

## Burnout in dispositional context: the role of personality traits, social support and coping styles

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Big five personality traits, social support and coping styles were examined as predictors of three dimensions of burnout on a sample of 214 nurses using hierarchical regression analyses. Personality traits were included into the first step of analysis, three sources of social support (co-workers, family and friends support) in the second, and in the third step three coping styles (problem-focused coping, emotion-focused coping and avoidance coping). The results show that out of five personality traits, neuroticism positively predicted exhaustion, while agreeableness negatively predicted reduced professional efficacy. Regarding three sources of social support, only co-worker support negatively predicted exhaustion as well as reduced professional efficacy. Regarding coping styles examined, only avoidance coping positively predicted depersonalization. The results obtained were explained by several mechanisms through which personality variables may exert their effects on burnout.

*Key words:* burnout, five-factor personality traits, social support, coping styles, nurses

Burnout was first described as a set of symptoms of exhaustion in professionals working in mental care and education as, for example, nurses, doctors and teachers (Freudenberger, 1974). This definition was later broadened by including physical as well as mental exhaustion observed in mental care as well as other occupations (e.g. clerical, computer technology, military, police persons, managers; Maslach, 1982; Maslach, Schaufeli, & Leiter, 2001). Symptoms of burnout result from consistent and unsuccessful attempts of an individual to cope with work stressors (Levert, Lucas, & Ortlepp, 2000). Generally, burnout is viewed as a syndrome consisting of three dimensions: emotional exhaustion, depersonalization (cynicism), and reduced professional efficacy (reduced personal accomplishment; Maslach & Jackson, 1986; Maslach, Schaufeli & Leiter, 2001). Emotional exhaustion refers to feelings of being depleted of emotional resources, resulting in loss of energy and fatigue. Depersonalization is a loss of idealism in the workplace, which is usually manifested in negative attitudes toward the recipients of the employee's service or care, and reduced professional efficacy includes a decline in the employee's feelings of competence and successful achievement in his or her work.

The concept of burnout differs from stress at work. Namely, work stress is a temporary adaptation process accompanied by mental and physical symptoms and is caused by an imbalance between job demands and the response capability of the individual. On the other hand, burnout is considered as a final stage in adaptation that results from the long-term imbalance of demands and resources and is accompanied by chronic malfunctioning at work. It is a particular consequence of prolonged job stress (Storm & Rothmann, 2003).

In the majority of studies, environmental variables related to work have been examined as the main determinants of burnout, the fact that is sometimes explained by the domination of social and organizational psychologists in this research domain (Bühler & Land, 2003; Maslach, 2003). Among these contextual variables are role stressors, work demands, work complexity, autonomy, role ambiguity, work load associated with time pressure, job resources such as poor rewards and lack of participation, as well as interpersonal problems (Demerouti, Bakker, Nachreiner, & Schaufeli, 2000). On the other hand, the perpetual question is why, under the same working conditions, one individual burns out while another shows no symptoms at all, which leads to the assumption that other causes such as personality may also play a role.

Although burnout is sometimes explained as the outcome of transaction between contextual and personality variables (e.g. Shirom, 1993), personality has been less studied and even ignored for some time, and some recent reports state that relations between burnout and personality

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have not been large enough to merit further investigation in dispositional context (Maslach, 2003). However, there are several reasons why the effects of personality and personality related variables should be examined. First, although the relations between burnout and personality are sometimes not strong and/or consistent (e.g. Burisch, 2002), numerous studies showed significant relations between them (Piedmont, 1993; Schaufeli & Enzmann, 1998; Storm & Rothmann, 2003; Zellars & Perrewe, 2001). Also, there is much evidence showing that personality predisposes individuals to choose and expose themselves to social situations and interactions that could either contribute to or inhibit the experience of stress (Bolger & Schilling, 1991). Research has found that personality also influences how people react to stressful situations in their work place (George & Brief, 2004). Finally, it has repeatedly been stated that stress outcomes are partly determined by personality dispositions. Because burnout is also one of the stress outcomes, it could be assumed that burnout, as a specific stress outcome, is also to a certain extent determined by personality, as well as by other personality related variables such as social support and coping styles (Storm & Rothmann, 2003). Additionally, as burnout is moderately stable and consistent (e.g. Mills & Huebner, 1998), a dispositional view of burnout seems warranted.

