

## Can meaning buffer work pressure? An exploratory study on styles of meaning in life and burnout in firefighters

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### Summary

**Aim:** The purpose of this study is to examine the relationships between different dimensions of meaning in life (personal meaning, the presence of meaning, a search for meaning) and burnout among firefighters. In addition, the differences in the level of burnout in firefighters were evaluated within the three of meaning in life.

**Method:** Participants were 189 firefighters randomly recruited from 12 fire stations in southern Poland; they participated in the study voluntarily. The age range was 20–50 years (mean 33.04 years, SD = 7.87). The following questionnaires were used: the Personal Meaning Profile, the Meaning in Life Questionnaire, and the Maslach Burnout Inventory.

**Results:** Firefighters with higher levels of personal meaning and presence of meaning reported less emotional exhaustion and depersonalization and more personal accomplishment. Most of the personal meaning dimensions also had significant associations with burnout indicators: individuals with detached style had higher levels of emotional exhaustion and depersonalization than individuals with presence style and presence and search style.

**Discussion:** Meaning structures are an important salutary factor that enables firefighters to effectively comprehend and interpret their work-related experiences, and thus reduces the likelihood of distress and weariness they experience. Search for meaning has beneficial effects on burnout consequences among firefighters only if it is linked with presence of meaning.

**Conclusions:** Having valuable goals and purpose in life endows individuals with meaningful experiences that form the building blocks of meaning in life that neutralize the processes and effects of burnout.

meaning in life/burnout/firefighters/work-related stress

### INTRODUCTION

Research from occupational psychology and medical science has shown that a considerable number of employees tend to experience high

and chronic levels of stress at work [1,2]. It is justifiable that people may feel strained and exhausted by work demands and work-related stress. Growing intensity of work, employers' insistence on flexibility, and increasing demands at work can lead to emotional strains and psychological ill health. Many employees find work-related stress so severe that they are no longer able to perform tasks and maintain ad-

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equately their job performance. Burnout symptoms are considered important aspects of psychological ill health as they are inseparably connected with stress, anxiety, and depression [3,4]. Studies have also shown that burnout is an important problem among firefighters triggering many psychological and medical consequences [5]. However, research on the factors that can prevent or lessen burnout in working life remains scant. Knowledge about potential protective factors is of great importance to effectively deal with negative psychological and medical consequences of burnout.

One of the important factors that may play a beneficial role in preventing or decreasing the negative symptoms of burnout appears to be meaning in life. The main reason lies in the fact that meaning in life enables individuals to interpret and organise their experience, identify important aspects of life, and achieve a sense of purpose and significance [6]. Meaning in life is generally understood as a sense of people's comprehension of the world around them and their investment in a self-concordant purpose, the pursuit and attainment of worthwhile goals, and an accompanying sense of fulfilment [7-9]. Research suggests that meaning in life is mainly cognitive in nature. The cognitive component of meaning in life comprises beliefs that there is an ultimate purpose in life, beliefs in moral laws and in the afterlife [6,10]. This cognitive character provides a unifying framework for individuals to organise and prioritise the most important information regarding both themselves and the world.

In the current study meaning in life is conceptualized as an individually constructed cognitive system, which endows life with personal significance [11]. The operationalization views meaning in life as a cognitive personality trait that is primarily rooted in human cognition and differs between individuals. According to Wong [10], meaning in life understood in terms of personal meaning can be separated into seven domains: achievement, relationship, religion, self-transcendence, self-acceptance, intimacy, and fair treatment. The domains represent an existential nature of meaning in life and reflect the process of discovering significance and meaning in various domains of human life.

A different approach was presented by Steger and colleagues, who proposed to consider mean-

ing in life in two main dimensions: presence of meaning and search for meaning [12,13]. The presence reflects the degree to which individuals perceive their lives as significant and meaningful, while the search denotes the intensity with which people are engaged in a search for meaning in life. Research demonstrated that both dimensions have an essentially different character and express dissimilar attitudes to life [14]. Presence of meaning enables individuals to experience their lives as comprehensible and significant, and to feel a sense of purpose or mission in their daily endeavours. Search for meaning reflects the dynamic and active efforts expended by individuals when they try to comprehend the significance, and purpose of their lives.

