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Perceptions of Physician Empathy: Effects of Demographic Features

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Abstract

Expressions of empathy are considered a core component of a physician’s treatment of their patients. It is imperative to the establishment of open communication, which aids in facilitating a good interpersonal relationship, exchanging information and making treatment-related decisions. Although empathy is widely viewed as essential, it is also commonly viewed as burdensome. We propose that empathy can be divided based on the characteristics in which we evaluate another’s mind. Previous research indicates that we attribute mental capacities based on two distinct dimensions: experience and agency, described as the capacity to feel and the capacity to act, respectively. By dividing physician empathy into an understanding of a patient’s feelings and an understanding of a patient’s goals, it may be possible to extract what we are assuming to be the emotionally taxing component by focusing just on the patient’s agency. 270 participants were surveyed regarding their opinions of their physician’s communication in an attempt to identify trends within demographic populations for preferences for goal-directed or emotional empathy. Results indicate significant effects of age, gender and combined income. As age and combined income increase, appreciation for agency-related communication decreases. Females also expressed significantly higher appreciation for an experience-related style of communication.

Introduction

Communication is an essential component in medical treatment, both for developing a relationship with those intended to care for us and for preventing the potential degradation in the
quality of care received as medical processes are gradually becoming more condensed. A necessary ingredient for communication is empathy, most commonly described as the emotional experience between an observer and a subject in which the observer identifies and transiently experiences the subject’s emotional state and engages with them appropriately (Haslam, 2007). Here we will look at empathy as the demonstration of reflective emotion or understanding in response to another person’s thoughts, emotions and desires. Based on recent work investigating the various components of mind perception, we will divide empathy into two forms: empathizing with another’s feelings and empathizing with another’s goals.

Empathy has been shown to have marked effects on the many factors influencing ultimate outcome within a patient-practitioner relationship. Research shows that positive clinical outcomes are associated with improved patient-practitioner relationships and communication, both of which are enhanced through empathy (Stewart, 1995). More empathic medical students received higher ratings of clinical competence and performed better on history-taking and standardized physical examinations (Hojat et al., 2002; Colliver, Willis, Robbs, Cohen, & Swartz, 1998), while physicians who reported loss of empathy show an increase in medical errors (West et al., 2006).

Another benefit of increased empathy is improvement in patient compliance. Less empathic physicians have been shown to have higher rates of intentional noncompliance and dissatisfaction in their patients (Cameron, 1996). This suggests that improved communication and sensitivity to a patient’s feelings promote compliance which in turn increases positive outcomes. In addition, Halpern (2001) in her exploration of the importance of clinical empathy wrote that empathy makes patients more forthcoming about their symptoms and concerns, thus
facilitating medical information gathering. This in turn yields more accurate diagnosis and better care. She also found that empathy helps patients regain autonomy and participate in their therapy by increasing their self-efficacy and leading to therapeutic interactions that directly affect patient recovery.

Despite the clear benefits to the use of empathy in patient-practitioner relationships, it is not emphasized as much as it should be during patient interactions. Levels particularly decline during the third year of medical school. When asked what caused a change to their view on the physician-patient relationship, medical students commonly cited inappropriate role models, difficult patients, demanding schedules, large patient loads, and the power of the bureaucratic side of medicine (Hojat et al., 2009). One of the most prominent causes for decreased empathy later in a physician’s career is burnout, characterized by emotional exhaustion, detachment and low sense of accomplishment and satisfaction in one’s work (Chen, 2012). The largest predictive factor of burnout is being on the front lines of patient care (Shanafelt et al., 2012). This suggests that the stressors inherent to large numbers of patient interactions in a small amount of time cause physicians to experience the symptoms of burnout, making them less effective at their job and decreasing the quality of patient interactions.

In order to facilitate the continued renewal of empathic tendencies in the medical field, we propose to examine empathy through the lens of mind perception. Agency and experience were first identified by Gray, Gray and Wegner (2007) in regards to the way we perceive others’ minds. Their research indicates that we attribute mind to individuals based on two separate characteristics: agency and experience, which researchers define as the capacity to act and the capacity to feel, respectively. Agency concerns the ability to plan and be held responsible for
one’s own decisions and experience involves the ability to experience the actions of others and have actions which are morally right or wrong done to them. These are linked to agency and experience respectively, where focus is placed on either responsibility or on rights and privileges. Both components contribute to emotional empathic interactions in that seeing an individual as having agency and experience acts as the converse to dehumanization. Perceiving an individual as having more mind facilitates the social and emotional connection necessary to the therapeutic relationship between a physician and a patient and allows for more empathic interactions.