Research on the five-factor personality dimensions has repeatedly found that neuroticism is positively related to emotional exhaustion (Piedmont, 1993; Schaufeli & Enzmann, 1998; Zellars & Perrewe, 2001) and fatigue symptoms (De Vries & Van Heck, 2002), but also to depersonalization (Piedmont, 1993; Schaufeli & Enzmann, 1998; Zellars & Perrewe, 2001) and, somewhat less frequently to reduced professional efficacy (Zellars & Perrewe, 2001). Regarding extraversion, which is most commonly seen as a protective factor, research mainly confirms its negative relationship with burnout scores (Cano-Garcia, Padilla-Munoz, & Carrasco-Ortiz, 2005; Storm & Rothmann, 2003). For example, in some studies extraversion was negatively related to emotional exhaustion (Mills & Huebner, 1998), fatigue symptoms (e.g. De Vries & Van Heck, 2000), depersonalization (Zellars, Perrewe, & Hochwarter, 2000) and reduced personal accomplishment (Zellars & Perrewe, 2001). On the contrary, the results of Bühler and Land (2003) show that extraversion is positively related to emotional exhaustion and depersonalization. The authors suggest that these results might be due to the weighting of the subdimension "excitement seeking" of the extraversion scale, which was, in some previous research, also shown to be positively related with emotional exhaustion (Piedmont, 1993). It seems plausible that individuals seeking excitement and deliberately taking risks have a greater tendency to become emotionally exhausted.

Agreeableness has also been found to be negatively related to the levels of burnout. Low scores on agreeableness describe a person with a distrustful attitude which could be

easily transferred into dehumanized behaviour such as depersonalization or cynicism. Several studies confirm negative relations between agreeableness and depersonalization (Cano-Garcia, Padilla-Munoz & Carrasco-Ortiz, 2005; Schaufeli & Enzmann, 1998; Zellars & Perrewe, 2001). Some research also reported negative associations between agreeableness and emotional exhaustion (Piedmont, 1993), reduced personal accomplishment (Cano-Garcia, Padilla-Munoz & Carrasco-Ortiz, 2005; Zellars & Perrewe, 2001), or its negative relations to all three burnout dimensions (Storm & Rothmann, 2003).

People high on openness to experience are inclined to be curious, imaginative, empathetic, creative, original, artistic, aesthetically responsive and flexible. Some studies have found that openness is related to lower emotional exhaustion (Schaufeli & Enzmann, 1998) and depersonalization (Storm & Rothman, 2003), but others have not found associations between them (Piedmont, 1993).

Highly conscientious individuals are involved in their work, are persistent, careful, reliable, hardworking, well-organized and purposeful persons, i.e., linked to fulfilment of rules and efficacy. Therefore, conscientiousness is considered relevant to behaviours aimed at goal attainment and control of stressors and supposed to be associated with greater personal accomplishment and less emotional exhaustion. In accordance with this, Storm and Rothmann (2003) found associations between high conscientiousness and lower emotional exhaustion and depersonalization, as well as higher personal accomplishment (Schaufeli & Enzmann, 1998). However, inconsistent results, showing positive relationship between conscientiousness and emotional exhaustion have also been reported (Mills & Huebner, 1998).

There is much evidence that not only personality traits, but also some other dispositional variables related to personality (e.g. social support and coping styles) exert effects on stress outcomes. Namely, in the majority of the models of stress, social support variables and coping styles are considered to be very important in determining various stress outcomes (Carver, Scheier, & Weintraub, 1989; Cohen, Gottlieb, & Underwood, 2000). For example, in accord with transactional theory of stress and coping, personality and social support are considered as antecedent variables and coping as a mediating mechanism (Lazarus & Folkman, 1987).

The job resource that has been studied most extensively has been social support and there is now consistent evidence that a lack of social support is related to burnout. It was found that social support has either a direct or buffering effect on burnout (Greenglass, Burke, & Konarski, 1997). Buffering hypothesis suggests that social support moderates the relationship between job stressors and burnout (i.e. the relationship will be strong when social support is low, but weak when support is high). However, the research results have been controversial, most of them finding that social support buffers against burnout, while some of them found

little or no evidence of a buffering effect (Maslach, Schaufeli & Leiter., 2001).

Brown, Prashantham, and Abbott (2003) have found a negative relationship of perceived social support with emotional exhaustion and depersonalization on a sample of human service professionals, even after controlling for the effects of anxiety. Both anxiety and perceived social support had unique direct contributions to the variance of burnout.

A number of studies on social support and burnout investigated different sources of social support (supervisors, colleagues, friends, family or spouse), with many of them showing the effects of only one support source, e.g. only the effect of support from co-workers (Greenglass, Burke & Konarski, 1997) or supervisors (Huebner, 1994).

Recent research on coping with stress and burnout generally suggests that constructive coping as, for example, active or planful problem-solving coping strategies, is associated with lower levels, while ineffective coping strategies, like avoidance, with higher levels of burnout (Storm & Rothmann, 2003). A longitudinal study of burnout in nursing students found that emotion-focused coping was positively related to emotional exhaustion (Deary, Watson, & Hogston, 2003). Likewise, a review of twelve studies revealed that passive copers experience higher, while active, problem-focused copers experience lower burnout. Both confrontational and avoidance coping were significantly related to emotional exhaustion and depersonalization (Schaufeli & Enzmann, 1998). However, it should be mentioned that some studies have not found significant associations between coping strategies and burnout (Shinn, Rosario, Morch, & Chestnut, 1984).