There has been some evidence suggesting that meaning in life is linked to work experiences and, consequently, burnout processes [15,16]. Burnout refers to negative consequences of chronic work stress which are a result of prolonged response to chronic emotional and interpersonal stressors on the job. Burnout can be defined as "a psychological syndrome in response to chronic interpersonal stressors on the job. The three key dimensions of this response are an overwhelming exhaustion, feelings of cynicism and detachment from the job, and a sense of ineffectiveness and lack of accomplishment" (p. 399) [17]. The first component, exhaustion reflects feelings of being overstrained and depleted of one's emotional and physical resources. It denotes a stress-related character of burnout and assesses individuals' energy in terms of its absence. The second component, cynicism (or depersonalization) refers to a negative, unemotional, or disproportionately detached response to various aspects of the job. It represents the interpersonal dimension of burnout as it has an external focus on a person's capacity to invest energy, attention or emotion in another person, object or activity. The last component, reduced efficacy or lack of accomplishment describes feelings of incompetence and a lack of achievement and efficiency at work. It represents individuals' self-evaluations related to burnout [17]. The entire burnout syndrome encompasses exhaustion, cynicism, and inefficacy.

Although research has found consistent association of burnout with negative psychological consequences and adverse work experiences

[18,19], the associations between meaning in life and burnout remains largely unexplored. Previous studies mainly demonstrated that some constructs related to meaning in life are connected with the effects of burnout. Examining the role of stress and level of burnout on job performance among nurses, Gandhi and colleagues pointed out that meaning in life can be linked to burnout on a basis of depressive symptoms [20]. There are associations between depression and burnout which result in the individual becoming exhausted, hopeless, and indifferent to personal goals and life events. The individual starts to believe that the future holds nothing in store for them, and as a consequence, their level of meaning of life decreases. Other studies found that individuals who were characterized by depressive symptoms, low self-esteem, and rigid functioning in the workplace scored significantly lower on life purpose and meaning in life [21,22]. It suggests that individuals who have lower levels of burnout and pro-active attitudes to work may be more likely to use their inner potential and ascribe more meaning to their lives.

Those results imply that meaning and purpose play an important role in people's responses to emotional and interpersonal stressful situations in the workplaces and job burnout, e.g. individuals may strongly rely on their meaning structures while using adaptive coping strategies to manage chronic work stress. In this case, meaning in life can play a buffering role in preventing or lessening the effects of burnout. Yet, it is not fully known what dimensions of meaning in life would be associated with the effects of burnout among different professionals, for example firefighters. Given the complexity of the relationship of meaning in life and burnout, and the unexplained effects of meaning structures on burnout [20,21], it is plausible that specific dimensions of meaning in life (e.g. presence and search) might be differently related to burnout.

The most comprehensive framework for understanding the relationship between meaning in life and burnout is arguably the existential theory, which holds that individuals need to experience their lives as meaningful, significant, and important [23]. Frankl stressed the importance of finding meaning in one's life as the primary motivational force in people's lives [8,24]. He stated that each person has some unique pur-

pose or overarching aim for their lives, and tries to actualize as many values as possible in their community. Becker pointed out that one of the most universally chosen answers to the existential striving for meaning is work [25]. According to Yalom, actualization and deriving a sense of significance in the sphere of work protects individuals from fear of death [26]. Finding meaning in the workplace gives people motivation and additional stimuli to effectively engage in work and complete their tasks.

Analysing the methodological usefulness of existential theory, Pines and others emphasize the fact that people who expect to derive a sense of existential significance from their work engage in it with high hopes and expectations [23,27]. They tend to treat their job requirements and activities seriously and diligently. The feelings of potential failures at work render them helpless and hopeless, and eventually lead to burnout outcomes. In contrast, when people feel that their efforts at work are important and significant, they are not in danger of burnout processes, even in highly stressful conditions [28]. They are able to cope with job demands in successful and constructive ways. The sense of meaning and significance can thus explain the dynamics of job burnout.

