

Perspectives and understanding of empathy development amongst junior doctors in Pakistan: Challenges and opportunities

Abstract

Background: Evidence suggests empathy, an essential component of holistic patientcare, may be declining amongst medical students and residents. Yet there are only a few qualitative studies, mostly from West, exploring this phenomenon.

Objective: This is a qualitative study of the learning environments of a tertiary care hospital of Pakistan, aimed to understand how junior doctors perceive and develop empathy and articulate the challenges faced by them.

Methods: This case study adopted constructivist theoretical perspectives and was conducted from January 2019 to June 2019. Data was gathered from three focus group discussions and analyzed by thematic analysis. Patterns were identified and reported to generate codes, basic and organizing themes.

Results: The participants were cognizant of empathy and its significance in patient management. Seniors as role models, first-hand knowledge of patients' plights, active involvement in patient care and witnessing illnesses in dear ones were facets positively influencing empathy. Salient hindrances included enormous work load, gender bias, past negative experiences, language and literacy barriers. Some participants felt like devising their own strategies to cope with workload and providing empathetic care. There is pivotal role of workplace based learning; enabling junior doctors to handle multi-dimensional doctor-patient relationship.

Conclusion: Clinical environments are significant for junior doctors' grooming in attainment of empathetic patient care. Exhibiting empathy may be different in eastern and western diaspora. Faculty development could promote refined understanding of empathy and strategies to convey empathetic patientcare ensuring safe medical practice.

Keywords: developing empathy, perception, clinical environments, clinical setting, junior doctors, medical residents

Atiya Rahman¹

Linda Jones²

1 CMH Lahore Hospital & CMH Lahore Medical College, Lahore, Pakistan

2 University of Dundee, School of Medicine, Scotland, United Kingdom

Introduction

Most healthcare professional agree that the patient doctor relationship influences clinical management and outcomes and empathetic patient-centred care is an essential component of healthcare provision. Gladstein's [1] conceptualization of empathy, comprising of cognitive and affective domains, has been refined by Morse et al. [2] as having four components:

1. emotive (experiencing and sharing in another's psychological state and emotions;
2. moral (an internal altruistic force that motivates the practice of empathy)
3. cognitive (identifying and understanding another's emotions and perspective from an objective stance and

4. behavioural (conveying understanding of another's perspective through communication).

Hojat et al. [3] defines "clinical empathy" as an "understanding of patients" experiences, concerns and perspectives combined with a capacity to communicate this understanding and an intention to help. Doctors' empathy has benefits for both the patients and treating doctors themselves. They provide more effective management plan, shared decision making regarding disease management, increasing patients' compliance and fewer malpractices claims against them [4], [5], [6], [7], [8]. The term "ethical erosion" has been used in literature denoting a decline in empathy and compassion with increasing clinical experience [9], [10].

Preliminary literature search on empathy in health professionals identified predominantly quantitative studies, longitudinal and cross-sectional, assessing and measuring it by employing tools like Jefferson Scale of Physician (or

Student) Empathy and Interpersonal Reactivity Index etc. [11], [12]. Longitudinal research is more appropriate where we want to study if and how people change over-time. Mostly articles and systematic reviews suggested a decline of empathy among medical students and physicians [13], [14], [15], [16], [17], [18] with only a few, all cross-sectional, reported empathy remained stable or increased as medical students progress [19], [20], [21]. These contrasting findings often identified the role of adaptable factors like the impact of culture, emotional well-being, and facets of undergraduate curricula and clinical environments upon empathetic development in medical students and physicians. Few qualitative studies have attempted to gain an understanding of such facets [10], [17], [22]. These studies have recognized aspects like consultants as role models, increased exposure to patients and discussions surrounding the psychosocial impact of illnesses increasing the cognizance of junior doctors and gaining better understanding of the patients' perspective. The barriers influencing empathy included time constraints, stressful working environment and prioritization of patients' physical well-being leading to desensitization of patient's suffering. Negative role models and being judgmental of patients contributed negatively for the development of empathy.

We recognize the extent to which evidence-based discourses, draw upon literature derived from Western, rich, educated, and industrialized countries and this underpinned the rationale for this qualitative exploratory case study. We hope our study might contribute an account which considered similarities and differences between local and global empathy encompassing cultural, ethnic, literacy and socio-economic disparities.

Our research questions were the following:

1. How do young doctors perceive the importance of empathy and learn about it through clinical experiences?
2. Which aspects/facets in the clinical environment influence the development of empathy?
3. What educational strategies might optimize the development of empathetic junior doctors?