However, three groups of variables relevant for the stress process (i.e. personality traits, social support and coping styles) are interdependent. Research results have confirmed that social support is partly determined by personality traits (Tong et al., 2004). Although several research results found that personality traits could explain the effects of social support on adaptational outcomes (e.g. Bolger & Eckenrode, 1991), some results showed that social support predicted objective health outcomes even after controlling for personality traits (Kahn, Hessling, & Russell, 2003). Furthermore, there has been ample evidence that coping styles are strongly affected by personality traits (Costa, Somerfield, & McCrae, 1996), although the association is not large enough to allow the conclusion that personality traits completely determine coping styles (Carver, Scheier & Weintraub, 1989). Some research results suggest that some personality traits, such as neuroticism (McCrae, 1990) and anxiety (Hemenover & Dienstbier, 1998), completely account for the effects of coping styles on adaptational outcomes. However, there is also evidence that personality and coping exert independent effects on various stress outcomes (Aspinwall & Taylor, 1992).

The aim of the present study was to examine the relationship of three groups of dispositional variables relevant

for the explanation of stress outcomes, i.e. personality traits, social support and coping styles with burnout. As previously mentioned, these three groups of variables overlap and therefore, their independent contribution to burnout should be examined. It is especially important when these three groups of variables are considered in the theoretically meaningful way. In accordance with the conceptions regarding the importance of dispositional variables in the stress process (e.g. Carver, Scheier & Weintraub, 1989), personality traits in the present study are regarded as the basic determinants of burnout, social support as the second important group and coping styles as the third group of antecedent variables.

It was assumed that five-factor personality traits, especially neuroticism and agreeableness, act as basic dispositional antecedents of burnout, while social support, mainly support of co-workers, as well as coping styles exert effects on burnout as well, even after the effects of personality dimensions are controlled for.

## METHOD

### *Participants and Procedure*

A total of 214 hospital nurses from various Departments of the Clinical Hospital in Rijeka, Croatia participated in this study. Their age ranged from 21 to 56 years ( $M = 32.99$ ;  $SD = 7.84$ ). The majority of them had secondary education (88.3%), were married (52.3%) and had at least one child (66.4%). Their overall working years ranged from 1 to 35 years ( $M = 12.49$ ;  $SD = 7.82$ ). The questionnaires were administered individually or in small groups of subjects at their jobs, at the beginning of their working day. Participation in the study was voluntary and anonymous.

### *Instruments*

Big Five Inventory (BFI, Benet-Martinez & John, 1998) was used for measuring five-factor personality dimensions. The BFI uses short phrases to assess the most prototypical traits associated with each of the big five dimensions. It consists of 44 items, and was constructed to allow quick and efficient assessment of five personality dimensions – extraversion (e.g. “I see myself as someone who is outgoing, sociable”), agreeableness (e.g. “I see myself as someone who is helpful and unselfish with others”), conscientiousness (e.g. “I see myself as someone who is a reliable worker”), neuroticism (e.g. “I see myself as someone who worries a lot”) and openness (e.g. “I see myself as someone who is curious about many different things”). Self-report ratings for each item were made on a scale from 1 (disagree strongly) to 5 (agree strongly). Despite its brevity, the BFI has good psychometric properties. In U.S. and Canadian samples, the alpha reliabilities of the BFI scales typically range from .75

to .90 and average above .80; 3-month test-retest reliabilities range from .80 to .90, with a mean of .85 (Benet-Martinez & John, 1998). Additionally, previous studies have shown that this instrument was useful for cross-language and cross-cultural research (Benet-Martinez & John, 1998), and also, it proved to be appropriate for measuring five-factor model of personality in Croatian language (Schmitt et al., 2004).

The perceived social support scale was constructed on the basis of the Social Support Appraisal Scale (SS-A by Vaux et al., 1986). Social support was defined as appraisal of the extent to which the individual believes that he or she is loved by, esteemed by and involved with family, friends and others. It consists of 24 items, eight of which measure perceived social support given by family members, eight measure perceived social support given by friends and the last eight items measure perceived social support given by co-workers. Principal axes factor analysis confirms the above-mentioned three factors in this sample. The answers were of the Likert type, with five response options from 0 - it does not apply to me at all to 4 - it applies to me completely. In previous studies (e.g. Hudek-Knežević, Kardum, & Pahljina, 2002) alpha reliabilities of the same factors ranged from .81 to .96.

Coping styles were measured by the shortened version of the adapted questionnaire Coping Orientation to Problems Experienced (COPE, Carver et al., 1989). Original version consists of 71 items that cover 15 theoretically derived coping styles, in the basis of which are three latent dimensions called problem-focused, emotion-focused and avoidance coping (Hudek-Knežević, Kardum, & Vukmirović, 1999). Previous studies have shown that coefficients of internal consistency (Cronbach-alpha) of these factors ranged from .80 to .92, while test-retest reliability coefficients for the 6 week period were .56 for problem-focused coping, .66 for emotion-focused coping and .60 for avoidance coping (Hudek-Knežević, Kardum & Vukmirović, 1999).