The existential perspective has been supported by empirical studies which focused on various factors preventing or attenuating burnout processes. Seeking meaningfulness in life (search for meaning) proves to be a preventive beneficial factor for counsellors against the consequences of burnout, i.e. therapeutic ineffectiveness, premature occupational attrition, depression, and substance abuse [29]. Working couples who care for both children and aging parents have a greater sense of meaning and significance, which in turn leads to lower levels of job burnout, despite the multiple stressors associated with their work, marriage, parenting, and care for aging parents [23]. Research on stress and burnout among students and academic staff revealed that burnout seemed to be caused by frustrated hopes and expectations, a feeling of inadequate control over one's work and a feeling of losing the meaning of life [30].

These results imply that meaning in life is an important preventive factor for individuals' burnout, because it can facilitate positive human functioning and imbue life with a sense of purpose

and significance, which in turn may attenuate the effects of emotional exhaustion, depersonalization, and ineffectiveness. Yet there is little evidence explaining how different dimensions of meaning in life may be related to specific dimensions of burnout and what psychological mechanisms can underline their structural relationships.

To date, previous research has found substantiated evidence supporting relationships between meaning in life and burnout. This study, however, aims at examining the relationships between different dimensions of meaning in life and burnout more systematically. Specifically, meaning in life is to be examined in terms of personal meaning, presence of meaning, and search for meaning. In addition, to our knowledge, this is the first study in which these relationships are measured among firefighters. The present research has two primary aims. First, the relationships between the three dimensions of meaning in life and burnout were examined. Second, because the relationships between presence of meaning/search for meaning and burnout outcomes have been underexplored and it is not clear whether people who already have meaning in life might also search for meaning [14,16], we also assessed the differences in burnout between styles of meaning in life, which represent different attitudes people hold in relation to having and searching for a sense of significance and purpose. The study hypothesised that:

- H1: the firefighters' domains of personal meaning would be associated with their level of burnout.
- H2: presence of meaning in life would be negatively associated with burnout, while search for meaning in life would be positively associated with burnout.
- H3: firefighters characterized by high levels of both presence of meaning and search for meaning would have lower levels of burnout than those who have only meaning or search for meaning respectively.

## METHOD

### Participants and procedure

Participants were 189 Polish firefighters who participated in the study voluntarily. All of

them were men, which was due to the specificity of their occupation. The age range was 20–50 (mean 33.04 years, SD = 7.87). The participants were randomly recruited from 12 fire stations located in southern Poland. They were equally drawn from different geographical areas to form a representative sample of Polish firefighters in terms of age and social status. The data were obtained directly at the workplace. All participants completed self-administered questionnaires over the following 2 weeks, which afterwards were either collected by the researchers at the work setting or sent back to them. The study was anonymous.

## Measures

### Meaning in life

Two questionnaires measuring meaning in life were used to assess its different dimensions. The Personal Meaning Profile evaluates personal meaning that is understood as an individually constructed cognitive system, which endows life with personal significance [10]. The scale measures the level of meaning in life stated by respondents in seven domains: achievement, relationship, religion, self-transcendence, self-acceptance, intimacy, and fair treatment. The questionnaire contains 57 items evaluated on a 7-point Likert scale, and a total score can be calculated by summing up results from the seven domains. We used a Polish version of the questionnaire translated by Krok was used [31]. The Cronbach alpha coefficients for the present study ranged from 0.69 to 0.89 for the subscales and 0.78 for the total score.

The Meaning in Life Questionnaire measures two dimensions of meaning in life: presence and search [12]. It consists of 10 items rated on a 7-point scale. The presence subscale evaluates the extent to which participants perceive their lives as meaningful (e.g. 'I understand my life's meaning' and 'My life has no clear purpose'). The search subscale measures the extent to which respondents are actively seeking meaning or purpose in their lives (e.g. 'I am searching for meaning in my life' and 'I am looking for something that makes my life feel meaningful'). The Polish version was translated by Krok [32].



