

Title: Continuing Medical Education (CME): An exploration of method in teaching empathy
to first year residents in a Singapore hospital

Thesis submitted in accordance with the requirements of the University of Liverpool for the
degree of Doctor of Education by

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March 2019

Table of Contents		Page
	Abstract	4
1.	Introduction	5
1.1.	The Problem at Hand	7
1.2.	Making the invisible visible	8
1.3.	Creating an Environment for Reflection	10
1.4.	The value of this research	11
1.5.	Myself as a practitioner in the research	13
1.6.	The context of my research and its potential impact on research participants	14
2.	Literature Review	18
2.1.	What makes for a good doctor?	18
2.2.	Professionalism	22
2.3.	Hidden Curriculum	27
2.4.	Why is empathy in healthcare important?	29
2.5.	What is empathy?	35
2.6.	The Neuroscience of empathy	40
2.7.	Emotional labour, stress and Physician burnout	44
2.8.	Teaching empathy – pedagogy	48
2.9.	The Medical Humanities	59
2.10.	Key drivers that Frame the Research	62
3.	Study design and Methodology	65
3.1.	Methodological approach	65
3.2.	Study design	69
3.3.	Measuring empathy	69
3.4.	Modifying the tools used	72
3.5.	Teaching empathy: The intervention	74
3.6.	Selection of Participants	79
3.7.	Summary	85
4.	Ethics and Data collection	86
5.	Results	91
5.1.	Stage 1: Quantitative data	91
5.2.	Stage 1: Qualitative data	93
5.3.	Stage 2: Data from Focus Groups	99
5.4.	Stage 2: Data from Field Notes	118
5.5.	Stage 2: Data from Emails	121
6.	Discussion	125
6.1.	Reflections on Quality of Research and reflexivity	131
6.2.	Biases, Limitations, Scope for further research	135
7.	Conclusion	137

Tables and Figures	Page
Fig. 1. Effect model of empathic communication in the clinical encounter	34
Fig. 2. The Johari Window Model	57
Table 1. Framework for teaching empathy	77
References	139
Appendices	173
Appendix A – JSPE	173
Appendix B – JSPPPE	175
Appendix C – Post-video screening questions	176
Appendix D – 2 tables	178
Table 2. JSPE mean scores for baseline and post-test (Control & Intervention groups)	178
Table 3. JSPPPE mean scores for baseline and post-test (Control & Intervention groups)	181
Appendix E – 2 graphs	182
Fig. 3. JSPE mean scores for baseline and post-test (Control & Intervention group)	183
Fig. 4. JSPPPE mean scores for baseline and post-test (Control & Intervention group)	184
University of Liverpool EdD. VPREC Ethics Approval Letter	185

Abstract

Knowledge and skills can be taught. What of character or personality – can desirable personality traits like empathy be taught? Studies show that there is a deterioration of medical students' and residents' self-perceived empathy during clinical training. The first stage of the study aimed to compare the levels of empathy of Post-Graduate Year 1 (PGY1) doctors in a public hospital pre- and post-teaching. In complement, we explored the empathy learning experience of doctors in an environment with their colleagues from all job groups present.

Stage 1 - Initial small-scale data was gathered in a mixed method study with 21 PGY1s (using the Jefferson Scale of Physician Empathy (JSPE), whilst their patients were asked to fill the Jefferson Scale of Patient Perceived Physician Empathy (JSPPPE). Equal and randomised test and control groups were formed. The test group of PGY1s were asked to view a teaching video online, after which they filled a qualitative reflective feedback form. The survey exercise was repeated to obtain post-intervention empathy scores. Findings: a heightened awareness about the doctor-patient relationship in the PGY1s who viewed the video; PGY1s' self-assessed empathy levels do not correlate with their patients' assessments.

In Stage 2, using the classroom as a laboratory for teaching empathy, we explored what actually occurs during the learning and post-learning (reflection, practice change) experiences for doctors and their colleagues. Data was collected from five focus group discussions.

The teaching of empathy is necessary in sustaining empathetic care throughout doctors' training and career. Although some patients may not want empathy, we need to explore ways of arousing awareness of self and others, of curiosity, of imagination, and to promote reflection in practice – these contribute to restoring hope in humanistic care. Leaders in medical education and clinical tutors should closely monitor the *hidden curriculum* (and other organizational and systemic challenges) as well as ensure physician wellbeing whilst enacting a curriculum change in order to incorporate the teaching of empathy to residents, their peers, and colleagues.

1. Introduction

The phenomenon of doctors' diminished capacity to empathise with patients is under scrutiny. It is a recurring concern in healthcare in Singapore and around the world for young doctors in training (See, Lim, Kua, et al., 2016). Recently, Singapore's most established newspaper reported that "Young doctors are feeling burnt-out, and this affects their ability to empathize with patients" (Straits Times, 2017, 21 Nov., n.p.). This was based on a local study (Lee, Loh, Sng, Tung & Yeo, 2017) which revealed that there is a negative correlation between empathy levels and burnout in residents, and that those in the 446-strong Singapore sample had lower empathy scores and higher burnout scores compared to their US counterparts. The authors claim that there is little known about the association of empathy and burnout in the Singaporean context but go on to give reasons that are likely to contribute to burnout: local work practices, the climate in which medical education is taught, and societal and cultural expectations.

Whilst speculation to the causes of burnout are manifold, interventions on the ground to address these issues are sparse. Patient care suffers when physicians are not functioning at their optimal level. Patients tend to be more satisfied with physicians that treat them with greater empathy (Glaser et al., 2007; Wong & Lee, 2006; Kim, Kaplowitz, & Johnston, 2004). It is important, therefore, to try and preserve and build empathy levels throughout medical school and during clinical clerkships.

Cross-sectional and longitudinal studies reveal that there is a decline in empathy of students in medical school. Empathy levels in undergraduate medical students begin to wane in the third year (Hojat et al., 2009b; Chen, Kirschenbaum, Kirschenbaum & Aseltine, 2012). Similarly, Stratton, Elam, Murphy-Spencer and Quinlivan's (2005) study focuses on examining changes in emotional scores across the undergraduate medical curriculum, empathic

concern, attention to feelings and mood repair were noticed to be lower (in later years of the programme) than the baseline while personal distress was found to be higher.

However, there is one particular study carried out in a medical school in Portugal, according to the literature that demonstrates using a latent growth model that empathy does not decline over time (Costa et al., 2012). Using the student version adaptation to Portuguese of the Jefferson Scale of Physician Empathy (JSPE), data was collected during three distinct periods: upon entry into medical school, at the end of the pre-clinical years, and whilst they were in clinical training. Data analysis was conditioned by gender, openness and agreeableness. The results, when employing a longitudinal methodology, point to empathy stability: “empathy scores were significantly and positively related with Openness to Experience and Agreeableness at admission, but the empathy rate of change across time was not significant” (p. 509).

The suggestion that empathy “declines” or “erodes” as students progress through medical school has largely rested on observations reported from Jefferson Medical College in the United States using the Jefferson Scale of Physician Empathy (JSPE) developed by Hojat and colleagues (Nicol, Williams, Sa, & Stevenson, 2011; Roff, 2015). Now that the student version of JSPE has been administered to medical students in more than a dozen countries, it is timely to consider whether or not the Jefferson “case study” and the conclusions drawn from it are generalizable. These observations may support Costa et al.’s contention that empathy of medical students does not decline significantly throughout their years of education and clinical training.

However, in order to understand the maturation process of medical students and trainees we need to develop more sophisticated, integrated models that combine culturally-sensitive concepts of emotional intelligence and moral reasoning with far more refined

understandings of the nature of empathy required for the safe practice of patient-centred medicine.