Methods

Study design

We adopted a constructivist theoretical perspective and case study methodology, aligned to aims and research questions [23], [24], [25]. This study sought to explain how junior doctors perceived empathy and theorize about the social processes by which these perceptions form and empathetic behaviours are developed in the real life context in which they take place (clinical environments of a single tertiary care hospital of Pakistan) (see attachment 1).

We conducted focus group discussions (FGDs) as the data collection source. We wanted to utilize the advantage of inter-relational dynamics of the FGD as research data,

to overcome the reluctance of participants for one on one interview and to understand a topic not scrutinized before locally [26], [27], [28]. Author 1 (AR), the principal investigator, was also a faculty member of the institute studied. Thus, whilst not a complete insider, not being a junior doctor herself, working in the same institute provided some understanding of the culture being studied [29]. Author 2 (LJ), supervised project, offered an outsider perspective and independent analysis of data..

The study was conducted in 2019 at a single tertiary care hospital, at Combined Military Hospital Lahore (CMHL), Pakistan after obtaining ethical approvals from CMHL (96/2018) and UoD (SMED REC 116/18). The study participants gave voluntary, written, informed consent, after going through participant's information leaflet and having opportunities provided to contact AR for their queries. They were assured that the interviews were not assessments of any kind, have no bearing with their work, can withdraw from research even after giving consent and may not answer any or all the questions. Their rights were stated clearly in the consent forms as well as reiterated before the start of each FGD.

Sampling size and procedure

Drawing upon identification of how some specialties have tendencies towards being more technology oriented (associated with lower empathy) as compared to people oriented specialties [30] (see table 1), purposive sampling was developed, employing maximum variation/theoretical purposive sampling technique [31], [32], [33]. FGDs were designed to have diverse opinions of junior doctors. All house officers and residents of the hospital were potential study participants and invited to take part in the study. House officers are fresh medical graduates having completed MBBS (bachelor of medicine, bachelor of surgery) and undertaking one year mandatory clinical rotations in all major specialties. There were 123 house officers (87 females and 36 males) and 137 residents (94 females, 43 males) working at CMHL. Each focus group was composed of house officers and residents from different specialties and in different years of training to have diverse views and in anticipation of healthy discussion amongst them.

Data collection and analysis

After piloting the study a question guide, along with useful prompts and probes, was prepared (see attachment 1, appendix c). Ground rules were set for FGD ensuring everyone's participation in a cordial environment. Data were recorded and transcribed, then integrated with field notes capturing non-verbal and para-lingual communications to aid meaning making. All participants were assigned anonymous signifiers followed by a number corresponding to the FGD in which they participated.

Preliminary constant simultaneous comparison was used to enhance each step of data gathering and monitor "data saturation" [33], [34] which seemed to have been

Table 1: Specialties breakdown of the residency programmes offered at CMHL

POS (People Oriented Specialties)	TOS (Technology Oriented Specialties)
Obstetrics & Gynaecology	General Surgery
Ear Nose Throat	Orthopaedics
Ophthalmology	Physical medicine & Rehab
Internal Medicine	Radiology
Paediatrics	Chemical Pathology
Dermatology	Haematology
Gastroenterology	Histopathology
Nephrology	Microbiology
	Anaesthesia

Table 2: Source of data collection and number of participants

Source of data collection	Total number of participants	Gender		Status		Specialty (of Residents)
		Female	Male	House Officer	Resident	
FGD 1	5	3	2	2	3	Internal Medicine
						Pathology (Haematology)
						Orthopaedics
FGD 2	7	5	2	4	3	Pathology (Microbiology)
						Ophthalmology
						Gynaecology & Obstetrics
FGD 3	7	5	2	3	4	Internal Medicine
						Internal Medicine
						General Surgery
						Paediatrics
TOTAL	19	13	6	9	10	

achieved after conducting three FGDs. The data was managed by hand analysis and “thematic analysis”, was employed for identifying, analyzing and reporting patterns within data [35].

Results

A total of nineteen participants, thirteen female and six male, participated in the study (see table 2). Eight organizing themes were identified and each was an umbrella to multiple basic themes, as shown in table 3. The themes have been illuminated below by using short verbatim quotes.