The Cronbach alpha coefficients for the present study were 0.81 and 0.81 for the presence and search subscales, respectively.

### Burnout

The level of the firefighters' burnout was measured using the Maslach Burnout Inventory (MBI), which is one of most studied measurements of burnout in the literature [33]. The MBI measures three dimensions of burnout: emotional exhaustion, depersonalization, and reduced personal accomplishment. Emotional exhaustion describes feelings of being emotionally overextended and exhausted by one's work. Depersonalization assesses an indifferent and impersonal response toward recipients of one's service, care treatment, or instruction. Personal accomplishment measures the feelings of competence and successful achievement in one's

work. The inventory contains 22 items which are framed as statements of job-related feelings (e.g. 'I feel burned out from my work', 'I feel confident that I am effective at getting things done') and are rated on a 7-point scale. Burnout is reflected in higher scores on exhaustion and depersonalization, and lower scores on personal accomplishment, whereas the opposite pattern represents greater work engagement. The Polish version was adapted by Pasikowski [34]. The Cronbach alpha coefficients for the present study were: 0.84 for emotional exhaustion, 0.63. for depersonalization, and 0.76 for personal accomplishment.

### RESULTS

First, correlations were computed among personal meaning, presence of meaning, search for meaning, and burnout (Table 1).

**Table 1.** Correlations among personal meaning, presence of meaning, search for meaning, and burnout

Burnout	Personal meaning								Meaning in life	
	ACH	RE	REL	ST	SA	IN	FT	Total	PM	SM
Emotional exhaustion	-0.45***	-0.37***	-0.20**	-0.21**	-0.34***	-0.34***	-0.16*	-0.35***	-0.44***	0.14
Depersonalization	-0.34***	-0.30***	-0.18*	-0.15	-0.23***	-0.27***	0.02	-0.24***	-0.35***	0.13
Personal accomplishment	0.46***	0.43***	0.17*	0.30***	0.31***	0.32***	0.24***	0.37***	0.41***	-0.22***

\*\*\* p < 0.001; \*\* p < 0.01; \* p < 0.05

ACH – achievement, RE – relationship, REL – religion, ST – self-transcendence, SA – self-acceptance, IN – intimacy, FT – fair treatment; PM – presence of meaning, SM – search for meaning

The total personal meaning was negatively correlated with emotional exhaustion and depersonalization, but it was positively correlated with personal accomplishment. Most of the personal meaning dimensions had the same pattern of associations with burnout dimensions, i.e. there were negative correlations between the personal meaning dimensions and emotional exhaustion; and the personal meaning dimensions, apart from fair treatment, and depersonalization; and positive correlations between the personal meaning dimensions and personal accomplishment. Negative correlations were found between presence of

meaning and emotional exhaustion and depersonalization, while positive correlation was noted between presence of meaning and personal accomplishment. In contrast, search for meaning correlated negatively only with personal accomplishment.

To assess the relative contribution of meaning in life dimensions to burnout dimensions, a stepwise regression was conducted (Table 2). The predictors were personal meaning, presence of meaning, and search for meaning, and the dependent variables were, separately: emotional exhaustion, depersonalization, and personal accomplishment.

**Table 2.** Stepwise regression statistics for burnout scales on dimensions of personal meaning, presence of meaning, and search for meaning

	$\beta$	t	p
Emotional exhaustion: R = 0.47; R <sup>2</sup> = 0.22; F(2,186) = 13.28; p < 0.001			
Presence of meaning	-0.35	-3.82	0.000
Personal meaning	-0.22	-2.23	0.021
Depersonalization: R = 0.35; R <sup>2</sup> = 0.12; F(1,187) = 17.80; p < 0.001			
Presence of meaning	-0.35	-4.21	0.000
Personal accomplishment: R = 0.53; R <sup>2</sup> = 0.28; F(3,185) = 16.32; p < 0.001			
Personal meaning	0.28	3.15	0.002
Presence of meaning	0.27	3.11	0.002
Search for meaning	-0.25	-2.89	0.009

