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Physician Empathy in Correctional Facilities: Still in Need of Analysis

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Dhawan N, Steinbach AB, Halpern J. Physician empathy and compassion for inmate-patients in the correctional health care setting. *Journal of Correctional Health Care.* 2007;13(4):257-267.

Studies of physician empathy have shown that it contributes to patient satisfaction and the acquisition of a comprehensive history [1]. Dhawan, Steinbach, and Halpern were the first to analyze this quality in physicians working in a correctional environment. The study was designed to investigate the degree to which physicians may have difficulty empathizing or connecting with their inmate-patients, and the report of their findings was published in the October 2007 *Journal of Correctional Health Care* [2].

As an index of empathy, the authors began with the Interpersonal Reactivity Index (IRI), a 28- question survey developed in 1980 by Mark Davis [3]. After interviews with 6 correctional physicians and 12 inmates, the researchers “modified the IRI to be meaningful to physicians in correctional facilities and incorporated new items useful for measuring important components of empathy” [4]. In this process, the number of IRI items was reduced to 13 (for all survey recipients and with 3 more items for physicians working in correctional facilities), and they were altered drastically, a point we will comment on in our discussion section. Then the researchers employed the “cognitive and affective components of empathy” as delineated by Halpern and Weinstein—emotional resonance, intrinsic curiosity, and toleration of emotional ambivalence [5]—and added compassion as a fourth element. One or more of these 4 elements was assigned to 14 of the 16 items in the adapted questionnaire, leaving 2 items with no designated components of empathy.

The questionnaire was sent to physicians at 38 correctional facilities (including state prisons, county jails, and hospital jail wards) and to noncorrectional physicians who practiced in facilities with the same area codes as those of the correctional facilities. The questionnaire was sent to 110 correctional physicians, of whom 42 responded, and to 300 noncorrectional physicians, of whom 36 responded. The study participants were divided into three groups: physicians working exclusively in correctional facilities (onlyC); those in only noncorrectional facilities (nonC); and those working in both settings (inclC).

Demographically, the authors found two statistically significant differences. The nonC group included a larger number of primary care physicians than the inclC group, and members of the nonC group had been in practice significantly longer than those in the onlyC group [6].

Turning to the measures of empathy, statistical significance was found between the inclC and nonC groups in only three questions. The inclC scored higher (more empathic) on question 1—“My experience working with this patient population has been quite rewarding”; and the nonC group scored higher on question 7—“When I am upset at a patient, I usually try to ‘put myself in his or her shoes’ for a while”—and question 9—“I tend to think about my patients as individuals who are suffering from many problems besides medical ailments.” Comparing onlyC versus nonC, the authors found four significant differences. The onlyC scored higher (as the inclCs had) in question 1. The nonC scored higher on question 3—“I sometimes find it difficult to see things from my patient’s point of view”; question 8—“I can literally picture the lives of my patients when listening to them”; and question 11—“I am often quite touched by things that I see happen in the health care setting I work at.”

The authors assert that, because the study population was small, only large differences could be measured, so those that did show up “warrant particular analysis” [7]. The authors point out that no significant differences were found in answers to 10 questions.

Dhawan et al. concede that both groups of physicians appear empathic, overall, but vary on the components of empathy they employ. Specifically, correctional physicians appear to use emotional resonance and intrinsic curiosity less than noncorrectional physicians. This may be, as the authors suggest, due to a reluctance to “become emotionally involved with their patients” [8]. Perhaps then, Dhawan and colleagues posit, these physicians are not applying specific components of empathy in relating with their patients, a situation that should be corrected.

Errors and Ambiguities

Prior to a discussion of the merits of this paper, we think it necessary to identify several problems with the study design and execution.

1. The authors initially noted that the questionnaire for noncorrectional physicians was distributed to primary care, internal medicine, family medicine, and emergency medicine physicians. Later, in discussing the sample of nonC and correctional care physicians to whom the questionnaire was sent, they state that the questionnaires went to “a broad sampling of physicians who work in family medicine, internal medicine, psychiatry, and primary care” [6]. This discrepancy is not clarified in the demographics table (table 3), which describes practice types only as primary care, psychiatric, and other [9].
2. The authors sent questionnaires to noncorrectional physicians who worked in the same area codes as the correctional institutions. Perhaps, as is often done, the authors intended to match for variables such as socioeconomic factors

among the physicians. Yet, matching by area codes—which typically cover large geographic areas and diverse populations—rather than zip codes is puzzling.

3. Based on demographic information, the authors assert “ample randomization” between groups, but the differences among the specialties of the physicians may have had an effect on empathic concerns, an issue that the authors ignore. Moreover, although the article text states that there is statistical difference between the length of time in medical practice in the onlyC versus nonC groups, the data presented in the table contradicts this. The statistically significant difference lies between inclC and nonC and in the “years physician has been practicing medicine at current site” [10]. NonC physicians had spent considerably more time at their current site than inclC physicians had, a factor which could confound empathy data, especially since the authors themselves note that correctional physicians have a “developmental course” and that empathy emerges and grows over time. In the discussion section of their paper, Dhawan et al. comment that physicians develop a greater ability to empathize with their inmate-patients after many years, so, if trying to compare the empathy of correctional physicians to that of noncorrectional physicians, it would have been far more helpful for them to have compared groups with equal or similar time spent at their sites of practice.
4. Though not described in the introduction, the authors say that a point of interest in their study was physician satisfaction with work and note that correctional physicians scored higher on the question, “My experience working with this patient population has been quite rewarding” [11]. But, as they go on to state, this question may reflect satisfaction at taking on medical challenges rather than empathy (and indeed, none of the aforementioned characteristics of empathy was ascribed to this question).
5. In several instances the text of the article and the data tables contradict each other, and this error, whether authorial or editorial, leaves readers wondering which recorded result is correct. For example, the authors state that question 8, “I can literally picture the lives of my patients when listening to them,” tests all four of Halpern’s components of empathy, yet table 1 of the questionnaire items lists only one component—intrinsic curiosity/interest.