Colliver and colleagues (2010), upon reexamination of research, report that the decline in levels of empathy of medical students in training is unduly exaggerated. It was not a systematic review per se, but data from eleven studies (from 2000-2008) reporting empathy levels of doctors in training were reviewed. Very weak decline in mean ratings, coupled with low and varying response rates led the authors to surmise that empathy decline (according to self-reports) in medical education is not conclusive. Moreover, in a longitudinal Australian study (Williams, Brown, Boyle, McKenna, Palermo & Etherington, 2014), stable levels of empathy in undergraduate emergency health, nursing, and midwifery students were reported.

The focus of my research is on preserving and enhancing empathy levels in junior doctors (they have graduated from medical school and have entered the workforce). To avoid any possible confusion or misunderstanding, in this thesis, I have chosen to use the terms physician, doctor, clinician, resident, medical graduate and PGY1 (Post-graduate Year 1) interchangeably. When referring to healthcare professionals in general or the wider domain of caregivers, I will be specific about whom I mean and contextualize my arguments within the role described.

1.1. The problem at hand

I find myself with a multi-faceted inquiry. In order to break down the complexity of the problem and to attempt dissolving the biases or assumptions that are inherently present, I chose to present the research questions as four interrelated ideas:

- What is empathy and how do I go about evaluating it?
- The expression of empathy can be perceived differently from the physician's point of view and that of the corresponding patient (or patients, as there may be more than one patient

for any particular doctor). How can I evaluate empathy using both self-assessments and third-party assessments?

- What occurs during the teaching of empathy to physicians and all healthcare professionals that work closely with physicians in a hospital?
- How do I appraise the impact of that teaching?

The immediate results of teaching or fostering empathy is not readily visible or obvious, measurable or reproducible. Where tangible results are concerned (through use of accepted psychometric tools), many of the indices are still debatable because of the nebulous nature of the concept of empathy. Almost all empathy 'measurements' are derived from self-report tools, which again, for purists, is a point for serious debate. Ideally, I would like to be able to evaluate learning or the impact of teaching empathy from a personal or individual, as well as from an environmental standpoint.

1.2. Making the invisible visible

The challenge is to teach a desirable trait or behaviour so that it is visible or palpable in the clinical environment. I intend to frame the teaching of empathy or attempt to evoke empathic interactions in the workplace from 3 perspectives: Looking Outwards, Looking Inwards, and Looking Forwards. Looking Outwards encompasses the active cultivation of curiosity, to venture into another person's world, to engage, to listen, to share, to commune (Fitzgerald, 1999). The cognitive aspect of learning is in the fore whilst one observes and is drawn to the environment.

Looking Inwards has a predominant meta-cognitive learning quality. Honing skills related to self-knowledge or self-awareness and the continual exploration of personhood is an inward-looking process. Our understanding of 'the other' can only be improved by our own awareness; having insight into ourselves, into our emotions, and ongoing attention to our own

needs whilst we then strive to satisfy the needs of others. Self-reflection and purposeful pondering must be deliberate so that learning about our thoughts, behaviours and attitudes can shape our empathic interaction with others (Dewey, 1933).

Finally, Looking Forwards is both a cognitive and meta-cognitive approach to learning empathy. It is the distillation of cultivating a continual awareness about our environment, our own being, and that of our everyday work requirements – ongoing reflective practice. A detailed account of how I derived the abovementioned framework through a process of personal reflection is given in section 3.5. In section 2.6, I will elaborate on the science explaining the neural mechanisms in our brains that enable humans (as well as animals) to recognize emotion and to mirror or to experience that same emotion.

We are all storied beings with individual and shared narratives (Charon, 2012). This will be expanded upon in section 2.9. - The Medical Humanities. The choice of a teaching video was to facilitate story-telling i.e. providing stimulus in the form of personal vignettes, a painting, choreography, and music. Emotion. Thought. Meaning. Action.

To feel and to know oneself is a potent inward-looking form of enrichment. From there, we progress to action, a forward-looking behavior, congruent with Schön's principles of Reflection-on-action and Reflection-in-action (1983; 1987). Schön's latter principle supports how the PGY1, as a practitioner, is able to reflect and react in real time i.e. whilst it can still benefit the current situation. The former principle suggests there is a time lag; the practitioner reflects on the past event and devises changes to improve on a similar event in the future.

The video designed to 'resuscitate' or invigorate empathy in residents is coupled with a piece of writing - reflective feedback (Wald et al., 2012) in stage 1 of the study. In stage 2, five in-depth focus group discussions were undertaken after the teaching interventions. Based on the emotions experienced by participants whilst watching the video, thoughts are generated

and expressed. The ultimate aim of such teaching efforts, of course, is to have concrete enactment of empathic interactions (action) in the workplace.

1.3. Creating an environment for reflection

Ericsson and his co-authors developed the argument that in order to consciously develop expertise in any field - including the arts, science, sports – one has to engage in a cognitively effortful activity (1993). Actively thinking about what one is doing and having insight into what we can do to improve our practice are hallmarks of the reflective practitioner (Mamede & Schmidt, 2005; Mann, 2011; Moon, 1999; Nicol & Dosser, 2016; Schön, 1983).

Bandura's (1971) social learning theory explains human behaviour by the capacity of individuals to observe others, to mentally process how the observed behaviours are enacted, and from there to be able to reproduce those learnt behaviours and attitudes which are considered as desirable ways of conducting oneself. Modelling is the common term used to describe such continuous reciprocal interaction between people in a particular ecosystem or context.

I am interested in optimizing learners' attentiveness or receptiveness to social learning (this is based on the assumption that the subjects modelled upon display desirable qualities). Engineering pedagogy to incorporate effective modelling attention is a first step if we wish to increase the amount of attention learners pay to the actual process of learning.

I postulate that the teaching of empathy would appeal to learners based on its distinctiveness, its ability to elicit emotion, its pervasiveness, its functional value or usefulness, and its complexity (Mehrabian & Epstein, 1972). The responsibility lies with learners to maximize their attention by checking awareness of their sensory abilities, level of arousal, sense of perception, and consolidated past learning. For this study, stories are told employing

artful devices in a video to arouse curiosity, emotions, imagination, reflection, and ultimately inspire change.

According to Mayer's (2009) cognitive theory of multimedia learning, learners' attention is drawn to two distinct channels for processing information – auditory and visual. I agree with his posit that learning is an active process of filtering, choosing, organizing and integrating information or stimuli. The teaching intervention in this study attempts to explore learning through visual and auditory channels.

Healthcare and medical education coexist in a supercomplex environment (Barnett, 2000). The Looking Outwards, Looking Inwards, and Looking Forwards framework (Table 1, page 74) serves as a schema for making sense of the supercomplex environment whilst enabling empathic connections with others.

1.4. The value of this research

My main role at our teaching hospital is that of administration director for clinical education. Our department oversees student attachments as well as graduate training and continuing professional development for medical education, nursing, pharmacy and allied health in a hospital setting. One of the projects I have been assisting the department of Medical Affairs with is in Quality Assurance and Patient Safety. Breakdown in communications, inadequate team skills, poor or nonexistent leadership abilities and lack of honesty and respect have been responsible for compromised patient safety (Walton, 2007). Although the present thesis is focused on education and not quality assurance, I would like to stress the importance of the role of medical education in enhancing empathy for safe and good care (Mercer & Reynolds, 2002).

Gordon (2008) makes a compelling statement in support of the medical humanities which she claims will lay the intellectual foundations for teaching these very skills – “biomedicine puts at our disposal the tools for safe, effective healthcare; the humanities explore their wise application in practice” (p. 420). Biomedical models of care are easily visible, and thus considered teachable (Coulehan, 2005). The equally essential psychosocial model of care, which is complementary, is ‘invisible’, thus rendering it more difficult to teach.

