

COPING STRATEGIES IN STUDENTS WITH PHYSICAL DISABILITIES – PREDICTIVE ROLE OF SELF-ESTEEM, GENERAL SELF-EFFICACY AND BASIC HOPE

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Abstract: Due to various personal and environmental barriers, people with acquired physical disabilities experience many stressful situations. This paper examines the problem of coping strategies applied by students with physical disabilities. The aim was to analyse the correlation between beliefs about oneself and the world (self-esteem, self-efficacy, basic hope) and coping strategies in students with physical disability were included in the study. A total of 111 students with serious acquired physical impairments including spinal cord injury and various spinal disorders. Quantitative, cross-sectional research was carried out using Polish versions of the following instruments: The Coping Orientations to Problems Experienced (COPE) (Wrzeniewski, 1996), The Rosenberg Self-Esteem Scale (SES) (Dzwonkowska et al., 2008), The General Self-Efficacy Scale (GSES, Schwarzer, Jerusalem) (Juczyski, 2001), and The Basic Hope Inventory (BHI) (Trzebiski and Ziba, 2003b). Descriptive statistics, correlation analysis (Pearson's correlation coefficient), and progressive stepwise regression analysis were conducted. The research indicates that beliefs about oneself and the world have a predictive function in explaining the coping strategies used by students with physical disability. Beliefs such as self-esteem, general self-efficacy and basic hope contribute to explaining variations in the nature and intensity of individual coping strategies. Finally, the low percentage of the explained variance of coping strategies in students with physical disabilities indicates the importance of other variables not included in this study. The results are discussed in the context of prior studies.

Key words: physical disability, coping strategies, self-esteem, general self-efficacy and basic hope

INTRODUCTION

Acquired physical disabilities are believed to be an increasingly critical issue affecting more and more people these days (Tellier and Calleja, 2017). There is every evidence to suppose that people with disabilities are more prone to experiencing a large number of stressful situations (Fuller et al., 2004a; Fuller et al., 2004b; Hughes et al., 2005), a higher risk of unemployment (Turner & Turner, 2004), co-occurring pain, depression (Dickens et al., 2000) and adjustment problems (Mitchell, 1970). Although prior evidence (Bramston and Mioche, 2001) indicates that people with disabilities do not report significantly higher levels of stress than the general population, it is clear that the loss of physical abilities often leads to the necessity to come to terms with various hardships associat-

ed with a disability and to face the challenges of adapting to a new lifestyle (Machida et al., 2013). Various personal barriers (e.g. pain, low self-esteem, high level of interpersonal stresses of being stigmatised) and environmental barriers (e.g. lack of social support, abuse, stigmatisation) that people with physical disabilities encounter (Stensrud and Stensrud, 1981; Hughes et al., 2005) can be associated with limited opportunities to participate in activities, which affects their health and well-being (King et al., 2006). Thus, there is a growing body of research that concentrates on the phenomenon of coping with stress among these people (Jameson, 2007; Getzel and Toma, 2008; Garrison-Wade, 2012; Kara and Aikel, 2012). Effective coping strategies may help in the process of adaptation to disability (Kara and Aikel, 2012). Nonetheless, no studies are available about coping strategies used

by Polish students with acquired physical disabilities and predictors of those strategies.

Several years have passed since the Republic of Poland ratified the Convention on the Rights of Persons with Disabilities (2006), which obliges the state parties to ensure that persons with disabilities are able to access general tertiary education without any discrimination and with reasonable accommodation provided (Art. 24). Nonetheless, although university students are offered a range of supports and their educational environment is gradually becoming more accessible and adequately adjusted to their needs so that they can benefit from tertiary education (Garbat and Paszkowicz, 2015), the percentage of students with disabilities at these institutions is relatively low and does not exceed 2 per cent (within this group there are over 7500 students with motor organ impairments) (GUS, 2017). Knowledge about students with disabilities in higher education is fragmented (Brandt, 2011). Nevertheless, the psychosocial functioning of these students is the subject of analysis in a number of spheres, e.g. academic achievements, adaptation, social inclusion, students' resources, skills, competencies, satisfaction with studies, barriers and forms of support they need or are offered. Literature review allowed Byra and Żyta (2017) to distinguish three major perspectives in these analyses: (1) social, referring e.g. to social attitudes towards and image of students with disabilities, process of stigmatisation and social support (e.g. Green, 2007; Agarwal et al., 2014; Matunga and Walker, 2017); (2) individual, which focuses on personal characteristics, resources, barriers and factors related to disability (e.g. Livneh et al., 2001; Adams and Proctor, 2010; Dryer et al., 2016; Dysterheft et al., 2016; Byra and Żyta, 2017); and (3) organisational, which encompasses such problems as legal regulations or institutional support as well as architectural facilities and adjustments (e.g. Schreuer and Sachs, 2014).