In this study the inventory consisting of 15 items was used and each of them measures one of the 15 theoretically derived primary coping styles. Thus, problem-focused and avoidance coping were measured by six, and emotion-focused coping with three items. The respondents' task was to rate the frequency of their reaction indicated by each statement, with five response options (from 0 – never, to 4 – almost always). Principal axes factor analysis on the same sample of participants confirmed that the latent structure of the shortened version of this inventory also consisted of the previously mentioned three factors.

As a measure of burnout Maslach Burnout Inventory (MBI, Maslach & Jackson, 1986) was used. It consists of 22 items describing feelings connected with work. This inventory measures three components of burnout, emotional exhaustion (9 items), depersonalization (5 items) and reduced professional efficacy (8 items). Burnout is represented by higher scores on the emotional exhaustion and depersonalization scales and lower scores on the professional accom-

Table 1

Means, standard deviations and internal reliability coefficients (Cronbach-alpha) of the measures used in the present study

VARIABLES	M	SD	alpha
Extraversion	28.29	4.35	.64
Agreeableness	35.36	4.54	.67
Conscientiousness	37.30	4.02	.69
Neuroticism	20.29	5.19	.75
Openness	35.43	5.03	.69
Social support – family	36.48	4.49	.85
Social support – friends	29.40	4.03	.81
Social support – co-workers	29.65	4.78	.83
Problem-focused coping	23.04	3.72	.71
Emotion-focused coping	10.07	2.42	.72
Avoidance coping	14.44	3.38	.63
Exhaustion	21.30	12.18	.88
Depersonalization	4.71	5.47	.72
Reduced professional efficacy	10.12	7.30	.67

plishment scale. The emotional exhaustion scale measures the degree to which respondents feel overextended (e.g. “I feel emotionally drained from my work”). The depersonalization scale assesses the extent to which respondents exhibit an insensitive or dehumanized attitude toward service recipients (e.g. “I’ve become more callous toward people since I took this job”). Finally, the reduced professional accomplishment scale measures respondents’ feelings of competence and success in their jobs (e.g. “I feel I’m positively influencing other people’s lives through my work”). For each item participants assessed the frequency of feelings on the 7 point scale (0-never, 6-every day). Because this inventory was not used previously in Croatian language, the results obtained on this sample were analysed by confirmatory factor analyses in order to test its structure. Indices of the overall proportion of the explained variance (CFI = .95; GFI = .92; AGFI = .90), as well as those of residual variability and the differences between the observed and model-implied covariances (RMSEA = .01; RMR = .04) are acceptable. Chi-square is statistically significant (279.93;  $df=197$ ;  $p < .001$ ), which was expected because of the relatively large sample size. Because chi-square is very sensitive to the sample size, it is suggested that its value should be divided by degrees of freedom and the values that are less than three indicate the adequacy of the model tested (Kline, 1998). In this study, the ratio between the value of chi-square and degrees of freedom is 1.42. All items were most highly saturated by the predicted factor, while secondary loadings are rare and relatively low. In Table 1, means, standard deviations and internal consistency reliability coefficients (Cronbach-alpha) for all measures used in the study are presented.

## RESULTS

First, the correlations among all variables used were computed. The correlations obtained are shown in Table 2. The correlations obtained (Table 2) show that agreeableness

Table 2  
Correlations among all variables examined

VARIABLES	A	C	N	O	SS-FAM	SS-FRI	SS-CO	POC	EOC	AVC	EXH	DEP	RPE
Extraversion	-.12	.23***	-.25***	.18**	.04	.20**	.23***	-.01	.06	-.21**	-.22***	-.03	-.10
Agreeableness		.39***	-.38***	.10	.14*	.18**	.33***	.16*	.15*	-.04	-.19**	-.23***	-.38***
Conscientiousness			-.36***	.25***	.33***	.19**	.17*	.01	-.03	-.11	-.26***	-.20**	-.29***
Neuroticism				-.15*	-.19**	-.28***	-.37***	-.06	.12	.27***	.45***	.27***	.30***
Openness					.17*	.22***	.07	.17*	-.07	-.15*	-.08	-.04	-.18**
Social support-family						.32***	.20**	.21**	.08	-.11	-.14*	-.14*	-.16*
Social support-friends							.44***	.26***	.20**	-.12	-.25***	-.12	-.28***
Social support-co-workers								.22***	.13	-.17*	-.39***	-.22***	-.36***
Problem-focused coping									.32***	-.07	.01	-.04	-.10
Emotion-focused coping										.11	.08	-.04	-.13
Avoidance coping											.21**	.22***	.14*
Exhaustion												.48***	.33***
Depersonalization													.37***

\*\*\* $p < .001$ ; \*\* $p < .01$ ; \* $p < .05$ ;

Note. A – Agreeableness, C – Conscientiousness, N – Neuroticism, O – Openness, SS-FAM – Social support-family, SS-FRI – Social support-friends, SS-CO – Social support-co-workers, POC – Problem-oriented coping, EOC – Emotion-oriented coping, AVC – Avoidance coping, EXH – Exhaustion, DEP – Depersonalization, RPE – Reduced professional efficacy.