Junior doctors’ understanding of the term empathy

There was general agreement across FGDs about definitions of empathy. The majority used the well-known phrase “to be in other persons’ shoes”. The participants further elaborated their personal understandings of the term encompassing the four domains of empathy [4]. They expressed it “arising from conscience” (MX3) (mor-

al), as “technique to treat patient” (UC1) (behavioural), as an “understanding what the person... going through” (YS2) (cognitive) and “feeling what they are suffering from” (WS1) (emotive).

Some participants suggested the notion that empathy is important in acquiring a holistic understanding of the patients. *It’s the understanding in toto. The person is not an object and he or she just a disease...considering the whole situation the patient is going through* (HI3).

The relationship between empathy and expressing emotions arose during discussions often linked to perceptions that society expects doctors to be without emotions. *I am a doctor and being emotional doesn’t go with the image of a doctor* (ZE1); *being a doctor you should keep your emotions outside the hospital... being a doctor you are another person and otherwise you are another person* (TR2). On inquiring the group responded it’s an unwritten rule but also explicitly told by few of their tutors. We found it intriguing; paradoxically a clear dilemma for the participants.

Table 3: Basic and organizing themes identified from data analysis

1. Young doctors' understanding of term 'empathy'
Definition of empathy
Role of empathy in holistic patient care
Empathy and exhibiting emotions
2. Perceived value/importance of empathy
Patients' trust, satisfaction and expectation
Patients' perception of doctors' competence
Effective patient-doctor relationship
Effective patient management plan
Eliciting pertinent history
Comprehensive patient counselling
Patients' compliance to management plan
Decreased chances of complaints against the doctor
3. Outcomes of being an empathetic doctor
Positive
Job satisfaction
Elation
Negative
Tiredness/ burnt out
Anxiety
Depression
Difficulty meeting society's expectations
4. Evolution of empathy in doctors
Increases as progress from medical college to residency
Decreases as progress from medical college to residency
Static - innate
5. Facets in the clinical environment positively influencing empathy
Role models
Learning professionalism/patient-doctor relationship
Bad role models
Active involvement in patient management
Training in specialties with less work load
Being a patient oneself or a close family member
Firsthand experience of patient's plight/lack of facilities
6. Facets in the clinical environment negatively influencing empathy
Workload
Bad role models
Demanding patients
Rude patients
Patients with fixed ideas
Societal customs
Some patients of opposite gender
Language barrier
Literacy level of patients
Past negative experiences
Walk in OPDs
Free medical service
Poor referral (General Practitioner) system
Inadequate waiting rooms
Environmental factors
7. Role of current undergraduate curriculum in developing empathy
No role
Some contribution
8. Strategies to improve empathetic abilities of junior doctors
Early clinical exposure of students
Medical students spending more time with patients
Workshops
Peer support groups
Faculty emphasis on role modeling
Employment of patient instructors
Improving GP system
Increasing manpower
Promoting self-reflection

Perceived value/importance of empathy

Most participants recognized empathy as an integral component of a comprehensive healthcare plan, important for the patients' trust/satisfaction, expectations and even patients' perception of doctor's competence. Many emphasized the importance of empathy during history taking, for formulating management plans, counselling, patients' compliance to medical advice and facing fewer complaints against them.

If we empathize... will be able to pick something earlier (NF3); if we are prescribing expensive medicines which the patient cannot afford...we failed to provide healthcare to that particular patient (UC1); if the doctor isn't empathetic he (the patient) isn't ready to adopt whatever you said to him (ZW2). He may not be getting well... the patient will prefer to go to the same doctor for review rather than lodging a complaint (XR1).

Outcomes of being empathetic for the treating physician

Some participants opined that empathetic care took a toll on doctors but counterbalancing this view some aired the opinion that it evoked positive feelings too.

I could feel her pain...I was at the point of breaking down myself (ZE1); if you, like, bottle it all in... it will lead to depression, exhaustion and burnout (TR2); Some patients... are very grateful, that makes you happy and you want to do more... It's very gratifying, for any doctor (GX3).

Evolution of empathy in doctors

There was diverse opinion regarding the evolution of empathy. Participants spoke strongly about it decreasing as well as increasing with the passage of time. A few maintained it was an innate, static phenomenon.

More junior the doctor is... they are more empathetic. They even cry with the patient... with the passage of time they see a lot of suffering, they get a little insensitive (ZE1); I am more able to be empathetic towards my patients... when you get to see the patients in real, intractable pain... or a patient with a persistent discharge which has ruined his social life and his image... can realize how difficult their disease makes the life for them (MX3). Empathy is an innate thing... doesn't get affected (YS2).