The editorial in *The Lancet* (2004) challenged the medical education curriculum to enhance the behavioral and social science aspects of the medical curriculum. A vision of an integrated curriculum at the outset of medical training should include courses on preservation of health or lifestyle medicine; social, cultural, financial and community issues; health policy and economics; as well as recognizing how the physician’s own biases, beliefs, faith and socio-economic background could affect care for her patients. It should be carefully and purposefully planned; it should not come as an afterthought. I have elected to focus on teaching empathy to doctors as well as other healthcare professionals who make up the teams they work closely with. Junior doctors, especially fresh graduates from medical school, are heavily reliant on nurses, allied health professionals, and patient assistants as well as administrators in clinical settings i.e. inpatient and outpatient care. (Association of American Medical Colleges, n. d.). The climate for medical education is ‘pluralistic’ in that it is an ecosystem of diverse job groups and subcultures comprising different perspectives and ways of working. I wish to study the learning of empathy of doctors with their colleagues in their natural pluralistic environment.

In undertaking this research, I endeavour to:

- i) enhance the content and ‘humanize’ the climate of medical education;
- ii) improve local work practices and communication;
- iii) and ultimately, help doctors better negotiate professional, societal and cultural expectations.

1.5. Myself as a practitioner in the research

My experience as an educator is extensive, but my experience in medical education, per se, has been fairly short – six years. What I do have is a lifelong experience of what it is to learn, to teach, and to be a patient from time to time. My recollection of being a patient shapes how I understand and respond to patients. It has been documented in the literature by Jackson (2001) as the *wounded healer* effect, describing how healthcare professionals have a propensity to empathize with persons who share very similar experiences. Drawing from my understanding of the importance of social skills required to interact with people effectively in my personal and professional life, I find myself naturally interested in the soft skills to be honed in medical education.

It is not my intention to discredit the acquisition of clinical expertise, otherwise known as the science or hard skills of medicine. I do, however, feel that the human aspect of medicine is just as important as the purely ‘clinical’ or biomedical aspect. The aphorism that encourages healthcare professionals to cure sometimes, to relieve or treat often, and to comfort always resonates with my view of what medical education should strive to achieve.

Curing the incurable is not possible; alleviating pain is, and so is the calming of frayed nerves or lessening distress (Malterud, 1995). It is not surprising that what is termed ‘the art of medicine’, which encompasses the overall well-being and quality of life of the patient relies heavily on the practice of empathetic care (Kenny, 1997).

At my hospital, I sit on a committee that meets every 12 weeks to discuss first year residents (PGY1s) in training, (Internal Medicine, General Surgery and Orthopaedics) and their progress. Residents who are managing poorly or struggling are identified early in formative evaluations. This enables their supervisors and mentors to intervene in a timely manner for

remediation efforts. I am not involved in the teaching of clinical knowledge and skills. But I do teach soft skills to clinicians as well as to administrators and leaders in healthcare.

Together with legal advisors, I teach an Ethics and Communication module. Legal and ethical issues with taking informed consent, understanding the Mental Capacity Act and rights of donees and the Lasting Power of Attorney are discussed in depth with our junior doctors. End of Life decision-making and management of care are also topics that are not ‘black and white’ and sometimes pose difficulties for both inexperienced as well as more senior doctors.

In the Communications module for the PGY1s, I attempt to impart the soft skills of doctoring. Based on the evidence highlighted in the literature, I focus on enabling empathic behavior or teaching empathy. It all begins with calling our attention to the human condition. One seeks to heighten awareness of oneself and cultivate a genuine curiosity for others.

1.6. The context of my research and its potential impact on research participants

In an acute care setting, being the ‘go to’ clinician whose opinion is sought out and valued is a huge responsibility. Intrinsic in these roles is a greater responsibility to practice respectfully and professionally (Argyris & Schon, 1974). Accomplishing this goal requires emotional intelligence and social dexterity to accommodate the nuances of each patient encounter. Insight and empathy are needed to continuously reassess the strengths and weaknesses of patient-centered clinical relationships. Guarding the trust implicit in those relationships requires more social understanding than most medical trainees anticipate (Martin, 2013).

Many observers criticize healthcare as becoming a dehumanized service (Todres, Galvin & Holloway, 2009). Hospital management policies are often cited as being the culprits. In order to see more patients in a limited period, relatively shorter consultation time is spent with each patient and the use of technology has also been blamed for the deterioration in the

doctor-patient relationship (Dugdale, Epstein & Pantilat, 1999; Fonville, Choe, Oldham & Kientz, 2010; Weiner & Biondich, 2006).

Economic constraints as well as a high reliance on technology (for greater efficiency and better diagnoses) are inevitable in optimizing patient care. This may also be said of other service-based industries such as hospitality, transportation or catering whereby budget hotels, low cost carriers and fast food outlets are appreciated for their affordability, practicality and availability; and yet vilified because they have lowered standards to what is sometimes perceived to be barely acceptable. The stark difference is that in healthcare, people feel that the quality of care should not be tagged to price. In many western countries, accessibility to good medical services is considered to be a right, not a privilege.

Many health systems are under considerable strain. In the UK, NHS (National Health Service) nurses are reported to experience burnout and GPs are leaving the profession (Guardian, 25 Sept, 2015). On the other side of the Atlantic, mounting problems in the US healthcare system such as excessive bureaucracy, regulation, reduced reimbursements and liability burden is hampering access for the most needy (Cochran and Kenney, 2014). The authors make a plea for physicians to take the lead in fixing the American health system.

Healthcare trainees need to be given a deeper understanding of work distribution, work processes and workflow, together with the intricacies of paperwork and documentation within the acute care model as well as across the system with multiple stakeholders. As Peabody noted as early as 1984, efforts must be made to consciously re-humanize the erosion of patient-centric care. Teaching the humanities and social sciences helps in building caring and trusting relationships between healthcare workers and their patients, as well as amongst colleagues.

There is a distinct change of medical school culture to hospital culture. The adaptation of these novice doctors to working nights, being on-call for 48 hours in a single stretch,

confronting patient death for the first time, and having to organize and conduct family conferences is not a smooth and uneventful experience. To a large extent, their capacity to withstand tough demands at work depends on their capacity for empathy and empathic interactions (with colleagues, peers, patients and patients' families).

The PGY1s do the bulk of the clerking of patients. Our hospital has just purchased a new Electronic Medical Records (EMR) system. It is part of managements' strategic plan to go 'paperless'. All the patient data is keyed into the EMR software and updated when necessary. Blood test results, renal panels, scans, X-rays and case notes pertaining to each patient are also available at the touch of a keyboard.

This population of young graduate physicians is at the bottom of the pecking order of doctors. They 'report' to second year residents or medical officers and are supervised by attending and consulting physicians. In light of this hierarchical order whereby the junior doctors have to do a lot of work clerking and updating information about the patient, it is imperative that upon joining the hospital they undergo a full day of EMR training to be proficient in the specific software at hand. They are expected to take patient history, do a physical examination and present a differential diagnosis - the process of reviewing a similar set of symptoms for possible diseases and then eliminating the least probable diseases in favour of the most likely diagnosis (Montgomery, 2006). Management of care is discussed with the more senior doctors, as the junior doctors are still considered 'in training'. Senior physicians are heavily reliant on junior doctors, known as HOs and MOs (House Officers and Medical Officers, who are often the first point of contact in a patient-physician relationship, and thereafter as they are continually present in the wards) to do the clerking of patients by documenting all salient patient information, care protocol, important changes made, and patient updates in the EMR system.

Not only are young physicians more adept at using technology and at navigating between flows of information systems to coordinate patient care, they are also very reliable team workers, who in turn take pains to teach their peers and seniors when they encounter a technological roadblock (Aaron & Levenberg, 2014). These agile learners belong to the generation labelled Millennials – those born in the years ranging from 1980 to 2000 – are digital natives (Prensky, 2001), computer-savvy from the cradle, so to speak (Tapscott, 1998).