This paper refers to the second of the above-mentioned perspectives – an individual one, namely coping strategies applied by university students with physical disabilities. It is clear that the period of tertiary education is not free of a range of stresses for students. According to Ji and Zhang's (2011) framework, mental stresses of college students may

have four major sources: study conditions (e.g. study tasks, methods, architectural adjustments), employment situation, economic conditions, and personal factors (e.g. interpersonal communication, self-care ability, family conditions). Presumably, students with motor organ impairments may experience more than a fair share of stressful situations in each of these spheres. Therefore the usage of effective coping strategies seems crucial for their well-being. Prior research gives some insight into this problem. For instance, Byra and Mazur-Szabala's (2006) study indicates that these students apply avoidance as a coping strategy significantly more often than their able-bodied peers. Moreover, they concentrate considerably less often than other students on direct confrontation with problems and solving the problems. The results also show significant correlations between a coping strategy and self-concept and social support of students with physical disabilities. To give an example, the authors found negative correlations between avoidance as a coping strategy and social self-concept and practical support as well as positive correlations between task-oriented style and personal self-concept in this group of students. Research by Strnadová et al. (2015), based on the grounded theory approach, indicates that on the tertiary level, students with disabilities use a number of strategies to deal with the barriers they face: assertiveness, self-determination, metacognition, efforts to 'fit in', optimism, and career planning. In a study by Koca-Atabey et al. (2011), it was shown that disability burden, daily problems, and helplessness coping were significant predictors of psychological symptoms of university students with physical impairments, and problem-solving coping turned out to be the only significant variable for stress-related growth.

Beyond more widely documented characteristics of coping strategies of people with physical disability (Lane et al., 2004; Kara and Açikel, 2012), we are also interested in learning about these strategies' associations with beliefs about oneself and the world. We believe that this understanding is crucial in the context of the growing positive psychology movement (Dunn and Brody, 2008). We also argue that studying the predictors of coping strategies in this group is important not

only for cognitive but also for practical reasons. Verifying the predictive function of beliefs about oneself and the world in explaining coping strategies can provide relevant premises for designing appropriate therapeutic support for this group of students.

OBJECTIVE

The purpose of this research was to analyse the correlation between beliefs about oneself and the world and coping strategies in students with physical disability. Convictions about oneself and the world include: self-esteem, general self-efficacy and basic hope. Following Rosenberg, self-esteem is understood here as a positive or negative attitude towards oneself; it is a global self-assessment (in: Laguna et al., 2007). Self-efficacy is a general belief about having the ability to cope with problems effectively (Luszczynska et al., 2005). Basic hope is treated as a generalised belief of the person about the order, meaningfulness of the surrounding world and its general positivity towards people (Trzebiński and Zięba, 2003a). Thus, the studied category of beliefs refers to what individuals think about themselves, what their general self-image is, how they assess their competence in effectively overcoming the difficulties they encounter, and how they perceive the surrounding world and this world's attitude towards them. Taking into account the importance of the assessment processes (primary and secondary appraisal) in Lazarus and Folkman's (1984) model of coping and selection of specific coping strategies, the beliefs in self-esteem, self-efficacy, and basic hope can be considered crucial for explaining the methods of dealing with stressful situations used by students with physical disabilities. Moreover, as prior research demonstrates, experiencing physical disability can have a significant impact on these beliefs, modifying not only their intensity, but also the scope and strength of their correlations with various aspects of psychosocial functioning (Bishop, 2005). New requirements and potential stressors occur for a person with a physical disability when he or she takes up and fulfills the role of a student, forcing them to take remedial actions. Beliefs about oneself and the world can be significant for the selection and application of specific coping strategies.

