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The Effects of an Empathic Communication Workshop on Internal Medicine Residents' Self-Perceived Empathy and Their Patients' Perception of Physician's Empathy: A Single-Group Experimental Study

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Abstract

Background: Empathetic communication improves the physician-patient relationship and enhances patient and physician satisfaction. This study aims to evaluate the impact of empathic communication skills training on physicians' self-perceived performance and patient satisfaction regarding the empathetic quality of their relationship with their physicians.

Methods: In this single-group before-after experimental study, we recruited 50 internal medicine residents at a large teaching hospital. We assessed the residents' empathy using the Jefferson Scale of Empathy before and 3 weeks after an 8-hour workshop on empathic communication skills. We also recruited 50 of their patients before and another 50 patients 3 weeks after the training to assess the patient's perceptions of their physician's empathy using the Consultation and Relational Empathy scale. Physicians' and patients' mean scores on empathetic care at the beginning of the study were then compared using paired t-tests with their scores after the workshop.

Results: The residents' mean score on Jefferson Empathy Scale increased from 81.1 (95%CI:78.8-83.3) at baseline to 96.8 (95%CI:93.6-100) following the workshop ($p < 0.001$). Before the empathetic communication skills training, patients assessed their doctors' empathy at 68.3 (95%CI:63.5-73.2). After the intervention, this improved to 84.9 (95%CI:82.2-87.5) ($p < 0.001$).

Conclusion: In this study, both the residents and their patients stated that the residents' empathy skills had significantly improved after an empathetic communication workshop for internal medicine residents.

Keywords: Empathy, Communication Skills, Patient's Perspective, Residents, Care, Relationship

Conflicts of Interest: *None declared*
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Introduction

Empathy is considered an essential skill for physicians that promotes clinical outcomes, the patient's compliance and satisfaction, and the physician's well-being. It is a complicated human capacity that is composed of affective

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↑What is "already known" in this topic:
- Physicians' empathy promotes patients' satisfaction with care and improves physician well-being.
- Educational interventions can improve physicians' self-rated empathetic ability.

→What this article adds:
- We assessed the effects of an 8-hour training on empathetic care on the physician-patient relationship from the perspective of patients and their physicians.
- Physicians reported improvements in empathetic communication with patients and the patients were more satisfied with the quality of their relationship with physicians after the intervention.

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and cognitive domains (5, 6). The cognitive domain, which involves taking the perspective of the other person to understand their experience, improves the doctor-patient relationship (6-11).

Empathy training is not a standard component of undergraduate medical training in Iran. Multiple studies have shown that medical students' empathetic skills deteriorate during medical training (12-15). This highlights the need for communication skills training modules aimed at improving empathic communication skills for graduate physicians.

A few empathy training methods have been studied with various levels of efficacy (16, 17, 18, 19). These include face-to-face training, videos on explaining treatments, and role-playing among other methods. Most of these approaches were effective in improving physicians' empathetic engagement. However, most of the studies have focused their results on physicians' self-perceived performance. Since improved physician empathy is practically reflected by patient satisfaction, we believe it is important to assess the patient's perception of empathy in the post-interventional assessments. Moreover, previous evidence shows that the physician's self-assessment of empathy is not correlated with the perception of empathy (20-22).

Therefore, we aimed to examine the effect of an 8-hour empathic communication skills training on the empathic behavior of internal medicine residents using a self-reported scale of empathy (ie, Jefferson Scale of Empathy [JSE]) and the Consultation and Relational Empathy scale questionnaire, which measure physicians' empathetic ability from patients' viewpoint (ie, CARE).

Methods

Participants and Setting

This study was a before-after trial (23), conducted at the internal medicine ward of Rasoul-e-Akram teaching hospital, affiliated to Iran University of Medical Sciences (IUMS), from August 23, 2014, to October 23, 2014.

Undergraduate medical training in Iran consists of a 7-year medical doctorate program that prepares the students for independent general practice. Graduates may then take part in national examinations to enroll in residency programs to become specialists. Although empathy and effective communication are not part of Iran's standard medical education, several medical schools do provide elective short courses on the patient-physician relationship.