All the results of stepwise regression for burnout dimensions were statistically significant. In the first regression equation, the combined meaning predictors accounted for a significant portion of variance (22%) in emotional exhaustion ( $F = 13.28$ ;  $p < 0.001$ ). Examination of the beta weights revealed that presence of meaning and personal meaning predicted lower levels of emotional exhaustion. In the regression equation for depersonalization, the only predictor presence of meaning accounted for 12% of variations ( $F = 17.80$ ;  $p < 0.001$ ), predicting lower levels of depersonalization. Finally, in the regression equation for personal accomplishment, all three predictors accounted for 28% of variance ( $F = 16.32$ ;  $p < 0.001$ ). The beta weights showed that personal meaning and presence of meaning predicted higher levels of personal accomplishment, while search for meaning predicted its lower levels.

The next research question formulated in this study referred to examining the different patterns of firefighters' experiences of having and searching for meaning measured by the Personal Meaning Profile and Meaning in Life Questionnaire, and then assessing their effects on burnout dimensions. Cluster analysis was used to enable the identification of different styles of meaning in life. Three scale measures, i.e., personal meaning, presence of meaning, and search for meaning were used as grouping variables. A non-hierarchical k-means cluster analysis was conducted, specifying a three-cluster solution. Interpretive criteria are based on dividing the total sample distribution on each scale into threes. Scores of means, standard deviations, and ANOVA results for three cluster groups representing the three meaning in life styles are presented in Table 3.

**Table 3.** Means, standard deviations, and the ANOVA results for three styles of meaning in life.

	Presence style PS		Detached style DS		Presence and search style PSS		F	p
	M	SD	M	SD	M	SD		
Personal meaning	5.21	0.70	4.35	0.78	5.52	0.61	36.70	0.000
Presence of meaning	6.07	0.58	3.84	1.09	5.67	0.77	81.88	0.000
Search for meaning	2.93	0.83	4.11	0.96	5.33	0.79	78.53	0.000

- Cluster 1 – Presence style (PS). This cluster group (n = 53) demonstrated high scores on personal meaning and presence of meaning, and low scores on search for meaning.
- Cluster 2 – Detached style (SS). This cluster group (n = 66) was characterized by medium scores on personal meaning, presence of meaning, and search for meaning.
- Cluster 3 – Presence and search style (PSS). This cluster group (n = 70) was characterized by high scores on personal meaning, presence of meaning, and search for meaning.

Figure 1 gives a graphic presentation of the means of three clusters (styles of meaning in life).

One-way ANOVA was used to test for group differences in the proportion of individuals grouped into each cluster for both dimensions of meaning in life. The results for all the dimensions were significant (Table 3), which points to the differences between the three styles of meaning in life.

The next step was to calculate the effects of the three styles of meaning in life, represented by three cluster groups of firefighters, on burnout dimensions (Table 4).