Table 3  
The results of hierarchical regression analyses with three dimensions of burnout as criterion variables

EXHAUSTION					
PREDICTOR variables	R	R <sup>2</sup>	F- CHANGE	OVERALL F	beta
1. step (personality traits)	.48	.23		12.09***	
Neuroticism					.29***
2. step (social support)	.53	.28	5.00**	9.87***	
Social support (co-workers)					-.25***
3. step (coping styles)	.54	.29	1.33	7.57***	
DEPERSONALIZATION					
PREDICTOR variables	R	R <sup>2</sup>	F- CHANGE	OVERALL F	beta
1. step (personality traits)	.31	.10		4.48***	
2. step (social support)	.34	.11	1.20	3.26**	
3. step (coping styles)	.38	.14	2.39	3.07***	
Avoidance coping					.18**
REDUCED PROFESSIONAL EFFICACY					
PREDICTOR variables	R	R <sup>2</sup>	F- CHANGE	OVERALL F	beta
1. step (personality traits)	.45	.20		10.39***	
Agreeableness					-.20**
2. step (social support)	.50	.25	4.39**	8.46***	
Social support (co-workers)					-.20**
3. step (coping styles)	.51	.26	0.98	6.42***	

\*\*  $p < .01$ ; \*\*\*  $p < .001$ ;

Note. Only significant predictors are shown.

and conscientiousness were positively, and neuroticism negatively related to all three social support resources. Family social support was most highly related to conscientiousness and social support from friends and co-workers to neuroticism. Dimensions of the five-factor model were relatively weakly related to problem- and emotion-focused coping. Problem-focused coping was significantly positively related to agreeableness and openness, while emotion-focused coping only to agreeableness. Avoidance coping was negatively related to extraversion and openness, and positively to neuroticism. All three dimensions of social support were significantly positively related to problem-focused coping, while only social support of friends was positively related to emo-

tion-focused coping, and social support of co-workers negatively to avoidance coping. Regarding relations between five-factor model dimensions and burnout, the most highly related with burnout are agreeableness, conscientiousness and neuroticism, with agreeableness and conscientiousness most highly connected to reduced professional efficacy, and neuroticism to exhaustion. All three dimensions of social support are negatively correlated with the burnout components. However, the highest correlations are between social support of co-workers and exhaustion and co-workers and reduced professional efficacy. Regarding coping styles, only avoidance coping was significantly related to the burnout components. It was significantly positively related to all

three burnout components, and mostly to exhaustion and depersonalization.

Predictive value of personality traits, social support resources and coping styles for each burnout component was tested by hierarchical regression analyses. This statistical procedure was chosen not only because there were significant intercorrelations between predictor variables (Table 2), but also because it allows for testing of theoretically derived hypotheses concerning relations between these three groups of variables in the prediction of burnout. In order to test previously stated hypotheses, personality traits were included as predictor variables in the first, social support resources in the second and coping styles in the third step of the analysis. Three components of burnout were treated as criterion variables. The results of these analyses are shown in Table 3.

The results show that personality traits significantly predicted exhaustion, neuroticism being a single significant positive predictor. After controlling for personality traits, social support has significant incremental effects on exhaustion, with co-worker social support as a single significant negative predictor. With the statistical control of personality traits and social support, incremental variance explained by coping styles was not significant.

Personality traits significantly predicted depersonalization, although none of them was a significant predictor of this burnout component. After controlling for personality traits the results showed that three sources of social support did not significantly increase the coefficient of multiple correlation. Incremental variance associated with coping styles was again not significant, although avoidance coping style was a significant positive predictor of depersonalization.

Regarding reduced professional efficacy, the results show that personality traits significantly predicted this burnout component, with only agreeableness being a significant negative predictor. Social support significantly and incrementally predicted reduced professional efficacy, with only co-worker social support as a significant negative predictor. Again, the incremental variance explained by coping styles was not significant.

## DISCUSSION

The results obtained in the present study show that out of the five-factor personality traits, neuroticism, agreeableness and conscientiousness are most highly related to the burnout components. Neuroticism is significantly positively associated to all three components of burnout and most highly to exhaustion, while agreeableness and conscientiousness are negatively related to all three burnout components, most highly with reduced professional efficacy. Extraversion is negatively related only to exhaustion, and openness negatively to reduced professional efficacy. Generally, personality traits are somewhat more related to exhaustion and re-

duced professional efficacy than to depersonalization (Table 2). The results of hierarchical regression analyses (Table 3) showed that big five personality traits significantly predicted all three burnout components, but neuroticism was the only significant positive predictor of exhaustion and agreeableness the negative predictor of reduced professional efficacy.

