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Review Article

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The Importance of Physician Empathy in Clinical Outcomes Needs More Study

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Introduction

In March 2011 an article was published in Academic Medicine showing that doctors with high empathy scores had better outcomes than doctors with low empathy scores on several important laboratory tests related to the diseases of diabetes mellitus and elevated cholesterol [1]. Hojat, et al demonstrated that physician empathy, as measured by the Jefferson Scale of Empathy (JES), was correlated with better results in patients' hemoglobin A1C and LDL-C levels. The paper has been cited more than 1,327 times since it was published and 119 times in 2022 alone. These high numbers of citations suggests that there is great interest in the relationship between empathy and clinical outcomes. In 2012 another study in Italy using the JES was published [2]. The study suggests that physician empathy is significantly associated with reductions in diabetes mellitus complications such as hyperosmolar state, ketoacidosis, and coma. As a co-author on the first paper, I was interested in looking at more recent studies to see if there has been any new research done on the topic since the article was published. We would expect many more studies would be done in the decade addressing this issue of the importance of empathy in clinical outcomes. Few interventions have such a widespread and significant impact on patients. If a new medication was found to significantly improve both elevated blood sugars and cholesterol levels with few side effects and very little cost, we expect it would be studied very extensively.

Keywords: Physician Empathy; Empathy Clinical Outcomes; Diabetes; Hemoglobin A1C; Cholesterol

We looked at 3 papers that have studied the relationship of physician empathy levels and clinical outcomes since our paper was published. The first paper entitled Effectiveness of empathy in general practice: a systematic review was published in 2012 [3]. The study looked at the effectiveness of physician empathy with patients with medical problems from July 1995 to July 2011. The researchers identified 964 original articles using PubMed, Embase, and PsychINFO. Seven articles of the 964 were reviewed after they met the quality assessment requirements. Patients with empathetic doctors had lower anxiety levels and significantly better clinical outcomes. The author of the paper stated, "It is remarkable that empirical studies on physician empathy are still relatively scarce. According to the results of the studies included in this systematic review, empathy is an important factor in patient satisfaction and adherence, in decreasing patients' anxiety and distress, in better diagnostic and clinical outcomes, and in strengthening patient enablement. Thus, physician empathy seems to improve physical and psychosocial health outcomes." This researcher's inability to find more than 7 papers out of 964 articles published over 6 years demonstrates the paucity of empirical studies being done on physician empathy and clinical outcomes at the time of our research in 2011.

The second article we examined was recently published by Zhang X, et al. [4]. The article was entitled Physician Empathy in Doctor-Patient Communication: A Systematic Review. The study followed the PRISMA procedure with a total of 3055 articles reviewed and 11 articles were retained for further evaluation. The articles were all published in English peer-reviewed journals between January 2017 and October 2021. The study highlighted among other things the positive effects on patient outcomes. Seven out of the 11 studies reported the impact of physician empathy on patient outcomes. Of these, five studies reported that patients of empathetic doctors were better able to perform tasks of daily living and three studies showed lessened patient anxiety. The fact that only 7 studies could be found showing the positive clinical outcome of empathetic doctors would seem odd in view of the potential to improve many patients' lives with empathy. The authors felt this is an early call for further research on empathy and clinical outcomes.

The third article we reviewed is entitled A systematic review of research on empathy in health care [5]. The authors used a Medline, Medline In-Process, PsycInfo and Business Source Complete to identify empirical studies of empathy from 1971-2021. The authors performed a Systematic review in accordance with Preferred Reporting Items for Systematic Reviews and Meta-Analysis (Prisma) guidelines. Of the 2270 articles screened, 455 reporting on 470 analyses satisfied the author's inclusion criteria. Studies of the 128 intervention articles showed 103(80%) positive and significant clinical effect. The authors concluded that empirical research provides evidence of how important empathy is to health care outcomes. But again it took 50 years for 103 positive studies to be done.

An example of another challenge we found when studying articles on empathy and clinical outcomes was differing outcomes of similar studies. Chaitoff et al. failed in their attempt to replicate our 2011 study [6]. Their study found no association between physician empathy and patient outcomes. When, however, we reviewed their findings, several important differences could explain the differences between our study and theirs [7].

- 1) Division by their study of unequal samples sizes (20%, 43%, and 37%). Our study used 3 equal groups.
- 2) The physicians studied were different. Our study had all family doctors, while theirs contained 65% internist and 35% family doctors. We also studied physicians with higher JSE means (M=122 vs 118.4). 60% of our doctors were women while 47.1% of their doctors were women. Women physicians have been found to have higher empathy scores in general compared to male physicians [8].
- 3) Our patients had higher A1C levels to start. Twenty percent of our patient had A1C >9 and only 8.5% of their patients had HbA1C > 9. Our patients had LDL-C > 130 19% of the time and their patients had LDL-C level 9.6%.in their study. It can be argued that empathic doctors may not improve clinical outcomes if their patients are healthy and have good test numbers.
- 4) Our patients were more likely to be on Medicaid 12% vs 2% for their patients.

These important differences could explain our outcomes vs theirs.

In summary, a search of the literature shows that a number of studies performed over many years on the topic of physician empathy and clinical outcomes have shown that doctors with high empathy scores can have improved clinical outcomes. However, the significance of these findings has not been paralleled by a representative increase in the research on the topic. Given the improvement that high physician empathy scores have shown on outcomes of different diseases like diabetes and elevated cholesterol, many more studies would be expected.

There are many unanswered questions about physician empathy and clinical outcomes which should be evaluated. For example, do physicians with high empathy have better outcomes with medical problems like hypertension, cancer, bacterial infections, mental illness and many other diseases? Challenges concerning how to measure empathy levels remain. In our opinion, even what empathy is and how does it manifest itself in physician behavior needs continuing research. Of course doing studies costs money and unlike medications there is no easy way to patent empathy. Questions of what effect has electronic health records had on physician empathy or the problems of physician burn out from COVID-19 need to be studied. Different ways of assessing physician empathy levels are often used which makes comparisons between different studies problematic. JSE has been studied a great deal and provides an important way to standardize the evaluation of physician's empathy.

On a positive note, the importance of physician empathy and clinical outcomes when it has been studied, has shown the majority of the studies are positive. It is an area that needs to be investigated more to better understand when and how physician empathy can improve patient outcomes. There is a substantial chance to help our patients if the importance of empathy and clinical outcomes is better understood and utilized more often.

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