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EMPATHY AND BURNOUT AMONG PHYSICIANS OF DIFFERENT SPECIALITIES

Abstract: Aim: The aim of this study was to assess the level of empathy and burnout among physicians of different specialization, as well as to determine whether a correlation existed between the level of empathy and burnout.
Materials and Method: Seventy-one physicians took part in the study — 25 women (35.2%) and 46 men (age between 25 to 68 years). The physicians were either employed in hospitals, outpatient clinics or university departments in Krakow. The participants were asked to fill out a personal questionnaire, the Maslach Burnout Inventory (MBI) and the Emotional Empathy Scale (EES) as well as describe four chosen tables from the Thematic Apperception Test (TAT).
Results: The average empathy score for the whole group was 14.3 (SD ± 6.4). The average levels of each of the burnout (according to MBI) elements for the whole group were 21.72 for emotional exhaustion, 9.62 for depersonalization and 29.07 for loss of personal accomplishment. For the whole group a negative correlation was noted between loss of personal accomplishment (according to MBI) and the level of empathy (according to EES) ($r = -0.23$, $p < 0.05$). For the whole group negative correlations were noted between the level of emotional exhaustion, depersonalization and the total level of burnout (according to MBI) and the level of empathy (according to TAT) ($r = -0.30$, $p < 0.05$; $r = -0.39$, $p < 0.01$; $p = -0.32$, $p < 0.01$ respectively).
Conclusions: Concluding, medical specialists have a significantly higher level of empathy than surgeons and family physicians. It is imperative to remember that increasing depersonalization and emotional exhaustion can have a negative impact on empathy.

Key words: empathy, burnout, physicians.

INTRODUCTION

Several concepts of empathy can be found throughout literature [1]. Although there is some variation regarding the concept of empathy, it is generally defined as the ability to "see the world as others see it, be nonjudgmental, understand the feelings of others, and communicate the understanding" [2]. Empathy is viewed as an important attribute for medical caregivers [3]. According to Spiro, "empathy is the foundation of patient care" [3]. According to Chen *et al.* [4] empathy is the cornerstone of patient-physician relationships and should characte-

rize all healthcare relationships [5]. In pe whether a correlatioarticular, empathy significantly influences adherence to medical recommendations [6], reduces medical errors [7], increases patient compliance [8] and satisfaction [9], as well as increases physician well-being [10]. The successful interaction between patient and healthcare provider is often dependent upon the empathic nature of the physician [5]. Up to 60% of practicing physicians report symptoms of burnout [10] defined as emotional exhaustion, depersonalization (treating patients as objects), and low sense of accomplishment. Physician burnout has been linked to poorer quality of care, including patient dissatisfaction, increased medical errors, and lawsuits [10–13]. Substance abuse, automobile accidents, stress-related health problems, and marital and family discord are among the personal consequences reported [14, 15]. Burnout can occur early in the medical educational process. Nearly half of all third-year medical students report burnout [10]. There are strong associations between medical student burnout and suicidal ideation [16].

Although the issue of physician burnout has been known for years, few programs, dealing with this problem have been developed and data pertaining to their effectiveness are scarce [17].

The aim of this study was to assess the level of empathy and burnout among physicians of different specialities, as well as to determinn existed between the level of empathy and burnout.

MATERIALS AND METHODS

STUDIED GROUP

The studied group included physicians working in hospital wards, outpatient departments as well as didactic departments in Krakow. The group consisted of 71 physicians, including 25 women (35.2%) and 46 men, in the age between 25 and 68 years. The studied group has been divided into three subgroups — primary care physicians (29 people — 40.8%), non-surgical specialists (23 people — 32.4%) and surgical specialists (19 people — 26.8%).

The physicians have been informed about the aim of the study and assured about its anonymity. The study protocol has been approved by the Jagiellonian University Medical College Bioethics Committee (registry number KBET/131/B/2012). The study has been performed in accordance with the ethical standards laid down in the 1964 Declaration of Helsinki and its later amendments.