It would not be reasonable to put all individuals of a generation in the same generational basket; their characteristics may be attributable to personality or the product of different parenting styles. Elam, Borges and Manuel (2011) purport that because Millennials are comfortable in a networked structure and are community-centric (virtual or otherwise), they enjoy helping people and solving the patients' problems more than their predecessors. Although I do not entirely agree with that view, I support the idea that technology has been a significant enabler for connecting people.

Patient-centric care involves teams. Doctors work with nurses, allied health professionals, and administrators within the constraints that have been highlighted above. It is therefore essential to enact and observe the teaching of empathy with this mix of participants. No one works in a vacuum; we interact with colleagues and group dynamic influences empathic care.

2. Literature Review

For the literature review, I would like to begin with the end in mind by turning our attention to what I would like to achieve in this medical education research – training for a humanistic physician. There are nine sub-topics. In the initial three subtopics of the literature review, the vision of the ‘ideal’ doctor is discussed: what makes for a good doctor, professionalism, hidden curriculum. The central subtopics of the literature review explore the importance of empathy in healthcare, what empathy really consists of, and the biological hardwiring or neuroscience of empathy. Also discussed are the possible consequences of uncontrolled emotional labour and stress – empathy depletion or absence due to physician burnout.

To forestall the adverse effects of an empathy deficit, I highlight solutions in the literature for enhancing or enabling empathy, with a special emphasis on the Medical Humanities. In the words of Gordon (2008), “Medical facilities are moral worlds in which humane behavior is elicited by being treated humanely, both in medical schools and in clinical settings” (p. 420). This very humane quality of the doctor-patient relationship affects the overall value of the care delivered.

2.1. What makes for a good doctor?

The fundamental question regarding what makes for a good doctor has to be reviewed before I proceed with discussing medical education strategies to train good doctors. Most people recognize a good doctor from how they feel better psychologically and physically after being in the doctor’s care. Herzig and his colleagues (2006) distilled from their findings nine traits describing a good doctor. They are “knowledge”, “empathy”, “patient orientation”, “practical competence”, “genuineness”, “helper”, “awareness of limits”, “life-long learning” and “cooperation”, in decreasing order of importance (p.2883). It is interesting to note that “knowledge” and “empathy” appear first on the list, before “practical competence”.

As part of this literature review, I will develop on the definitions and descriptions of empathy in general, and in healthcare (i.e. clinical empathy) in particular.

“Genuineness” is another quality that we relate to since trust is an essential element of any relationship, and a doctor-patient relationship is no different.

As I trawled through multiple texts, I was unable to find official references to the latter three traits named by Herzig and his team, except for one. In her article on professionalism, Kirk (2007) refers to Jim Wagner’s (the associate dean for student affairs at the University of Texas Southwestern Medical School) dichotomy of cognitive skills and non-cognitive values a good doctor should possess.

Recognizing and evaluating the cognitive skills such as the ability to take patient history, devise a care plan, perform procedures, and use information technology is straightforward for educators. Measuring or assessing the non-cognitive values, however, is somewhat trickier – “communication (language, empathy, integrity, compassion), collaboration (responsibility, respect, duty), and continuous improvement (recognition of limitations, motivation to improve)” (Kirk, 2007, p. 14) are the closest match I have been able to locate according to Herzig’s et al.’s findings on “awareness of limits”, “life-long learning” and “cooperation”.

Appraisals of a professional or of a profession are often influenced by the local culture. The interviews were conducted on a German population. Hence, Herzig and his colleagues recommend a wider population sample across countries be considered for a truer and fuller representation of what a good doctor is.

A good doctor is one that displays empathy and compassion. The practice of medicine belongs to what is known as a helping profession (Carkhuff, 1969). *Professional helping* is distinguished from *natural helping* in that it is dispensed by specially trained individuals with science to back their approach to helping. This does not discredit natural helpers in any way;

friends, family, neighbours, colleagues play a very important role in society in that they provide the first line of help, but this is often given in an instinctive or serendipitous way. Helping professionals possess helping skills and human services that are dispensed to helpees in a framed and prescriptive approach. They include teachers, counsellors, healthcare professionals (nurses, doctors, pharmacists and allied health personnel) psychologists, social workers, police officers, firemen, and to certain extent, legal advisors and spiritual leaders.

Let us look at two internationally acknowledged councils governing the training of doctors: the ACGME (American Council of Graduate Medical Education) and CanMEDS, its Canadian counterpart organization. Singapore adopted the American framework (ACGME-I, 'I' signifying 'international') in 2010 for the graduate training of their doctors (Admednews, 2012). Here are the 6 competencies upon which a physician is gauged for proficiency:

- Patient Care
- Medical Knowledge
- Practice Based Learning and Improvement
- Systems Based Practice
- Professionalism
- Interpersonal Skills and Communication

After implementation of the ACGME framework, criticism of the competencies rationale quickly arose (Iobst & Holmboe, 2015). Skeptics viewed competencies as judging someone to be 'good enough', almost bordering on mediocrity. If competencies are meant to assess capabilities of doctors in showing, doing and being, there is a minimal requirement to be met in order to 'qualify'. This is not at all the same rationale used to encourage excellence; a good enough doctor is not what we want graduate medical education to achieve, but an extraordinarily good doctor (Cooke, Irby & O'Brien, 2010).

Settling for acceptable abilities in the competency framework is more of a safeguard against insufficiently skilled and unprofessional practice than it is to foster excellent care. Which brings us full circle to the initial discussion on caring. To be able give expert medical care, the Canadian framework (The Royal College of Physicians and Surgeons of Canada, n.d.) relies on the enactment of roles and the competencies within each of the 7 roles:

- Medical Expert (the integrating role)
- Communicator
- Collaborator
- Leader
- Health Advocate
- Scholar
- Professional

In the Canadian version for competency training, a doctor may have all the basic requirements constituting a Medical Expert role, and yet go on to excel in one or more of the other roles such as ‘Leader’ and ‘Collaborator’ for a visionary and team-driven professional or ‘Scholar’ and ‘Health Advocate’ for a Public Health researcher.

At my hospital (and it is true for most physicians working in public healthcare), all doctors carry out their duties as clinicians, administrators, educators and researchers to varying degrees. Their annual bonuses are linked to a CERA framework whereby performance is evaluated against Clinical, Education, Research and Administration benchmarks. Independent to those benchmarks, doctors in training or residents are also evaluated according to the ACGME competencies. Doctors’ capacity to display empathy are assessed in the competency domains of Patient (-centred) Care, Interpersonal Skills and Communication, and Professionalism.

Most professional bodies responsible for coding and enforcing what a qualified individual is, refer to competencies in identified domains. The underpinning value of trust is crucial in developing and sustaining good relationships. Empathy is the vector by which stories are shared in the most honest and open fashion. Derksen, Bensing and Lagro-Janssen (2013) looked at primary care, studying the role empathy plays in describing whether or not GPs are competent. The authors break down competency into three distinct, yet interdependent components: empathic skill, communication or skill of expression (verbal and non-verbal) and skill needed to construct and cement a relationship with a patient as well as their family based on trust. They occur in stages.

Empathic skill enables the doctor to enter the inner world of the patient, understand it and to recognize the patient's situation or problem(s) (Reynolds & Scott, 1999). Then skillful communication is employed to verify, reiterate, clarify, understand, support, reflect to get as close as possible to knowing what the patient is feeling and thinking (Warmington, 2012). Beyond fully understanding the patient's condition, the doctor is expected to be able to resonate with the patient emotionally, and to do that, it takes time and skill to build a trusting and solid doctor-patient relationship (Branch, Pels & Hafler, 1998). Careful crafting of such durable relationships is vital as it is the bedrock of enabling candid conversations about the stories of illness.

