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Does the palliative medicine specialist cope better with stress than an anaesthetist, surgeon or general practitioner? A study on job-related experience and behaviour patterns

Abstract

Background. Long-lasting stress and its consequences, such as burnout syndrome, should be avoided by medical practitioners in any specialization. Stress, as a huge and increasingly common problem, has an influence on the well-being of medical practitioners, as well as on the quality of their services.

The aim of the study was to determine how palliative medicine specialists (PAL), surgeons (SUR), anaesthetists (AN) or general practitioners (GP) cope with stress and whether their personality traits have an influence on job-related experience and behaviour patterns.

Material and methods. A sample of 302 medical practitioners (PAL — 79, GP — 84, SUR — 74, AN — 65) was asked to complete an inventory: “Job-related experience and behaviour patterns” — AVEM/MECCA. Analysis included the distribution of preferred job-related experiences and behaviour patterns. A correlation between previously tested (with NEO-FFI) personal traits of PAL and these results was also examined.

Results. There are two dominant patterns of behaviour helping to cope with overwork and stress among PAL: pattern G, beneficial to health and development at work, and type A, which shows risk due to severe strain. In comparison with AN, SUR and GP, PAL have the smallest predominance of risk patterns (A + B) over those beneficial to health (G + S). PALs are characterized by the strongest social support and satisfaction from life. Personal traits typical for PAL, such as the low level of neuroticism and high degree of extraversion and openness to experience, may serve as a buffer in situations of overload from prolonged stress.

Conclusion. Results suggest that palliative medicine specialists cope better with job stress than medical practitioners in other studied specializations.

Key words: palliative medicine specialists, personality, job stress and coping strategies, job burnout syndrome

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Introduction

The amount of data on high stress levels, psychological overload, and emotional exhaustion among medical practitioners has increased in recent decades [1–3]. It has been shown that long-lasting stress, lack of satisfaction with work or its consequences, such as job burnout syndrome, are becoming more and more common among physicians. This has an influence on their well-being as well as on the quality of their services [4, 5]. Some authors say that, as the medical profession is becoming more and more technical, human element is becoming less of a focus. As a result of health care reorganization, the social perception of medical practitioners has been changing, with a further reduction in job satisfaction as an outcome [6, 7]. The doctor's job is based on close interpersonal contact with a patient, assuming cooperation and emotional exchange. Personal engagement, awareness and attentive contact with other people are required [8]. A personality profile of palliative medicine specialists (PAL), general practitioners (GP), anaesthetists (AN) and surgeons (SUR) was researched in a previous study based on a Polish adaptation of a personality inventory (NEO-FFI) first published by Coasta and McCrae [9]. This tool measures differences between individuals on 5 scales, each of which represents one of the "Big Five" factors: neuroticism, extraversion, openness to experience, agreeableness and conscientiousness. We showed that in comparison with norms suitable to age and sex (unprocessed results), irrespective of profession, PAL had lower levels of neuroticism and increased results in extraversion and openness to experience scales. When PALs were compared with other specialists, it emerged that they have the highest level of extraversion, openness to experience and agreeableness. They also had levels of neuroticism lower than for GP and AN but not much higher than SUR [9].

In this study, we tried to evaluate the emotional attitude to and involvement in work, psychological resistance and coping strategies when confronted with difficult situations for PAL, SUR, GP and AN. We sought an answer to the following question: do PAL specialists possess typical personality traits which may determine their pattern of behaviour and experiences in the face of job stress?

Material and methods

As a basic tool in this study we used an inventory: job-related experience and behaviour pattern (AVEM — Arbeidsdeelname Vrouwen uit Etnische

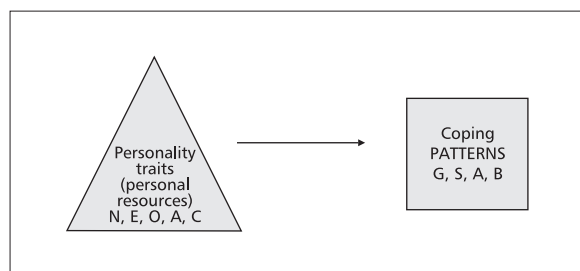
Minderheden or in English known as MECCA — measure of coping capacity questionnaire) by U Schaarschmidt and A Fischer. The Polish adaptation is by T Ronginska and W Gaida [10]. The inventory consists of 66 statements. Each statement is evaluated by a participant on a five-point scale. The sphere of behaviours and experiences is described by 11 scales (each with 6 statements).

