

The mediating role of self-care activities in the stress-burnout relationship

BACKGROUND

Helping professionals suffer from a number of health and psychological difficulties resulting from their occupation. In the field of helping professions, the demand for understanding the predictors of burnout has been rapidly emerging. The aim of this study is to analyse and identify the possible mediators between stress and the three factors of burnout in a specific sample of helping professionals.

PARTICIPANTS AND PROCEDURE

Helpers ($N = 698$; 618 women) were randomly selected from institutions in 8 districts in Slovakia. The sample comprised social workers ($n = 188$); residential care providers ($n = 191$); ergotherapists ($n = 97$); providers of physical and psychological care (nurses, physiotherapists, psychologist and psychotherapists; $n = 222$). They described their levels of perceived stress, risk of burnout (in three factors: emotional exhaustion, depersonalisation, and personal accomplishment) and performed self-care activities in self-reported questionnaires.

RESULTS

The relationship between stress and emotional exhaustion was mediated by health self-care. In comparison, the relationship between stress and depersonalisation was mediated by psychological self-care. The relationship between stress and personal accomplishment was mediated by both psychological and professional self-care.

CONCLUSIONS

When helping professionals have initial symptoms of burnout in the form of emotional exhaustion, concentrating on health self-care activities could be helpful. Performing health, psychological and professional self-care activities may prevent further development of burnout in times of high stress.

KEY WORDS

perceived stress; helping profession; social service; preventive factors

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BACKGROUND

Helping professionals working in the sphere of social and health services experience increasing psychosocial stress (Mahoney, 1997). Whitaker, Weismiller, Clark, and Wilson (2006) specified that the sources of stress include the amount of time spent with clients, lack of resources, low pay, being pressed for time, difficult caseload, decreased sense of security, and persistent problem situations. Mahoney (1997) found that helping professionals suffer from a number of health and psychological difficulties resulting from their occupation. The most important psychological difficulties were irritability, emotional exhaustion, lack of sleep, doubts about progress in therapeutic and occupational processes, concerns about the severity of cases, problems in intimate relationships, anxiety and depression (Barnett & Cooper, 2009). Helping professionals work in demanding job conditions with a great deal of responsibility (Havrdová & Šolcová, 2012) and emotional strains (Lloyd, King, & Chenoweth, 2002). Barnett and Cooper (2009) clarify that helping professionals provide assistance to others, although their own internal and external resources may be overloaded. Such job characteristics are related to the development of burnout syndrome (Maslach, Schaufeli, & Leiter, 2001). Therefore, in the past 10 years, numerous studies and self-help books have been published about stress and burnout in helping professions. These recommend the personal resources and self-care activities that could be beneficial for these occupations (Norcross & VandenBos, 2018).

STRESS AND BURNOUT

Burnout can be defined as a state of physical, emotional and mental exhaustion caused by long-term subsistence in extremely emotionally demanding work situations (Schaufeli & Greenglass, 2001; Kristensen, Borritz, Villadsen, & Christensen, 2005). Burnout syndrome has been described from the perspective of the tripartite component system which consists of emotional exhaustion, depersonalization and reduced personal accomplishment. It can be understood as a state with actual symptoms of physical and mental exhaustion or as a dynamic process (Maslach & Goldberg, 1998; Schaufeli & Buunk, 2003). In the procedural approach, burnout syndrome develops gradually in stages due to increasing stress and the inability of a person to cope with their excessive workload (Maslach et al., 2001; Schaufeli & Buunk, 2003). The relationship between chronic stress and burnout is positive but not straightforward. In other words, stress alone does not cause burnout (Rothmann, Jackson, & Kruger, 2003). The environmental and personal triggers as well as sup-

pressors of burnout have been rigorously studied. The Job Demands-Resources model (Bakker & Demerouti, 2007; Schaufeli, Bakker, & Van Rhenen, 2009) and further Job Demands-Resources theory (Bakker & Demerouti, 2014, 2017) assume that job demands may lead to energy depletion, exhaustion and other health related problems. Similarly, the Conservation of Resources theory (COR; Hobfoll, 1989; Hobfoll, Halbesleben, Neveu, & Westman, 2018) suggests that the decrease of personal or job resources is connected to a steep increase of stress and could potentially lead to exhaustion. On the other hand, it has been found that satisfaction with personal or job resources might have a stress-reducing effect (Hobfoll et al., 2018).