The internal medicine residency program at IUMS is a 4-year clinical program that consists of 1-month ward rotations within a large general hospital in Tehran. Each resident practices under the supervision of an attending physician providing care for their patients daily throughout the rotation.

A total of 50 residents of internal medicine volunteered to participate and provided verbal informed consent. All available residents were included and asked to fill out the Farsi version of the JSE questionnaire 3 days before and 3 weeks after the workshop.

The patient arm of the study consisted of 100 patients hospitalized in the internal medicine ward of Rasoul-e-Akram hospital for at least 3 days. These patients were selected from the pool of patients whose attending resident was enrolled in the study. The patients were invited to the study by the chief resident and provided with explanations about the study. All of them participated voluntarily and were enrolled after verbal consent. Half of the patients were recruited before the intervention and half of them after the intervention. All patients filled out the Consultation and Relational Empathy scale (CARE) questionnaire.

Ethical Considerations

This study was performed in accordance with the ethical principles in the Helsinki Declaration for research on the human subjects and the approved ethical principles of Iranian medical research. All the residents and their patients provided informed consent for participation in this study. The ethics board of IUMS approved the study under the registration code: 93-02-133-24880.

Intervention

The residents attended an 8-hour workshop held in 2 days. An experienced professor of psychiatry (S.V.S.), with a special interest in the concepts of empathy, designed and presented the workshop that consisted of a 2-hour lecture followed by further practice in discussions and role-play. The workshop composed of a tutorial about patient-physician communication skills, including topics on nonverbal communication, empathic listening, speaking, and observing skills. The main topics that were discussed in the workshop included the basic concepts and components of the doctor-patient relationship, communication skills, the definition of empathy and how it differs from sympathy and the advantages of implementing empathy in clinical practice. This lecture-based component was followed by group discussions and role-plays to address residents' attitudes and further practice the skills.

Outcome Measures

The primary outcomes were self-reported assessment of empathy by internal medicine residents and their patient's satisfaction with care. Internal medicine residents' self-perceived empathy was measured before and after the workshop using the Farsi version of the JSE (Fig. 1), the validity and reliability of which were confirmed by Hashemipur et al. (5). Patient satisfaction was measured by the valid and reliable 24-item Farsi version of CARE (Fig. 2) (24).

The JSE is a 20-item self-reported questionnaire that evaluates how important the physician sees empathy for their profession, how they think patients see empathy, how important it is to try to understand patients, how much they can understand patients, and where they see the boundaries. The JSE score ranges from 20 to 140. Three versions of this questionnaire are available for 3 different settings. In this study, the version designed for medical students was used (JSE-s). The main items of the JSE are presented in Figure 1.

CARE is a 10-item questionnaire that assesses physicians' empathy during a consultation from patients' viewpoints (25). Each item is scored by patients from 1 (poor)

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- Patient feels better when their healthcare provider understands them.
- I believe that empathy is an important factor in patient treatment.
- Understanding body language is as important as verbal communication in healthcare provider-patient relationship.
- A healthcare provider's sense of humor contributes to a better outcome.
- Because people are different, it is difficult to see things from their perspectives.

Fig. 1. The main items assessed in the Jefferson's scale of empathy (JSE)

- Making them feel at ease,
- Letting them tell their story,
- Really listening,
- Being interested in them as a whole person,
- Fully understanding their concerns,
- Showing care and compassion,
- Being positive,
- Explaining things clearly,
- Helping the patient take control,
- Making a plan of action with the patient.

Fig. 2. The items of the Consultation and Relational Empathy(CARE) scale

to 5 (excellent) and the total score ranges from 10 to 50. The items examine the degree to which the physician-patient relationship is empathy-based in the terms presented in Figure 2.

Statistical Method

Demographic and outcome data were presented as means and confidence intervals for continuous variables and number and percent for categorical variables. The Kolmogorov–Smirnov test was used to test whether the distribution of variables was normal. The mean empathy scores on the JSE and the scores of physicians' CARE scores before the intervention were compared with the final findings using paired t test. $P < 0.05$ was considered significant.

