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Relationships between scores on the Jefferson Scale of physician empathy, patient perceptions of physician empathy, and humanistic approaches to patient care: A validity study

Authors' Contribution:

- A** Study Design
- B** Data Collection
- C** Statistical Analysis
- D** Data Interpretation
- E** Manuscript Preparation
- F** Literature Search
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Summary

Background:

Empathy is the backbone of a positive physician-patient relationship. Physician empathy and the patient's awareness of the physician's empathic concern can lead to a more positive clinical outcome.

Material/Methods:

The Jefferson Scale of Physician Empathy (JSPE) was completed by 36 physicians in the Family Medicine residency program at Thomas Jefferson University Hospital, and 90 patients evaluated these physicians by completing the Jefferson Scale of Patient Perceptions of Physician Empathy (JSPPPE), and a survey about physicians' humanistic approaches to patient care.

Results:

A statistically significant correlation was found between scores of the JSPE and JSPPPE ($r=0.48$, $p<0.05$). Significant correlations were also obtained between scores of the JSPE and patients' assessments that their physician was concerned about their feelings ($r=0.55$, $p<0.01$), and that the physician took their wishes into account in making treatment decisions ($r=0.48$, $p<0.05$). A negative correlation was observed between scores of the JSPE and patient's perception that their physician was in hurry ($r=-0.50$, $p<0.01$).

Conclusions:

These findings provide further support for the validity of the JSPE. Implications for the assessments of empathy in the physician-patient relationship as related to clinical outcomes are discussed.

key words:

empathy in patient care • patient perceptions • validity • humanistic approaches

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BACKGROUND

Empathy has been described as an important element of professionalism in medicine [1,2], and its importance as the foundation for a positive physician-patient relationship has been acknowledged [3–7]. Anatole Broyard [8] indicated that he wanted his doctor to have “magic as well as medical ability” (p.39). This “magic” occurs when a patient feels good about being understood as a result of physician-patient empathic engagement. Such an empathic engagement in patient care can lead to a more accurate diagnosis, as well as patients’ increased satisfaction with their care providers, better compliance with their medical regimen, a lower rate of malpractice claims, and more effective coping with the stress of illness (for a more detail literature review see Chapter 10 in [3]).

Empathy in the context of patient care is defined as “a preliminary cognitive (rather than emotional) attribute that involves an understanding (rather than feeling) of experiences, concerns and perspectives of the patient, combined with a capacity to communicate this understanding.” [3, p. 80]. This definition distinguishes not only the concept of empathy (as a cognitive attribute) from sympathy (as an emotional or affective attribute), but also places emphasis on communicating empathic understanding with the patient for better clinical outcomes.

In medical education research, physicians’ capacity for empathy has been highlighted, but patient’s perceptions of physician empathy has not received sufficient empirical attention. This could be due to the unavailability of a psychometrically sound measuring instrument to determine the degree of patients’ perception of empathic engagement with their physicians. Considering the current trends in the market-driven health care system in which cost containment takes precedence over building physician-patient relationships, it is timely and important to examine how empathy in the physician-patient empathic engagement plays a role for the purpose of identifying factors that contribute to positive clinical outcomes.

This study was designed to examine the correlations between scores on the Jefferson Scale of Physician Empathy (completed by physicians) along with scores on the Jefferson Scale of Patient Perceptions of Physician Empathy, and patient’s responses to a survey about physicians’ humanistic approaches to patient care (completed by patients).

MATERIAL AND METHODS

Participants

Total study participants included 36 residents (13 men, 23 women) in different years of residency training (18, 9 and 9 in training years 1, 2, and 3, respectively). The mean age of the participants was 28 years, ranging from 25 to 35 years.

Instruments

The following instruments were used in this study.

1. The Jefferson Scale of Physician Empathy (JSPE): This is a 20-item scale that measures physician’s self-reported

empathy [3,9–11]. Each item of this scale is answered on a 7-point Likert scale (1 – Strongly Disagree, 7 – Strongly Agree). A sample item is: “I try to understand what is going on in my patients’ minds by paying attention to their non-verbal cues and body language.”

Satisfactory evidence in support of the psychometrics (e.g., construct validity, criterion-related validity, test-retest reliability and coefficient alpha reliability) of this scale among medical students, residents, practicing physicians, nurses and nurse practitioners has been reported [9–13]. This scale has already been translated into 15 languages by researchers in different countries. For more information about this scale visit the following Web site: www.tju.edu/jmc/crmehc/medu/jspe.cfm.

2. Jefferson Scale of Patient Perceptions of Physician Empathy (JSPPPE):

This is a brief survey (5-item) recently developed for measuring patient perceptions of their physician’s empathy [14]. Patients responded to each item of the survey on a 7-point Likert scale (1 – Strongly Disagree, 7 – Strongly Agree). A sample item is: “[my doctor] understands my emotions, feelings, and concerns.” Psychometric properties of this scale including its construct and criterion-related validities in a sample of residents and their patients in an Internal Medicine residency program have been reported elsewhere [14] (Copies of the scale can be obtained from authors).