Although the majority of correlations between three sources of social support variables and burnout components are significant, the most highly correlated is social support of co-workers (Table 2), which also incrementally predicted exhaustion and reduced professional efficacy (Table 3). Similar to personality traits, social support variables are more related to exhaustion and reduced professional efficacy than to depersonalization. Regarding coping styles, only avoidance is significantly related to burnout components, and it is the only significant predictor of depersonalization in hierarchical regression analyses (Table 3).

The strength of the relations obtained in the present study suggests that personality traits and personality-like dimensions such as social support and coping styles also have a significant role in burnout. There are several possible mechanisms through which personality may influence the extent to which work place experiences influence stress outcomes, although the present study does not examine them directly. These mechanisms include the role that personality plays in the choice of settings and working conditions, the role of personality on the appraisal of and reactions to settings and the role of personality in coping with distress experienced at work (George & Brief, 2004). For example, testing their differential reactivity model Bolger and Schilling (1991) have found that exposure and reactivity to stressful events explain over 40% of the distress difference between people high and low in neuroticism. However, reactivity to stressful events accounted for twice as much of the distress difference then exposure to stressors, suggesting that the effects of neuroticism on distress are better explained by reactivity than by exposure to stressful situations. Neurotic individuals, who are stress-prone, nervous, emotional, irritable, insecure and depressed, react to stress more intensely and also more frequently found themselves in stressful situations. Therefore, it is easy to imagine that such functioning results in subjective feeling of less energy and increased emotional exhaustion.

As mentioned before, personality plays a role in the creation of work situations that, in turn, influence distress. Research results regarding agreeableness are consistent with the kind of role personality has in stressful situations. Because work success in nurses depends on their inclination to help others and have good personal relationships, agreeableness is thus expected to be linked to performance especially when the work setting involves a high degree of teamwork and cooperation with co-workers (Mount, Barlick, & Stewart, 1998).

These two personality mechanisms in the stress process are consistent with differentiating temperamental and instrumental models of relationships between personality and emotional outcomes (McCrae & Costa, 1991). The temperamental model acknowledges that individual differences in personality and emotionality reflect the same underlying, essentially innate mechanisms related to the degree of sensitivity or characteristic strength of reactions to positive or negative emotional stimuli. On the other hand, instrumental model posits that long term emotional states are consequences of those life circumstances that were selected and created under the influence of certain personality traits. This type of relationship between personality traits and emotional states is more complex and more dependent upon specific environmental, primarily social contexts. Thus, it could be assumed that personality traits may exert their effects on the various components of burnout differently. It could be expected that personality traits like, for example, neuroticism or extraversion will have temperamental effects especially on emotional exhaustion, while other five-factor traits could be expected to have instrumental effects on the other two components of burnout. This study suggests that situational and organizational variables within burnout research should be examined in interaction with agreeableness, conscientiousness and openness, and especially regarding depersonalization and reduced professional efficacy.

Because social support is a major potential route to various resources related to health outcomes, it is also important in work-related stressful situations. The results obtained in the present study indicate the importance of social support given by co-workers. This finding is consistent with the argument that support proximal to the source of stress, which is in this case co-worker support, is more efficacious than less proximal sources of support, because these supportive individuals are likely to be aware of the demands of specific situations and provide empathetic understanding that is most likely to be achieved under conditions of social and experiential similarity with supporters (Beehr, 1985). In a study done on hospital nurses, Leiter and Maslach (1988) describe the following sequence concerning the role of social support in the development of burnout. First, stressful interactions with supervisors increased feelings of exhaustion, which then led to depersonalization, especially if they lacked supportive contact with their co-workers, and finally their feelings of efficacy decreased, although at this stage supportive contact with co-workers may help to decelerate the burnout process.

Regarding coping styles, in the present study only avoidance coping emerges as a positive predictor of depersonalization. One possible interpretation of this result is a conceptual overlap between avoidance coping and depersonalization. Namely, depersonalization is also characterized by behaviour that includes mental or behavioural withdrawal. Therefore, disengagement or avoidance from work or from stressful situations with patients, which has been regarded

as a core symptom of depersonalization, is very similar to avoidance coping (Maslach, 1982). Also, depersonalization could be regarded as a delayed outcome of avoidance coping style and vice versa, avoidance coping styles may be an outcome of depersonalization. It is especially true in highly emotionally exhausted persons, in which depersonalization could primarily serve as coping mechanism that enables the conservation of resources and is eventually manifested as a negative behavioural change toward patients.