Secondly, the authors write that the inclC scored slightly higher than nonC physicians on question 9, “I tend to think about my patients as individuals who are suffering from many problems besides medical ailments.” Table 4, however, breaks the respondents for this item (question 9) into “Correctional Physicians” and “Noncorrectional Physicians,” so it is impossible to confirm the finding stated in the text. Does “Correctional” in table 4 refer to both inclC and onlyC or just the former? In another example, the answers to question 1 “My experience working with this patient population has been quite rewarding”—differed significantly in both the inclC/ nonC comparison and in the onlyC/nonC comparison. Therefore these data appeared in two places, table 4 and table 6. Not only did the titles and column heads of these

tables disagree (table 4 comparing “Correctional” to “Noncorrectional” physicians and table 6 comparing “Exclusively Correctional” to “Noncorrectional” physicians), but the mean and standard deviations for nonCs’ score to this question were different in table 4 than in table 6 [12].

Discussion

Although conceptually intriguing, the validity of the study’s instrument, design, and implementation are questionable. The low response rate—only 38 percent of correctional physicians and 12 percent of other physicians completed and returned the questionnaire—forces us to wonder about the representativeness of the sample, the selection bias, and the power of the study results. The authors dismiss and rationalize both concerns.

The authors justify using the Interpersonal Reactivity Index “because it contains items suitable for participants in our study and has demonstrated reliability and validity in assessing empathy” [1]. Why did they choose a questionnaire with no specific application to physicians and health care settings to evaluate precisely that? The authors could instead have used a psychometrically proven tool, like the Jefferson Scale for Physician Empathy [13], which has been shown to be empirically successful in assessing this research team’s primary inquiry.

Although the IRI has shown “reliability and validity” in measuring cognitive and emotional aspects of empathy in the general population [14], its efficacy is irrelevant in this specific study because Dhawan et al. drastically altered its original form. They trimmed the questionnaire from 28 questions to 13 (16 for correctional physicians) and modified the wording of many of the questions. Comparing the IRI with the questions in the Dhawan and colleagues’ survey reveals that at least half of the questions in the latter were so altered that their connection to the original IRI is unrecognizable [3].

More perplexing is the use of Halpern’s components of empathy. Davis’s IRI “consists of four seven-item subscales, each of which taps a separate aspect of the global concept ‘empathy’” [3]. Why then change the questions, assign new, unvalidated characteristics of empathy to them, and add an undefined characteristic of empathy called “compassion”? Due to the many ambiguities and severe alteration of the IRI study instrument, it is difficult to determine whether this research team could use it to measure physician empathy effectively.

Although the authors found statistically significant differences between the groups in the answers to some survey questions, the actual discrepancy remains murky. While the mean values may be different, the standard deviations are remarkably wide. With such a small study population, the true nature of the statistical significance cannot be assessed.

The authors say that their purpose was to “examine the specific aspects of empathy that correctional physicians are more or less likely to use in medical practice” [1],

and *not* to conduct a comparative study between correctional and noncorrectional physicians, but every aspect of their study appears to focus solely on the latter task. The data presented are comparisons of the two groups; no data are recorded on intragroup variation in response, which might have better elucidated the components of empathy that correctional physicians use. Rather, we are merely provided with “statistically significant” but practically dubious information on responses that revealed intergroup differences during data analysis.

Although it is important to investigate physicians’ perspectives on empathy in correctional health care settings, physician self-assessment questionnaires simply do not suffice. If the goal is to determine what components of empathy correctional physicians lack, then the empirical research should begin by surveying the inmate-patient population. There are psychometrically validated instruments for evaluating both physician empathy and patients’ perceptions of physician empathy, specifically the Jefferson Scale of Physician Empathy and the Jefferson Scale of Patient Perceptions of Physician Empathy [15] that might help achieve more valuable and informative results.

The importance of this research is not merely investigating empathy generally, but determining if, as Halpern implies, by failing to demonstrate intrinsic curiosity, correctional physicians dehumanize their inmate-patients [5]. By distinguishing and analyzing the correctional physician intersubjectivity through a more developed measurement of Halpern’s “intrinsic curiosity,” a different aspect of correctional physicians’ empathic understanding might be illuminated, leading to a truly humanistic approach to patient care.

The subject of physician empathy in correctional settings is an important area for empirical research and, although we found the design and implementation of this specific study to be less than rigorous, the concept deserves further examination.

Notes and References

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10. Dhawan, 261, table 3.
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13. Hojat M, Mangione S, Nasca TJ, et al. The Jefferson Scale of Physician Empathy: development and preliminary psychometric data. *Educ Psychol Meas.* 2001;61(2):349-365.
14. Hojat et al. note in “The Jefferson Scale of Physician Empathy: Development and Preliminary Psychometric Data,” there have only been three previously known instruments used to measure empathy; the IRI developed by Davis in 1980, the Empathy scale developed by Hogan in 1969, and the Emotional Empathy scale developed by Mehrabian and Epstein in 1972. “It is important to note that these specific instruments have been developed for the general population, and none is specific to patient care situations” (352). The Jefferson Scale was designed specifically to measure physician empathy in various patient care settings.
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