



Research article

Empathy before entering practice: A qualitative study on drivers of empathy in healthcare professionals from the perspective of medical students

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Abstract: Literature has shown that clinical empathy is important for good and effective patient care; however, research into the underlying precursors driving empathy is lacking. In this study, we aim to explore the motivating factors of empathy in healthcare professionals from the perspective of medical students. A grounded theory approach was employed to study the driving influences behind empathy in healthcare professionals. Focus Group Discussions comprising 21 English-speaking Year 4 medical students from Lee Kong Chian School of Medicine were conducted in August 2018. The results revealed four drivers of empathy and they are affective, cognitive, moral and individual valuation of empathy. A novel perspective on the motivation of empathy suggests that individual valuation of empathy plays a moderating role in both promoting and reducing empathetic behaviors. This proposes that effectiveness of empathetic behaviors founded upon genuine care might vary compared to those without it, which is consistent with current literature. We have shown that affective, cognitive and moral foundations of empathy are essential driving forces of empathy, with the valuation of empathy playing a major role in propelling empathetic behavior. In understanding the perceptions of empathy, interventions could work on accentuating the positive impacts of empathy in patient care, which might in turn, compel healthcare workers to display increased empathy for better patient care.

Keywords: clinical empathy; effective patient care; motivating factors of empathy; medical students; healthcare professionals

1. Introduction

Empathy has been shown in most studies to decline in medical students [1] and doctors [2] over time, from the third year onwards and then remains low [3,4]. Empirical evidence suggests increased physician empathy significantly improves patient care [5,6]: Better patient outcomes [7,8], increased patient satisfaction [9,10], reduced anxiety level [11] and greater patient enablement [12]. Given these serious implications on patient care, it may be reasonable to consider empathy as a standard-of-care [13].

Existing literature has explored the breadth of contributing factors of empathy [14–17]. Studies on empathy-enhancing interventions have yielded mixed results [18], although supporting its potential role [19].

However, research into the underlying motivations driving empathy is lacking [20]. Given that decreases in empathy begin from medical school, closing the gap in understanding of medical students' beliefs about empathy can help refine interventions to produce even better outcomes.

We aim to explore the drivers of empathy in healthcare professionals from the perspective of medical students.

2. Materials and methods

2.1. Methodology

We opted for grounded theory as our methodology because of the limited knowledge surrounding the factors that drive empathy in healthcare professionals. Grounded theory is known for its inductive approach, allowing us to develop theories (theorems) that explain this complex phenomenon. It stands out for its iterative process, where data collection and analysis occur concurrently, enabling us to explore and refine the theory as we uncover new insights. Grounded theory was the ideal choice for our goal of generating a theoretical framework to illuminate the forces, behaviors and beliefs that shape empathy in healthcare professionals [21].

2.2. Data collection

This research received approval from the National Healthcare Group Domain Specific Review Board. Invitations were extended via email to clinical year students from a medical school in Singapore, leading to the recruitment of 21 participants. Participants were informed of the study details, and written informed consent was obtained prior to the interview. In August 2018, data was collected via four focus group discussions (FGDs), comprising 4–6 students each. These FGDs, lasting 65–90 minutes each, were facilitated by LT and YY. The roles of lead facilitator and field notes writer alternated between the two. LT, a doctor familiar with FGD facilitation from previous studies, and YY, a medical student, was trained by CC, a researcher with qualifications in psychology. The FGDs were conducted in meeting rooms at the medical schools for the convenience of the students and also to allow them a sense of familiarity.

The initial FGD questions were broad and developed based on existing literature on empathy. These questions delved into the significance of empathy and explored its affective, cognitive and behavioral facets to pinpoint the core phenomenon. Subsequent questions followed an unstructured approach, adapting to the trajectory of discussions in response to participant inputs.

2.3. Data analysis

FGDs were transcribed verbatim using Microsoft Word 2016 by one research team member (a medical student) and verified by other team members (a physician, a psychologist and a research executive) against the audio recordings. Following grounded theory methodology, thematic analysis was performed after each FGD and themes that emerged were used to modify pre-prepared questions for the next FGD [22].

The Braun and Clarke six-step process was employed for thematic analysis [23]. This encompassed familiarization, coding, theme generation, theme review, theme definition and naming and the writing process. Coding was carried out individually by three researchers-LT, YY and MK. MK is a researcher experienced in grounded theory with a background in psychology. Following each FGD, codes were initially organized into themes individually. Subsequently, the three researchers collaborated to discuss, reorganize and rename codes and themes until consensus was achieved. Upon completion of all four FGDs, a meeting involving four researchers (LT, YY, MK and CC) ensured alignment of themes with research questions and overall coherence.