Generally, the results of this study show that burnout could also be considered in a dispositional context and that its components are meaningfully related to personality traits, social support and coping styles. Also, this study confirms the importance of social support and coping styles above personality traits, especially because personality traits partly determine social support (Tong et al., 2004) as well as coping styles (Costa, Somerfield & McCrae, 1996).

Regarding the practical implications of results obtained in the present study, it could be suggested that within the selection procedure for medical nurses in hospital departments with high risk of professional burnout, personality traits should be taken into account in order to prevent its development. Personality traits that seem to be especially protective of burnout symptoms are high agreeableness, low neuroticism and high conscientiousness.

Additionally, intervention programmes aimed at preventing or reducing burnout among nurses should focus upon social support of co-workers because promoting higher perception of co-workers' social support could be of major importance for reducing emotional exhaustion and improving the perception of professional efficacy in nurses. However, future studies should examine in more detail which of the co-workers' social support functions (informative, instrumental, emotional etc.) are most important for preventing burnout in nurses. High co-workers' social support could be seen as an organizational job resource that could be facilitated in various ways (e.g. regular meetings, conflict management training, giving adequate feedback about nurses' performance, working on improving emotional support etc.) (Demerouti, Bakker, Nachreiner, & Schaufeli, 2000). Finally, the results obtained should be considered keeping in mind the main limitations of the present study – its cross-sectional design and the exclusive use of self-report.

## REFERENCES

- Aspinwall, L. G., & Taylor, S. E. (1992). Modeling cognitive adaptation: A longitudinal investigation of the impact of individual differences and coping on college adjustment and performance. *Journal of Personality and Social Psychology*, 63, 989-1003.
- Beehr, T. A. (1985). The role of social support in coping with organizational stress. In T. A. Beehr & R. S. Bhagat (Eds.), *Human stress and cognition in organization: An integrated perspective* (pp. 375-398). New York: Wiley.

- Benet-Martinez, V., & John, O. P. (1998). *Los cinco grandes* across cultures and ethnic groups: Multitrait multimethod analyses of the Big Five in Spanish and English. *Journal of Personality and Social Psychology*, 75, 729-750.
- Bolger, N., & Eckenrode, J. (1991). Social relationships, personality, and anxiety during a major stressful event. *Journal of Personality and Social Psychology*, 61, 440-449.
- Bolger, N., & Schilling, E. A. (1991). Personality and the problems of everyday life: The role of neuroticism in exposure and reactivity to daily stressors. *Journal of Personality*, 59, 355-386.
- Brown, N. C., Prashantham, B. J., & Abbott, M. (2003). Personality, social support and burnout among human service professionals in India. *Journal of Community and Applied Social Psychology*, 13, 320-324.
- Burisch, M. (2002). A longitudinal study of burnout: The relative importance of dispositions and experiences. *Work and Stress*, 16, 1-17.
- Bühler, K-E., & Land, T. (2003). Burnout and personality in intensive care: An empirical study. *Hospital Topics: Research and Perspectives on Healthcare*, 18, 1-12.
- Cano-Garcia, F. J., Padilla-Munoz, E. M., & Carrasco-Ortiz, M. A. (2005). Personality and contextual variables in teacher burnout. *Personality and Individual Differences*, 38, 929-940.
- Carver, C. S., Scheier, M. F., & Weintraub, J. K. (1989). Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology*, 51, 267-283.
- Cohen, S., Gottlieb, B. H., & Underwood, L. G. (2000). Social relationships and health. In S. Cohen, L.G. Underwood & B.H. Gottlieb, (Eds.), *Social support measurement and intervention: A guide for health and social scientists* (pp. 3-29). Oxford: Oxford University Press.
- Costa, P. T., Somerfield, M. R., & McCrae, R. R. (1996). Personality and coping: A reconceptualization. In M. Zeidner & N. M. Endler (Eds.), *Handbook of coping: Theory, research, applications* (pp. 44-61). New York: Wiley.
- Deary, I. J., Watson, R., & Hogston, R. (2003). A longitudinal cohort study of burnout and attrition in nursing students. *Journal of Advanced Nursing*, 43, 71-81.
- Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2000). A model of burnout and life satisfaction amongst nurses. *Journal of Advanced Nursing*, 32, 454-464.
- De Vries, J., & Van Heck, G. L. (2002). Fatigue: Relationships with basic personality and temperament dimensions. *Personality and Individual Differences*, 33, 1311-1324.
- Freudenberger, H. J. (1974). Staff burnout. *Journal of Social Issues*, 30, 159-165.
- George, J. M., & Brief, A.P. (2004). Personality and work-related distress. In B. Schneiderand & B. Smith (Eds.), *Personality and organizations* (pp. 193-219). Mahwah, NJ: Erlbaum.
- Greenglass, E. R., Burke, R. J., & Konarski, R. (1997). The impact of social support on the development of burnout in teachers: Examination of a model. *Work and Stress*, 11, 267-278.
- Hemenover, S. H., & Dienstbier, R. A. (1998). Prediction of health patterns from general appraisal, attributions, coping and trait anxiety. *Motivation and Emotion*, 22, 231-253.
- Hudek-Knežević, J., Kardum, I., & Pahljina, R. (2002). Relations among social support, coping, and negative affect in hospitalized and nonhospitalized cancer patients. *Journal of Psychosocial Oncology*, 20, 45-63.
- Hudek-Knežević, J., Kardum, I., & Vukmirović, Ž. (1999). The structure of coping styles: A comparative study of Croatian sample. *European Journal of Personality*, 13, 149-161.
- Huebner, E. S. (1994). Relationships among demographics, social support, job satisfaction and burnout among school psychologists. *School Psychology International*, 15, 181-186.
- Kahn, J. H., Hessling, R. M., & Russell, D. W. (2003). Social support, health, and well-being among elderly: What is the role of negative affectivity? *Personality and Individual Differences*, 35, 5-17.
- Kline, R. B. (1998). *Principles and practice of structural equation modeling*. New York: Guilford Press.
- Lazarus, R. S., & Folkman, S. (1987). Transactional theory and research on emotions and coping. *European Journal of Personality*, 1, 141-169.
- Leiter, M. P., & Maslach, C. (1988). The impact of interpersonal environment on burnout and organizational commitment. *Journal of Organizational Behavior*, 9, 297-308.
- Levert, T., Lucas, M., & Ortlepp, K. (2000). Burnout in psychiatric nurses: Contributions of the work environment and a sense of coherence. *South African Journal of Psychology*, 30, 36-43.
- Maslach, C. (1982). *Burnout: The cost of caring*. New Jersey: Prentice Hall.
- Maslach, C. (2003). Job burnout: New directions in research and intervention. *Current Research in Psychological Science*, 12, 189-192.
- Maslach, C., & Jackson S. E. (1986). *Maslach Burnout Inventory manual, 2nd ed.* Palo Alto, CA: Consulting Psychologists Press.



- Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual Review of Psychology*, 52, 397-422.
- McCrae, R. R. (1990). Controlling neuroticism in the measurement of stress. *Stress Medicine*, 6, 237-241.
- McCrae, R. R., & Costa, P. T. (1991). Adding *Liebe und Arbeit*: The full five-factor model and well-being. *Personality and Social Psychology Bulletin*, 17, 227-232.
- Mills, L., & Huebner, E. (1998). A prospective study of personality characteristics, occupational stressors, and burnout among school psychology practitioners. *Journal of School Psychology*, 36, 103-120.
- Mount, M. K., Barrick, M. R., & Stewart, G. L. (1998). Five-factor model of personality and performance in jobs involving interpersonal interactions. *Human Performance*, 11, 145-165.
- Piedmont, R. L. (1993). A longitudinal analysis of burnout in the health care setting: The role of personal dispositions. *Journal of Personality Assessment*, 61, 457-473.
- Schaufeli, W. B., & Enzmann, D. (1998). *The burnout companion to study and practice: A critical analysis*. London: Taylor and Francis.
- Schmitt, D., & 121 members of the International Sexuality Description Project. (2004). Patterns and universals of mate poaching across 53 nations: The effects of sex, culture, and personality on romantically attracting another person's partner. *Journal of Personality and Social Psychology*, 86, 560-584.
- Shinn, M., Rosario, M., Morch, H., & Chestnut, D. E. (1984). Coping with job stress and burnout in the human services. *Journal of Personality and Social Psychology*, 46, 864-876.
- Shirom, A. (1993). Burnout in work organizations. In W.B. Schaufeli, C. Maslach & T. Mareck (Eds.), *Professional burnout: Recent developments in theory and research* (pp. 25-48). Washington, DC: Taylor and Francis.
- Storm, K., & Rothmann, S. (2003). The relationship between burnout, personality traits and coping strategies in a corporate pharmaceutical group. *South African Journal of Industrial Psychology*, 29, 35-42.
- Tong, E. M. W., Bishop, G. D., Diong, S. M., Enkelmann, H. C., Why, J. P., Ang, J., & Khader, M. (2004). Social support and personality among male police officers in Singapore. *Personality and Individual Differences*, 36, 109-123.
- Vaux, A., Phillips, J., Holly, L., Thompson, B., Williams, D., & Stewart, D. (1986). The social support appraisal (SS - A) scale: Studies of reliability and validity. *American Journal of Community Psychology*, 14, 195 - 217.
- Zellars, K., & Perrewe, P. (2001) Affective personality and the content of emotional social support: Coping in organizations. *Journal of Applied Psychology*, 86, 459-467.
- Zellars, K., Perrewe, P., & Hochwarter, W. (2000). Burnout in health care: The role of the five factors of personality. *Journal of Applied Social Psychology*, 30, 1570-1598.