In the past, empathy measures have emphasized the importance of conveying the understanding of a patient’s feelings, a direct parallel to experience. However, the aforementioned emotional load of empathizing with a patient’s feelings may be viewed as a burden and a hindrance to some physicians in certain situations that may arise throughout their career. If the focus is instead placed on the patient as an agent, an empathic interaction may still be achieved while avoiding the potential complications of the emotional burden and its subsequent consequences. However, there may be certain factors that would preclude the physician from utilizing agency-centered empathy based on the unconscious preferences or expectations of the patient.

The purpose of this experiment is to determine the preferred approach to communication based on sociodemographic variables. This would potentially identify certain populations in which physicians would be able to make use of the less emotionally-loaded empathy. Through the use of goal-oriented empathy, physicians may be able to convey the support and connection necessary to facilitate a positive outcome and may be able to avoid the negative impact of repeated emotional stress. Parsons (1951) argues that the basis of trust between patients and their
physicians lies in the physician’s dedication to “universalism”, or their desire to treat all patients equally. However it has been found that in situations of low concordance between the physician and the patient, failure to communicate properly may lead patients to feel less involved and less cared for (Roter and Hall, 2006; Cooper et al., 2003; Epstein, Alper & Quill, 2004; Kaplan, Greenfield, Gandek, Rogers & Ware, 1996). This has most frequently been demonstrated with differences in gender, ethnicity and race. Regardless of whether that represents a genuine violation of the concept of universalism or whether it can simply be attributed to the patient’s assumptions due to low concordance, something must be done in order to combat this disparity in perceived treatment.

It can be argued that due to the nature of the imbalance in dominance within the patient-practitioner relationship, the physician within a dyad of lower concordance may have to compensate by being more empathic in order to enhance the therapeutic alliance, thereby improving patient outcome. However, despite the need for greater empathic relations, it is impossible to make blanket recommendations on the type of empathy. In cases of low socioeconomic concordance, the expected power differential may inhibit the effectiveness of agency-related empathy, thus mandating the presumably more taxing, purely emotional empathy. Feelings are universally experienced, whereas goals vary greatly based on who we are and how we live. Therefore we expect a positive correlation between socioeconomic status and preferences for goal-oriented empathy. Those of a higher socioeconomic status may view their physician as more of an equal and may place a greater value on their reflecting a clear understanding of what they want.
Further, there may be differences depending on the age of the patient. Studies have shown that physicians address the elderly in a different manner than younger patients by utilizing “baby talk”, and the effectiveness of this is negatively correlated with the functional ability of the elder patient (Caporael, Lukaszewski & Culbertson, 1983). This can be applied generally to all patients in that less functional ability calls for more comforting communication. However, the data are not specific enough so as to suggest a strong correlation between age and the preference for more experience-based empathy. Therefore, I would maintain that although a possible pattern exists and it would be beneficial to find a clear correlation between age and preferred style of empathy, I have no current predictions on what type of relationship we will find.

Furthermore, based on previous research, we expect to find a positive correlation relationship between females and a preference or appreciation for emotional empathy. Studies show that while male and female patients create a comparable number of empathic opportunities, those created by females tend to exhibit greater emotional intensity than those created by males, suggesting that they place a higher value on the emotional component of connecting with their physician (Roter & Hall, 2006; Bylund & Makoul, 2002).

These questions will be addressed by examining the differences in preference for styles of empathy based on these aforementioned demographic variables. By assessing both what patients currently like and what they feel is lacking about their interactions with their physicians, we can get a better sense for how to make recommendations for which style of empathy to use.
Methods

Participants

Participants consisted of 270 adults ranging from ages 18-72 (M = 28.7, SD = 9.14), recruited through Amazon Mechanical Turk (MTurk), an online crowd-sourcing market that allows requesters to post tasks for workers to complete for a small monetary compensation. Of the 270 participants, 70% were males and 30% were females. The ethnic composition was predominantly Caucasian (79%), 10% Asian, 5% African American, 4% Hispanic, and 2% Native American/Pacific Islander. Exclusion criteria consisted individuals living outside the United States and those under the age of 18.