HYPOTHESES

Based on the available theoretical and empirical literature, the following hypotheses were tentatively posited: (1) Self-esteem, self-efficacy and basic hope make a significant contribution to explaining the coping strategies used by students with physical disability. (2) Self-esteem, self-efficacy and basic hope are positively correlated with engagement coping strategies (striving to solve the problem or give meaning to the problem). (3) Self-esteem, self-efficacy and basic hope show negative correlations with disengagement coping strategies (avoidance-oriented coping) and with emotion-focused coping strategies (cf. Livneh, and Wilson, 2003).

WORK METHODS

Quantitative, cross-sectional research was carried out using the following research instruments:

1. Polish version of *The Coping Orientations to Problems Experienced (COPE)* developed by Wrześniewski. It is a 60-item scale determining the frequency of applying the following strategies: focus on the problem, denial, focus on/venting emotions, seeking emotional support, acceptance, religion, humour, alcohol/drug use ideation. The Polish version of the inventory contains satisfactory psychometric indicators; reliability coefficients (Cronbach's α) of individual subscales range from 0.62 to 0.93. Correlation coefficients are also satisfactory (ranging from 0.60 to 0.80 for different scales) (Wrześniewski, 1996).
2. *The Rosenberg Self-Esteem Scale (SES)* was adapted to Polish conditions by Dzwonkowska et al. (2008). The participants are asked to respond to 10 statements on a 4-point scale. The scale is used to assess the overall level of self-esteem. The Polish version of the inventory contains satisfactory psychometric indicators; reliability coefficients (Cronbach's α) of individual subscales range from 0.62 to 0.93. Correlation coefficients are also satisfactory (stability measured initially and after 7 days ranged from 0.60 to 0.80 for different scales) (Dzwonkowska et al., 2008).
3. The Polish version of *The General Self-Efficacy Scale (GSES, Schwarzer, Jerusalem)* developed

by Juczyński. Responses to the 10 items range from strongly disagree (1) to strongly agree (4). The scale is used to determine the strength of the general belief of the individual about the effectiveness of dealing with problems. The Polish version of the GSES has satisfactory indicators of reliability and validity: Cronbach's $\alpha = 0.85$ and correlation coefficient $r = 0.78$ (Juczyński, 2001).

4. *The Basic Hope Inventory (BHI)* by Trzebiński and Zięba contains 12 statements evaluated by respondents on a 5-point scale. It is used to determine the general level of basic hope manifested in personal beliefs about the world, its order, meaningfulness and positive nature. Psychometric properties of the instrument are satisfactory: Cronbach's $\alpha = 0.70$ and Pearson's $r = 0.62$ (Trzebiński and Zięba, 2003b).

The study was conducted among students with a master's degree with acquired physical impairments at eight Polish universities. The main criterion for participation in the study was a disability certificate stating that there was mobility impairment. Data were collected with the help of Representatives of Students with Disability as well as groups, associations and societies for students with disabilities at the universities included in the study. Encoded data were stored in accordance with valid personal data protection regulations.

The research instruments were distributed among 205 students with acquired physical disability. A total of 131 questionnaires were returned, of which 20 were partially incomplete. As a result, 111 students with acquired physical impairments including spinal cord injury and various spinal dis-

orders participated in the study. All respondents had significant mobility problems: they moved using wheelchairs or crutches.

Most of the respondents were male (85-76.58%) and residents of large cities (88- 79.28%). The median age of the subjects was $M = 23.12$ years, $SD = 10.02$. Mean age when permanent motor impairment was acquired was $M = 17.67$ years, $SD = 9.01$. The respondents studied primarily humanistic and social studies (75-67.57%), while others studied science (28-25.22%) and natural sciences (8-7.21%). The vast majority of respondents were full-time students (89-80.18%).

Data were analysed using the Statistica 7.0 suite (Statsoft Poland, Cracow, Poland). In the first stage, descriptive statistics were calculated for the variables coping strategies, self-esteem, general self-efficacy and basic hope. A correlation analysis was then performed to determine the relationship among these variables (Pearson's correlation coefficient). Finally, a progressive stepwise regression analysis was carried out to determine the contribution of the analysed beliefs about oneself and the world in explaining the coping strategies used by students with physical disabilities. Scatter plots and collinearity statistics were first verified to meet linearity and normality assumptions.