Role of current undergraduate curriculum in developing empathy

A few participants suggested that the current undergraduate curriculum sensitized students towards empathetic patient care; but the overwhelming majority indicated that the curriculum doesn't prepare them for practical life. They found the ability to empathize was something they learnt mainly from the clinical environment.

When I started my clinical career I had only theoretical knowledge... in clinics we have learned that empathy is a big element in the treatment of the patient... without

that you cannot cure your patient (UC1); We don't exactly know the true importance of empathy till we are actually in the clinical side (LO2).

Facets in the clinical environment positively influencing the development of empathy

There was high level of agreement between participants that close working relationships with patients and seniors as role models contributed significantly. Consistently words such as "idolized" (ZE1, MX3), "inspired" (XR1, NZ3), and "mesmerized" (LO2) highlighted admiration for certain clinicians and how juniors copy the mannerism of their seniors. *There have been seniors ... from whom I learnt how to empathize with the patient... how to consider patient as a human being and not as a disease (ZE1); I learnt the right language... the way to talk and sitting and everything. Most of the counselling I have learnt is from my own seniors and not from any book (GX3); taking care of my ward patients place an onus of responsibility on me (DB2).*

Few participants said seeing some seniors, being short tempered with the patients (bad role models), made them resolve not to do something similar and few felt working in a resource limited facilities with disadvantaged population enhanced their empathy. Some also expressed that personal experiences of illnesses increased their empathy. *"They probably get too stone hearted... I tell myself that I won't be like this" (XR1); "being a patient yourself or having a dear one being a patient... you realize the importance of empathy" (EX2).*

Facets in the clinical environment negatively influencing the development of empathy

Excessive and unsustainable workloads were singled out as having the most significant impact on empathetic behavior. For instance walk in outpatient departments (OPDs) with no appointment system made it impossible to monitor work load management. Bad role models, poor General Physician system with unnecessary referrals to specialists OPDs and free medical facility were further described as negatively impacting empathy. Some participants felt unprepared or unable to decide which patients required more empathetic care and were left to prioritize themselves who genuinely deserved an empathetic care. *The patients load is so much that they may feel that the doctor isn't giving enough time to each patient... may feel there is lack of empathy (XR1); "doctor when under-slept and overworked, he is not empathetic" (HI3); if their (consultant) approach is empathetic ... you also learn... if they are not empathetic... that's what you learn.(GX3); Everybody is getting the free treatment.. we personally feel that they are getting, sometimes, treatment for nothing (OC3); It is her (doctor's) intelligence to filter out the doctor shoppers... and those who have genuine problems (HI3).*

Emerging from the data was a sense that within resource poor settings some patients were more deserving than

others. Furthermore where doctors experienced patients who left them feeling uncomfortable they might become more cautious and less empathetic with future patients. *They are rude to you... don't know how to deal with that (ZW2); patients who are very educated and aware of their own illness... don't let you examine them properly... empathy should not be expected from the doctor (NZ3); everyone who comes here wants to be checked as soon as possible and want to take 20 minutes of the doctor's time! (GX3); If a female doctor is being empathetic and nice to a male patient, the male patient can ask for her phone number... this obviously affects the doctor; as she might not empathize the next patient that comes to her (XR1). This was confirmed by other members of the group. Additionally, few participants opined that some patients' take male doctors as more competent. At times they make you feel as if you are less of a doctor so you cannot empathize with them...get that feeling from some male patients. (GX3).*

Similarly, they opined that some patients prefer to be seen by doctors of same gender. *"A lady would rather keep a distance from male doctors because she wouldn't be able to discuss her problems...and vice versa".(HI3)* Similarly some comments highlighted language differences and low education level as barriers hindering the communication of empathy. Others mentioned how patients' response to physical environment such as OPDs being too hot or cold or inadequate waiting rooms might create situations where concern for empathetic components of care might decrease.

Educational strategies to improve empathetic abilities of junior doctors

In line with the majority view that exposure to the clinical environment and patients being most valuable for the development of empathy some suggested early, meaningful clinical exposure for medical students right from first year, rather than delaying to third year. Also spending more time with patients, prioritizing not just history taking skills and examination but also psychosocial aspects would provide better insight to students about patients' illnesses. Faculty as role models and regular workshops with specific scenarios to enhance communication skills and empathetic behaviours were suggested. Participants also articulated a link between the experience of stress with reduced empathy *"basically you are exhausted...you don't have an outlet" (LO2)*. There were requests for peer support groups to manage work related stress: *I wish we had some sort of workshops or someplace where we could talk about our clinical experiences (LO2). We should organize a group discussion like this... We can share where we felt helpless and the incidents where we could do the best for the patients so it becomes motivating for others as well (ZE1); maybe some people who can actually empathize with the doctors as well. They probably need it too (EX2); role models can help the junior doctors learn more (XR1); supervised learning...You acquire the necessary abilities to communicate with the patient and*

to break news or how to explain the disease conditions ... inculcate in our clinical settings for junior doctors to learn to be empathetic (HI3)