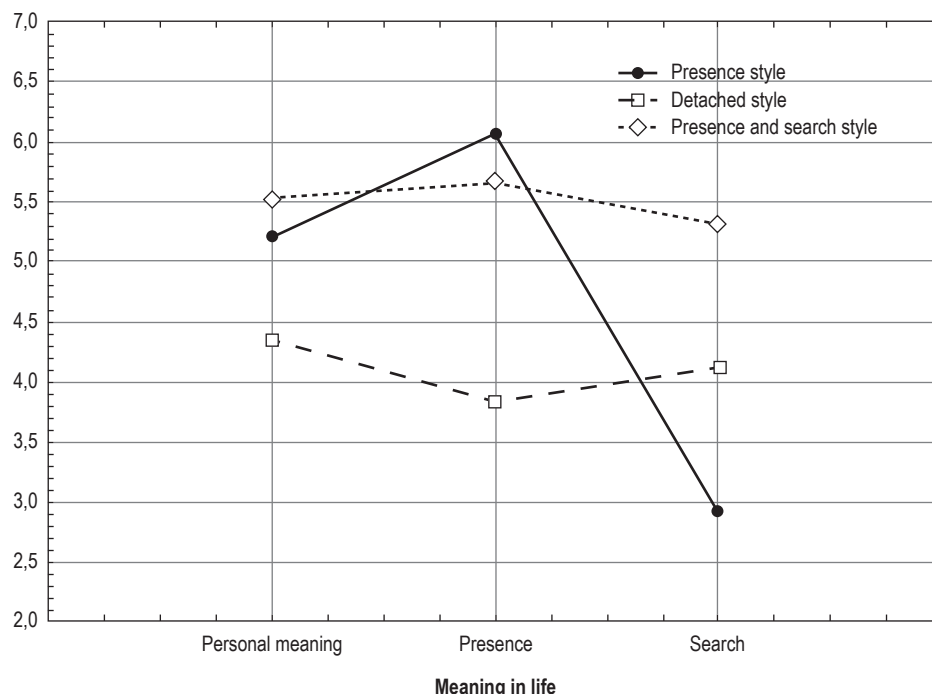


Figure 1. Three styles of meaning in life: presence style, detached style, and presence and search style.

Table 4. Means, standard deviations, and the ANOVA effects for burnout dimensions between styles of meaning in life.

	Presence style PS		Detached style DS		Presence and search style PSS		F	p	Tukey test
	M	SD	M	SD	M	SD			
Emotional exhaustion	1.42	1.14	2.73	1.41	1.98	1.45	9.20	0.000	PS:DS***; DS:PSS*
Depersonalization	1.26	1.10	2.56	1.49	1.75	1.70	6.63	0.002	PS:DS**; DS:PSS*
Personal accomplishment	4.11	1.01	3.13	1.11	3.66	1.25	7.36	0.000	PS:DS**

\*\*\* p < 0.001; \*\* p < 0.01; \* p < 0.05

One-way ANOVA test revealed significant differences in the effects of the styles of meaning in life on emotional exhaustion ( $F = 9.20$ ;  $p < 0.001$ ). Post-hoc comparisons using the Tukey test pointed out that detached style was significantly higher than presence style and presence and search style. Similar results in the styles were found for depersonalization ( $F = 6.63$ ;  $p < 0.01$ ), with detached style obtaining significantly higher scores than presence style and presence and search style. In contrast, within significant effects of styles on personal accomplishment ( $F = 7.36$ ;  $p < 0.001$ ) presence style was significantly higher than detached style.

## DISCUSSION

The purpose of this study was to examine the relationships between different dimensions of meaning in life and burnout among firefighters from two perspectives. First, the relationships between personal meaning, presence of meaning, search for meaning, and burnout were examined, which enabled researchers to deeper understand the internal associations between these factors. Second, the differences in the firefighters' level of burnout were assessed within three styles of meaning in life, which represent different attitudes firefighters hold towards a sense of significance and purpose. This study, to our knowledge, was the first, in which the above relationships are investigated in a sample of firefighters. Using ANOVA analysis, it provides more detailed information to understanding the theoretical relationships between meaning in life and burnout than did previous studies in the occupational group of firefighters.

### **The relationships between meaning in life and burnout among firefighters**

Regarding the first aim of the study, it was found that individuals with higher levels of personal meaning and presence of meaning reported less emotional exhaustion and depersonalization, and more personal accomplishment. Most of the personal meaning dimensions also had significant associations with the burnout indicators. In contrast, there were no

links between search for meaning and emotional exhaustion and depersonalization; search for meaning was only negatively related to personal accomplishment. These findings imply that individuals who experience meaning in life and pursue significant life goals in such domains as personal achievement and engagement, relationships with others, self-acceptance, and justice in the world are characterized by less feelings of being emotionally overextended and exhausted by one's work, impersonal and detached responses to various aspects of the job, and also by more feelings of personal accomplishment, competence, and efficiency at work. Having strong and self-motivated beliefs that one's life in meaningful and purposeful appears to be beneficial to alleviating negative consequences of job demands and job resources among firefighters, which may lead to the burnout syndrome. These results are consistent with the findings of several previous studies on burnout [5,18,35] and also with numerous clinical observations. They also confirm the first hypothesis that assumed such relationships.