SELF-CARE

Self-care is a complex of physical, psychological, mental and spiritual activities that are performed by an individual with the aim of maintaining or improving health (Carrol, Gilroy, & Murra, 1999), physical and psychological well-being and personal growth (Godfrey et al., 2011; Lovaš, 2014). It is a self-regulated, deliberate and aim-oriented activity (Segall & Goldstein, 1989; Lovaš, 2014). Self-care has been studied as a potential factor in preventing the development of negative outcomes in helping others such as burnout and compassion fatigue (Alkema, Linton, & Davies, 2008; Carrol et al., 1999). It has also been said to promote positive outcomes such as compassion satisfaction or well-being (Alkema et al., 2008). Therefore, self-care represents a natural starting point for the prevention of burnout syndrome or other negative consequences of helping professions (Maslach & Goldberg, 1998).

THE PRESENT STUDY

The aim of this study was to analyse and identify the possible mediators between stress and the three factors of burnout in a specific sample of helping professionals. Three models which examine the mediating role of self-care activities in the stress-burnout relationship were created.

PARTICIPANTS AND PROCEDURE

PARTICIPANTS

The research sample comprised 698 respondents from helping professions in the area of social and health services. Institutions which offer health support and social welfare services were randomly selected from a list on the Ministry of Labour,

Social Affairs and Family's website. The selection was done using a random number generator. Fourteen institutions from all 8 districts in Slovakia were selected and recruited via mail and telephone communication. The contacted institutions that formally agreed to cooperate and were able to provide anonymity to the respondents were sent the test batteries. The response rate of the individuals from the institutions was 83.5%. All subjects participated voluntarily. Following the ethical rules, the research was conducted as part of a large national study. From the original sample ($N = 709$), 15 outliers were identified by the Mahalanobis distances method and excluded from further analysis. The final sample ($N = 698$) consisted of 618 women (88.5%), 80 men (10.6%) and 6 without reported gender. The sample comprised social workers ($n = 188$); residential care providers ($n = 191$); ergotherapists ($n = 97$); providers of physical and psychological care (nurses, physiotherapists, psychologist and psychotherapists; $n = 222$). The sample consisted of 252 professionals, who have a university education; other respondents have completed secondary education level. The average age of the participants is 43.9 years (20-65 years), $SD = 10.40$. The average length of practice was 13.12 years (min 0, max 44 years), $SD = 10.47$. 31.3% of respondents worked directly with clients for more than 36 hours per week; 26.6% worked 28 hours per week and 17.5% of professionals worked up to 10 hours a week.

MEASURES

Perceived Stress Scale (PSS; Cohen, Kamarck, & Mermelstein, 1983). A Slovak translation (Ráčová, Hricová, & Lovašova, 2018) of this 10-item measure was used to assess the level of perceived stress among helping professionals. Respondents are asked to indicate the frequency of their feelings and thoughts during the last month on a 5-point scale from 1 (*never*) to 5 (*very often*); e.g. "In the last month, how often have you felt nervous and stressed?". A higher score indicates a higher level of perceived stress. In the current study, the reliability (McDonald's ω) of the perceived stress scale was .79.

Maslach Burnout Inventory – Human Services Survey (MBI-HSS; Maslach, Jackson, & Leiter, 1996). The inventory was translated in line with the purchased translation agreement (TA-673). The instrument consists of 22 items which measure three aspects of burnout syndrome, i.e. the level of emotional exhaustion (e.g. "I feel emotionally drained from my work"), depersonalization (e.g. "I don't really care what happens to some recipients") and reduced personal accomplishment (reverse coded, e.g. "I feel I'm positively influencing other people's lives through my work"). Respondents indicate the frequency of

experiencing work-related feelings using a 7-point scale from 0 (*never*) to 6 (*every day*). McDonald's ω reliability estimates were .89 for emotional exhaustion, .72 for depersonalization and .78 for personal accomplishment. The omega reliability has been preferred over alpha reliability indicator by several authors (Cho & Kim, 2015).