2.2. Professionalism

In the above paragraphs, I have begun the conversation about what a good doctor is. If we know what a good doctor looks like, how do we train our students and residents to attain the desired outcome? It is not uncommon to describe a person who does her job well as someone who displays professionalism. To be a professional is to be a cut above the rest. Moreover, it confers a title or status - becoming a member of a profession such as medicine,

law, academia is often regarded as prestigious. It is more complex than just being able to do the job.

Modern medical professionalism seeks to ensure that practice corresponds with patient-centred care, where patient autonomy is encouraged and respected (Reed, West, Mueller, Ficalora, Engstler & Beckman, 2008). As commendable as George Bernard Shaw is in his acuity of analysis at the turn of the last century by claiming that all professions are a conspiracy against the laity (in his 1911 Preface on Doctors to his play *The Doctor's Dilemma*, first staged in 1906), it is hoped that such healthy cynicism is at worst an exaggeration today. However, the stretched staffing issues on hospitals and nursing homes in the UK (Francis, 2013 - Report on Mid Staffordshire NHS Foundation Trust Public Inquiry), may, be testimony to the fact that Shaw's ideas on the scarcity of medical resources resulting in substandard care, are not as anachronistic as they may seem (Weir, 2015).

Professionalism in medical education is not a straightforward subject matter to teach. The concept itself is rather fuzzy. Here again, I attempt to make the seemingly invisible visible, and the seemingly unteachable teachable. What *is* professionalism? I will choose a generic comprehensive definition of 'profession' by doctors Cruess, Johnston and Cruess (2004, p.74) and then draw understandings from it to attempt to describe medical professionalism:

“Profession: An occupation whose core element is work based upon the mastery of a complex body of knowledge and skills. It is a vocation in which knowledge of some department of science or learning or the practice of an art founded upon it is used in the service of others. Its members are governed by codes of ethics and profess a commitment to competence, integrity and morality, altruism, and the promotion of the public good within their domain. These commitments form the basis of a social contract between a profession and society, which in return grants the profession a monopoly over the use of its knowledge base, the right to considerable autonomy in practice and the privilege of self-regulation. Professions and their members are accountable to those served and to society.”

The emphasis on *social contract* is one I'd like to point out. Medical professionalism has to be inclusive of the public it serves: explaining complicated specialist knowledge,

convoluted healthcare systems and insurance schemes, differential diagnoses (distinguishing a condition or disorder when a patient presents signs and symptoms related to several possible diseases), explaining the identified condition and its treatment needs to be done in a manner that truly helps patients. It is, after all, a *helping profession*.

As antithetical or absurd as it may appear that an outward-turning society-centred profession is actually self-regulated, it works in principle and in practice. Moral and ethical issues including conflict of interest are addressed, dependent upon upholding values such as honesty or integrity, trust, altruism, compassion, confidentiality, excellence, teamwork and respect (Cruess & Cruess, 2012; Irby, Cooke & O'Brien, 2010).

Although there is no consensus on a single definition of professionalism in medicine, I would like to cite Kirk's (2013) reference to Epstein and Hundert's (2002) definition as a comprehensive description:

“Professional competence is the habitual and judicious use of communication, knowledge, technical skills, clinical reasoning, emotions, values, and reflection in daily practice for the benefit of the individual and community being served” (2007, p. 13).

Habitual and judicious use comes with practice over time; that is to say, with experience (Eraut, 1994). So, if experiential learning and reflection is driving the process of professionalizing an individual, is it worth our while trying to teach professionalism? Will trainees not learn it vicariously in medical school and residency?

The capacity for discernment, or the capacity of being able to isolate good practice from poor practice is not automatic (Snell, 2009). It takes time to gain such skills in judgment. Furthermore, during professional identity formation (PIF), what is discussed in theory is not done in practice, or at least not consistently. The consequences of such disconnect between what is taught and how the practice of medicine is enacted will be described in section 2.3.

What evidence do we have that teaching professionalism is necessary? In a study conducted by Papadakis and her colleagues (2005) on graduates from three medical schools over 29 years, it was found that the students who had displayed unprofessional behavior in school and who were not corrected, were three times more likely to behave unprofessionally as doctors, warranting disciplinary action. Students' behaviours relating to being consistently late, or not carrying out duties conscientiously were deemed irresponsible, and should have received remediation.

It is not an easy task to pinpoint lack of professionalism based on values elicited in the earlier paragraph. We thus turn to assessing attitudes and behaviours instead (Swick, 2000). Responsible behavior is characterized by punctuality, ability to follow through, being polite to patients and colleagues, accepting blame for mistakes and seeking to repair them.

The first challenge to overcome, if we wish to teach professionalism, is to get the institution's support, and second to obtain buy-in from faculty. Thirdly, effort must be done to integrate the teaching officially into the curriculum. A fourth consideration is proper assessment of residents' performance, as well as evaluation of the programme itself.

The pedagogical strategies could be of a formal nature, informal learning or a mixture of both (Esen, 2014). A good starting point would be to raise awareness by promoting cognitive-based teaching – how one recognizes professional and unprofessional behavior (Wear, 1997). Role modelling is a powerful teaching tactic, but if not done well can lead to negative outcomes. I will discuss poor role modelling (involuntary) and a less-than-optimal environment separately under the next subtopic 'hidden curriculum' in section 2.3.

Professional identity formation does not happen overnight. The process of experiential learning and self-reflection happens over time, is not linear and the learning may be percussive (even brutal, in the case of grave errors), almost life changing (Wear, Zarconi, Dhillon et al., 2011). In section 2.7. I will delve deeper into emotional labour, stress and physician burnout.

This professionalising process does not occur in a mono-professional vacuum. It is shaped by intra-professional interactions not only with more senior doctors serving as role models, but also with experienced nurses, hospital assistants, pharmacists and other allied health members, and administrative staff (Hornby & Atkins, 2000). In a workplace environment, it is not unusual for formal institutional learning to blend with informal interprofessional learning.

Although such comprehensive exposure to total learning opportunities is necessary, one must be wary of problems that may arise from the blurring of roles and responsibilities. A decade ago, Dowling et al. (1996) gave a vivid account from their research of the effect of nurses taking on junior doctors' work. The reason for this repartitioning of labour between the professions of nursing and medicine was to relieve junior doctors of the enormous workload. Shifting the respective professional goalposts can result in a confusion of accountability. The unclear roles and responsibilities at the nursing-medicine job interface puts doctors and nurses at greater risk of complaints, regulatory and legal action. To safeguard nurses and doctors from negative repercussions, the authors recommend that they

“should be equal partners in planning and managing these new posts, patients should be informed adequately about the nature of the postholder's role and training, significant changes in the work of such postholders should be formally acknowledged by the employer and relevant insurers, individuals taking up new roles should have access to legal advice and support to cover legal risk, and national regulatory bodies need to work together to harmonise their codes of practice in relation to changing clinical roles between the professions” (p. 1211).

2.3. Hidden curriculum

In artistic milieus, I have heard “Learn the rules like a pro, so you can break them like an artist”. From my understanding, it is attributed to the bold and buoyant Spanish artist Pablo Picasso. However, to break out of the confines of highly regulated professions is at best risky. In medicine especially, professionals who break the rules indiscriminately send a very unclear message to their peers and juniors. These mixed signals raise concern because learning is essentially a process of socialization within a specific context - the long-lasting undesirable effects (of which unresolved emotions are prevalent) on ‘victims’ of bad behaviour in medical education are still apparent decades after the incidences (Foster & Roberts, 2016).