The relationships found between meaning in life and burnout can be reasonably explained on a basis of the functions played by meaning structures in human functioning. Finding meaning as a life's pursuit is fundamental to adaptively identifying, interpreting, and engaging with the important aspects of personal and social life, including workplace demands [6,13]. Individuals' transactions and workplaces experiences result from both their psychological resources (e.g. meaning in life, resilience, coping with stress) and environmental factors (e.g. specific work characteristics, job demands). In the context of work, meaning in life enables individuals to interpret and organise their experience, achieve a sense of their own worth and control, discriminate elements that are important, and effectively govern their cognitive and emotional capacities [16]. Having a meaningful vision of life is especially vital for firefighters whose profession entails high demands in terms of resilience and stamina and coping with stressful situations.

It is essential that firefighters find meaning in their work to give them strength to carry on even in the midst of very demanding environments. Meaning and purpose can foster their personal growth and help control work-related



stress. This interpretation is supported by studies showing that people who believe their lives have meaning or purpose report higher life satisfaction [36,37], more control over their lives [38], and feel more engaged in their work [16]. As these factors are related to less burnout, it seems highly plausible that meaning in life can buffer burnout processes or alleviate burnout symptoms when they have already occurred. People who experience greater global-level meaning in life may be more likely to experience greater domain-level meaning, which has a preventive role in negative workplace experiences directly related to burnout.

The results of the current study expand existential theory, which posits that individuals need to experience their lives as meaningful, significant, and important [23,27]. The findings demonstrate that firefighters must have a satisfactory level of meaning in life if they are to have less burnout. Search for meaning alone is not a sufficient factor to protect an individual from the effects of burnout as it was not connected with emotional exhaustion and depersonalization, but only negatively associated with personal accomplishment, which partially confirms the second hypothesis. Although people searching for meaning might generally be expected to find it, research suggested that deficits in meaning prompt people to search for meaning [14]. Being aware of purpose and meaning firefighters need to derive a sense of existential significance from their work, which in turn will enable them to engage in it with high hopes and expectations, resulting in more resilient attitudes to job demands and stress. Meaning in life thus gives individuals motivation and additional stimuli to effectively engaging in work and completing their tasks.

### **The effects of different styles of meaning in life on burnout dimensions**

The different role of having meaning and searching for meaning on the effects of burnout became even more evident by comparing the differences in the firefighters' level of burnout within three styles of meaning in life. Although previous research stated that meaning in life played an important role in burnout processes, it did not specify its character in relation

to presence of meaning and search for meaning [16,28]. The current study demonstrated that individuals with a detached style had higher levels of emotional exhaustion and depersonalization than individuals with presence style and presence and search style. Individuals with a presence style were also characterized by a higher level of personal accomplishment than individuals with a detached style. Thus, these results expand the existing findings by demonstrating that firefighters characterized by a medium level of personal meaning, presence of meaning, and search for meaning (i.e. in detached style) are most susceptible to feelings of being emotionally exhausted by their work and have disproportionately detached responses to various aspects of their job. These findings confirm the third hypothesis that assumed such relationships.

