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# A comparative analysis of the mental health of medical practitioners specializing in different fields. How to live healthily in palliative medicine?

## Abstract

**Background.** Mental health can be defined as a process of searching and maintaining balance in the face of the strain constantly being imposed on an organism by its environment.

Medical practitioners, whose work is the source of significant stress, are considered to be especially prone to deterioration in mental health. The aim of the study was to evaluate the mental health of palliative care specialists in comparison with other medical practitioners.

**Material and methods.** For the evaluation of mental health, the General Health Questionnaire (GHQ) was applied. The results of prior studies on personality traits in accordance with the Five Factor Theory of Personality and the patterns of coping measured by the AVEM questionnaire were used to determine the predictors of poor mental health in palliative care specialists.

**Results.** The study sample group consisted of 518 medical practitioners of different specializations, including 79 palliative care specialists, 74 surgeons, 77 psychiatrists, 65 anaesthetists, 84 general practitioners, 67 radiologists and 72 dentists. It has been proved that mental condition is dependent on specialization (the best results appeared among psychiatrists, the worst among anaesthetists and radiologists). Every third palliative care specialist shows disorders in mental health. The disorder predictors in this group of medical practitioners are as follows: a high level of neuroticism, low rate of openness to experience, low intensity of strategies ascribed to a healthy G pattern and thrifty pattern S.

**Conclusion.** The studied group of palliative care specialists shows moderately good mental condition. Mental health can be enhanced by applying techniques strengthening "healthy" types of behaviour and affect regulation and by developing openness to experience.

**Key words:** palliative medicine, mental health, General Health Questionnaire

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## Introduction

According to the World Health Organization, there is no one official definition of mental health [1]. This results from a subjective evaluation of each individual, huge cultural differences and many competing scientific theories. Mental health is undoubtedly something more than the lack of mental disease [2, 3]. Providing a definition of mental health as a state of balance between an individual and the environment, The European Network on Mental Health Policy emphasizes the fact that mental health constitutes an integral and significant part of the general health condition [4]. Considering the evaluation of the impact of work-related stress and the developing of strategies for coping, mental health can be defined as a process of searching and maintaining a balance in the face of the internal and external strain constantly being imposed on an organism by its environment. There is, therefore, an ever-changing relationship between the estimate of expectations, individual endurance and behaviour patterns of a given individual [5]. In accordance with the definition given, mental strain that appears as a result of excessively strong or chronic stress in the workplace can be interpreted as a process of distorted mental (mainly emotional) balance, conduct regulation accompanied by physiological symptoms [6, 7]. The sense of mental health, to a certain extent, will be an indicator of the degree to which work exploits individuals and to which it enables individuals to use their potential and abilities [6]. Therefore, we can talk of positive mental health that is a value in itself or which is defined as the scope of skills in dealing with problems and avoiding breakdowns in the face of burdening experiences. There is also the negative mental health associated with mental disorders, negative symptoms and problems [4]. Medical practitioners, whose work is the source of significant stress, are considered to be especially prone to deterioration in mental health. According to much research, medical practitioners more often than the rest of the population suffer from disorders in the sphere of mental health [8–13]. The way medical practitioners release work-related stress strongly influences their mental health [14]. What is more, if they try to find solutions in drinking alcohol, excessive use of medicines, daily overtime or malnutrition, all these practices influence the physical health condition.

The aim of our study was to evaluate the influence of work-related factors on the mental health

of medical practitioners of different specializations with special regard to palliative care specialists.

## Material and methods

The study was conducted from January 2005 to June 2006 in several Polish cities: Bydgoszcz, Warsaw, Cracow, Opole, Inowroclaw and Plock. In order to gather socio-demographic data, we created our own questionnaire.