The Performed Self-Care Activities questionnaire (VSS; Lichner, 2017; Lichner, Halachová, & Lovaš, 2018) is a 31-item questionnaire which measures performed activities in the sphere of self-care among helping professionals. Respondents are asked to answer how often they perform activities on a 5-point scale from 1 (*never*) to 5 (*always*). The questionnaire comprises four factors: psychological self-care (F1): maintaining good atmosphere and relationships at work, positive thinking, control of emotions (e.g. "I think positively"), professional self-care (F2): education, professional growth and self-development (e.g. "To cope with the workload I use professional growth"), health self-care (F3 – e.g. "In the case of health problems, I visit a doctor"), physical self-care (F4 – e.g. "I play sports"). In this study, McDonald's ω reliability estimate for psychological self-care was .87; .75 for professional self-care; .77 for health self-care and .76 for physical self-care.

ANALYTIC PROCEDURE

Three multiple mediation models using ordinary least squares path analysis were computed to analyse the data. The models were tested in Process Macro 3.1 in SPSS (Preacher & Hayes, 2004). The assumptions were tested in view of a 95% bias-corrected confidence interval based on 10,000 bootstrap samples. The omega coefficients were computed in Jamovi 0.9.2.8.

RESULTS

The mean scores on the tested variables are presented in Table 1. As can be seen in Table 1, helping professionals perceived a higher level of stress ($M = 3.99$, $SD = 0.55$). In self-care they preferred psychological ($M = 4.22$, $SD = 0.62$) and health self-care ($M = 3.92$, $SD = 0.64$). They perceived a low level of burnout depersonalisation $M = 0.88$ ($SD = 0.99$). On the other hand, their personal accomplishment was high ($M = 4.66$, $SD = 0.85$).

From the correlation matrix (Table 2) it can be seen that all factors of self-care could mediate the relationship between stress and burnout. All forms of self-care are related to perceived stress in helping professions. All factors of self-care are in a significant negative relationship with the burnout factors of emotional exhaustion and depersonalization. In

Table 1
Means scores on tested variables

	PSS	Self-care				MBI		
		VSS F1	VSS F2	VSS F3	VSS F4	MBI-E	MBI-D	MBI-PA
Mean	3.99	4.22	3.46	3.92	3.11	2.08	0.88	4.65
Median	3.80	4.28	3.50	4.00	3.00	1.88	0.67	4.50
SD	0.58	0.62	0.75	0.64	0.87	1.22	0.99	0.85

Note. PSS – perceived stress, VSS F1 – psychological self-care, VSS F2 – professional self-care, VSS F3 – health self-care, VSS F4 – physical self-care, MBI-E – burnout as emotional exhaustion, MBI-D – depersonalization, MBI-PA – personal accomplishment.

Table 2
Two-tailed Pearson correlation between used variables

	PSS	Self-care				MBI		
		1	2	3	4	5	6	7
PSS	–	-.32**	-.27**	-.21**	-.17**	.50**	.32**	-.36**
1 VSS F1	-.32**	–	.51**	.49**	.26**	-.19**	-.24**	.41**
2 VSS F2	-.27**	.51**	–	.34**	.33**	-.19**	-.10*	.39**
3 VSS F3	-.21**	.49**	.34**	–	.26**	-.20**	-.11**	.19**
4 VSS F4	-.17**	.26**	.33**	.26**	–	-.13*	-.43**	.14*
MBI								
5 MBI-E	.50**	-.19**	-.19**	-.20**	-.13**	–	.37**	-.23**
6 MBI-D	.32**	-.24**	-.10*	-.11*	-.43**	.37**	–	-.23**
7 MBI-PA	-.36**	.41**	.39**	.19**	.14*	-.23**	-.23**	–

Note. PSS – perceived stress, VSS F1 – psychological self-care, VSS F2 – professional self-care, VSS F3 – health self-care, VSS F4 – physical self-care, MBI-E – burnout as emotional exhaustion, MBI-D – depersonalization, MBI-PA – personal accomplishment, * $p < .05$, ** $p < .001$.