3. Survey of Physician Humanistic Approaches to Patient Care:

This survey was completed by patients, and contained five items intended to measure humanistic approaches to patient care that were used as additional criterion measures. These items were selected because of their conceptual relevance to empathic engagement in patient care. Four of these items were adapted from the Physician’s Humanistic Behavior Questionnaire developed by Weaver and colleagues [15], and one was adapted from a questionnaire intended to measure Patients’ Appraisal of Physicians’ Performance developed by Matthews and Feinstein [16]. These items were also answered on a 7-point Likert scale (Items are presented in Table 1).

Procedures

The approval of the university’s institutional review board was obtained for this project. The JSPE was distributed to the residents who were asked to voluntarily complete and return the scale for research purposes. All residents returned the scale (100% response rate).

Patients of these residents were approached in the waiting room by a student research assistant and asked to complete the JSPPPE and the survey of humanistic approaches to patient care. The name of the resident was printed on each instrument. Patients were reminded that their responses would be kept confidential and that their participation or refusal in no way would influence the care they received from their physicians. A research assistant explained the project to the patients as part of educational evaluations, and asked them to voluntarily complete the form.

Ninety patients returned the patient form for all of the 36 residents; however, complete data (all items answered by pa-

Table 1. Validity coefficients for scores on the Jefferson Scale of Physician Empathy (JSPE)¹ and criterion measures.

Criterion measures	r
Jefferson Scale of Patient Perceptions of Physician Empathy (JSPPE) ²	0.48*
Physician Humanistic Approaches to Patient Care	
Asks me how I feel about my problems ³	0.55**
Takes my wishes into account when making decisions ⁴	0.48*
Is always in a hurry ³	-0.50**
Shows concerns for my feelings and needs, not just my physical status ³	0.30
Arranges for adequate privacy when examining or talking with me ³	0.11

* $p < 0.05$; ** $p < 0.01$.¹ The Jefferson Scale of Physician Empathy (JSPE), contains 20 Likert-type items [3,10–13].² The Jefferson Scale of Patient's Perceptions of Physician Empathy (JSPPE), contains 5 Likert-type items [14].³ Adapted from the Physician's Humanistic Behavior Questionnaire [15].⁴ Adapted from Patients' Appraisal of Physicians' Performance [16].

tients) were available only for only 23 residents. Some residents had multiple forms completed by more than one patient (ranging from 1 to 11 patients).

Statistical analyses

For the purpose of statistical analyses, an average score for the JSPPE and for items of the physician humanistic approach to patient care was calculated for residents with multiple patient forms. Residents served as the unit of observation for all statistical analyses. Descriptive statistics were calculated for the JSPE and JSPPE. The physicians' self-reported empathy scores from the JSPE were correlated (using the Pearson product-moment correlation coefficient) with scores from the JSPPE and with patients' responses to the survey of physician humanistic approaches to patient care.

RESULTS

The mean and standard deviations of the JSPE were 118, and 9.2, respectively. The corresponding statistics for the JSPPE were 30, and 2.8. The Pearson correlation coefficients between the JSPE and JSPPE scores and measures of physician's humanistic approaches to patient care are reported in Table 1.

Relationship between scores of the JSPE and JSPPE

The correlation between scores on self-reported physician empathy (JSPE scores) and the Jefferson Scale of Patient Perceptions of Physician Empathy (JSPPE) was $r=0.48$ ($p < 0.05$) indicating a statistically significant overlap between the two measures.

Relationships between scores of the JSPE and responses to the survey of physician humanistic approaches

Scores on the JSPE were significantly correlated with patients' agreement that their physician often asked them about their feelings regarding their health problems ($r=0.55$, $p < 0.01$), as well as with patients' perception that their physician took their wishes into consideration when making clinical decisions ($r=0.48$, $p < 0.05$) (See Table 1).

As expected, physician's scores on the JSPE were inversely related to patients' reports that their physician was always in a hurry when examining them ($r=-0.50$, $p < 0.01$). Correlations between JSPE scores and the two other items (see Table 1) did not reach the conventional level ($p < 0.05$) of statistical significance.

Relationship with the number of patient visits

We obtained the number of patient's visits to the physician from each patient's file. In additional analyses we found that scores of the JSPE and the JSPPE were not significantly correlated with the number of patient visits. One explanation could be that empathic relationships between physicians and patients are formed in the first encounter, and the number of later contacts with the physician may not change this first impression.