For an estimation of the state of mental health we used the General Health Questionnaire (GHQ-12) by David Goldberg [15]. It is a self-description questionnaire widely used in research on stress and frequently applied to detect periodic changes in psychological functioning in adults. The questionnaire had been validated earlier and adapted to research on the Polish population [16, 17]. GHQ is used both in clinical practice and in research to detect minor disorders of mental functions in the general population. It concentrates on cases of temporary breakdown in the normal functioning of an individual rather than on permanent traits (it detects disorders lasting more than two weeks). The questionnaire includes inquiries into different symptoms of mental health disorders (e.g. depression, loss of self-trust, sleeping and concentration disorders). The answers are treated as "0" (lately "not at all" or "as usual") or "1" (lately "rather more" or "much more than usual"). The total test result is the sum of the points scored for the answers to all the questions of the questionnaire: therefore, 12 is the maximum score. On the basis of criteria accuracy research, the threshold was established at the level of 2/3 points for the result of the GHQ-12 questionnaire. Following the assumptions of the majority of the research mentioned, the result  $\geq 3$  was established as the indicator of problems in the sphere of mental health [16, 18–22]. Due to the fact that in many publications quoted in this work researchers established the threshold value at a level above 3 points, and to make the comparison between the results of different groups of medical practitioners possible, this borderline ( $\geq 4$ ) was also taken into consideration in the analysis [14, 23–25].

In order to determine what factors have an essential impact on the general mental health condition of palliative care specialists, reference was made to our prior research on personality traits on the basis of the Five Factor Theory of Personality assessed in the NEO-FFI questionnaire and patterns of coping measured by the AVEM questionnaire [26, 27].

## Statistics

The estimate of whether general mental health condition is indeed associated with the kind of professional activities typical for a given medical specialization was performed on the basis of ANOVA analysis and RIR-Tukey test.

To test the dependencies of general health indicators (according to GHQ-12) on personality variables (according to NEO-FFI) and the patterns of coping (measured with the AVEM questionnaire) in the group of palliative medicine specialists, an analysis of multiple regression was applied.

We made an assumption of 5% error in inference and statistical significance of  $p < 0.05$ . Calculations were carried out with Statistica 6.0 for Windows.

## Results

### The level of general mental health in medical practitioners in respect of their specialization

The study sample group consisted of 518 medical practitioners of different specializations, including 79 palliative care specialists (PAL), 74 surgeons (SUR), 77 psychiatrists (PSYCH), 65 anaesthetists (AN), 84 general practitioners (GP), 67 radiologists (RAD) and 72 dentists (DENT).

Taking into consideration the threshold value criterion above 2 points, 1/3 of all the studied medical practitioners (37.6%) show a poor general mental health condition (Table 1). The results among anaesthetists (47.7%) and radiologists (47.8%) are significantly higher when compared with the whole population in question as well as the particular groups. The best general mental health condition (the lowest result) strongly associated with the stress situation at work (the lowest percentage of potential cases) is found among psychiatrists (28.6%).

The conducted ANOVA Analysis of Variance and RIR-Tukey test showed that there are different mental health conditions associated with certain

**Table 1. Results obtained from the studied groups of medical practitioners (n = 518) in the GHQ-12 questionnaire**

Specialization	Percentage of people with the result		
	0	≥ 3	≥ 4
SUR	37.8	36.5	24.3
GP	32.1	39.3	31.0
PSYCH	44.2	28.6	27.3
AN	21.5	47.7	40.0
RAD	31.3	47.8	38.8
DENT	33.3	30.6	27.8
PAL	38	35.4	32.9
Whole study group	34.4	37.6	31.5

SUR — surgeons; GP — general practitioners; PSYCH — psychiatrists; AN — anaesthetists; RAD — radiologists; DENT — dentists; PAL — specialists in palliative medicine

groups of medical practitioners (Table 2). The statistical significance was observed when comparing psychiatrists with anaesthetists and anaesthetists with dentists. The palliative care specialists who took part in the study show moderately good mental health condition: 32.9% show mental health disorders (a result on the GHQ scale above 2 points), and 38% scored 0 on the GHQ scale.

### An estimate of the predictors of the mental health condition of palliative care specialists

In order to determine the predictors of the general mental health of palliative care specialists, reference to our prior research on personality traits (according to NEO-FFI) and on patterns of coping measured by the AVEM questionnaire [26, 27] was made. Among the individual variables included in the research model the high level of neuroticism and low rate of openness to experience (Table 3) proved to be the predictors of mental disorders in this group of medical practitioners. The low intensity of strategies ascribed to the healthy-ambitious G pattern and unambitious (economical) S pattern is also not favourable to the mental health of palliative care specialists.