The optimal situation of avoiding burnout for firefighters is to have a satisfactory level of presence of meaning in life or presence of meaning connected with search for meaning. This indicates that when firefighters already have meaning, they have a solid base that allows the search for further meaning to be a beneficial and productive process for neutralizing burnout. In contrast, when firefighters have not attained a satisfactory level of meaning in life or do not search for meaning, they are more prone to experiencing frustration and exhaustion at work. These findings are consistent with previous research in which seeking global meaning in life was associated with greater reductions in depressive symptoms and increased domain-level meaning in one's career [16]. They also extend previous studies regarding psychological aspects of burnout among firefighters [5,39] by demonstrating that intrapersonal and interpersonal sources of meaning in life (e.g. the dimensions of personal meaning) are associated with less burnout in firefighters' work. In this context, meaning in life allows firefighters to comprehend and construe their work-related experiences in such a way that they can potentially avoid feelings of distress and weariness.

The results shed new light on specific characteristics of the job of a firefighter. Their work appears to be a source of severe stress and mental strain resulting from high demands and unexpected events. Research revealed that this may cause psychological trauma that could turn into post-traumatic stress disorder [40]. Meaning

structures may influence firefighters' interpretations of both ordinary encounters and stressful events, which in turn re-establish the convictions that the world is comprehensible and that their own lives are meaningful.

Park, in her meaning-making model, points out that when individuals encounter potentially stressful or traumatic events, they assign a meaning to them and try to find an overarching purpose [41,42]. Appraised meanings are compared with global meaning, and stress or trauma is expected to happen when the appraised meanings disrupt some aspects of one's global meaning system. Experiencing stressful situations individuals strive to restore their global meaning structures by trying to understand the situation in a different way, redefining their beliefs and goals in order to regain internal consistency among them. Meaning making is generally regarded as an adaptive process on condition that satisfactory and favourable meanings are generated. This process may explain why both possessing meaning in life and searching for meaning are beneficial to avoiding burnout outcomes.

Another interesting result of this study, revealed by a cluster analysis, is that search for meaning is only advantageous to alleviating burnout effects when it is connected with presence of meaning. A person needs to have an established sense of meaning and purpose while trying to find further meanings and goals. This finding is significant for future research on meaning in life as it implies that search for meaning does not have to necessarily be regarded as a factor detrimental to mental health. Even though search for meaning is often associated with unfavourable psychological consequences, such as depression and lower life satisfaction [43], it can be a positive factor for those people who already have meaning in their life. This view is consistent with research showing that search for meaning was positively associated with less depression and greater life satisfaction among individuals with a relatively high level of meaning in life [44].

### Limitations

Some limitations in the present research should be noted. First, the firefighters' men-

tal health (e.g. depression or distress), which could affect their burnout, was not measured. Although both the respondents and their employers did not report any serious mental problems, potential negative symptoms might have distorted the level of burnout measured in the current study. Second, all data were correlational and cross-sectional, so no conclusions regarding causality can be made. Although the cluster analysis indicated that the effect of styles of meaning in life on burnout outcomes was significant, a reciprocal relation between meaning in life and burnout dimensions is likely to exist. It seems reasonable that experiencing emotional exhaustion and depersonalization would lead to a lower sense of meaning and purpose in life. Longitudinal or experimental studies are required to assess causality between the variables measured. Third, although the study comprised a representative sample of the Polish firefighter population, the present research focused only on employees in one culture and one historical period. Hence, the cross-cultural generalizability of these findings still needs to be demonstrated and compared to other firefighter populations. As work conditions and values held by firefighters differ in different countries [45], cross-cultural comparisons would shed new light on relationships between meaning in life and burnout.

In conclusion, the present study supports earlier assumptions pointing to the relationships between meaning in life and burnout. It suggests that experiencing meaning in life as a whole may buffer negative consequences of burnout processes among firefighters. Meaning structures appear to be an important salutary factor that enables firefighters to effectively comprehend and interpret their work-related experiences, and thus reduces the likelihood of distress and weariness. Valuable goals and purposes endow individuals with meaningful experiences which form the building blocks of meaning in life that neutralize burnout processes. Most importantly, the study provides the first empirical evidence that search for meaning has beneficial effects on burnout consequences in the firefighter population on condition that it is linked with presence of meaning. Therefore, the present study identifies experiencing and seeking meaning in interpersonal and intrapersonal domains as potential support to work-related stress and demands.

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