

MEANING IN LIFE AS A MODERATOR OF THE RELATIONSHIP BETWEEN PERCEIVED STRESS AND COPING

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Abstract: The study focuses on the question of whether the level of meaning in life acts as a moderator in the relationship between perceived stress and coping. The 204 university students in Slovakia (mean age 21.81 years) filled out the Perceived Stress Scale (Cohen et al., 1983), Life Meaningfulness Scale (Halama, 2002) and COPE (Carver et al., 1989). Cluster analysis of coping strategies identified three clusters: adaptive, avoidant and emotion-based coping. Perceived stress correlated positively with avoidant and emotion-based coping. Meaning in life was found as a moderator between perceived stress and avoidant coping but not emotion-based coping. The authors conclude that meaning in life can serve as a buffer against negative consequences of stress for the ability to cope, especially through cognitive transformation of the stress situation in the process of appraisal.

Key words: meaning in life, perceived stress, coping, moderation

The negative relationship between stress and psychological health has been observed since stress research began. Under the influence of the transactional theory of stress and coping (Lazarus, Folkman, 1987), researchers have paid most attention to the internal resources of the person facing the stressful situation. Coping processes have been identified as a key factor in the relationship between stress and health, and their role has been researched in numerous studies (see Aldwin, 2007, for review). The relation between level of stress and coping processes has also received great attention. The research confirmed the correlations between the level of perceived stress and preferred coping strategies, indicating that higher stress is

related to lower problem-approach coping and higher avoidant coping (e.g., Soderstrom et al., 2000).

The trend observed in the last decade or two is to focus on the variables that influence the type of coping that an individual chooses in a stressful situation (Terry, 1994). One of the frequently mentioned factors is a level of meaning in life, which has been generally understood as a person's belief that his or her life is purposeful and valuable. Meaning in life is considered primarily as a cognitive phenomenon (life beliefs, life framework) with motivational and affective consequences (goals, feelings of fulfillment) (Reker, Wong, 1989). It has been linked to the area of coping especially in the salutogenic approach of Antonovsky (1987), who understood meaningfulness as an important component of the sense of co-

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herence, the significant factor regulating the impact of stress on health. Many studies confirmed the relationship of higher level of meaning with adaptive coping and lower level of meaning with maladaptive coping (e.g., Newcomb, Harlow, 1986; Ficková, Ruiselová, 1999). It was also shown that a level of meaning moderates the impact of perceived stress on depression (Mascaro, Rosen, 2006). The effect of meaning on coping is currently being explained through the cognitive transformation of situation aspects in the process of appraisal of the stress situation (Park, Folkman, 1997; Park, Ai, 2006).

In our study, we focus on the relationship between perceived stress and preferred coping strategies. We also deal with the question of whether meaning in life acts as a moderator in this relationship.

METHOD

Sample

The research sample consisted of 204 university students from three Slovak cities: Bratislava, Košice and Ružomberok. 44 of them were males and 160 females. Their age ranged from 18 to 32 years with mean 21.81 and standard deviation 2.26. They answered the set of questionnaires voluntarily during lectures.

Measures

The *Life Meaningfulness Scale (LMS)* - (Halama, 2002) was used to measure a general level of meaning in life. The scale has 18 items and it measures overall sense of meaning and its three dimensions as defined in the three-component theory of meaning (Reker, Wong, 1989), namely cognitive component, motivational component and affective component. In this re-

search, only overall sense of life meaning was used as a moderating variable.

The level of perceived stress was measured by the *Perceived Stress Scale (PSS)* - (Cohen et al., 1983). The scale contains 10 items rated by the participant on a 5-point Likert-type scale. The questions focus on global perception of stress during the previous month, e.g. *In the last month, how often have you felt nervous and "stressed"?*

Coping strategies were measured by the *COPE questionnaire* created by Carver et al. (1989). The Slovak translation of the questionnaire done by Ficková (1992) was used in this research. The questionnaire contains 60 items measuring 15 different coping strategies: active coping, planning, suppression of competing activities, restraint coping, seeking of instrumental social support, seeking of emotional social support, positive reinterpretation, acceptance, denial, turning to religion, focus on and venting of emotions, behavioral disengagement, mental disengagement, use of alcohol and drugs, and use of humor.

RESULTS

In the first step of analysis, the hierarchical cluster analysis of 15 coping strategies was used to identify the higher order factors. The analysis based on the Between-groups linkage cluster method (with Pearson correlation used as a measure interval) identified three clusters, which were named *adaptive coping* (active coping, planning, suppression of competing activities, restraint coping, seeking of instrumental social support, seeking of emotional social support, positive reinterpretation, acceptance), *avoidant coping* (behavioral disengagement, mental disengagement, use of alcohol and drugs, denial, use of humor) and *emotion-based coping* (turning to religion, focus on and venting of emo-

tions). The three new variables were computed as a sum of scales comprising the identified clusters. The correlation analysis of the perceived stress and the three coping strategy types identified in previous analysis was realized. It showed that perceived stress correlated positively with emotion-based coping ($r = 0.311$, $p < 0.01$) and avoidant coping ($r = 0.309$, $p < 0.01$). No correlation of perceived stress was found with adaptive coping ($r = 0.069$, n.s.).