SCALES AND QUESTIONNAIRES

Physicians included into the study were asked to fill out the following questionnaires:

1. Self-developed questionnaire consisting of 15 closed-ended questions — 8 concerning sociodemographic data and 7 assessing the interviewees' relation to people and work.

2. Maslach Burnout Inventory (MBI) [18] which allows to measure the level of burnout. It consists of 22 statements concerning personal achievements or attitudes, which are divided into three subscales, reflecting the three-element conception of burnout by Maslach *et al.* [18]. The three scales allow to estimate emotional exhaustion (EEX), depersonalization (DEP) and lack of personal accomplishment (PA). The answer to each statement was to be marked on a 7-point Likert scale (from "0" never to "6" everyday). A total MBI score has been computed, separately for each subscale, by combining the answers from each item.

3. Mehrabian and Epstein Emotional Empathy Scale (EES) [19]. It consists of 33 statements describing empathic behavior. EES authors define empathy as the ability to see oneself in the place of another human being and to understand his or hers emotional reactions, both positive and negative. This emphasizes the integration of two components — emotional and cognitive, as well as the ability to perceive the world from another persons' perspective. The person completing the scale has to carefully read each statement and define to what degree the specific trait fits his or hers character. This is done using a 9-point Likert scale — where "+4" means "strong agreement", "0" "don't know" and "–4" means "strong disagreement" [20]. Specific statements form seven subscales include — emotional responsiveness to the surroundings, ability to understand the feelings of strangers, extreme emotional responsiveness, tendency to be moved by positive emotions, tendency to be moved by negative emotions, tendency to show compassion and readiness to interact with people having emotional issues. Statements can undergo both qualitative and quantitative analysis. According to the methods of this study, the level of empathy was defined quantitatively [20].

4. Four specifically chosen and assessed by a competent and independent judge (Ewa Wilczek-Rużyczka, MSc in humanities, PhD) tables from the Thematic Apperception Test (TAT) by Murray [21]. The TAT is a projective psychological test that is used to evaluate the three components of empathy — emotional, cognitive and behavioral. A person is given the TAT tables and asked to describe the depicted situation — what has happened previously, what is happening now and what will happen in the near future. The respondent is also asked what the people from the scene feel and think. Each table description was qualitatively analyzed according to the Morse *et al.* criterion [22]. The following empathy components were assessed:

- Emotional — sensitivity to the feelings of others, the ability to subjectively participate in the emotions of others, temporary emotional identification with others;
- Cognitive — recognizing emotions, understanding the feelings of others, seeing the perspective of others;

- Behavioral — to pass point-of-view understanding to another person, reflecting feelings and emotions, to settle situations.

The maximum number of points for each empathy component was three, which taking into account that four tables were assessed, summed up to a total of 12 points for each empathy component. The maximum number of points for the whole TAT was 36. The conducted analysis included all three components of empathy [20].

STATISTICAL ANALYSIS

Statistical analysis was conducted using computer software Statistica 10.0 PL by Statsoft Poland. Elements of descriptive statistics were used (mean, standard deviation, percentage distribution). To assess whether differences between specific groups existed, the Student t-test was used. To assess the correlation between scale scores, Speramans' correlation was used. Statistical significance was set at $p < 0.05$.

RESULTS

EMPATHY

Overall, for the whole examined group, the mean level of empathy (according to the TAT) was 14.3 (SD ± 6.4). The values for specific TAT components were as follows — 6.7 (SD ± 2.8) for emotional, 4.6 (SD ± 2.3) for cognitive and 2.9 (SD ± 2.1) for the behavioral component.

The mean level of empathy (according to the TAT), for different physician specializations, was 14.6 for surgical, 16.4 for non-surgical and 12.3 for primary care physicians. The mean level of empathy, measured using the EES, was 196.5, 212.8 and 199.2 respectively (for different physician specializations as mentioned above).

It has been proven that the level of empathy of non-surgical physicians is statistically higher than the level of empathy of surgical and primary care physicians, regardless of the test used to measure empathy — $p = 0.002$ and $p = 0.01$ respectively for the TAT and $p = 0.047$ and $p = 0.032$ for the EES.

