

## Residents' clinical empathy: gender and specialty comparisons - a Romanian study

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**Objective.** To measure and examine medical residents' (junior doctors) empathy and to compare psychiatry residents' empathy with that of other specialties. **Participants and Methods.** A translated version of Jefferson Scale of Physician Empathy for Practising Health Professionals was administered to 112 Romanian residents. **Results.** 60 residents in psychiatry and 52 in other specialties completed the questionnaire. Statistically significant differences were found between male and female counterparts, and between psychiatrists and residents in other specialties. **Conclusions.** Male doctors seemed to be less empathic compared to female ones. Psychiatry was the most empathic medical specialty.

**Key Words:** Empathy, Medical resident, Measurement, Psychiatry.

### Introduction

One of the most studied professional attributes of physicians is empathy. Empathy plays an essential role in physician-patient relationships as it allows the patient to feel respected and appreciated. Empathy may improve the quality of the information provided to the physician during the interview, may ameliorate communication barriers between the physician and patient and ultimately may positively influence the therapeutic outcome (1-3). On the other hand, empathy can influence a physician's clinical outlook, as they may be more conscious of the bio-psychosocial, rather than the bio-medical, model of disease (4).

Medical students embark on their education with idealism and enthusiasm for curing disease and helping patients. However, subsequent to this a process of cynical transformation of the medical student involving dehumanisation and de-idealisation has been described (5). At the same time, empathy appears to decline (5-7). Some of the factors thought to explain this decline are the emphasis placed on a trainee physician's emotional detachment, clinical neutrality and technical aspects of medicine, as well as the paucity of role models, life experiences and finally burnout during residency (4-8).

Little empirical evidence is available to link empathy and physician specialty. Psychiatrists, followed by physicians in general

internal medicine and paediatricians, appear to be the most empathic, while anaesthesiologists, radiologists and physicians in surgical specialties the least empathic (1, 9). There are gender differences, too, as female physicians appear to be more empathic than male ones (1, 9, 10).

This study was designed to evaluate the empathy of Romanian medical residents' according to their medical speciality and gender. We hypothesized that psychiatrists and females would be more empathic compared to other specialties and male physicians.

## Participants and Methods

### *Participants*

The study was approved by the Institutional Review Board of "Babes-Bolyai" University, Cluj-Napoca. 112 residents of various specialties from the main university centres in Romania took part in the survey. More than half (55%) were residents in psychiatry. The majority were women (74%) and were working in Bucharest and Cluj-Napoca (77%). About 59% of the respondents were in their first two years of residency.

### *Instruments*

A back-translated version of the of the Jefferson Scale of Physician Empathy for Physicians and Health Professionals (the "HP" version) was used in this study (9). The Jefferson Scale of Physician Empathy includes 20 Likert-type items answered on a 7-point scale (half of the items are reversed scored).

### *Procedures*

A questionnaire consisting of demographic questions and the Romanian version of the Jefferson Scale of Physician Empathy for physicians and health professionals was administered to residents of various specialities. Participation was voluntary and anonymous and the completion took place online. Invi-

tations explaining the purpose of the study were emailed to private message boards used by medical residents. Each item had to be answered in order for the questionnaire to be validated. Two questionnaires with the same IP address were precluded due to IP address filtering. Completing the survey was considered implied consent to participate in this study.

### *Statistical analysis*

Total scores are expressed as mean, standard deviation (SD) and range. To examine the statistical significance of the differences, the Mann-Whitney U-test for independent measures was used, with  $p < 0.05$  considered significant.

## Results

Internal consistency reliability of the scale was determined by Cronbach's alpha (0.84). Corrected item-total correlation ranged from 0.21 to 0.67 with a median correlation of 0.42. Items 10 and 16 had the highest correlations with the total scores (see table 1 for illustration).

### *Gender comparison*

The mean empathy score was 113.4 (SD = 14.4; range: 43-140, skewness = -1.28 and kurtosis 4.1) in total sample; 114.9 (SD = 14.75; range 43-140) in females and 107.2 (SD = 11.5, range 78-123) in males. Total scores were not normally distributed, therefore we used the Mann-Whitney U-test to compare scores between genders. Males scored lower and the difference was significant ( $z = -2.7$ ;  $p = 0.006$ ).

### *Specialty comparison*

Taking into account the medical specialty, the mean empathy score was 115.8 (SD = 15.7; range 43-140) in psychiatrists and 110.4

(SD = 12.3; range 78-134) in other specialties. Psychiatrists scored significantly higher than other specialties ( $z = -2.6$ ,  $p=0.008$ ). We were unable to draw conclusions for other specific specialties due to their small representation in the responding sample.

Female psychiatrists scored higher (mean = 116.7; SD = 16.0; range 43-140) than counterparts in other specialties did (mean = 111.8; SD = 12.0; range 86-134). These differences were statistically significant ( $z = -2.2$ ;  $p = 0.025$ ). Males scored narrowly in both groups (means around 107).

In some items, we found statistically significant differences between female and male respondents, on one hand, and between psychiatrists and other residents' answers, on the other hand (females and psychiatrists scored higher, while the others lower). Table 1 summarizes the main results.