In the second step, the meaning in life moderator hypothesis was tested by means of regression analysis. Adaptive coping was excluded from the moderator analysis due to lack of correlation with perceived stress. Both the PSS and LMS were centered before the analysis. Table 1 presents the results of testing the hypothesis that the level of meaning in life moderates the relationship between perceived stress and emotion-based coping. As is seen from the

Table 1. Hierarchical regression analysis testing the moderating effect of meaningfulness in the relationship between perceived stress and emotion-based coping

	B	SE	β	t	sig.
First block ($R^2 = 0.358$)					
PSS	1.747	0.346	0.355	5.057	0.000
LMS	0.752	0.345	0.153	2.181	0.030
Second block ($R^2 = 0.365$)					
PSS	1.786	0.347	0.363	5.143	0.000
LMS	0.816	0.350	0.166	2.333	0.021
PSS x LMS	-0.346	0.326	-0.074	-1.060	0.291

Dependent variable - emotion-based coping

PSS - Perceived Stress Scale, LMS - Life Meaningfulness Scale

Table 2. Hierarchical regression analysis testing the moderating effect of meaningfulness in the relationship between perceived stress and avoidant coping

	B	SE	β	t	sig.
First block ($R^2 = 0.174$)					
PSS	1.907	0.495	0.264	3.853	0.000
LMS	-2.012	0.503	-0.274	-3.998	0.000
Second block ($R^2 = 0.200$)					
PSS	1.895	0.489	0.263	3.877	0.000
LMS	-1.785	0.506	-0.243	-3.526	0.001
PSS x LMS	-1.004	0.420	-0.162	-2.394	0.018

Dependent variable - avoidant coping

PSS - Perceived Stress Scale, LMS - Life Meaningfulness Scale

table, both perceived stress and life meaningfulness significantly predict the level of emotion-based coping, however, the interaction term added in step 2 has no significant effect on emotion-based coping (R^2 change = 0.52%, n.s). This suggests that meaning in life does not moderate this relationship. Table 2 presents the results of the second analysis, in which meaning is hypothesized to be a moderator between perceived stress and avoidant coping. In this case, the interaction term is a significant predictor of avoidant coping (R^2 change = 2.56%, $p \leq 0.05$), confirming the moderating role of meaning. How the interaction goes is graphically presented in the Figure 1. As we see, persons with low meaningfulness tend to use more avoidant coping when experiencing higher stress, in contrast to persons with high meaningfulness.

DISCUSSION

The correlation analysis confirmed the relationship between perceived stress and some coping strategies. Higher perceived stress is related to higher emotion-based coping and avoidant coping, but not adaptive coping. It can be concluded that higher stress leads to higher perception of discomfort and this way of activating coping focused mainly on release from this discomfort. This conclusion can be supported by the results of the study mentioned above (Soderstrom et al., 2000) where the positive relationship of perceived stress to avoidant coping in the university sample was almost twice as high as its negative relationship to problem-approach coping.

Testing of the meaning moderator hypothesis revealed that a level of meaning in

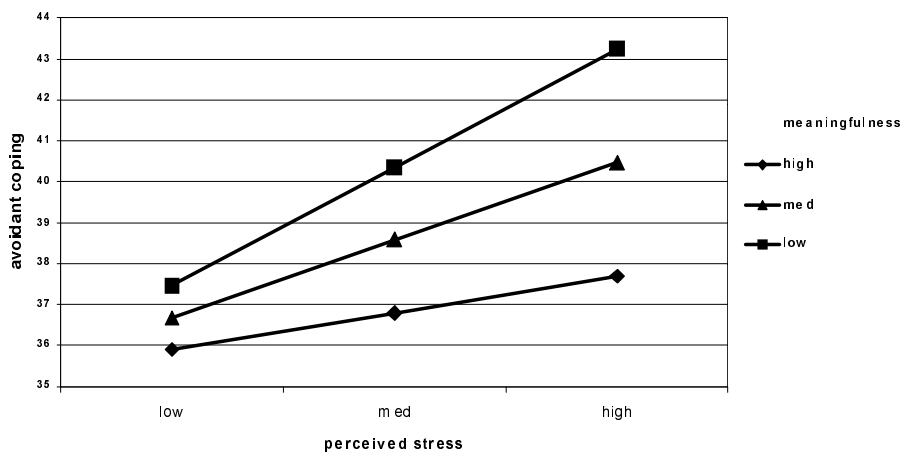


Figure 1. Moderation effect of meaningfulness in the relationship between perceived stress and avoidant coping

life is a moderator of the relationship between perceived stress and avoidant coping but not emotion-based coping. Persons with higher meaning in life have less of a tendency to use avoidant coping when experiencing higher stress. On the other hand, the tendency to use avoidant coping in higher stress is substantially higher in persons with low meaning. This suggests that meaning in life can act as a buffer against the capability of high stress to increase maladaptive coping. In other words, lack of meaning in life makes a person more vulnerable to stress. We think that this effect could be understood as an important subprocess in the moderating process of meaning in the relationship between stress and health, which was confirmed in the other studies (e.g., Mascaro, Rosen, 2006).