Discussion

Our study findings suggested that in CMHL there is a high level of cognizance of empathetic patient care among junior doctors. However, there is a need to enable them to develop strategies for demonstrating it in busy, resource poor work setting. The behavioural aspect of empathy was emphasized by some for optimizing patient care. This is similar to findings of Aomatsu et al. [36] who found residents considered behavioural empathy necessary, irrespective of whether they shared the patients' emotions or not.

Our findings are aligned with published medical literature about the evolution of empathy. One Pakistani study [37] found that whilst empathy scores remained stable across the years amongst medical students, these scores were much lower compared to studies using similar tools in countries such as Iran, Korea, China, UK, Italy, Brazil and USA. This underscores the importance to explore the facets influencing empathy development. We found these to be somewhat similar to those identified by earlier studies done elsewhere with few stark differences. Aspects like increased exposure to patients and discussions surrounding the psychosocial impact of illnesses increase the cognizance of junior doctors regarding impact of illness on the patients and their families [2], [6], [22], [38]. Positive role models are found to be extremely helpful. Non-evaluated, implicit lessons on empathy are more beneficial rather than objective lessons/assessments which risk becoming farcical for the students [22], [36]. Tutors need to model self-reflective behaviours to their students, helping them to understand the learning and development opportunities provided by such practice.

Our study has identified gender as potentially an important factor in determining empathetic care with certain patients' preference to be seen by physician of same gender and sometimes female doctors' empathy misconstrued by male patients. The participants felt less inclined to be empathetic with such patients. Similarly, when female participants felt that certain patients perceive male doctors to be more competent they had difficulty in building an empathetic patient-doctor relationship. Hence, the patients' characteristics were influencing their empathetic abilities. In contrast, the literature search has revealed only a modest impact of gender on patient-doctor relationship. Hall and Roter's meta-analysis [39] reported that the gender of the doctor does not influence the gynaecological patients' affective expressions of their complaints. Similarly, a European multi-centre study [40] concluded that quality of communication were similar for both female and male physicians. The doctors' empathy, support and approachable demeanor are highly appreciated by all patients, regardless of their gender. These studies indicate that as communication isn't comprom-

ised due to gender difference an empathetic relationship is possible. However, western studies on non-native patients indicated that some patients prefer to be seen by physician of same gender [41], [42]. How that influences the doctors empathy wasn't deliberated upon in those studies.

The barriers influencing empathy identified by earlier studies [2], [3], [22], [36], [38] included time constraints, stressful working environment and prioritization of patients' physical well-being leading to desensitization of patient's suffering (focusing primarily on the disease process) and negative role models. Lack of appreciation from seniors, fear of repercussions of making mistakes, patients' attitude/haughtiness, literacy level and challenging curriculum also impacted negatively in empathy development. Being a developing nation with scarce resources (less medical and paramedical staff combined with a populous country) puts a lot of burden on health professionals and hinders demonstrating empathy. Tensions exist between understanding of the importance of empathy and the realities of high workloads and low resources and they are creating stress for the junior doctors. Whilst empathy is perceived as being part of formal, informal and hidden curriculum it is individuals who have to cope with the pressures rather than institutions. We propose it's time for educational institutions to face these paradoxes, expand infrastructure and workforce; rather than assigning them to individual doctors to cope with and risk burn out or reduced quality of care.

We think that the notion of empathy needs to be more nuanced than it is currently. The undergraduate and post graduate curricula need to be expanded to deal with empathetic care, with an emphasis on faculty development to revisit empathy through the eastern lens. Medical professionalism is contextual and socially constructed way of performing rather than a stable set of traits. The social norms can vary in different societies and need to be accepted. Gosselin, Norris & Ho [43] asserts that the medical education standards are largely designed in the west and cultural differences need to be recognized. Educators, researchers and faculty from non-western countries ought to work towards appropriate context sensitive and locally driven approaches; rather than relying wholly on medical education standards designed by the west. Tutors might facilitate in creating publicly observable facial and bodily displays for the junior doctors [44]. It would help them in handling multi-dimensional doctor-patient relationship and developing clinical empathy as a teachable and learned set of abilities.