3. Results

3.1. Demographics

The study involved 21 Year 4 medical students, currently enrolled in a 5-year M.B.B.S (Bachelor of Medicine, Bachelor of Surgery) program. As fourth-year students, they were in their second year of clinical rotations. These students, in their early twenties, had an average age of 22.5 years, with the age range spanning from 22 to 24 years.

The medical program followed by these students in Singapore is United Kingdom based, reflecting a curriculum that places significant emphasis on communication skills and ethics in patient care [24]. The participant demographics were culturally diverse, comprising 14 males and 7 females. 18 participants Chinese, with 2 Indian student and 1 Malay student.

3.2. Thematic analysis

Participants were able to share on what they believe empathy is. They were able to describe components of empathy, the factors influencing empathy, what makes empathy effective and the impact on empathy on patients and healthcare worker. These are summarized in Table 1 below.

Table 1. Themes and sub-themes.

Themes	Sub-themes
Components of empathy	Affective component Cognitive component Moral component
Factors influencing empathy	Nil
Effectiveness of empathy	Behavioral component Affective origin
Impact of empathy	Positive Negative

3.3. Components of empathy

Empathy, as described by our study participants, is a multifaceted construct that encompasses three primary components: The affective, cognitive and moral dimensions.

3.3.1. Affective component

Participants spoke about the affective component of empathy, which is rooted in the experience of genuine care and compassion for patients. This dimension involves emotionally resonating with patients, perceiving their emotions, acknowledging those emotions and vicariously sharing in their feelings.

“...trying to understand what... someone else feels...trying to feel what they feel...”

3.3.2. Cognitive component

The cognitive component of empathy, as reported by participants, is characterized by the ability to understand the patient’s situation and thought processes. It involves active perspective-taking, which means adopting the patient’s point of view in the given circumstances. Healthcare professionals need to set aside their personal biases and preconceptions to genuinely comprehend the patient’s unique perspective.

“...trying to place yourself in the circumstance of somebody...in a very different place than you are...”

3.3.3. Moral component

An interesting point brought up revolved around the moral dimension of empathy. Participants explored the ethical considerations associated with empathy, particularly when contrasted with the prospect of a monetary or career-driven reward system. For these participants, empathy was perceived as a moral good and they expressed concerns that it could be compromised when driven by external motives. They emphasized that genuine empathy is an altruistic act that should not be tainted by ulterior motives.

“...[A reward system] takes away... that whole...I’m showing empathy to you because I care about you...”

“...it kind of boils down to what kind of doctor do you want to be and what do you make of what... any healthcare professional should be...”

3.4. Factors influencing empathy

3.4.1. Appreciable effect

Participants regarded empathy as a product of the interplay of various factors (Table 2), including: Personal, medical school-related, work-related and patient-related factors. These either inhibited or enhanced empathy.

Table 2. Factors influencing empathy.

Domains of factors affecting empathy	Factors	Description	Quotes
Personal	Personal choice effort	Participants felt that empathy comes down to a personal choice. A professional can choose to put in effort to empathize with patient but can choose not to as well.	“Firstly it’s a choice, whether you want to feel for the patient. Secondly it’s—it’s a bit of practice where you want to come across as genuine.”
	Desensitisation and fatigue	Participants believed that some professionals can become desensitize to human suffering and to human emotions, making them less likely to empathize with patients.	“I think maybe if you work longer, you might get jaded and you might get like numb to some feelings and you know, you get numb to the patient’s suffering and things like that.”
	Family upbringing and personal trait	Participants commented that the family upbringing and personal experiences affects a person’s wishes and ability to empathize with patients.	“I think it depends on the person’s upbringing and the environment they grew up in. cause throughout my life I’ve seen a lot of people who are able to put themselves in other people’s shoes and some who just aren’t.”

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Domains of factors affecting empathy	Factors	Description	Quotes
Personal	Current physical and emotional state and personal circumstances and stressors	Participants felt that a person's ability to empathize with patients can fluctuate due to personal circumstances and personal emotional states.	<i>"I think that empathy is also very dependent on the person's emotional state at that point in time. Sometimes it is more difficult for healthcare professionals to be empathetic if they are facing some crisis at home."</i>
	Personal experiences	Participants believed that a person's ability to empathize is also dependant on their personal experiences and how they cope with these experiences.	<i>"I think empathy is... has got a lot to do with imagination because when you see the person experience a certain situation, you try to imagine what is it like dipping into your own personal life and experience, to appreciate and to understand from the person's point of view?"</i>
Work	Organizational culture and values and how it matches competing priorities	Participants felt that there are varying needs for healthcare professionals and organizations needs to value empathy and show that they value empathy.	<i>"I don't think there's just one thing that the organization can do. I think it's collectively, how important is empathy?"</i>
	Positive and negative examples of empathy	Many participants shared both positive and negative experiences of empathy towards patients. They felt that these examples serve to teach how to provide empathy towards patients.	<i>"So, I thought it was also one of my first few experiences seeing that (example of empathy). I was very... very inspired by that act, by the doctor."</i>
	Training and work experiences	Participants thought that both trainings and experiences are important in building up the skills of showing empathy for patients.	<i>"From my perspective right, comes with training, but it also comes with experience."</i>