Cognitive processes of transformation and reinterpretation of a stress situation are crucial when considering possible mechanisms responsible for the moderating effect of meaning. Park and Folkman (1997) in their meaning-making model of coping emphasize that appraisal of meaning is a fundamental aspect of stress appraisal as understood in transactional coping theory (Lazarus, Folkman, 1987). High meaning in life can serve as a source for the recognition of a stress situation as challenging and worthy of energy investment. Strong and stable meaning in life can also contribute to positive reinterpretation of stress situations, through such cognitive processes as attribution of causality, recognition of possible benefits coming from a stress situation and incorporation of this situation into the broader cognitive framework. This role of meaning in life is well explained and described in the area of traumatic stress (e.g., Park, Ai, 2006), but less so in the area of everyday and non-traumatic stress. The results of our study,

which deals with this kind of stress, suggest that meaning in life should receive more attention in further research into coping with non-traumatic stress.

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REFERENCES

- ALDWIN, C.M., 2007, *Stress, coping, and development: An integrative perspective*. New York: Guilford Press.
- ANTONOVSKY, A., 1987, *Unraveling the mystery of health*. San Francisco: Jossey-Bass.
- CARVER, C.S., SCHEIER, M.F., WEINTRAUB, J.K., 1989, Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology*, 56, 2, 267-283.
- COHEN, S., KAMARCK, T., MERMELSTEIN, R., 1983, A global measure of perceived stress. *Journal of Health and Social Behavior*, 24, 385-396.
- FICKOVÁ, E., 1992, Multidimenzionálny dotazník copingových stratégií. In: A. Prokopčáková, I. Ruisel (Eds.), *Praktická inteligencia II. Vybrané metodiky*. Bratislava: Ústav Experimentálnej Psychológie SAV, 59-68.
- FICKOVÁ, E., RUISELOVÁ, Z., 1999, Preferencia copingových stratégií adolescentov vo vzťahu k úrovni koherencie. *Psychológia a Patopsychológia Dieťaťa*, 34, 4, 291-301.
- HALAMA, P., 2002, Vývin a konštrukcia škály životnej zmyslupnosti. *Československá Psychologie*, 46, 3, 265-276.
- LAZARUS, R.S., FOLKMAN, S., 1987, Transactional theory and research on emotion and coping. *European Journal of Personality*, 1, 141-169.
- MASCARO, N., ROSEN, D.H., 2006, The role of existential meaning as a buffer against stress. *Journal of Humanistic Psychology*, 46, 168-190.
- NEWCOMB, M.D., HARLOW, L.L., 1986, Life events and substance use among adolescents: Mediating effects of perceived loss of control and meaninglessness in life. *Journal of Personality and Social Psychology*, 51, 564-577.
- PARK, C.L., AI, A.L., 2006, Meaning making and growth: New directions for research on survivors of trauma. *Journal of Loss and Trauma*, 11, 389-407.
- PARK, C.L., FOLKMAN, S., 1997, Meaning in the context of stress and coping. *Review of General Psychology*, 1, 115-144.
- REKER, G.T., WONG, P.T.P., 1988, Aging as an individual process: Toward a theory of personal meaning. In: J.E. Birren, V.L. Bengston (Eds.),

Emergent theories of aging. New York: Springer, 214-246.

SODERSTROM, M., DOLBIER, C., LEIFERMAN, J., STEINHARDT, M., 2000, The relationship of hardiness, coping strategies, and perceived stress

to symptoms of illness. *Journal of Behavioral Medicine*, 23, 311-328.

TERRY, D.J., 1994, Determinants of coping: The role of stable and situational factors. *Journal of Personality and Social Psychology*, 66, 5, 895-910.

ZMYSLEL ŽIVOTA AKO MODERÁTOR VZŤAHU MEDZI PERCIPOVANÝM STRESOM A ZVLÁDANÍM

P. H a l a m a, K. B a k o š o v á

Súhm: Štúdia sa zameriava na otázku, či úroveň zmyslu života pôsobí ako moderátor vo vzťahu medzi percipovaným stresom a zvládaním. 204 univerzitných študentov zo Slovenska (vekový priemer 21,81 rokov) vyplnilo Škálu percipovaného stresu (Cohen et al., 1983), Dotazník životnej zmysluplnosti (Halama, 2002) a COPE (Carver et al., 1989). Klusterová analýza zvládacích stratégií identifikovala tri zhluky: adaptívne, vyhýbavé a na emóciách založené zvládanie. Percipovaný stres koreloval pozitívne s vyhýbavým zvládaním a so zvládaním založenom na emóciách. Ukázalo sa, že miera zmyslu života moderuje vzťah medzi percipovaným stresom a vyhýbavým zvládaním, ale nie medzi percipovaným stresom a zvládaním založenom na emóciách. Autori uzatvárajú, že zmysel života môže slúžiť ako nárazník pred negatívnymi dôsledkami stresu na schopnosť zvládania najmä prostredníctvom kognitívnej transformácie stresovej situácie v procese jej hodnotenia.