Results

Characteristics of the Participants

A total of internal medicine residents participated in the study, of whom, 28 (56%) were women and 22(44%) were men. Their mean age was 27.3 ± 2.4 years. Also, 30% of residents were married at the time of the study and half of them had only one year of clinical experience.

Moreover, 33 (66%) women and 17 (34%) men participated in our study as patients; 70% (n = 35) of patients were older than 40 years (mean age, 50.5 years), 56% (n = 28) had a minimum of high school education, 62% (n = 31) were employed, and 68% (n = 34) were married at the time of this study.

Empathy

Most of the residents (n = 39 [78%]) showed low to very low levels of empathy before the workshop. After the workshop, most residents (81%) scored high to very high on the JSE. The distribution of JSE score levels before and after the workshop is shown in Figure 3. The mean JSE score at baseline was 81.08 (95% CI, 78.84-83.31), which increased to 96.8 (95% CI, 93.6- 100) 3 weeks after the study intervention. This improvement in empathy was statistically significant ($p < 0.001$).

Patients' Perspectives

At baseline, the majority of patients stated that their doctors had low and very low empathy in their care. The level of satisfaction was high among only 4 (8%) of patients. The proportion of patients who reported high and very high satisfaction with care increased after the workshop.

Similarly, the mean patient ratings improved after the intervention. The mean CARE score was 68.36 (95% CI, 63.49-73.22) before the intervention, which increased to 84.88 (95% CI, 82.21-87.54) after the workshop ($p < 0.001$).

Discussion

We found that the residents' self-perceived empathic behavior significantly improved after the 8-hour workshop in empathetic communications skills. The patients also reported that their doctors were more empathetic after the workshop. Our study has been the first to date to assess the effects of a communication-skills intervention on both sides of a physician-patient relationship.

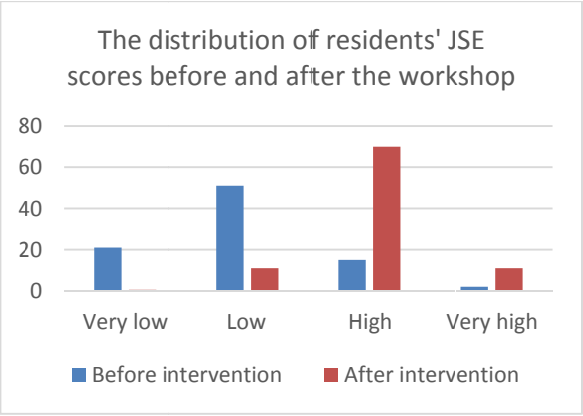

Fig. 3. The distribution of residents' Jefferson's Scale of Empathy scores before and after the workshop

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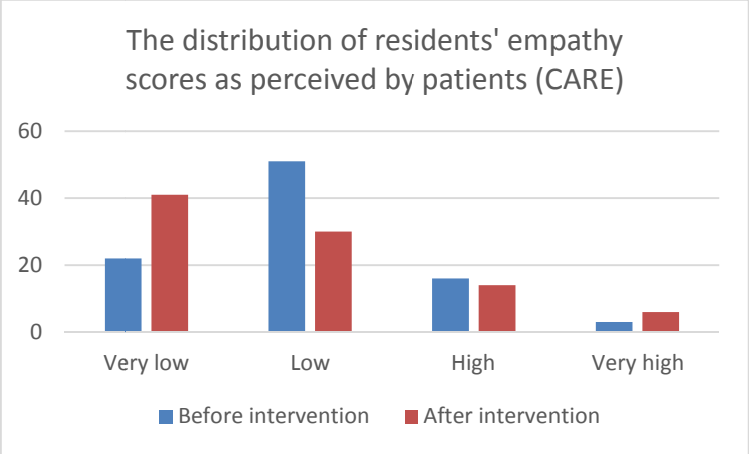