## Discussion

Our study is the first one of its kind in Romania to measure the empathy of Romanian residents. The finding that women scored higher on empathy ratings than men reaches statistical significance and is consistent with the findings of other studies (9, 11). Several explanations are offered for gender differences in empathy. Women are believed to be more receptive than men to emotional signals and to develop more care giving attitudes toward their children than men (12). There are reports that female physicians spend more time with their patients, have fewer patients and proffer more preventive and patient-oriented care (1, 9). Whilst it is unclear whether these gender differences are due to gender characteristics or due to gender role expectations, they have implications for physician selection and training. Inter-

Table 1 Comparison of scores on the Jefferson Scale of Physician Empathy of residents by gender and specialty

Number of item	Jefferson Scale of Physician Empathy	Females vs males		Psychiatrists vs other specialties	
		z	p	z	p
2	My patients feel better when I understand their feelings.	-2.429	0.015	-0.119	0.906
3	It is difficult for me to view things from my patients' perspectives	-2.108	0.035	-0.521	0.602
7	I try not to pay attention to my patients' emotions in history taking or in asking about their physical health.	-1.003	0.316	-3.586	0.000
8	Attentiveness to my patients' personal experiences does not influence treatment outcomes.	-2.866	0.004	-3.583	0.000
10	My patients value my understanding of their feelings which is therapeutic in its own right.	-2.236	0.025	-0.190	0.849
11	Patients' illnesses can be cured only by medical or surgical treatment; therefore, emotional ties to my patients do not have a significant influence on medical or surgical outcomes.	-2.486	0.013	-2.104	0.035
12	Asking patients about what is happening in their personal lives is not helpful in understanding their physical complaints.	-2.620	0.009	-2.960	0.003
13	I try to understand what is going on in my patients' minds by paying attention to their non-verbal cues and body language.	-1.299	0.194	-3.829	0.000
15	Empathy is a therapeutic skill without which success in treatment is limited.	-3.101	0.002	-2.582	0.010
16	An important component of the relationship with my patients is my understanding of their emotional status, as well as that of their families.	-3.078	0.002	-4.122	0.000

estingly, we found that female psychiatrists might be more empathetic than the other female physicians.

Junior doctors showed that they are aware of the value of empathy and that somatic complaints can be influenced by the emotional state of the patient. Residents in specialties other than psychiatry tended to pay less attention to patients' emotions, personal experiences or body language. Residents in psychiatry showed higher scores in empathy compared to internal medicine counterparts, but the differences were not significant. Nevertheless, their mean scores were lower than those reported in literature, compared to foreign medical students, residents or specialists (7, 9, 11). These differences may reflect cultural or regional aspects; the Romanian model of physician might be paying less attention to the patient-physician relationship than the North American one. Differences between specialties can be manifested in different degrees of interpersonal skills or different importance ascribed to these through the training of interpersonal skills. For example, psychiatrists say that empathy for patients is an important reason for choosing psychiatry as a career (13). On a cautionary note, our results should be seen in the context of a number of limitations: 1) the small number of surveyed subjects from a non-random sample of junior doctors; aside from psychiatry, all other specialties were underrepresented; 2) under-representation of male respondents, although this might reflect an increase in the number of females choosing to practice medicine, particularly psychiatry (12); 3) as the sample responding to the questionnaire was self-selected, it was not possible to calculate a response rate or comment on the characteristics of those who chose not to take part.

A decline in empathy during training is reported in many studies (5, 7, 10, 14). Among the hypotheses expounded for this decline are that current medical education

emphasises detachment and clinical neutrality, and technological aspects of medicine predominate over humanistic ones. Other factors could be the lack of appropriate models, negative experiences during the medical education and difficulties at work (4, 10).

It is unclear if empathy is a personality state that can decline during medical education or if it can be improved by targeted educational activities. As psychiatry residents benefit from more educational programmes, targeting interpersonal skills, than other residents, we may hypothesize that empathy is amenable to change, with the direction of change more likely in a negative than in a positive direction in the absence of special programmes. These results call for further research to identify factors that contribute to changes of empathy and for the development of educational programmes designed to retain, cultivate and enhance empathy among medical residents.

In Romania, medical education emphasises clinical neutrality and detached concern, as well as biomedical models of disease. Medical universities also offer non-medical courses, usually sociology or foreign languages. Recently, behavioural courses have been introduced, but these have been taught by physicians and do not target communication skills, patient interviewing, counselling, nor identification (and solving) of psychosocial determinants that may increase the risk for disease. All of these happen while universities in other countries are striving to offer more, and better, programmes in communication and patient-centred skills in an attempt to better cultivate humanistic attitudes of future physicians.

This study represents a step towards clarification and measurement of physician empathy. This field deserves attention as empathy is important in the physician-patient relationship and has clear benefits for both patient and physician (2, 3). One should take into consideration that in the absence

of targeted programmes, empathy appears to change rather in a negative way (5-7). Further research is needed on how to promote empathy during clinical clerkships and residency.

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