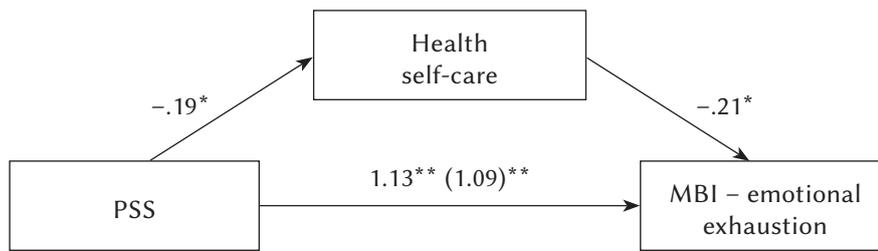
terms of the burnout factor of personal accomplishment, the situation is different. All factors of self-care are in a positive significant relationship with the burnout factor personal accomplishment (Table 1).

Perceived stress predicted 26% of the variability of MBI – emotional exhaustion (Figure 1, Table 3). The total effect of the parallel multiple mediation analysis indicates that the model was significant, $R^2 = .26$, $F(1, 722) = 316.18$, $p < .001$ ($B = 1.13$, $SE = .06$, $t = 17.78$, $p < .001$, CI from 1.00 to 1.26). The direct effect of stress on emotional exhaustion was significant ($B = 1.09$, $SE = .07$, $t = 15.10$, $p < .001$, CI from 0.95 to 1.23). The relationship between stress and emotional exhaustion was partially mediated through factor health self-care ($B = .04$, $SE = .02$, CI from .01 to .08). The other factors of self-care were not significant mediators. The assumptions were tested in view of a 95% bias-corrected confidence interval based on 10,000 bootstrap samples.

Perceived stress predicts a 10% variability in MBI – depersonalisation (Table 4, Figure 2). The overall

effect of partial mediation was significant, $R^2 = .10$, $F(1, 722) = 83.85$, $p < .001$ ($B = .28$, $SE = .03$, $t = 9.14$, $p < .001$, CI from .22 to .35). A significant direct relationship between perceived stress and MBI – depersonalisation was identified ($B = .25$, $SE = .03$, $t = 7.45$, $p < .001$, CI from .18 to .32). The relationship between perceived stress and depersonalisation was partially mediated by psychological self-care ($B = .06$, $SE = .02$, CI from .03 to .09). Other factors of self-care were not significant mediators (Figure 2, Table 4). This means that psychological self-care reduces the risk of burnout in the form of depersonalisation, but it decreases in the event of a rise in stress.

The results from the model indicate that stress predicts 14% of variability in MBI – personal accomplishment (Figure 3, Table 5). The total effect of the parallel multiple mediation analysis was significant, $R^2 = .14$, $F(1, 722) = 96.44$, $p < .001$ ($B = -.58$, $SE = .06$, $t = -9.82$, $p < .001$, CI from -.69 to -.46). The direct effect of stress on personal accomplishment was



* $p < .05$, ** $p < .001$

Figure 1. Multiple mediation model predicting MBI – emotional exhaustion. Only significant mediators are described.

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Table 3

Unstandardized direct and total effect and indirect effects in the model predicting MBI – emotional exhaustion

Mediator	Bootstrap estimate (SE)	95% CI (LL, UL)
Direct effect		
Stress	1.09 (.07)	0.95, 1.23
Indirect effect		
VSS F1	-.02 (.03)	-.09, .02
VSS F2	.02 (.02)	-.02, .07
VSS F3	.04 (.02)	.01, .08
VSS F4	.01 (.01)	-.01, .04
Total effect of the model	1.13 (.06)	1.00, 1.26

Note. PSS – perceived stress, VSS F1 – psychological self-care, VSS F2 – professional self-care, VSS F3 – health self-care, VSS F4 – physical self-care; 95% confidence interval is significant when 0 is not included.