RESULTS AND DISCUSSION

Table 1 presents descriptive statistics for coping strategies. Based on the calculated results of individual coping strategies (the sum of the scores in a given subscale was divided by the number of items), the most frequent coping strategies used by the student respondents were as follows: accepting

Table 1. *Coping strategies – descriptive statistics*

	M	SD	Score range (min-max)	Scale range (min-max)	Subscale	
					M	SD
Focus on the problem (PROB)	35.24	7.60	15-47	15-52	2.71	0.58
Denial (D)	8.95	2.84	4-15	4-16	2.24	0.71
Focus on/venting emotions (EM)	9.91	2.70	4-16	4-16	2.48	0.67
Seeking emotional support (SUP)	10.56	2.91	4-16	4-16	2.64	0.73
Acceptance (A)	14.59	2.94	4-19	4-20	2.92	0.59
Religion (REL)	10.36	3.64	4-16	4-16	2.59	0.91
Humour (HUM)	9.06	3.36	4-16	4-16	2.27	0.84
Alcohol/drug use ideation (ALK)	7.37	3.44	4-16	4-16	1.84	0.86

the encountered problems, striving to solve them and seeking emotional support. Strategies that were most rarely used were avoidance coping strategies in the form of using alcohol or other intoxicants and denying the reality and seriousness of the experienced difficulties. Interestingly, the use of humour was relatively rare when dealing with the encountered problems.

Table 2 contains the descriptive statistics of the analysed beliefs about oneself and the world: self-esteem, general self-efficacy and basic hope. Most respondents had low self-esteem. The majority of them were convinced they had low ability to effectively deal with problems. Nonetheless, over 40% of respondents showed a high level of general self-efficacy. Also, a comparable number of students exhibited moderate and high levels of basic hope. Of all the analysed beliefs, the strongest among the respondents were those related to the order, the meaning and the positive nature of the world (basic hope).

The conducted correlation analysis showed statistically significant (though relatively weak) correlations between beliefs about oneself and the world, and adopted coping strategies in students

with physical disability (Table 3). At the same time, more correlations were established between general self-efficacy and basic hope as well as between general self-efficacy and coping strategies than between self-esteem and coping strategies. Self-esteem was negatively correlated only with coping strategies in the form of denial and seeking emotional support, and positively correlated with humour in the student respondents.

In the next stage of the analysis, a stepwise regression analysis was carried out to test the contribution of beliefs about oneself and the world to explaining the coping strategies. It revealed the predictive role of self-esteem, general self-efficacy and basic hope, but it was diversified in predicting individual coping strategies. Table 4 presents the results of stepwise regression analysis.

The regression model created for the coping strategy of focusing on the problem included basic hope and general self-efficacy and predicted 15% of the variability of this coping strategy in the respondents. A higher level of basic hope and general self-efficacy was correlated with more frequent use of the coping strategy aimed at solving the problem. Basic hope made a slight-

Table 2. Beliefs about oneself and the world (self-esteem, general self-efficacy and basic hope) - descriptive statistics for variables

Variable	M	SD	Score range (min-max)	Scale range (min-max)	Level of results					
					Low		Moderate		High	
					n	%	N	%	n	%
Self-esteem	25.58	6.19	12-38		65	58.56	31	27.93	15	13.51
General self-efficacy	26.23	5.50	11-37	10-40	55	49.55	11	9.91	45	40.54
Basic hope	30.59	7.27	14-42	9-45	27	24.32	40	36.04	44	39.64

Table 3. Correlation matrix of coping strategies and beliefs about oneself and the world (self-esteem, general self-efficacy, basic hope)

	Self-esteem	General self-efficacy	Basic hope
Focus on the problem (PROB)	0.12	0.25***	0.31***
Denial (D)	-0.20**	0.09	-0.04
Focus on/venting emotions (EM)	0.02	-0.04	-0.17**
Seeking emotional support (SUP)	-0.20**	-0.24***	0.06
Acceptance (A)	0.07	0.25***	0.14*
Religion (REL)	-0.11	-0.17**	0.29***
Humour (HUM)	0.20**	0.30***	-0.02
Alcohol/drug use ideation (ALK)	-0.03	-0.16*	-0.27***