Previous research has reported the demographic statistics of MTurk workers, finding that respondents reported an average age of 31 years old and the majority of respondents (55%) are female. More than half (66%) of respondents have a college or advanced degree, and 33% are either full- or part-time students. While 38% of respondents are employed full-time, nearly a third (31%) are currently unemployed. The median annual reported income was between $20,000 and $30,000 (Ross, Zaldivar, Irani & Tomlinson, 2010). This indicates that for all but one measure, our sample population is in line with that of the typical MTurk demographics.

Prior to analyzing the data, responses to individual questions with fewer than three words were excluded based on the unreliability of interpreting percentage based data given the small sample size. After adjustments of the data set where questions were analyzed separately, there were 252 participants for the first question, ages ranging from 18-72 (M = 28.6, SD = 8.98). Of the 252 participants, 176 were males and 76 were females. For the second question, 248
participants remained in the sample, ages 18-72 ($M = 28.8$, $SD = 8.89$) with 174 males and 74 females.

**Procedure**

Participants were each asked the following two open-ended questions: “Think back to your last visit to your primary care physician. What do you wish your doctor had asked you about (or focused more on)?” and “What does your doctor do in conversations with you that you appreciate?” They were asked to answer the questions in 1500 characters or less and then fill out a series of demographic questions including gender, age, race, annual personal income, annual household income, insurance coverage, satisfaction with said coverage, and whether or not they had recently visited their primary care physician.

**Measures**

The responses were analyzed through Linguistic Inquiry and Word Count (LIWC), a text analysis program that measures the percentage of words used in each of a set of chosen categories. LIWC reads each file, one word at a time and as each word is processed, the selected dictionary file is searched, looking for a dictionary match with each current target word. If the target word matches the dictionary word, the appropriate word category scale or scales for that word is tallied and measured based on total word count.

For the purpose of this study, the responses were run through a previously customized mind perception dictionary consisting of words corresponding to the categories of agency and experience. The agency category consists of words such as use, try, and think whereas the
experience category contains words like sense, feel, and joy. These results were then analyzed based on the demographic features provided.

**Results**

Analyzing the two questions separately, we found a marginally significant positive correlation between age and the use of experience words in descriptions of what participants appreciated about their interactions with their physicians, $r(250) = 0.11, p = 0.069$ (Fig. 1). We also found a significant negative correlation between use of agency terms and age for this same question, $r(250) = -0.14, p = 0.023$ (Fig. 2). We found no significant correlation between combined income and experience, $r(250) = -0.06, p = 0.36$, and there was a trending negative correlation between combined income and agency words use, $r(250) = -0.11, p = 0.079$.

Furthermore, when comparing categorically across those with high (H), medium (M) and low (L) combined household income, we found a significant difference in appreciation for agency word use by combined household income level (H: $M = 11.8$, $SD = 8.6$, M: $M = 15.1$, $SD = 9.5$, L: $M = 16.3$, $SD = 9.3$), $F(250) = 3.6, p = 0.029$. 

Figure 1: Effect of age on experience-related word content regarding what participants appreciated

Figure 2: Effect of age on agency-related word content regarding what participants appreciated

There were no significant correlations between age and experience or age and agency regarding what participants wished their physician focused more on, $r(246) = 0.02, p = 0.69$; $r(246) = 0.06, p = 0.33$, respectively, and no significant correlations between combined income
and experience or agency for this same question, \( r(246) = -0.06, p = 0.37; r(246) = -0.03, p = 0.65 \).

When comparing across gender, we found that females \((M = 8.48, SD = 8.27)\) used more experience-related words than males \((M = 6.13, SD = 6.96)\) when describing what they appreciated about their doctor’s communication, \( t(122.98) = -2.17, p = 0.032 \). There were no significant differences in combined household income between men and women, \( t(250) = -0.79, p = 0.43 \), however there were significant differences in age between men \((M = 27.3, SD = 6.98)\) and women \((M = 31.8, SD = 11.91)\), \( t(97.94) = -3.09, p = 0.003 \). No other significant gender results were found (Table 1).