We were able to obtain a fairly broad, diverse perspective on our research questions. The junior doctors discussed their perceptions and development of empathy (RQ1), the facets in the clinical environment enhancing and hindering the development of empathy (RQ2) and which strategies/measures could potentially promote the development of empathy amongst young doctors (RQ3) (see attachment 1).

Conducting a small scale study involving junior doctors of a single institute, we do not make a claim of generaliz-

ability. Multicenter studies may be carried out in future. However, one should keep in mind specific informal and hidden curricula influencing the findings. Our study might be useful to the stakeholders of not only CMHL but potentially other teaching hospitals of the country. Perhaps, regional medical institutes and western world, dealing with multi-cultural patients, will find it interesting. We hope more studies are done on this important topic locally to attain desirable healthcare systems. Future studies might involve other stakeholders, such as patients, faculty and administrative staff for creating lasting solutions.

Conclusion

Our study shines some light on the local experiences and contributes to global discourses. We found junior doctors aware of the importance of empathy. Attempts could be made to nurture the facilitators and overcome the hindrances in the clinical environments identified by the study participants. The practices implemented may be driven from international (largely western) evidence based medicine but possibly modified according to the social and cultural norms.

Acknowledgements

We sincerely thank all the study participants who spared time from their busy schedules to participate in the study and shared their views and experiences, leading to healthy and insightful discussions/interview.

Competing interests

The authors declare that they have no competing interests.

Attachments

Available from <https://doi.org/10.3205/zma001554>

1. attachment_1.pdf (182 KB)
Appendices

References

1. Gladstein GA. Understanding empathy: Integrating counseling, developmental, and social psychology perspectives. *J Couns Psychol.* 1983;30(4):467-482. DOI: 10.1037/0022-0167.30.4.467
2. Morse JM, Anderson G, Bottorff J, Yonge O, O'Brien B, Solberg S, McIlveen KH. Exploring empathy: a conceptual fit for nursing practice? *Image J Nurs Sch.* 1992;24(4):273-280. DOI: 10.1111/j.1547-5069.1992.tb00733.x
3. Hojat M, Spanderfer J, Louis DZ, Gonnella JS. Empathic and Sympathetic Orientations toward Patient Care: Conceptualization, Measurement, and Psychometrics. *Acad Med.* 2011;86(8):989-995. DOI: 10.1097/ACM.0b013e31822203d8