*p<0.05; **p<0.01; ***p<0.00

Table 4. Results of the stepwise regression analysis

Criterion variable	Predictor variable	B	SEB	β	SE β	t value	p value
Focus on the problem (PROB)	Basic hope	0.29	0.06	0.29	0.06	4.85	<0.001
	General self-efficacy	0.25	0.07	0.23	0.06	3.72	<0.001
R=0.39; R ² =0.15; Adjusted R ² = 0.14; F(2,225)=19.97; p<0.001							
Denial (D)	Self-esteem	-0.04	0.02	-0.20	0.05	-2.04	0.002
R=0.29; R ² =0.14; Adjusted R ² = 0.13; F(1,415)=4.155; p<0.002							
Focus on/venting emotions (EM)	Basic hope	-0.05	0.02	-0.17	0.05	-3.50	<0.001
R=0.18; R ² =0.09; Adjusted R ² = 0.07; F(2,414)=6.764; p<0.001							
Seeking emotional support (SUP)	General self-efficacy	-0.07	0.02	-0.26	0.05	-3.40	<0.001
	Self-esteem	-0.06	0.05	-0.19	0.05	-1.24	0.004
R=0.40; R ² =0.21; Adjusted R ² = 0.20; F(3,413)=8.328; p<0.001							
Acceptance (A)	General self-efficacy	0.06	0.02	0.23	0.05	2.77	0.005
	Basic hope	0.03	0.02	0.13	0.05	2.02	0.044
R=0.28; R ² =0.11; Adjusted R ² = 0.10; F(4,414)=5.739; p<0.003							
Religion (REL)	Basic hope	0.11	0.02	0.28	0.05	5.08	<0.001
	General self-efficacy	-0.07	0.05	-0.18	0.05	-2.58	0.010
R=0.38; R ² =0.17; Adjusted R ² = 0.16; F(2,414)=15.879; p<0.001							
Humour (HUM)	General self-efficacy	0.06	0.02	0.24	0.06	2.90	0.004
	Self-esteem	0.06	0.02	0.19	0.05	2.54	0.011
R=0.29; R ² =0.14; Adjusted R ² = 0.13; F(3,414)=8.437; p<0.001							
Alcohol/drug use ideation (ALK)	Basic hope	-0.07	0.02	-0.25	0.06	-3.15	0.002
	General self-efficacy	-0.08	0.05	-0.15	0.04	-2.83	0.005
R=0.31; R ² =0.18; Adjusted R ² = 0.17; F(2,413)=9.224; p<0.001							

ly larger contribution to predicting its intensity in the respondents. The obtained results indicate that 14% of variability in coping in the form of denial was explained only by means of beliefs about oneself. Lower self-esteem was associated with more frequent use of this coping strategy. On the other hand, only basic hope contributed to predicting the intensity of coping based on regulating emotions. Beliefs about the order, meaningfulness and positive nature of the world explained 9% of the variability of this coping strategy. More frequent efforts to regulate emotions corresponded to a lower level of basic hope in the respondents. In the case of the coping strategy of seeking emotional support, a predictive role was found for general self-efficacy and self-esteem. The combination of beliefs about oneself and the ability to deal effectively with problems predicted 21% of the variability of this coping strategy, with general self-efficacy having a slightly higher share in this prediction. The obtained results indicate that higher levels of self-efficacy and self-esteem were associated with less frequent searching for emotional support when struggling with the encountered problems. Increased use of

the coping strategy of accepting difficult situations was explained (11%) by general self-efficacy and basic hope. General self-efficacy was more important here. Both of these types of beliefs predicted 17% of the variability in the frequency of relying on religion for coping in this group of respondents. Higher levels of basic hope and general self-efficacy were associated with a more frequent use of this coping strategy. The regression model created for the coping strategy of humour, consisting of general self-efficacy and self-esteem, explained only 14% of the variability of this coping strategy. The respondents dealt more often with problems through humorous conceptualisation / perception when they had higher levels of general self-efficacy and self-esteem. Coping by using alcohol and other intoxicants was explained by the contribution of basic hope and general self-efficacy. The lower intensity of this type of belief was associated with a more frequent use of avoidance coping strategy by the respondents.