1. Subjective meaning of work.
2. Professional ambitions.
3. Readiness to make energetic expenses.
4. Tendency to perfection.
5. Ability to distance.
6. Tendency to give up in the face of defeat.
7. Offensive strategy in solving problems.
8. Inner calmness and balance.
9. Sense of success at work.
10. Satisfaction from life.
11. Sense of social support.

The scales were assigned to 3 factors or main aspects of behaviour and experiences:

- A. involvement with work (scales 1–5).
- B. psychological resistance and strategies for coping with difficult situations (scales 6–8).
- C. emotional attitude to work (scales 9–11).

Based on the analysis, the authors of the inventory distinguished and described four relatively constant patterns of behaviour and experiences related to work [10]. Type G (from the German: "Gesund" — healthy) was characterized by involvement, resistance to occupational overload and satisfaction at work. The ability to maintain distance from work-related problems is a feature beneficial to psychological health. Defeat is not treated as an obstacle but as a problem that needs to be solved. Type S (from the German: "Sparsam" — thrifty), was characterized by low involvement with work and general satisfaction from life. People of this type do not wait for continuous confirmation of professional success but gain their satisfaction outside their work. Type A (risk burden) — was identified with type A behaviour, characterized by increased energetic expenses, psychological burden, reduction of ability to relax connected with reduced resistance and satisfaction from work. Type B (burnout) was characterized by a very low subjective meaning of work, reduced resistance to stress, clearly limited satisfaction from work, escape from problems at work and a tendency to give up in the face of defeat. The spheres of personality which may condition the work effectiveness of PAL, SUR, GP and AN were evaluated by this AVEM/MECCA inventory. An analysis of stable patterns of behaviour, characteristic for each spe-



N — neuroticism; E — extraversion; O — openness to experience; A — agreeableness; C — conscientiousness; G (*Gesund*) — healthy; S (*Sparsam*) — thrifty; A — risk burden; B — burnout

Figure 1. Model of dependence between analysed variables

cialization, was then carried out. Finally, the relation between personality variables (personal resources) of PAL and perceived overwork, as well as ways of coping with job stress, were measured (Fig. 1).

Statistics

The following statistical tests were used: t-Student's test and one factor analysis of variance (ANOVA). If the F-value was statistically significant ($p < 0.05$), differences between groups were evaluated with post-hoc RIR-Tukey's test for unequal groups. Pearson's correlation coefficient was used to evaluate the correlation between job-related experience and behaviour patterns and previously researched with NEO-FFI personality traits. Calculations were carried out using Statistica 6.0 for Windows.

Results

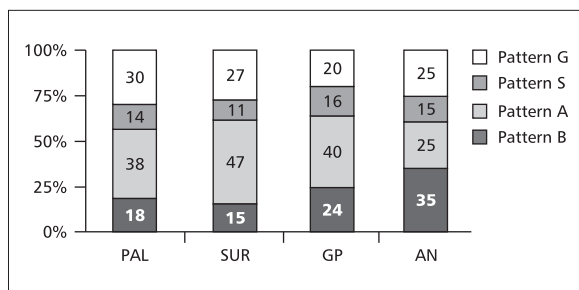
A sample of 302 medical practitioners took part in the study. The experimental group consisted of 79 PAL (44 with a specialization, 35 at the final exam stage prior to specialization). The control group consisted of 84 GP, 74 SUR and 65 AN. Initially, an analysis of coping with stress was carried out. The analysis included a division into 3 spheres of personality: involvement with work; psychological resistance and strategies for solving problems; and emotional attitude to work (Table 1). When involvement with work was taken into account, it emerged that PAL significantly differed in 3 subscales: 1. they give a subjectively higher rank to their job in comparison to AN; 2. they have a lesser pursuit of perfection than SUR but 3. have a stronger ability to distance themselves from work and achieve psychological relaxation. In the scales of professional ambitions (occupational promotion) and readiness to expend energy (involvement with professional matters), PAL differed insignificantly from other medical practitioners.