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Domains of factors affecting empathy	Factors	Description	Quotes
Work	Competing needs and workload and what is the role of a doctor	Participants feel that empathy do take both time and effort and providing more empathy means less time to complete medical tasks.	<i>"...each doctor has about ten minutes with a patient and within that ten minutes there's a very limited amount of what you can achieve if you want to, attend to the medical aspect as well as the emotional aspect, so it's definitely a case of trying to find a good balance."</i>
Medical education	Emphasis on teaching empathy	Participants felt that the medical education system plays a big part in how empathetic the doctors are.	<i>"...the UK especially, you'll realise that they're known to be—have very empathetic doctors and empathetic healthcare professionals because it's very much a part of their culture and part of the way that they're taught, like it's an important aspect of talking to the patient, important aspect of what they learn in their medical education."</i>
Patient	Patient factors	Participants felt that sometimes, patients can come across as difficult or nasty and this makes being empathetic towards them difficult.	<i>"You will see how people, uh how really patient behave then it will test really what's inside you."</i>
	Communication factors	Participants mentioned that communication barriers such as caring for a non-verbally communicative patient, or speaking to a patient with a language barrier can make expressing empathy harder.	<i>"So in terms of verbal skills you need to have a good command of the language, because you may feel very empathetic towards someone who speaks Malay, but I can't say anything other than like Terima kasih (Thank you in Malay)."</i>

3.5. Effectiveness of empathy

In our exploration of empathy, we found that its effectiveness hinges on several key elements that influence its impact on patient care.

3.5.1. Behavioral component

Empathetic behavior encompasses a wide array of actions, both verbal and non-verbal, including physical touch, practical assistance and attentive listening. What emerged as crucial was not just the

action itself, but the manner in which it was executed. Participants emphasized that the effectiveness of empathetic behavior is contingent upon the alignment between the behavior and patient expectations within the specific context. When actions and patient expectations are congruent, empathy is perceived as effective, whereas incongruity results in the perception of ineffective empathy.

“...the registrar like took the patient’s hand and...stood by the bedside and... slowly...explore the concerns of the patient...”

3.5.2. Affective origin

There were differing opinions regarding the necessity of a genuine affective origin behind empathetic behavior. One group emphasized that healthcare professionals should genuinely care for their patients because feigned care is discernible by patients. They emphasized that patients can differentiate between a doctor who genuinely feels empathy and one who doesn’t.

“...the patient also can tell...there will be a difference if the doctor did feel empathy versus if he didn’t...”

Conversely, others believed that practice could refine empathetic behavior, even in the absence of genuine care, making it inconsequential whether the healthcare professional genuinely feels empathy. They argued that while it is ideal for healthcare professionals to feel for every patient, it is not always realistic. However, they contended that the primary goal is to make patients feel cared for, and that goal can be achieved through training, regardless of whether the statement of empathy is perceived as fake or genuine.

“...if the goal is to make them feel cared for, and you are able to achieve that goal by training it, no matter how fake or how genuine the statement is, it achieved its goal...”

3.6. Impact of empathy

3.6.1. Positive

Participants perceived empathy as important for eliciting underlying psychosocial issues. It helps individualize management plans, which improves patient outcomes and satisfaction. It was considered central to building rapport and trust with patients. Some felt empathy provides purpose and meaning in their work, thus improving personal well-being.

3.6.2. Negative

Participants highlighted that excessive empathy could hinder medical objectivity and be detrimental to patient care, although participants were not able to define what excessive empathy looks like. Some participants considered empathy and professionalism as mutually exclusive and believed that empathy involves emotional connections to patients and can damage the doctor-patient relationship. Majority felt empathy can create an emotional burden, eventually leading to burnout.

“each doctor has about ten minutes with a patient and within that ten minutes there’s a very limited amount of what you can achieve if you want to, attend to the medical aspect as well as the emotional aspect, so it’s definitely a case of trying to find a good balance.”