The obtained results demonstrate the important role of beliefs in explaining the frequency with which student respondents with physical disability

use individual coping strategies. Predictive functions were found for self-esteem, general self-efficacy and basic hope. The proposed hypothesis 1 was confirmed. Nevertheless, there was a slightly larger share of general self-efficacy, which proved to be significant for predicting the intensity of as many as 6 out of 8 of the analysed coping strategies. This means that the belief in having the ability to deal effectively with problems plays a greater role in explaining the intensity of the coping strategies used by students with physical disability than convictions related to general self-assessment or to the perception of the surrounding world in terms of its order, meaningfulness, or positive nature. These results correspond to the findings of other authors (e.g. Fuller et al., 2004a; Jameson, 2007; Getzel and Thoma, 2008), pointing to the predictive function of convictions about having the capacity to effectively cope with any difficulties and various challenges of studying at a university encountered by students with physical disability. Our results also coincide with previous findings that a higher assessment of one's own skills to solve problems was correlated with displaying more adaptive behaviours in students with acquired motor disability (Elliott et al., 1992).

An interesting result of the presented research is the fact that in the case of explaining the intensity of two coping strategies, only one kind of belief turned out to be significant: self-esteem for denial and basic hope for focus on/venting emotions. Lower self-esteem may, therefore, correspond to the more frequent use of coping strategies such as denying the reality and seriousness of the problems encountered by students with physical disability. Other research (e.g. Lane et al., 2004) shows that this type of coping may also be associated with lower effectiveness in the field of academic adaptation and less effective psychosocial adaptation to disability in students with disability, undertaking university education (Livneh and Wilson, 2003). The present research also revealed that with lower level of basic hope, students with physical disability may use emotion-focused coping strategies more often. Weak beliefs that the surrounding world operates according to specific rules and that the events occurring in it can be explained sensibly, as well as convictions about the positive attitude of

the world towards oneself, facilitate more intense concentration on regulating emotional tension. Experiencing emotional tension may be caused by the perceived discrepancy between the encountered external requirements and, at the same time, by insufficient understanding of the surrounding world with its order and processes (with lower levels of basic hope) (see Trzebiński and Zięba, 2004).

The results obtained in the present study show a positive relationship among self-esteem, general self-efficacy, basic hope and engagement coping strategies, which are aimed at solving the problem or giving it meaning. They make a significant and positive contribution to explain task-based coping and coping by accepting the encountered obstacles (also those that are impossible to change), as well as coping oriented at finding the meaning of the experienced problems in religious faith. These findings align with previous research showing, for example, a positive relationship between a high level of self-esteem (including personal self) and a task-oriented style of coping in students with physical disabilities (Byra and Mazur-Szabala, 2006). The beneficial impact of hope for the coping process and the choice of constructive coping strategies was examined by Dorsett (2010) among people with acquired motor disability. In the present study, positive correlations were also found between beliefs about oneself and the available capabilities to deal effectively with difficult situations, and the coping strategy aimed at changing the meaning of the encountered problem and approaching it with humor. These results correspond to the findings of Peter et al. (2014) for adults with spinal cord injury. Therefore, hypothesis 2 was confirmed. Interestingly, in the case of using religion as a coping strategy, a positive correlation was found with basic hope, but at the same time a negative correlation was found with general self-efficacy. This means that with higher basic hope, which is associated with increased belief in the order, meaningfulness and positive attitude of the world, but also with a lower general self-efficacy, the student respondents with physical disability used religion as a coping strategy to a greater extent. They looked more often to religious faith to provide the meaning of experienced problems.

In the present study, negative correlations of the analysed beliefs were found with avoidance and emotion-focused strategies; the corresponding hypothesis 3 was confirmed. However, it is important to point out that these negative correlations with individual avoidance and emotional coping strategies were formed by different beliefs. These findings seem to be justified, since a given type of belief may be important in the case of selecting one coping strategy, but no longer significant or less significant in the case of selecting another (cf. Romanoff et al., 1999; Kennedy et al., 2009; Peter et al., 2014).

CONCLUSION

The current investigation provides empirical perspective on the situational coping strategies of students with acquired physical disability as well as individual beliefs about oneself and the surrounding world that explain the frequency of using these strategies. On the basis of the obtained results, the following conclusions can be formulated.