In the sphere of psychological resistance and strategies for coping with difficult situations, PAL (like SUR) have significantly higher results on the offensive strategies for solving problems in comparison with AN. However, on the scale of psychological stability and inner balance, as well as a tendency to give up in the face of defeat, PAL do not significantly

Table 1. Subscales of AVEM/MECCA for researched medical practitioners

AVEM/MECCA scales	PAL (1) n = 79 M	SUR (2) n = 74 M	GP (3) n = 84 M	AN (4) n = 65 M	RIR Tukey's test
Involvement with work					
Subjective meaning of work	17.6	18.4	17.4	15.5	1-4 2-4
Professional ambitions	20.8	22.0	20.4	19.5	2-3, 4
Readiness to make energetic expenses	22.6	23.4	22.3	21.3	2-4
Tendency to perfection	22.5	24.4	22.4	22.8	1-2 2-3, 4
Ability to distance	17.9	16.4	17.1	18.8	1-2, 2-4
Psychological resistance and strategies of coping					
Tendency to give up in the face of defeat	16.3	15.5	17.6	16.2	2-3
Offensive strategy in solving problems	22.1	22.0	21.2	20.8	1-4, 2-4
Inner calmness and balance	19.3	19.4	19.9	19.8	
Emotional attitude to work					
Sense of success at work	22.3	23.2	22.1	22.0	
Satisfaction from life	22.5	21.1	20.7	19.2	1-3, 4 2-4
Sense of social support	22.3	20.7	20.6	20.7	1-2, 3, 4

PAL — specialists in palliative medicine; SUR — surgeons; GP — general practitioners; AN — anaesthetists; M — mean; n — number; Tukey's test: 1-2 — means statistically significant difference between group 1 (PAL) and 2 (SUR); 1-2, 3, 4 — means statistically significant differences between group 1 and all the others



PAL — specialists in palliative medicine; SUR — surgeons; GP — general practitioners; AN — anaesthetists

Figure 2. Distribution of job-related experience and behaviour patterns among specialists in palliative medicine, surgeons, general practitioners and anaesthetists

differ from other specialists. In the field of emotional attitude to work, PAL have the strongest sense of social support (statistical significance in comparison with SUR, GP, AN) and satisfaction from life (statistical significance in comparison with GP, AN). The sense of professional success was similar in all four groups.

In the second stage, job-related experience and behaviour patterns were analysed (Fig. 2). In the field of job stress, PAL have a tendency to use type A, while participation of the most dangerous for health type B (burnt out) is much smaller. On the contrary, type B is typical for AN. Pattern G, characterizing satisfaction from life and a successful worker, is most frequently used by PAL, while GP employ it in the smallest range.

A more precise analysis of AVEM/MECCA scales showed a similar proportion of distribution, generally detrimental to health: “healthy types” (G/S) vs. “risk types” (A/B) in the case of each group of medical practitioners. Medical practitioners from each specialization in over 50% of the cases show one of the patterns of behaviour and experiences at work (type A or B) detrimental to health. In comparison with AN, GP and SUR, dominance of these types is the smallest in the case of PAL: 55% vs. 44% (A + B vs. G + S). However, it should be emphasized that this distribution of job stress behaviour and experiences is still detrimental to health. Finally, the relation between personality traits for PAL measured previously with the NEO-FFI Inventory and their job-related experience and behaviour patterns was analysed (Table 2). The following statistically significant relations were observed: a strong, positive correlation between neuroticism and pattern B for behaviour; moderate, negative correlation between neuroticism and pattern G.