This is by no means unique to medical education, but the fact that socialisation occurs in a highly specialized setting – a hospital, clinic or hospice – lends it particularity (Swanwick, 2005). The official curriculum openly advocates the transmission of knowledge and skills. What of attitudes and behaviours? Whether they are conscious of it or not, observable negative attitudes and behaviours often undermine what is taught in the declared curriculum. It is referred to in the literature as the hidden curriculum. In the hidden curriculum, values and norms portrayed or ‘taught’ have not been explicitly intended (Eraut, 2000). It is not consistent with the formal curriculum. Learning is surreptitiously corrupted by the environment, that is to say the organisation’s structure, hierarchy and unavoidable culture (Levinson, Ginsburg, Hafferty & Lucey, 2014).

Accepted or even desirable copying of inappropriate behaviours may potentially undercut the teaching of good communication skills and patient-centred care. Sally Mahood, a professor of family medicine, highlights how

“young doctors can become ethical chameleons, slowly redefining themselves primarily as technicians, narrowing professional identity, and discarding explicit professionalism for emotional detachment” (2011, p. 984).

Consciously or not, junior doctors learn to embody alternative ways of being that are not prescribed by the formal curriculum. They learn to play the game or adapt by displaying “impression management” (Giacolone & Rosenfeld, 1989), a term used in sociology to describe situational adaptive capabilities. The advent of such morally erosive forces can lead to loss of idealism and consequently, emotional detachment. How then, can one attempt to combat a build-up of clinical *coolness* to reinforce an empathetic and compassionate culture?

The research carried out by Burack and his co-investigators (1999) stands out. They collated a list of problematic behaviors exhibited by four ward teams in an internal medicine service at a public teaching hospital. The authors entitled the article “Teaching compassion and respect” (p. 49). It was not so much the fact that residents were found to be disrespectful, rude, hostile or being less thorough with their work that was found to be surprising. In stressful and time-sensitive situations, one would expect the quality of communications to slacken. The reaction of the attending physicians to these unprofessional behaviours is interesting to note (an ‘Attending’ in the United States is the equivalent of a consultant or senior doctor in the United Kingdom and Singapore). Not only did the Attendings not explicitly express to residents that such interactions are instances of a lack of respect and compassion towards their patients, they also felt they had to excuse or make light of the matter. They chose not to address their uncomfortable feelings, and chose instead to

“avoid, rationalize, or medicalize these behaviours and to respond in ways that avoid moral language, did not address underlying attitudes, and left room for face-saving interpretations” (p.49).

‘Uncomfortableness’ felt by trainees is the other side of the hidden curriculum coin. Wear and Skillikorn (2009) relate how students and residents in a psychiatry clerkship cite negative incidents occurring in the clinical environment arising from attendings’ behaviour as evidence of the hidden curriculum at work. Yet, the attendings themselves brushed those issues aside, feeling at ease with focusing solely on positive behaviours instead.

Wear warns in an earlier editorial piece (2008) that we cannot stick our heads in the sand and ignore the discomfort felt when unprofessional practice occurs. His account of how clinicians render less-than-professional behaviours acceptable in favour of expediency and convenience is a powerful one. Wear's analysis is that more than expediency and convenience are at stake; he advises trainees to be astute in distinguishing both how to and how *not* to practice. This continual discernment should be exercised in medical education not by discarding discomfort - it "is not something to grow out of, but to hold onto until you are more your own masters" (p. 652). Role modelling is not perfect; rather than sweeping overtly unprofessional behaviours under the carpet, a healthy educational approach behooves us to acknowledge and address them in a timely manner. Strong institutional leadership is required to enact and enforce authentic professionalism. Upstream, deans and admission panels in medical schools should be attentive to the selection criteria supporting humanistic qualities in the candidates they wish to admit.

Whitcomb (2007) suggests that it is humanism that fuels the passion that gives life to authentic professionalism. Altruistic humanistic behaviours should be nurtured throughout doctors' years of education, on-the-job training, and career.

2.4. Why is empathy in healthcare important?

The topic of empathy and the pivotal part it plays in healthcare remains undisputed. Scott (2011) vouches that empathy is a crucial ingredient in a helping relationship because patients seek help from their doctors regarding their physical and emotional health. Empathy is a recurring theme in the helping and caring literature (Carkhuff, 1969; Richardson, Percy & Hughes, 2015; Rogers, 1980; Scott, 2011; Spencer, 2004)).

Over ten years ago, the World Health Organization (2008) reiterated the central role of primary care when it published *Primary Health Care Now More Than Ever*. Putting people and the community we serve at the heart of care is of prime importance. Good care from GPs

is about communicating effectively with patients and their families, being genuinely interested in their patients' welfare, fully appreciating their patients' stories of illness and not merely seeing them as a 'case' on a list (Shapiro, 2002).

It cannot be overstated that patients entrust their doctors with their stories often when they are at their weakest and most vulnerable – the element of trust is a fragile, yet most fundamental quality for doctor-patient connectedness (Suchman, Markakis, Beckman & Frankel., 1997). Studies reveal that doctors' empathetic bonding with patients result in greater patient satisfaction and professional satisfaction, good health outcomes (Adam, 2010; Di Blasi, Harkness, Ernst, Georgiou & Kleijnen, 2001; Hojat, Vergare, Maxwell, Brainard, Herrine, Isenberg & Gonnella, 2011; Lelorain, Brédart, Dolbeault, & Sultan, 2012; Tsugawa, Jena, Figueroa, Orav, Blumenthal & Jha, 2016), prosocial exchanges, trust and loyalty, adherence and compliance to therapy and care, a lower incidence of litigation, malpractice and damage claims, and overall humanistic and outstanding care (Levinson, 1994; Mazzi, Bensing, Rimondini, Fletcher, Van Vliet, Zimmermann & Deveugeie, 2013; Mercer, Cawston & Bikker, 2007; Wensing et al., 1998).

When a climate of trust prevails, the doctor-patient partnership is sturdy. Patients feel respected and empowered when their autonomy in shared decision-making is given due consideration (Kelley, Kraft-Todd, Schapira, Kossowsky & Riess, 2014). A consensual approach to caring is a clear message from Bikker, Cotton, & Mercer (2014) in their practical guide, *Embracing Empathy in Healthcare*. We are moving from a traditional paternalistic relationship of care to an inclusive enabling model of care (Derksen, Bensing & Lagro-Jenssen, 2013; Parkin, Looy, & Farrand, 2014; Stewart, Brown, Weston, McWhinney, McWilliam & Freeman, 2013).

With the advent of the Internet, the smartphone and ubiquitous sources of information and proliferation of social media, patients are undoubtedly more knowledgeable with higher

expectations (Li, 2016). Needless to say, this does put a supplementary strain on doctors and healthcare providers in general, but arguably it as a much needed ‘stressor’ to keep us on our toes.

Patient satisfaction improves when patients have increased confidence in their doctors (Glaser et al., 2007; Kim, Kaplowitz, & Johnston, 2004; Wong & Lee, 2006). Other advantages of empathetic care are a reduction in patient complaints and fewer patients and/or their families seeking legal recourse (Levinson et al, 1997).

In the UK, there is a National Health Service portal that allows patients and their families to make anonymized complaints. It is known as the Patients Advice and Liaison Service (PALS):- the link to the website is <http://www.nhs.uk/chq/Pages/1082.aspx?CategoryID=68>. The service acts as an ombudsman, striving to be impartial and offering confidential advice, support and relevant information on health matters and responding to complaints or disgruntlement in the shortest possible time. The fact that the service provides a personal response to all queries and concerns within 24 hours is testament to its empathetic approach to the population it was created to serve.