**Table 2. Results of general mental health condition in particular groups of medical practitioners (answer scoring: 0, 1) (n = 518)**

GHQ-12		SUR 1	GP 2	PSYCH 3	AN 4	RAD 5	DENT 6	PAL 7	In total	RIR-Tukey test
F = 3.18	M	2.51	2.50	2.13	3.9	3.7	2.17	2.68	2.75	3-4
$p < 0.004$	SD	3.25	3.00	3.05	3.67	3.98	2.58	3.40	3.32	4-6

SUR — surgeons; GP — general practitioners; PSYCH — psychiatrists; AN — anaesthetists; RADIOL — radiologists; DENT — dentists; PAL — specialists in palliative medicine; Tukey's test: 3-4: means statistically significant difference between group 3 (PSYCH) and group 4 (AN)

**Table 3. Results of stepwise multiple regression analysis of the levels of negative consequences of stress in relation to certain personality variables (according to NEO-FFI) and coping patterns (measured by AVEM questionnaire) in palliative medicine specialists' group**

Mental health condition	Predictors	F	R	R <sup>2</sup>	p
GHQ-12	N, type G-, type S-, O-	9.99	0.6	0.45	0.000

GHQ — general health questionnaire; PAL — specialists in palliative medicine; N — neuroticism; O — openness to experience; type G — healthy; type S — economical (unambitious); R<sup>2</sup> — level for the whole equation; Data on personality variables according to NEO-FFI and patterns of coping measured by AVEM on the basis of [26, 27]

## Discussion

The highest percentage of medical practitioners without any reservations about mental condition was found among psychiatrists, surgeons and palliative care specialists. The comparison with other research also confirms the fact that palliative care medical practitioners show not higher but often lower strain occurring in the form of mental disorder than the representatives of other specializations [23, 25, 28]. Not long ago, we showed that palliative care specialists are distinguished by a low level of neuroticism with a high rate of openness to experience [26]. This constellation of personality traits, according to NEO-FFI, strongly correlates with a good mental health condition. Neuroticism means vulnerability to negative emotions such as fear, confusion, dissatisfaction, anger, guilt and vulnerability to psychological stress. All these favour the presence of somatic symptoms, which act as defence mechanisms. Somatization can play an adaptational role when it helps to deal with a difficult situation but, when it is of a chronic character, it leads to a consolidation and deepening of mental disorders. On the contrary, openness to experience, that is the inclination of an individual towards searching and appreciating life experiences, tolerance to newness and educational curiosity facilitate mental health. Moreover, in the present research we showed 2 types of conduct and affect regulation in work-related stress situations (according to AVEM) which have a positive impact on mental health in the group of palliative care specialists: G and S type. Type G is characterized by commitment, strain endurance and job satisfaction. A trait that favours mental health is the ability to distance oneself from work-related problems. Failure is not treated as an obstacle but as a problem to be solved. Type S (economical and unambitious) is characterized by a low commitment to work and general life satisfaction. The lack of expectation of constant confirmation of success in the professional field is typical and life satisfaction is

not based on work. However, less than half of the palliative medicine specialists apply one of these two types of healthy conduct and affect regulation patterns in situations of work-related stress [27].

As medical practitioners, it is much easier for us to define a mental disease than to determine mental health. More and more often, it is being emphasized that mental health is not only the lack of mental disease. Even if many of us do not suffer from any diagnosed disease, still there are those who are "mentally healthier" than others. How to be healthier? In accordance with positive psychology, first of all it is necessary to enjoy life [2]. Paradoxically, everyday contact with death can help to achieve this. Stinissen said that a life "in the waiting room of death" is more purposeful and encourages us to use each moment to live life to the full [29]. Next, introducing balance in our life. This kind of balance e.g. between the time spent alone and among others, is an individual preference but nevertheless it should be maintained. How long do I work and how long do I rest? Another factor improving mental health is flexibility: for instance, flexibility in the sphere of life expectations. Emotional flexibility is essential. Each of us experiences different emotions and those who are "mentally healthier" allow themselves to express these. Those "less healthy" hide emotions they do not accept deep inside. And, finally, self-actualization: those "mentally healthier" are able to appreciate the good things that are in them and that were given to them and are constantly "in the process of actualizing their potential". Unfortunately, it is hard for medical practitioners to follow this advice. Instead of finding time for meditation, looking within oneself, making time for sport and positive meetings and conversations with friends, they react to increasing work-related stress with long extra hours spent at work. They hide anxiety or depression in alcohol and medicine [14]. More seldom than others do they ask for professional help for, obviously, they are the ones called upon to help others [14].

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