1. Beliefs about oneself and the world have a predictive function in explaining the coping strategies used by students with physical disability.
2. The contribution of beliefs such as self-esteem, general self-efficacy and basic hope in explaining individual coping strategies varies, both in terms of intensity and the nature of correlation.
3. The low percentage of the explained variance of coping strategies in students with physical disabilities indicates the importance of other variables not included in this study.

Undoubtedly, several limitations to the present study are worthy of note. First, the research covers only cognitive conditions (including self-esteem, general self-efficacy, and basic hope) of coping strategies in students with disabilities. Other studies (e.g. Kara and Aıkel, 2012) suggest that significant predictors of coping strategies applied by adults with physical disabilities include: age, finan-

cial status, the caregiver's presence, and perceived social support. Therefore, other factors including personality, demographic, social, and university-related or disability-related factors should be analysed in subsequent studies in order to better understand situational coping strategies in a group of students with acquired physical disabilities. Second, the analyses presented considered only the predictive role of self-esteem, general self-efficacy, and basic hope in explaining coping strategies. This is only preliminary investigation of the subject matter. Subsequent studies should explore the possible interactions between these beliefs (cf. Blake and Rust, 2002) and their impact on the frequency of using particular coping strategies for dealing with problems. Third, the group of respondents was heterogeneous and included people with various types of acquired motor disability, which may be important for the degree and range of experienced problems and stressful situations; and, as a consequence, also for the application of specific coping strategies. Fourth, the research did not take into account data related to the previous educational experiences of the students. Presumably, the type of education at previous educational stages and the experience thereof (successes, failures) may be correlated with all the variables included here (both with beliefs about oneself and the world, as well as the coping strategies used).

Such limitations notwithstanding, the present investigation builds on prior research in two critical ways. First, the study expands the current knowledge of the psychosocial functioning of people with acquired physical disabilities. Second, the results can be used to design appropriate support, including therapy aimed at strengthening self-confidence and the clients' abilities to cope with problems effectively. This is important because, as indicated in the present study and in research by other authors (e.g. Hamzat et al., 2008), self-esteem is lower in young adults with motor disabilities than in their peers.

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STRATEGIJE SUOČAVANJA KOD STUDENATA S TJELESNIM TEŠKOĆAMA - PREDIKTIVNA ULOGA SAMOPOŠTOVANJA, SAMOPOUZDANJA I NADANJA

Sažetak: Uzimajući u obzir osobne i okolinske prepreke, osobe sa stečenim fizičkim teškoćama prolaze kroz mnoge stresne situacije. U radu se ispituju strategije suočavanja koje rabe studenti s tjelesnim teškoćama. Cilj je ispitati korelaciju između uvjerenja o sebi i svijetu (samopoštovanje, samopouzdanje i nadanje) i strategija suočavanja kod studenata s fizičkim teškoćama. U istraživanju je sudjelovalo 111 studenata sa stečenim fizičkim teškoćama uključujući ozljede kralježnične moždine i različite druge teškoće s kralježnicom. Provedeno je kvantitativno, transversalno istraživanje i primijenjene su poljske inačice sljedećih instrumenata: *Coping Orientations to Problems Experienced (COPE)* (Wrześniewski, 1996), *Rosenberg Self-Esteem Scale (SES)* (Dzwonkowska et al., 2008), *General Self-Efficacy Scale (GSES)* (Schwarzer, Jeruzalem) (Juczyński, 2001), *Basic Hope Inventory (BHI)* (Trzebiński and Zięba, 2003b). Provedene su analize deskriptivne statistike, korelacije (Pearsonov koeficijent korelacije) i regresijska analiza. Rezultati istraživanja pokazuju da uvjerenja o sebi i svijetu imaju prediktivnu funkciju u objašnjavanju strategija suočavanja koje rabe studenti s fizičkim teškoćama. Također otkriveno je da uvjerenja kao što su samopoštovanje, samopouzdanje i nadanje pomažu u objašnjavanju variranja pojedinačnih strategija suočavanja, s obzirom na intenzitet i prirodu korelacije. Konačno, nizak postotak objašnjene varijance strategija suočavanja kod studenata s fizičkim teškoćama upućuje na važnost drugih varijabli koje nisu uključene u ovo istraživanje. Rezultati se promatraju u kontekstu prethodnih istraživanja.

Ključne riječi: fizičke teškoće, strategije suočavanja, samopoštovanje, samopouzdanje i nadanje