Neumann and her fellow researchers (2012) confirm the outcome relevance of physician empathy (PE) whereby patients are

“reporting more on their symptoms and concerns, increased diagnostic accuracy, patients’ receipt of more illness-specific information, increased patient participation and education, increased patient compliance, greater patient enablement (ability to cope with prescribed treatment), reduced depression and increased quality of life” (pp. 2-3),

and in patients suffering from the common cold, PE is documented as a noteworthy predictor of the length and degree of seriousness of the illness (in correlation to immune system changes in immune cytokine IL-8).

We are unaware of what we are not aware of – we are unable to appreciate our own biases. Displaying empathy towards a sick child or a parent who has just lost a baby during

childbirth comes more naturally than towards an alcoholic suffering from severe cirrhosis in need of a liver transplant. We may not be fully cognizant of the moral biases which cloud our ability to be empathetic towards patients and their families. Giordano, Stare and Clarke (2015) highlight the importance of structuring courses for healthcare students with the parallel objective of dissolving imperceptible biases to empathic understanding. Their research focused on developing empathy in counseling students faced with possible moral judgment and counter-transference issues when dealing with drug addicts.

The way one views addiction or substance abuse unconsciously affects our propensity for empathic care. To effectively counter pre-conceived ideas, inaccurate or damaging assumptions, the counselor educators designed courses containing experiential activities framed within Kolb's experiential-learning theory (1984). Targeted aims to combat reduced tolerance and 'blocked' empathy in students were shown to be successful raising patient health outcomes. Empathy is important in healthcare and mental attitudes hindering the development of empathy should be addressed in the medical education curriculum. Trainees confronted with caring for abusive spouses, prisoners who are violent criminals, narcotics addicts, for example, or for patients with religious beliefs and cultural practices which do not match their own, need to overcome their prejudices and endeavor to provide the best possible care with empathy.

How do we go about making the invisible visible? We cannot treat what we cannot see. Covert disorders are often missed because the symptoms do not stare us in the face. According to a study to determine whether oncologists are able to detect and diagnose depression in cancer patients, Gouveia and colleagues (2015) found that they lacked that ability. Relational skills and empathy were identified as missing links in the chain of competencies for the consistent detection of patient depression.

Again, evidence points to the affirmation that physicians who are good at eliciting hidden history and salient information from their patients attain better patient outcomes

(Stewart, 1995). The schematic diagram in Fig. 1 depicting the “effect model of empathic communication in the clinical encounter” by Neumann and her research partners (2009) illustrates how empathic physician communication leads to improved long-term, intermediate and short-term patient outcomes. They present how cumulative cognitive- or action-oriented effects of the physician on the left-hand side of the figure lead to durable health outcomes.

The right-hand side of the figure represents how a patient that feels she is listened to and valued as a person feels less alone in her patient journey and feels that her thoughts and emotions matter i.e. the affective-oriented effects of the physician on the patient for short-term and intermediate health outcomes. In Fig. 1, the bold arrows are based on empirical and theoretical considerations; the dotted arrows represent hypothesised relationship. There is a direct link between enhanced physician communication skills and a validation of the patient’s thoughts and feelings.

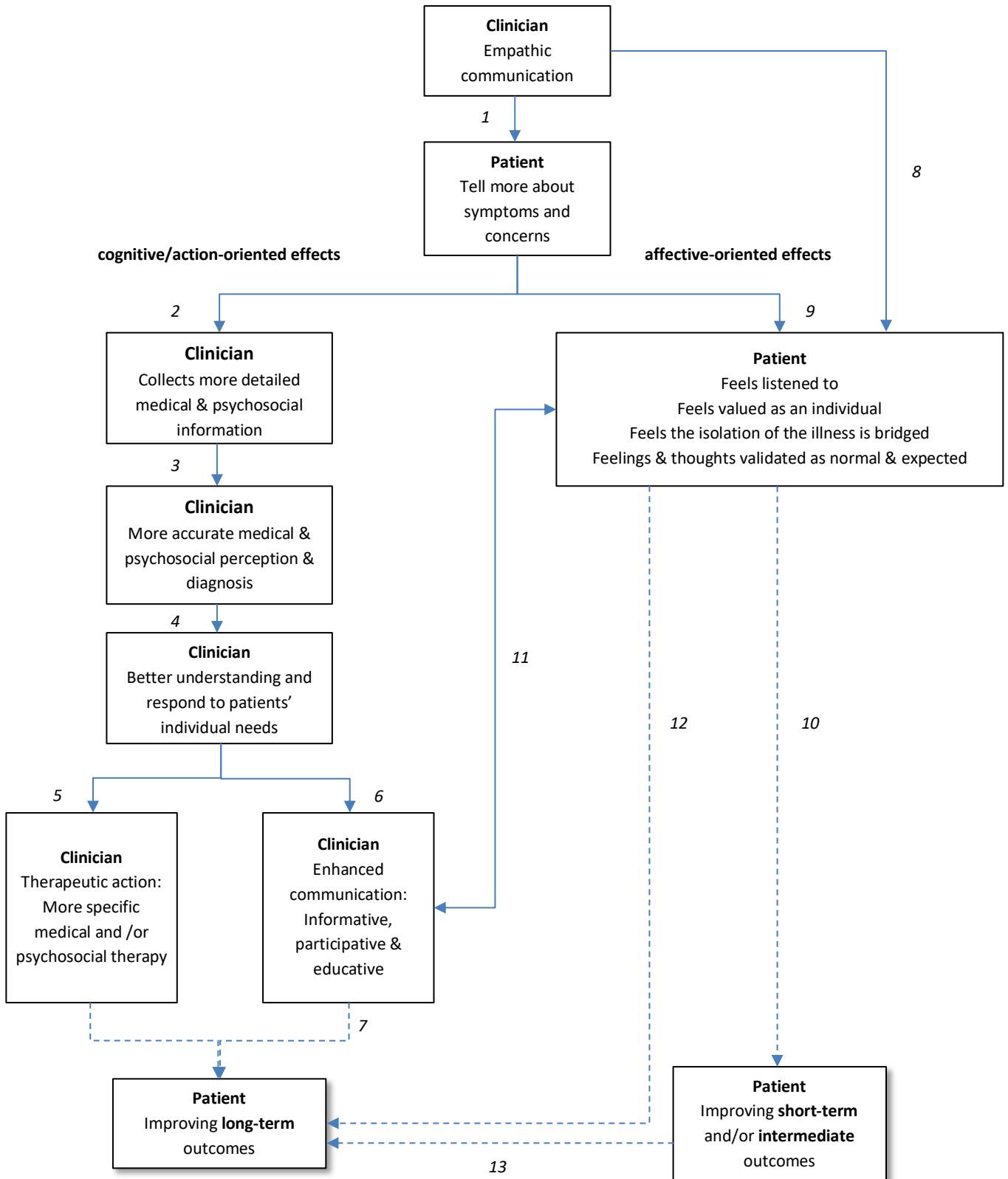


Fig.1. Effect model of empathic communication in the clinical encounter (Neumann et al., 2009, p. 342)

Empathic communication is all the rage in bestsellers penned by illustrious physicians: *Being Mortal* by Atul Gawande (2014); *Do No Harm* by Henry Marsh (2014); *The Good Doctor* by Barron Lerner (2014); *God's Hotel* by Victoria Sweet (2012). Whether they hold roles as surgeons, internists, administrators, leaders, researchers, or a combination of these roles, they all advocate patient-centric care requiring empathy from healthcare professionals. Let us put this magical ingredient under the microscope to find out what empathy really is.

2.5. What is Empathy?

We first have to decide on what the attributes of a good doctor should be. Thereafter, we explored the meaning of medical professionalism in the literature. We noted that explicitly mapped curricula in medical training are only one facet of what is learnt; there is an implicit form of learning that is gained in the form of a 'hidden curriculum'. Choosing to base our ideas on the scientific evidence that empathy in healthcare is important, we now drill down to the actual definitions of empathy. I use the plural as there is a lack of consensus to one definition of empathy.