<table>
<thead>
<tr>
<th>Question asked/Word category analyzed</th>
<th>( T )</th>
<th>( df )</th>
<th>( p )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appreciate/Experience</td>
<td>-2.17</td>
<td>122.98</td>
<td>0.03*</td>
</tr>
<tr>
<td>Appreciate/Agency</td>
<td>-0.59</td>
<td>250</td>
<td>0.56</td>
</tr>
<tr>
<td>Wish/Experience</td>
<td>0.24</td>
<td>246</td>
<td>0.81</td>
</tr>
<tr>
<td>Wish/Agency</td>
<td>0.23</td>
<td>246</td>
<td>0.82</td>
</tr>
</tbody>
</table>

* \( p < 0.05 \)

We also found that as age increased, the trend line for those of a higher socioeconomic status suggests a slightly stronger preference for experience-related terms for both what they appreciated about their doctor’s communication and what they wished their doctor would focus more on.
Discussion

These results suggest an inverse relationship between preferences for agency- and experience-related empathy across the adult lifespan. As age increases, appreciation for experience-directed speech increases while appreciation for goal-directed speech decreases. There was also a marginally significant negative correlation between combined income and appreciation for goal-directed communication. Finally, as expected, females indicated significantly higher appreciation for their physician’s focus on their feelings.

It is important to understand that these two forms of communication are not mutually exclusive. A change in preference for agency or experience does not subsequently indicate a change in the other. While the relationship between style of empathy and demographic variables is highly complex, our data suggests several important points. As we understand it, goal-directed empathy is an appeal to the autonomy and independence of an individual. It takes into consideration what they want and seemingly grants the patient greater control over their medical future. It can therefore be interpreted from these data that older patients and those of higher socioeconomic status are satisfied with the power differential within the patient-practitioner relationship. They seem to prefer their physicians to tell them what the best course of action is and find it more unremarkable when their physician attempts to appeal to their considerations of the future. Younger patients and those with lower socioeconomic status on the other hand place a greater importance on their physician’s consideration of their goals and plans and this style of communication creates a more significant impression on their memories of their interactions.
These conclusions are further supported by the differences between responses to what they wished of their physicians and what they appreciated about them. Responses indicate that while participants do not perceive a lack of agency as a negative, as evidenced by no significant findings for the wish question, when their physicians do focus on their agency it is appreciated. While these results do need to be replicated with a more ideal population, if they bear out in replication, then they suggest several practical implications for using agency-directed empathy with patients. If physicians are feeling emotionally burnt out from constant interactions with their many patients, then they may be able to choose to focus on certain patients’ goals and plans for the future rather than discussing their personal feelings. Furthermore, as a preventative measure, physicians could alternate between the two styles of empathy based on their patient’s demographics, focusing on agency with their younger patients and those of lower socioeconomic status and focusing on experience with their older patients and those of higher socioeconomic status.

The limitations of this study were in large part due to the population from which we sampled. Because MTurk is not a particularly racially diverse population, the vast majority of our participants reported being Caucasian. Furthermore, while it is a fairly young sample, we feel confident that the number of older individuals and the significance of our results still support our age-related findings. Finally, it is interesting to note that while we found several significant results from our question targeting what patients appreciated about their physician, there was very little in regards to what they wished their physician had focused more on. The most likely reason for this is that it may be easier for people to recall the positive aspects of an encounter than it is to recall what they found lacking, particularly considering the time since their last
doctor’s visit was so variable. While the vast majority of participants had visited their primary care physician in the last year (227), the remaining 43 participants had not.

While we are operating under the assumption that goal-oriented empathy would be less emotionally burdensome, this has yet to be fully substantiated. In order to completely understand the implications of this research, further studies would need to be done. First, while this study indicates differences in preference, that may not directly translate into equal effectiveness between the two styles of empathy. Studies would need to be done in order to assess how effective both styles are in communicating, fostering a good relationship, maximizing compliance and enhancing patient satisfaction. Ideally, agency-directed empathy would be a less emotionally burdensome form of empathizing with patients with the same beneficial results, however this also has not been demonstrated. While it is reasonable to hypothesize that it would be because it removes the emotional component, studies need to be done to assess this. Finally, the results of this study should be replicated with a more ideal sample. Greater diversity in age, ethnicity and socioeconomic status would further cement our results and enable us to make more concrete recommendations to physicians for future patient interactions.
References