Table 2. Values and statistical significance of the correlation between job-related experience and behaviour patterns and NEO-FFI for researched palliative medicine specialists

AVEM /NEO-FFI	TYPE G	TYPE S	TYPE A	TYPE B
N	-0.43**	-0.33*	0.25	0.52**
E	0.29*	0.08	-0.04	-0.40**
O	0.29*	0.10	-0.04	-0.30*
A	0.05	0.02	-0.01	-0.07
C	0.38**	-0.11	0.06	-0.48**

N — neuroticism; E — extraversion; O — openness to experience; A — agreeableness; C — conscientiousness; * = p < 0.01; ** = p < 0.000

The greatest amount of statistically significant correlations with personality traits NEO-FFI was observed for type B. Apart from a strong and positive correlation with neuroticism, there was a strong negative correlation with conscientiousness, and a positive moderate correlation with extraversion or openness to experience.

Discussion

The gathered data confirm the thesis regarding the nature of extreme overload for the medical profession and show differences between doctors from different specializations in the distribution of patterns of behaviours and experiences connected with work [1, 3, 5]. It appeared that AN are at much greater risk of the consequences of negative job stress in comparison with PAL, which is in concordance with the previous observations [6, 12]. In each studied group of medical practitioners, we found a high participation of patterns detrimental to psychological health (sum of patterns A + B). For SUR and GP it was 62% and 64% respectively, with a dominance of risk type A. The largest participation of pattern B (with many features very similar to job burnout syndrome) was observed for AN. From this perspective, PAL seem to have coping strategies which are more effective and beneficial to health. However, this positive profile among PAL, with the important participation of healthy pattern G, is disturbed by the frequent appearance of pattern A. Comparison analysis with other results is not possible due to the lack of such research among medical practitioners. There are separate AVEM norms for medical workers but they, however, refer to nurses and paramedics [10]. A preliminary examination using AVEM/MECCA on students of pedagogy and teachers not only proved the diagnostic value of this tool but also its importance in burnout syndrome prophylaxis [10]. How should PALs protect them-

selves from job burnout syndrome? In pattern A, the most frequent among PAL, extreme involvement in work and insufficient relaxation and rest are the most destructive factors in this type of behaviour. These factors may lead to a sense of overwork and a lack of satisfaction from activity. It would be advisable to undertake precautions, such as: assertiveness and relaxation training, changes in spare time activities (hobby, sport), learning how to plan occupational activities rationally and improve work organization, and the correction of job significance with respect to other areas of life.

The second important pattern of behaviour among PAL is type G, considered as a model of psychological health, a high level of professional and interpersonal competences. People may have ambitious goals but are also able to adjust their efforts, depending on the difficulty of the task. In this case, prophylaxis should only be focused on supporting and enhancing strategies for medical practitioners' behaviour.

In the present study, we tried to examine the significance of an individual's resources in coping with stress and the possibility of anticipating its positive or negative consequences [10, 11]. We found out that neuroticism is strongly, positively correlated with pattern B and that there is moderate, negative correlation with pattern G. Most of the correlations with personality traits were observed for burnout type B. Apart from a positive relation with neuroticism, type B correlated negatively with conscientiousness, extraversion and openness to experience. This is very interesting because in the previous study we showed that PAL in comparison with norms for age and sex achieved significantly lower levels of neuroticism and significantly higher results for extraversion and openness to experience [9]. Indeed, PALs seem to be equipped with personal resources which help them confront problems and deal with them efficiently. A low level of neuroticism plus high extraversion and openness to experience may act as a buffer against contact with long-lasting stress at work [4].

Lastly, analyses of the 11 subscales provided very interesting results. PAL are distinguished from other studied groups by a high level of life satisfaction (statistical significance in comparison with AN and GP) and the feeling of social support from close relatives and co-workers (statistical significance in comparison to AN, GP and SUR). Additionally, PAL

have a significantly better ability to achieve psychological rest and distance from work (in comparison with SUR). All these features, plus a tendency to use active strategies for coping with problems (similar to SUR but definitely better than AN), may protect PAL from job burnout symptoms.

As those who work in palliative medicine (MK, MR), we can respond to all those who keep asking "how do you deal with it?" and offer us their condolences because we work with dying people. No, working with dying people does not have to take away your optimism and, if you have the support of your kin, it gives you an enormous sense of satisfaction with your whole life, including your job. What a paradox!

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