates) leads to an increase in cognitive anxiety (worrisome thoughts, attention disruptions). By exerting aggressive attitude towards others the female participants deprived themselves of an important buffer, the social support, which could prove to be a significant factor helping to decrease the level of anxiety which directly precedes the start. Cognitive anxiety is related to negative self-assessment, negative expectations concerning failure, negative inner talk and problems with focusing attention. That, in turn, may lead to maladaptive behaviour and a decrease in effectiveness when the pressure is too high (Amasiatu and Uko, 2013).

Men are stereotypically expected to be "tough". Therefore, in male participants, the tendency to seek help or support from others in difficult situations was not observed. On such occasions they would tend to face the stress alone. Similarly, male participants who showed strong positive beliefs about the world and its sense (which might also cause it to seem more predictable), in the face of difficulties avoided social contacts and social support. However, the athletes who showed the feeling of helplessness presented stronger tendencies to experience worrisome thoughts. They were, therefore, characterised by an elevated level of cognitive anxiety. It is analogous to the findings within the group of girls, who showed aggressive attitude towards the world – here also the lack of social support in the face of feeling of helplessness resulted in the elevated level of anxiety, which in turn, may contribute to lessening sport efficacy. It is due to the fact that, very high levels of anxiety negatively influence athletes' performance.

Conclusions

Negative perception of oneself and others increases the level of cognitive anxiety and

decreases the tendency to seek social contacts. At the same time, the positive image of oneself and others decreases the level of anxiety and increases the tendencies to seek social contacts. The relationships mentioned above, refer mainly to female participants practising sports. Thus, the way of perceiving oneself and others, with regard to girls, may have some influence on pre-competition anxiety and coping strategies. It is advisable to take their system of beliefs (about themselves and others) into account when

working with competitive athletes, for it may have an impact on their emotional state directly before the competitions. It also seems worth working on creating positive beliefs about oneself and others, especially with regard to young female athletes. Cognitive-behavioural techniques (especially those working on attention control, setting goals, relaxation and imaginative techniques) may come in handy, as they cause a decrease of the levels of cognitive and somatic anxiety.

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