Table 4

Unstandardized direct and total effect and indirect effects in the model predicting MBI – depersonalization

Mediator	Bootstrap estimate (SE)	95% CI (LL, UL)
Direct effect		
Stress	.25 (.03)	.18, .32
Indirect effect		
VSS F1	.06 (.02)	.03, .09
VSS F2	-.01 (.01)	-.03, .01
VSS F3	-.01 (.01)	-.02, .01
VSS F4	-.01 (.01)	-.02, .01
Total effect of the model	.28 (.03)	.22, .35

Note. PSS – perceived stress, VSS F1 – psychological self-care, VSS F2 – professional self-care, VSS F3 – health self-care, VSS F4 – physical self-care; 95% confidence interval is significant when 0 is not included.

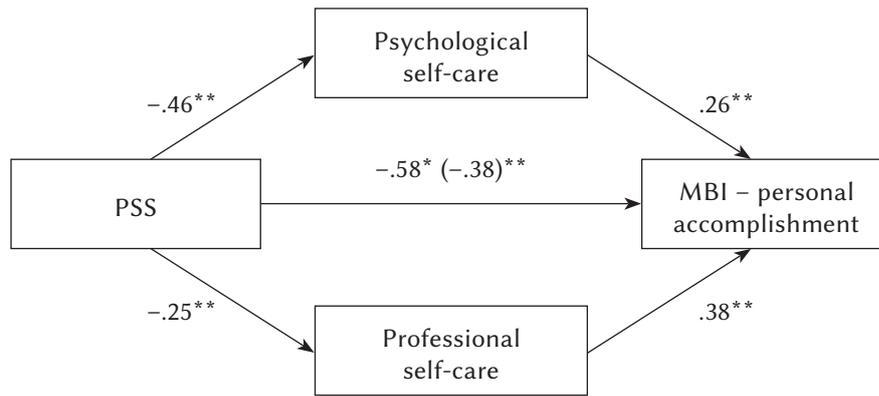


* $p < .05$, ** $p < .001$

Figure 2. Multiple mediation model predicting MBI – depersonalization. Only significant mediators are described.

significant ($B = -.38$, $SE = .06$, $t = -6.19$, $p < .001$, CI from $-.50$ to $-.26$). The relationship between stress and MBI – personal accomplishment was partially mediated through the factors of psychological self-care ($B = -.12$, $SE = .03$, CI from $-.18$ to $-.07$) and

professional self-care ($B = -.10$, $SE = .02$, CI from $-.15$ to $-.06$) (Table 5, Figure 3). The other factors of self-care were not significant mediators in view of a 95% bias-corrected confidence interval based on 10,000 bootstrap samples.



* $p < .05$, ** $p < .001$

Figure 3. Multiple mediation model predicting MBI – personal accomplishment. Only significant mediators are described.

Table 5
Unstandardized direct and total effect and indirect effects in the model predicting MBI – personal accomplishment

Mediator	Bootstrap estimate (SE)	95% CI (LL, UL)
Direct effect		
Stress	-.38 (.06)	-.50, -.26
Indirect effect		
VSS F1	-.12 (.03)	-.18, -.07
VSS F2	-.10 (.02)	-.15, -.06
VSS F3	.01 (.01)	-.01, .03
VSS F4	.01 (.01)	-.01, .03
Total effect of the model	-.58 (.06)	-.69, -.46

Note. PSS – perceived stress, VSS F1 – psychological self-care, VSS F2 – professional self-care, VSS F3 – health self-care, VSS F4 – physical self-care; 95% confidence interval is significant when 0 is not included.

DISCUSSION

Helping professionals are exposed to multiple negative consequences as the result of helping others. Demerouti, Bakker, and Leiter (2014) have pointed out that it is important to pay attention to these phenomena, as they can affect both work performance and health. Our previous findings have shown that the most common source of stress in this population is the nature of the work itself, as it requires direct contact with people, dealing with their dissatisfaction, unclear client demands or aggressive behaviour. Cherniss (1999) has clarified that the long-term effects of stress and the inability to cope with an ex-

cessive workload can lead to a change in the mental state of the individual. Long-term stress causes delayed activation of defence mechanisms and strategies for managing stressful situations, which is the reason for the gradual onset of signs of burnout (Maslach et al., 2001).

Self-care can act as a factor which eliminates the negative impact of the consequences of the helping professions. In connection with the negative consequences of helping, Figley (2002) has noted that helping professionals tend to overlook their own needs as they focus on the needs of clients. Self-care is an important factor which supports the ability of helping professionals to effectively assist others and can improve the quality of their work and personal lives (Mesárošová et al., 2017).