Fig. 4. The distribution of residents' empathy scores as perceived by patients (CARE)

Studies suggest that physicians' self-perception of their abilities affects their clinical and professional performance (26, 27). One study found that the patient's satisfaction with care was correlated with the physicians' self-rating of their empathy (28). Another study argued that only certain subdimensions of these 2 constructs were correlated (18). In our study, both patient satisfaction and self-reported empathy scores improved after the communication skills workshop. Like many previous studies, our results suggest that empathy training is associated with an increase in clinicians' empathic communication skills (11, 27-29). Most of these studies have only focused on the effect of empathy training on medical students. One study found that simulation-based training improved medical students' self-reported knowledge of empathic communication skills (13).

Our study is unique in its focus on postgraduate medical trainees and a broader perspective for the assessment of outcomes. Despite both physicians and their patients reporting improved empathy, a considerable proportion of patients reported low and very low levels of physician empathy after the intervention. We postulate that physicians may need more practice on empathic skills before more substantial changes can be noticed by patients. Also, unlike physicians, patients may value empathic concern as strongly as perspective-taking when evaluating their physicians' empathy during a consultation (1, 30).

One study evaluated the effect of training on physicians' empathic skills on immediate patient satisfaction. They assessed 13 physicians by about 2000 patients from 49 different countries in a fertility clinic. Similar to our study, they found their 14-hour training program to result in significantly higher patient satisfaction scores (31). While their participants were predominantly female physicians in an outpatient fertility clinic, our participants were residents and their patients were admitted to the hospital. Thus, the physicians in our study had a longer duration of interaction with their patients. The study's inpatient internal medicine ward environment and the extended contact may have required a higher degree of expertise and made it more difficult for the physicians to establish and preserve empathy and empathetic engagement.

Our study had several strengths. Unlike the participants in earlier studies, who were primarily medical students with no direct responsibilities for patient management, we evaluated the impact of education on clinical residents who were in charge of patient treatment. Moreover, we assessed the effect of training on clinicians' empathy skills in a real clinical setting by measuring patient satisfaction with the clinician's empathic engagement in contrast to previous studies that assessed the effect of training using only the JSE questionnaire or by simulated patient feedback.

Some limitations should be taken into account when interpreting the findings. First, the change in outcomes in a before-after design without a control group does not imply causation or effectiveness of the intervention. Since previous studies showed that the effect of empathy training has not been sustained, another weakness of our study was that we did not follow up the participants for the persistence of this effect over a longer period. Also, we did not assess the effects of the intervention on individual components of the outcome.

Conclusion

The empathic communication workshop improved the residents' self-perceived empathy and how their patients viewed their relationship with their physicians. Thus, empathetic training can be an essential component of training physicians to become more responsive to the needs of their patients. However, compared to the patient's perspective, the physicians' perception of the magnitude of improvement was markedly higher. We suggest that patients might need more than mere skills to recognize enhanced physician empathy. The effectiveness of our proposed intervention has to be further clarified in subsequent studies using a controlled design and a longer follow-up.

Data Availability

The corresponding author will provide the datasets used and/or analyzed during the present study upon reasonable request.

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Abbreviations

CARE, Consultation and Relational Empathy scale.
IUMS, Iran University of Medical Sciences.
JSE, Jefferson Scale of Empathy.

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Contributions

A.A., HB, and H.R.B. developed the idea for this study. M.F., E.G., and G.A. recruited participants and collected data. S.V.S. and A.A. designed and presented the workshop. M.N., H.R.B., F.B., and M.A.K.A. contributed to the analysis and interpretation of the data. M.F., F.B., and M.A.K.A. drafted the manuscript. H.R.B., E.G., F.B., M.A.K.A., G.A., and A.A. critically revised the manuscript. All authors read and approved the final manuscript.

Ethical Considerations

This study was approved by the Ethical Board of Iran University of Medical Sciences (registration code: 93-02-133-24880). Verbal informed consent was obtained from all participants.

Conflict of Interests

The authors declare that they have no competing interests.

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