DISCUSSION

The finding that scores on the JSPE were significantly correlated with scores on the JSPPE indicates not only that there is an overlap between physician self-reported empathy and patient views of empathic engagement with his or her physician, but also provides further evidence in support of the criterion-related validity of the JSPE. The magnitude of the obtained correlation indicates that approximately one-quarter of variation in self-reported physician empathy scores could be predicted by patients' perceptions of physician empathy ($r=0.48$, $r^2=0.48^2=23\%$).

In another study with a sample of residents and their patients in an Internal Medicine residency program, the correlation between JSPE and the JSPPE did not reach the conventional level of statistical significance [14]. The "ceiling effect" (highly inflated ratings given by patients) observed in that study was described as a possible reason for a lack of significant relationship between the two scales [14].

Caring for a patient is a far more complex task than just treating the pathophysiology of a disease. The often cited quotation that "It is as important to know what kind of man has the disease, as it is to know what kind of disease has the man" (attributed to Sir William Osler) indeed points to the importance of empathic engagement in patient care. Empathic engagement in physician-patient encounters is a crucial variable in generating a feedback loop that is important to patients' physical, mental and social well-being [3]. To the extent that physicians can be more "tuned in" and engaged empathically with their patients, we can surmise that their patients might have better clinical outcomes and cope better with their illness. Thus, not only physicians' capacity for empathy, but also patients' perception of physician empathy can play significant roles in positive clinical outcomes.

As we described previously in the definition of empathy, a key concept in physician-patient empathic engagement is the communication of empathic understanding between physician and patient. Such a mutual understanding and reciprocal exchanges can lead to a more positive patient outcome [3].

CONCLUSIONS

Despite the limitations of this study due to a small sample size, and the non-random selection of participants, the findings provide empirical evidence suggesting that physicians' self-reported empathy and their patients' perceptions of physician empathy are significantly correlated, and both concepts can be measured by psychometrically sound instruments. These measuring instruments have important implications for the assessment of physician empathy. Particularly, more insight into empathy, as reported by the physician and perceived by the patient, is important for the assessments of factors which contribute to positive clinical outcomes, the ultimate goal of patient care.

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REFERENCES:

1. Arnold L. Assessing professional behavior: Yesterday, today and tomorrow, *Academic Medicine*, 2002; 77: 502-15
2. Veloski JJ, Hojat M: Measuring specific elements of professionalism: Empathy, teamwork, and lifelong learning. In D.T. Stern (Ed). *Measuring medical professionalism*. Oxford: Oxford University Press, 2005; 117-45
3. Hojat M: *Empathy in patient care: Antecedents, development, measurement, and outcomes*. New York, Springer, 2007
4. DiMatteo MA: A social-psychological analysis of physician-patient rapport toward a science of the art of medicine, *J Soc Issues*, 1979; 35: 12-33
5. Neuwirth ZE: Physician empathy: Should we care? *Lancet*, 1997; 350: 606
6. Spiro H, McCrea Curnen MGM, Peschel E, St. James D: *Empathy and the practice of medicine: Beyond pills and the scalpel*. New Haven: Yale University Press, 1993
7. Halpern J: *From detached concern to empathy: Humanizing medical practice*. New York: Oxford University Press, 2001
8. Broyard A: *Intoxicated by my illness*. New York: Fawcett Columbine, 1992
9. Hojat M, Gonnella JS, Nasca TJ et al: The Jefferson Scale of Physician Empathy: Further psychometric data and differences by gender and specialty at item level. *Academic Medicine (Supplement)*, 2002; 77: s58-s60
10. Hojat M, Gonnella JS, Nasca TJ et al: Physician empathy: Definition, components, measurement and relationship to gender and specialty. *Am J Psychiatry*, 2002; 159: 1563-69
11. Hojat M, Gonnella JS, Mangione S et al: Physician Empathy in Medical Education and Practice: Experience with the Jefferson Scale of Empathy. *Seminars in Integrative Medicine*, 2003; 1: 25-41
12. Hojat M, Mangione S, Nasca TJ et al: The Jefferson Scale of Physician Empathy: Development and preliminary psychometric data. *Educ Psychol Meas*, 2001; 61: 349-65
13. Fields S, Hojat M, Gonnella JS et al: Comparisons of nurses and physicians on an operational measure of empathy. *Evaluation and the Health Professions*, 2004; 27: 80-94
14. Kane GC, Gotto JL, Mangione S et al: The Jefferson Scale of Patient's Perceptions of Physician Empathy: Preliminary psychometric data. *Croat Med J*, 2007; 48: 81-86
15. Weaver M, Ow CL, Walker DJ, Degenhardt EF: A questionnaire for patients' evaluation of their physicians' humanistic behaviors. *J Gen Intern Med*, 1993; 8: 135-39
16. Matthews DA, Feinstein AR: A new instrument for patients' ratings of physician performance. *J Gen Intern Med*, 1989; 4: 14-22