FOLIA MEDICA CRACOVIENSIA
Vol. LIII, 1, 2013: 47–54
PL ISSN 0015-5616

Ewa Walocha[1], Iwona M. Tomaszewska[2], Ewa Mizia[3]

EMPATHY LEVEL DIFFERENCES BETWEEN POLISH SURGEONS AND PHYSICIANS

Abstract: Aim: The aim of this study was to assess the levels of empathy among Polish physicians and surgeons.
Materials and Methods: Ninety-two physicians took part in the study. 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 Emotional Empathy Scale (EES), as well as describe four chosen tables from the Thematic Apperception Test (TAT).
Results: The study group consisted of 92 physicians, including 25 women (27.2%) and 67 men, in the mean age of 42 ± 16.3 years (age span: 27–68 years). The physicians have been divided into two subgroups — non-surgical specialists (52 people — 56.5%) and surgical specialists (40 people — 43.5%). There were no gender differences, as to the level of empathy, in the study group ($p > 0.05$). Non-surgical specialists displayed a higher level of empathy ($p=0.03$) than their surgical counterparts. There was a positive correlation between age and the level of empathy. This was seen both among non-surgical ($r = 0.41$; $p < 0.0001$) and surgical specialists ($r = 0.59$; $p < 0.0001$). No correlation was seen between the number of years of experience working as a doctor and the level of empathy ($p > 0.05$).
Conclusions: Empathy is an essential element in the physician-patient relationship. This study has shown that non-surgical specialists display a higher level of empathy. We have also shown that years of experience working as a doctor do not influence the level of empathy, while age is a beneficial factor.

Key words: empathy; physicians; surgeons.

INTRODUCTION

The measurement of empathy is important in the assessment of physician competence and patient outcomes [1]. Clinical empathy is an essential element of quality care and is associated with improved patient satisfaction, adherence to treatment, and fewer malpractice complaints [2].

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" [3]. In the past decade, drawing from empirical research, progress has been made towards a more comprehensive definition of empathy. There is now a converging

agreement that empathy is not a single ability but a complex socio-emotional competency that encompasses different interacting components [4, 5]. Further neurobiological research shows that empathy is not limited to the cortex, but is primarily associated with the brainstem, subcortical nuclei, autonomic nervous system, hypothalamic-pituitary-adrenal axis, and the endocrine system that regulates bodily states, emotion, and reactivity [6].

Empathy in medicine is challenging, because doctors are dealing with the most emotionally distressing situations — illness, dying, suffering in every form. Such situations would normally make an empathic person anxious, perhaps too anxious to be helpful [2]. A recent report by Dyrbye et al. [7] reported a high prevalence of distress and diminished altruistic attitudes among medical students. Importantly, students who suffered from personal distress were more susceptible to engaging in dishonest clinical behaviors. This study is a clear example of the kind of critical questions that can be raised regarding the relationship between interpersonal sensitivity, empathy, and care-giving behavior and, among other things, suggests that empathy does not come without costs.

The aim of this study was to assess the levels of empathy among Polish physicians and surgeons.

MATERIALS AND METHODS

STUDY GROUP

The study group included 92 physicians working in hospital wards, outpatient departments as well as didactic departments in Kraków.

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. Mehrabian and Epstein Emotional Empathy Scale (EES) [8]. 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" [9]. 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 [9]. The current EES translation was rechecked according to standard translation [10] and validation [11, 12] procedures to ensure appropriate psychometric properties.

3. 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 [13]. 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 [14]. 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 [9].

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 $p < 0.05$.

ETHICS

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.

RESULTS

The study group consisted of 92 physicians, including 25 women (27.2%) and 67 men, in the mean age of 42 ± 16.3 years (age span: 27–68 years). The physicians have been divided into two subgroups — non-surgical specialists (52 people — 56.5%) and surgical specialists (40 people — 43.5%).

There were no gender differences, as to the level of empathy, in the study group ($p > 0.05$).

Table 1 presents empathy levels according to the TAT and the EES measured in the whole study group. According to the EES most physicians (44 non-surgical and 36 surgical specialists) presented a medium level of empathy (166–230 points). A low level of empathy (0–165 points) was displayed by 2 surgical specialists, and a high level of empathy (≥231 points) was found in 8 non-surgical and 2 surgical specialists.

Table 1

Empathy levels according to the TAT and the EES measured in the whole study group.