In this study, there were four areas of self-care which were monitored as mediators in the stress-burnout relationship: psychological, professional, health and physical (active physical exercise). The relationship between stress and emotional exhaustion was mediated by health self-care. In times of increased stress, helping professionals could reduce the risk of burnout by engaging in health self-care activities (planning work activities, taking breaks at work, sleeping or seeing a doctor if health problems arise). Shapiro, Brown, and Biegel (2007) as well as Moore, Bledsoe, Perry, and Robinson (2011) have confirmed that the time devoted to oneself is positively reflected in more effective management of stress and improvement in occupational skills. In comparison, the relationship between stress and depersonalisation was mediated by psychological self-care. In times of increased stress, helping professionals could reduce the risk of depersonalisation by engaging in psychological self-care activities (creating positive social relationships and atmosphere in the home and work environments, striving to think positively). Our previous findings (Hricová, 2017) have shown that 27% of observed helping pro-

professionals had symptoms of emotional exhaustion while signs of depersonalisation were recorded in only 8% of helping professionals. This was predominantly found in residential childcare workers and social workers. In this regard, Maslach et al. (2001) have highlighted the burnout process where the intensity of burnout increases from the lowest to the highest level. Emotional exhaustion manifests itself in the initial stages of the process, followed by signs of depersonalisation (Kebza & Šolcová, 2008). Health and psychological self-care were the most preferred self-care activities in our sample. Bloomquist, Wood, Friedmeyer-Trainor, and Kim (2015) noted that more frequent engagement in the field of psychological self-care was associated with lower levels of burnout and secondary traumatic stress.

The relationship between stress and personal accomplishment is mediated by both psychological and professional self-care (work preparation, supervision, education, rotation of work activities) that help increase personal accomplishment in times of stress. Since 2008, continuing professional development, continuing education and regular supervisions have been mandatory in Slovakia for all specialists in the helping professions. However, if professional development and supervision are mandatory, the role of personal engagement and self-regulation of the individual is lost. Self-care is defined as an individual's knowingly regulated, deliberate and self-initiated behaviour, where activities are performed on the basis of self-regulation (Lovaš, 2014; Godfrey et al., 2011). Therefore, if education and supervision are to fill a preventive and supportive role, they should be initiated by the individual. In addition, not all social service employers in practice offer the same quality, opportunities and safe environment for education and supervision. On the other hand, Slovak helpers perceive a high level of personal accomplishment at work (Hricová, 2017). Personal accomplishment is the counterpart to burnout (Maslach et al., 2001) and therefore it can be understood as one of the protective factors against the negative impacts in the helping professions. One of the limitations of this study may be the relatively simplified view of burnout that is predicted by stress and mediated by only a few self-care activities. This mechanism is likely to be much more complicated and not as direct and unidirectional as assumed. Moreover, it is known from the two-factor theory of stress that not all stress contributes to negative results. Stress can also lead to personal growth and improved performance (Podsakoff, LePine, & LePine, 2007). The survey selection was not homogeneous as it included employees with different levels of education and different work focuses although working in the helping professions was a common factor. The survey was also limited by unequal age and gender representation although

this corresponds to the proportionality of workers in this field, who are predominantly women over the age of 40.

In conclusion, the results suggest that performing self-care activities can help reduce stress and can be understood as a preventive factor against burnout. In times of increased stress, helping professionals could reduce the risk of emotional exhaustion by engaging in health self-care activities. When helping professionals have initial symptoms of burnout in the form of emotional exhaustion, concentrating on health self-care activities could be helpful. In times of increased stress, helping professionals could reduce the risk of depersonalisation by engaging in psychological self-care activities. Psychological and professional self-care help to increase personal accomplishment in times of stress. This study agrees with Maslach et al. (2001) in that personal accomplishment is the counterpart to burnout and one other protective factor against the negative impacts in the helping professions. Employees should respect the specific needs of professional helpers, the variability of their personal resources or family situations in order not to further increase their current levels of perceived stress. Various educational events and self-development benefits should be offered.

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