4. Bayne H, Neukrug E, Hays D, Britton B. A comprehensive model for optimizing empathy in person-centered care. *Patient Educ Couns.* 2013;93(2):209-215. DOI: 10.1016/j.pec.2013.05.016
5. Derksen F, Bensing J, Lagro-Janssen A. Effectiveness of empathy in general practice: a systematic review. *Br J Gen Pract.* 2013;63(606):76-84. DOI: 10.3399/bjgp13X660814
6. Di Blasi Z, Harkness E, Ernst E, Georgiou A, Kleijnen J. Influence of context effects on health outcomes: a systematic review. *Lancet.* 2001;357(9258):757-762. DOI: 10.1016/S0140-6736(00)04169-6
7. Quince T, Thiemann P, Benson J, Hyde S. Undergraduate medical students' empathy: current perspectives. *Adv Medical Educ Pract.* 2016;7:443-455. DOI: 10.2147/AMEPS76800
8. Tsao P, Yu CH. "There's no billing code for empathy" – Animated comics remind medical students of empathy: a qualitative study. *BMC Med Educ.* 2016;16(1):204. DOI: 10.1186/s12909-016-0724-z
9. Hojat M, Louis DZ, Markham FW, Wender R, Rabinowitz C, Gonnella JS. Physicians' empathy and clinical outcomes for diabetic patients. *Acad Med.* 2011;86(3):359-364. DOI: 10.1097/ACM.0b013e3182086fe1
10. Stratta EC, Riding D M, Baker P. Ethical erosion in newly qualified doctors: perceptions of empathy decline. *Int J Med Educ.* 2016;7:286-292. DOI: 10.5116/ijme.57b8.48e4
11. Davis MH. Measuring individual differences in empathy: Evidence for a multidimensional approach. *J Pers Soc Psychol.* 1983;44(1):113-126. DOI: 10.1037/0022-3514.44.1.113
12. Colliver JA, Conlee MJ, Verhulst SJ, Dorsey JK. Rebuttals to Critics of Studies of the Decline of Empathy. *Acad Med.* 2010;85(12):1813-1814. DOI: 10.1097/ACM.0b013e3181faa3ed
13. Hojat M, Mangione S, Nasca TJ, Rattner S, Erdmann JB, Gonnella JS, Magee M. An empirical study of decline in empathy in medical school. *Med Educ.* 2004;38(9):934-941. DOI: 10.1111/j.1365-2929.2004.01911.x
14. Bellini L M, Shea JA. Mood change and empathy decline persist during three years of internal medicine training. *Acad Med.* 2005;80(2):164-167. DOI: 10.1097/00001888-200502000-00013
15. Chen D, Lew R, Hershman W, Orlander J. A cross-sectional measurement of medical student empathy. *J Gen Intern Med.* 2007;22(10):1434-1438. DOI: 10.1007/s11606-007-0298-x
16. Kelm Z, Womer J, Walter JK, Feudtner C. Interventions to cultivate physician empathy: a systematic review. *BMC Med Educ.* 2014;14:219. DOI: 10.1186/1472-6920-14-219
17. Neumann M, Edelhauser F, Tauschel D, Fischer MR, Wirtz M, Woopen C, Haramati A, Scheffer C. Empathy decline and its reasons: a systematic review of studies with medical students and residents. *Acad Med.* 2011;86(8):996-1009. DOI: 10.1097/ACM.0b013e318221e615
18. Biswas B, Haldar A, Dasgupta A, Mallick N, Karmakar A. An epidemiological study on empathy and its correlates: A cross-sectional assessment among medical students of a government medical college of India. *Indian J Psychol Med.* 2018;40(4):364-369. DOI: 10.4103/IJPSYM.IJPSYM_109_18
19. Magalhães E, Salgueira AP, Costa P, Costa ML. Empathy in senior year and first year medical students: A cross-sectional study. *BMC Med Educ.* 2011;11:52. DOI: 10.1186/1472-6920-11-52
20. Rahimi-Madiseh M, Tavakol M, Dennick R, Nasiri J. Empathy in Iranian medical students: A preliminary psychometric analysis and differences by gender and year of medical school. *Med Teach.* 2010;32(11):471-478. DOI: 10.3109/0142159X.2010.509419
21. Roff S. Reconsidering the "decline" of medical student empathy as reported in studies using the Jefferson Scale of Physician Empathy- Student version (JSPE-S). *Med Teach.* 2015;37(8):783-786. DOI: 10.3109/0142159X.2015.1009022
22. Sheikh H, Carpenter J, Wee J. Medical student reporting of factors affecting pre-clerkship changes in empathy: a qualitative study. *Can Med Educ J.* 2013;4(1):26-34. DOI: 10.36834/cmej.36601
23. Guba EG, Lincoln YS. Paradigmatic controversies, contradictions and emerging confluences. In: Denzin DK, Lincoln Y, editors. *Handbook of Qualitative Research.* 3rd ed. Thousand Oaks: Sage; 2005. p.191-215.
24. Robson C. *Real World Research: A Resource for Social Scientists and Practitioner-Researchers.* 2nd ed. Oxford: Blackwell Publishing; 2002. p.177-179.
25. Starks H, Trinidad SB. Choose Your Method: A Comparison of Phenomenology, Discourse Analysis, and Grounded Theory. *Qual Health Res.* 2007;17(10):1372-1380. DOI: 10.1177/1049732307307031
26. Côté L, Turgeon J. Appraising qualitative research articles in medicine and medical education. *Med Teach.* 2005;27(1):71-75. DOI: 10.1080/01421590400016308
27. Bombeke K, Symons L, Vermeire E, Debaene L, Schol S, De Winter B, Van Royen P. Patient-centredness from education to practice: the 'lived' impact of communication skills training. *Med Teach.* 2012;34(5):e338-348. DOI: 10.3109/0142159X.2012.670320
28. Kitzinger J. Qualitative research: Introducing focus groups. *BMJ.* 1995;311(7000):299-302. DOI: 10.1136/bmj.311.7000.299
29. Unluer S. Being an Insider Researcher While Conducting Case Study Research. *Qual Rep.* 2012;17(29):1-14. DOI: 10.46743/2160-3715/2012.1752
30. Park C, Lee YJ, Hong M, Jung C, Synn Y, Kwack YS, Ryu JS, Park TW, Lee SA, Bahn GH. A Multicenter Study Investigating Empathy and Burnout Characteristics in Medical Residents with Various Specialties. *J Korean Med Sci.* 2016;31(4):590-597. DOI: 10.3346/jkms.2016.31.4.590
31. Watling CJ, Lingard L. Grounded theory in medical education research: AMEE Guide No. 70. *Med Teach.* 2012;34(10):850-861. DOI: 10.3109/0142159X.2012.704439
32. Trotter RT. Qualitative research sample design and sample size: Resolving and unresolved issues and inferential imperatives. *Prev Med.* 2012;55(5):398-400. DOI: 10.1016/j.ypmed.2012.07.003
33. Creswell JW. *Educational Research: Planning, Conducting and Evaluating Quantitative and Qualitative Research.* 4th ed. Boston: Pearson; 2012. p.210, 434-438.
34. Ng S, Lingard L, Kennedy TJ. Qualitative research in medical education: Methodologies and methods. In: Swanwick T, editor. *Understanding medical education: evidence, theory and practice.* 2nd ed. West Sussex: Wiley Blackwell; 2014. p.371-384. DOI: 10.1002/9781118472361.ch26
35. Braun V, Clarke V. Using thematic analysis in psychology. *Qual Res Psychol.* 2006;3(2):77-101. DOI: 10.1191/1478088706qp0630a
36. Aomatsu M, Otani T, Tanaka A, Ban N, van Dalen J. Medical Students' and Residents' Conceptual Structure of Empathy: A Qualitative Study. *Educ Health (Abingdon).* 2013;26(1):4-8. DOI: 10.4103/1357-6283.112793
37. Tariq N, Tayyab A, Jaffery T. Differences in Empathy levels of students Based on Gender, Year of Medical School and Career Choice. *J Coll Physicians Surg Pak.* 2018;28(4):310-313. DOI: 10.29271/jcpsp.2018.04.310