	Empathy level (TAT)				Empathy level (EES)
	Emotional component	Cognitive component	Behavioural component	Total	
Mean	6.7	4.6	2.9	14.3	202.9
Standard deviation	2.8	2.3	2.1	6.4	25.6
Median	7.0	5.0	3.0	15.0	203.0

TAT — Thematic Apperception Test; EES — Mehrabian and Epstein Emotional Empathy Scale.

Table 2 presents differences in empathy levels between surgical and non-surgical specialists.

There was a positive correlation between age and the level of empathy. This was seen both among non-surgical ($r = 0.41$; $p < 0.0001$) and surgical specialists ($r = 0.59$; $p < 0.0001$). No correlation was seen between the number of years of experience working as a doctor and the level of empathy ($p > 0.05$).

Table 2

Differences in empathy levels between surgical and non-surgical specialists.

	Empathy level (TAT)				Empathy level (EES)
	Emotional component	Cognitive component	Behavioural component	Total	
Surgical specialists	6.2	5.1	3.4	14.6	196.5
Non-surgical specialists	8.2	5.0	3.2	16.4	212.8
p-value	**0.01**	0.94	0.75	0.35	**0.03**

Values in bold present statistically significant differences.
TAT — Thematic Apperception Test; EES — Mehrabian and Epstein Emotional Empathy Scale.

DISCUSSION

Despite the well-recognized, critical importance of empathy in clinical and care-giving settings for both patients and medical practitioners, a number of studies suggest that practising physicians may experience difficulties with patient communication [15] and that empathy declines during residency training [16, 17]. The contributing factors for such empathy reduction remain unclear and are likely to be multifactorial.

The aim of this work was to assess the levels of empathy among Polish physicians and surgeons.

In the current study, non-surgical specialists have overall shown a higher level of empathy when compared to their surgical colleagues. This finds confirmation both in common opinion, and can also 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]. On the other hand, we can try to search for the explanation of this finding in the type of patients that physicians of different specialities encounter during their practice. General and trauma surgeons are more likely to meet aggressive and noncompliant patients than internal medicine doctors, which may lead to easier burnout and loss of empathy.

We did not find any differences in the levels of empathy between male and female doctors. This does not stand in line with previous research, that did demonstrate gender-associated differences in empathy [3, 18]. It our group, this result might have well been caused by the uneven gender distribution and a relatively small number of women in the analyzed group. Gender differences in empathy among doctors are usually explained by the fact that increased values of

empathic concern among women may come with a cost — emotional exhaustion. This, in turn, has the potential to translate into different everyday work experiences of men and women, as the latter report to feel less valued by patients and their caregivers, as well as by their superiors and colleagues [3].

No impact of the years of experience working as a physician on empathy was observed. This is also consistent with previous reports documenting that burnout is similar when comparing participants based on number of years in clinical practice [3]. However older doctors are more immune to compassion fatigue, which explains the positive correlation between the level of empathy and participant age [3, 19, 20].

This study has two limitations. Firstly, the studied group is relatively small, with uneven gender distribution. Secondly, it lacks long-term follow-up that would enable to study the factors, which might influence the levels of empathy.

CONCLUSIONS

Empathy is an essential element in the physician-patient relationship. This study has shown that non-surgical specialists display a higher level of empathy. We have also shown that years of experience working as a doctor do not influence the level of empathy, while age is a beneficial factor.

A better understanding of factors that mediate empathy in medical practitioners could point toward effective educational strategies and adaptive coping mechanisms to maintain well-being and patient satisfaction.

CONFLICT OF INTEREST

None declared.

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[1] Department of Clinical Nursing
Institute of Nursing and Obstetrics
Jagiellonian University Medical College
ul. Kopernika 25, 31-501 Kraków, Poland
Head: dr hab. Maria Kózka Msc, PhD

[2] Faculty of Medicine
Jagiellonian University Medical College
ul. Śniadeckich 10, 31-531 Kraków, Poland
Head: prof. Tomasz Grodzicki MD, PhD

[3] Department of Anatomy
Jagiellonian University Medical College
ul. Kopernika 12, 31-034 Kraków, Poland
Head: prof. Jerzy A. Walocha MD, PhD

Corresponding author:
Ewa Walocha MSc
Department of Clinical Nursing,
Institute of Nursing and Obstetrics
Jagiellonian University Medical College
ul. Kopernika 25, 31-501 Kraków, Poland
Phone: +48 12 421 40 10;
Fax: +48 12 429 48 72
E-mail: ewa.walocha@uj.edu.pl