BURNOUT

The mean levels of burnout (measured using MBI), for different physician specializations, are presented in Table 1. When comparing surgical and non-surgical physicians, a statistically significant difference was noted ($p = 0.034$) in the level of emotional exhaustion. Higher emotional exhaustion was noted among the non-surgical specialists.

Table 1

Mean levels of physicians' burnout, as grouped by different specializations (measured by MBI).

Specializations	Level of burnout			
	Level of emotional exhaustion	Level of depersonalization	Level of lack of personal accomplishment	Overall level
Surgical	20.03	8.23	29.58	57.83
Non-surgical	22.00	8.89	28.42	59.32
Primary care	16.26	5.91	31.17	53.35
Overall	21.72	9.62	29.07	60.41

RELATIONSHIP BETWEEN EMPATHY AND BURNOUT

When analyzing the association between the level of empathy (using the EES) and the level of burnout (using MBI) in the whole studied group, a statistically significant, negative correlation was noted between lack of personal accomplishment and the level of empathy ($r = -0.23$, $p < 0.05$).

The association between the level of empathy (according the the TAT) in different physician groups, and their level of burnout (according to MBI) is presented in Table 2.

Table 2

The relationship between the level of empathy among interviewed physicians (according to TAT), and their level of burnout (according to MBI).

Level of empathy/ Specialization	Level of emotional exhaustion	Level of depersonalization	Level of lack of personal accomplishment	Overall level
Surgical	–0.01	–0.13	0.18	0.06
Non-surgical	–0.13	–0.37'	0.11	–0.19
Primary care	–0.34'	–0.39*	0.02	–0.41*
Overall	–0.30*	–0.39**	0.14	–0.32**

The results are shown as Spearman correlation coefficients (r). * — $p < 0.05$, ** — $p < 0.01$, ' — trend for relationship $p < 0.10$.

DISCUSSION

A physicians' work is characterized by close interpersonal contact, empathy and care. The primary goal is to act for the good of others. Emotional exhaustion, excessive distance towards people and work and loss of commitment are com-

monly experienced symptoms of burnout. This can lead to treating patients in a depersonalized manner [20].

The aim of this study was to assess the level of empathy and burnout among physicians of different specialities, as well as to determine whether a correlation existed between the level of empathy and burnout.

When analyzing the level of empathy among physicians of different specializations, it came to light that the highest level of empathy was presented by physicians practicing non-surgical specialities. This fact can be supported by the finding, that as early as in medical school, students that plan to pursue non-surgical specialities, show higher levels of empathy, than their future surgical counterparts [1].

Non-surgical physicians were also characterized by the highest level of burnout in two out of three burnout dimensions — emotional exhaustion and depersonalization. This can be probably caused by the fact, that non-surgical physicians experience more direct contact with difficult and demanding patients. With time, such work conditions might increase the risk of developing burnout [23, 24]. It is necessary to stress, that burnout can affect up to 40% of physicians practicing non-surgical specialities [14].

When taking into account the whole studied group, a negative correlation between the level of empathy and burnout was noted. This shows that, in this matter, Polish doctors do not differ from their American counterparts [10, 13].

This study has several limitations. Firstly, the studied group is relatively small. Secondly, it lacks long-term follow-up that would enable to study the factors, which might influence the levels of empathy and burnout. Future studies are essential to determine in what way and why the levels of empathy and burnout change during a physicians career.

CONCLUSIONS

This study has proven that, in the case of depersonalization (according to MBI), there exists a negative correlation between the level of empathy (measured using the EES) and burnout, among interviewed physicians. The correlation of empathy (measured using the TAT) and the level of burnout (emotional exhaustion and depersonalization) was also negative and statistically significant for the whole group.

Concluding, it is imperative to remember, that increasing depersonalization and emotional exhaustion, as an effect of burnout, negatively impacts physicians' empathy. To lower the risk of developing burnout, prophylactic measures, such as empathy training, learning stress-coping techniques, finding ways to organize and effectively use rest and creating support groups (eg. Balint groups), should be taken.

CONFLICT OF INTEREST STATEMENT

None declared.

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