38. Winseman J, Malik A, Morison J, Balkoski V. Students' views on factors affecting empathy in medical education. *Acad Psychiatry*. 2009;33(6):484-491. DOI: 10.1176/appi.ap.33.6.484
39. Hall JA, Roter DL. Patient gender and communication with physicians: Results of a community-based study. *Womens Health*. 1995;1(1):77-95.
40. Mazzi MA, Rimondini M, Deveugele M, Zimmermann C, Deledda G, Bensing J. Does gender matter in doctor-patient communication during standard gynaecological consultations? An analysis using mixed methods. *Commun Med*. 2014;11(3):285-298. DOI: 10.1558/cam.v11i3.24806
41. Paternotte E, van Dulmen S, van der Lee N, Scherpbier AJ, Scheele F. Factors influencing intercultural doctor-patient communication: A realist review. *Patient Educ Couns*. 2015;98(4):420-445. DOI: 10.1016/j.pec.2014.11.018
42. Paternotte E, van Dulmen S, Bank L, Seeleman C, Scherpbier A, Scheele F. Intercultural communication through the eyes of patients: experiences and preferences. *Int J Med Educ*. 2017;8:170-175. DOI: 10.5116/ijme.591b.19f9
43. Gosselin K, Norris JL, Ho MJ. Beyond homogenization discourse: Reconsidering the cultural consequences of globalized medical education. *Med Teach*. 2016;38(7):691-699. DOI: 10.3109/0142159X.2015.1105941
44. Ho MJ, Lin CW, Chiu YT, Lingard L, Ginsburg S. A cross-cultural study of students' approaches to professional dilemmas: sticks or ripples. *Med Educ*. 2012;46(3):245-256.

Corresponding author:

Dr. Atiya Rahman, MBBS, FCPS (Derm), MMed (Dundee)
CMH Lahore Hospital & CMH Lahore Medical College,
Lahore Cantt, Lahore, Pakistan
atiya_rahman7@yahoo.com

Please cite as

Rahman A, Jones L. Perspectives and understanding of empathy development amongst junior doctors in Pakistan: Challenges and opportunities. *GMS J Med Educ*. 2022;39(3):Doc33.
DOI: 10.3205/zma001554, URN: urn:nbn:de:0183-zma0015541

This article is freely available from

<https://doi.org/10.3205/zma001554>

Received: 2021-08-18

Revised: 2021-11-17

Accepted: 2022-03-07

Published: 2022-07-15

Copyright

©2022 Rahman et al. This is an Open Access article distributed under the terms of the Creative Commons Attribution 4.0 License. See license information at <http://creativecommons.org/licenses/by/4.0/>.