3.7. Theorem

The data revealed four drivers of empathetic behavior: Affective, cognitive and moral components, and individual valuation of empathy. This theorem posits that individual valuation of empathy plays a major role in driving empathetic behavior, as compared to the affective, cognitive and moral components of empathy. Individual valuation of empathy can both serve to drive empathetic behavior (when other drivers being lacking) or decrease empathetic behavior (despite other drivers being robust), thus outlining its moderating role. This is evidence by the very common appearance of the word “important” prior to describe components of empathy of display of empathetic behaviors (Appendix 1). This concept is also further explained below using an electric circuit as an example. While affective, cognitive and moral components of empathy can drive empathy, the valuation of empathy is the most important driver of empathy. Each of these components therefore serves to “light” the empathy bulb brighter.

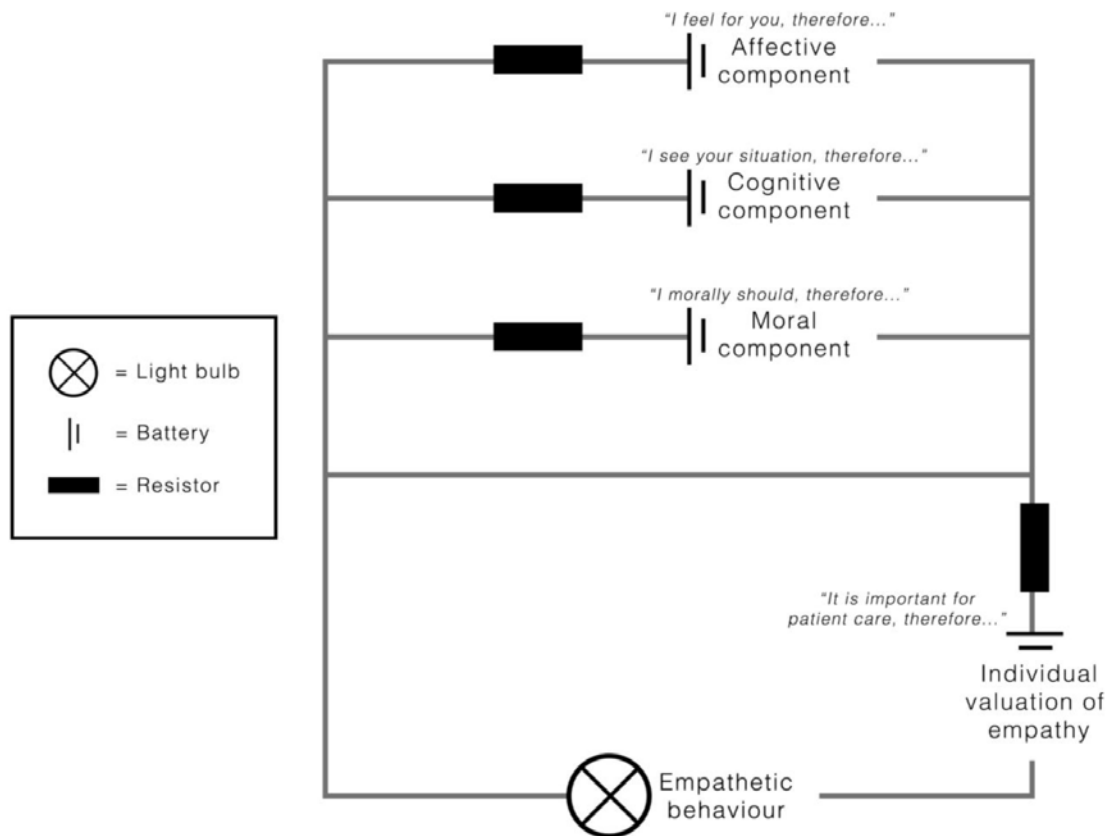


Figure 1. An electric circuit as an example of drivers of empathy.

3.7.1. Differing perspectives on empathy valuation

In our study, we identified various viewpoints on how medical students evaluate the importance of empathy, which were reflected in their behaviors towards patients.

Viewpoint 1: Necessity of empathy

Some participants stressed the absolute necessity of empathy in patient care. They emphasized that, even if a genuine emotional connection with patients is lacking, healthcare professionals must exhibit empathetic behavior due to its critical implications for patient well-being.

“...while we may not always experience a strong emotional connection, our primary commitment is to provide holistic care, encompassing not only medical treatment but also emotional and psychological support. Thus, empathy remains a fundamental aspect of our approach, regardless of our personal feelings.”

Viewpoint 2: Empathy as a secondary priority

Some participants acknowledged the value of empathy but noted that there might be situations where other responsibilities take precedence. Healthcare professionals who genuinely care for their patients might not always display empathetic behavior when they deem other tasks more pressing.

“...it’s not that doctors cease to care about their patients during these times. It’s a matter of efficiently prioritizing tasks and time in a busy work environment.”

Viewpoint 3: Variable significance of empathy

Within this perspective, participants pointed out that the importance of empathy can vary across different medical specialties. Some specialties may consider empathy less crucial, as its impact on patient care may be perceived as limited. Consequently, empathetic behavior might be less prominent in these fields.

“...in certain specialties, like radiology, the need for profound empathy might be less than in others, such as geriatrics or psychiatry. The significance of empathy fluctuates based on the specific demands of patient care.”

Viewpoint 4: Empathy’s potential drawbacks

Certain participants discussed the potential drawbacks of empathy, suggesting that it could be detrimental to patient care, the doctor-patient relationship, or the healthcare professional’s own well-being. In cases where empathy becomes emotionally draining, healthcare professionals may deliberately limit their empathetic responses.

“...if the emotional strain of empathizing becomes too burdensome, it may lead some healthcare professionals to deliberately temper their empathetic responses to protect their own emotional well-being and the effectiveness of patient care.”

4. Discussion

Existing literature proposes some theories to explain the motivations behind helping behavior. Baston’s Empathy-Altruism Hypothesis (EAH) is one popular model in explaining the driving forces of empathy.

EAH states that “empathic concern produces altruistic motivation”. Empathic concern is defined as “other-oriented emotion elicited by and congruent with the perceived welfare of someone in need” while altruistic motivation is “a motivational state with the ultimate goal of increasing another’s welfare” [25]. The individual subsequently uses cost-benefit analysis of possible responses (help or not act) and chooses the most beneficial behavior [26].

Using equivalent terminology from this study, EAH suggests that the affective component of empathy (empathic concern) produces a motivated state to improve patient care (altruism), and individual valuation of empathy (cost-benefit analysis) determines if empathetic behavior is displayed.

This data supports EAH's use of cost-benefit analysis. In viewpoint 2, genuine care for patients is superseded by individual valuation of empathy that the cost of neglecting other responsibilities (like administrative duties) outweighs the benefit (improved patient care), thus resulting in a decrease in empathetic behavior. Viewpoint 3 and 4 follow similar processes.

This study contradicts EAH in that empathetic behavior is displayed despite the absence of the genuine care, as depicted in Scenario 1. Hence, this study provides new insight into other motivations of empathy, namely the individual valuation of empathy being a major driver that dictates the degree of empathetic behavior.

This consequently necessitates a comparison of the effectiveness of empathetic behavior founded upon genuine care versus without. This study's data reveals mixed results, consistent with existing literature where there is controversy between "detached concern" [27] and "emotional attunement" [28] with patients.

Limitations of this study include the relatively small number of focus group discussions (FGDs) conducted, which may not have allowed for the attainment of theoretical saturation. Ideally, data collection and analysis in grounded theory should continue until no new themes emerge, and variations in existing themes cease to emerge. Additionally, the reverse relationship, specifically the role of the affective, cognitive and moral components in determining the extent of empathetic behavior, remains to be fully elucidated. It is worth noting that the research team made efforts to reduce potential researcher bias by involving multiple team members in the analysis process. Moreover, the study's participants were drawn from a single medical school, specific year of study and cultural context, which may limit the generalizability of the findings. Consequently, future research should explore different population groups to uncover similarities and differences and to better understand the reasons behind these findings. It is also valuable to investigate how the drivers of empathy evolve over time as healthcare professionals gain experience. Given these limitations, the results of this study serve as an exploratory foundation. Further studies are needed to validate the proposed theorem, making it important to recognize the preliminary nature of these findings.

5. Conclusions

We aim to discover the underlying motivations of empathy in healthcare professionals, from medical students' perspective. Findings suggest that individual valuation of empathy plays a major role in driving empathetic behavior, perhaps more than affective, cognitive and moral bases of empathy. However, given sampling limitations, further studies are required to gather data from other relevant sample groups to verify if the same theorem is observed. The value of this theorem rests in its implication on interventions to enhance empathy. In knowing that choices of healthcare professionals to be empathetic depend largely on how important they perceive it to be, interventions should focus on highlighting the marked positive impact of empathy on patient care. Following this, healthcare professionals may be compelled to display increased empathy for patients, hence achieving better patient care.

Use of AI tools declaration

The authors declare that they have not used Artificial Intelligence (AI) tools in the creation of this article.

Funding

This work was supported by Geriatric Education and Research Institute's Intramural fund (reference number GERI1616).

Conflict of interest

All authors declare no conflicts of interest in this paper.

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