I can safely claim that empathy is an essential element of human interaction. It is a connectedness between people which involves thinking and feeling at the same time (Engelen & Röttger-Rössler, 2012). The question lies in whether the phenomenon manifests itself as a sort of dualism, or separateness of thought or of mind-reading and feeling (Singer & Tusche, 2014). In its simplest, yet broadest form, empathy "refers to the reactions of one individual to the observed experiences of another" (Davis, 1983, p. 113). Those reactions can, of course, come in many forms. For the purpose of my research, it is the reactions or a display of verbal or non-verbal behavior in the observer that is purported to produce beneficial effects in the other person that I wish to know more about.

That the study of empathy is ongoing in the fields of education and other social sciences is not surprising. It is also prevalent in disciplines such as philosophy, neuropsychology,

developmental psychology, anthropology and literary studies (Engelen & Röttger-Rössler, 2012). In the early 20th century, Edward Tichener introduced the word empathy, taken from the Greek *empathia* (*em-* 'in' and *pathos* 'feeling') at an attempt to find an equivalent of the German word *Einfühlung*, loosely translated as 'feeling with'. The distinction of 'feeling with' from 'feeling for' is what is taken to distinguish the meanings of 'empathy' from 'sympathy'.

People often confuse empathy and sympathy. The Oxford Advanced Learner's Dictionary (online, n.d.)

“empathy is defined as ‘the ability to understand and share the feelings of another’ (as in both authors have the skill to make you feel empathy with their heroines), whereas sympathy means ‘feelings of pity and sorrow for someone else’s misfortune’ (as in they had great sympathy for the flood victims)”.

The former often leads to going a step further than just sharing a feeling, in that there is a conscious desire to do something to help. The latter stops with a ‘poor them’ acknowledgement.

According to Stepien and Baernstein (2006), empathy comprises four components: cognitive, emotive, behavioural and moral. In their call for educators to prioritize the teaching of empathy, they emphasize the need for translational effects of empathy i.e. observable behaviours in communicating and understanding of the other’s perspective. Similarly, Barrett-Lennard (1981) defines clinical empathy as “the ability to identify an individual’s unique situation (perspectives, opinions, feelings), to communicate that understanding back to the individual and to act on that understanding in a helpful way” (p.S10).

The latter part of the definition begs us to describe what acting in a helpful way means as the notion of helpfulness is laden with subjectivity. Undisputedly, going that one step further to make a worthwhile difference to a patient’s predicament is a demonstration of caring. Is there then an overlap in the meanings of empathy and compassion? Most definitely. The Free Dictionary (n.d., n.p.) describes compassion as “a deep awareness of the suffering of another

accompanied by the wish to relieve it". The desire to help alleviate pain or suffering goes beyond perspective taking or the purely cognitive and emotional attunement with another. Ultimately, compassion is what we are aiming for when we speak of humanistic care. However, I have to limit my definition of empathy to match the construct with which I wish to measure empathy, and hence will leave aside the translational aspect or action as an outcome of empathetic rapport.

Assessment of non-cognitive skills such as communication, problem solving, empathy and ethical reasoning requires different benchmarks and processes from the measurement of cognitive skills. Weir et al. (2015) suggest the discriminate use of specialized tests; Multiple Mini Interviews (MMIs, first developed by the Canadians at McMaster University) for applicants to medical school, and OSCEs (Objective Structured Clinical Examinations, first designed and used at Dundee University, UK) for students in training in order to assess their ability to demonstrate these abilities which are not purely cognitive.

We are comforted by the idea that students' empathy levels are tested before they enter medical school and that selection is based on what we assume to be psychometrically sound tests. We then attempt to teach empathy to sustain empathy levels throughout their medical training, and at best, succeed in improving on them. The old debate on 'nature versus nurture' or 'innate versus cultivated' are ongoing, not just in the field of medical education but in other disciplines as well. Tavakol, Dennick and Tavakol (2012) claim to have reassuring evidence that empathy can be taught or at least sustained; rigorous interviews with fourth and fifth year medical students revealed that although they feel that it is an innate trait to be empathic, they believe it can be taught or enabled, and enhanced.

One should avoid conflating idealized empathic care with real situations that healthcare professionals and administrators encounter in their daily work (Riess, 2010). Doctors are human. They may be prone to compromised objectivity and to projecting their values or beliefs

onto patients. Shortage of time, extreme fatigue, stress and economic pressures (in the interest of increased productivity and hitting business targets) are common constraints that doctors (especially the more junior counterparts) encounter in an acute hospital setting. Consistent practice in ensuring patient autonomy, informed consent and shared decision making requires skill and time.

At the same time, over-identifying with the patient is neither desirable nor realistic in the use of empathy in diagnosing and treating patients. Dr. Halpern (2013), a philosopher, medical ethicist and psychiatrist, suggests that doctors move away from detached concern and consciously cultivate curiosity about the emotional states and the personal histories of those patients as a way of practicing empathetic care. She describes it as stepping into the patients' shoes, walking around, and leaving at will, with hardly any cost to objectivity or rationality and emotional drain to doctors (more will be said in in section 3.7. on emotional labour, stress and physician burnout).

In an exhaustive endeavor, Batson (2009) gives 8 meanings of empathy, inscribed within altruistic and prosocial motivations for empathic behavior. The holistic construct is complete; however, it represents empathy in a manner that is too complicated for the purpose of my research. My choice lies with a circumscribed definition of clinical empathy: Hojat (2007, p. 80) describes clinical empathy as a

“predominantly cognitive (rather than emotional) attribute that involves an understanding (rather than feeling) of experiences, concerns and perspectives of the patient, combined with a capacity to communicate this understanding”.

Critics may argue that it is presumptions to claim that we are able to read other people's minds or know what they are thinking. Can healthcare professionals really claim to know what their patients' thoughts and feelings are? Attempting to make the invisible visible is not an easy feat.

Clinical and developmental psychologists have tried to pinpoint empathetic behaviour and attitudes, grounding their understanding in personality and social psychology, mainstream cognitive psychology, and cognitive-affective neuroscience (Decety & Meyer, 2008; Dunn & Phillips, 2012; Hojat, Gonnella, Nasca, Mangione, Vergare & Magee, 2002; Riess, Kelley, Bailey). At this juncture, it is important to note that the notion of empathy is distinct from sympathy, pity and compassion (Gerdes, 2011; Neumann et al., 2012; Pederson, 2009; Weir et al., 2015).

Empathy is one of the underpinning attributes of emotional intelligence, a form of relational capacity between human beings in a given context. In a Pakistani study of medical students, Imran and team (2013) described the need for emotional intelligence and empathy to be incorporated into a modified medical curriculum to enhance medical students' skills and ability in relating to patients. Their biomedical knowledge and technical skills are further honed by rapport-building interactions with their patients.

Converging ideas come from Dyche (2007) who is a proponent of *relational versatility* – the ability of the doctor to adjust her communication and relationship style to the demands of patients who differ in their needs. Relational versatility requires the doctor to be self-aware, reflective and adaptive in her approach in order to be accurate in meeting the patient's needs. This to and fro matching of the physician's attitudes and behaviours to her patient's expectations is effective in that the relational pairings between individuals is like a choreography of sorts.

Maintaining a personalized dynamic is a skill based on having respect for others, acquiescence, and a propensity to treat others as they would like to be treated. Knowing how to react to how others wish for one to react has an innate quality to it, as in the case of mirror neurons firing involuntarily when stimulated (as we will discover in section 2.6.). Nevertheless,

our quest for a cognitive basis for such responses is essential to our argument that empathetic communication can be taught.

In spite of all the well-intentioned usefulness of empathy in healthcare, it does have its limits in medical education and practice (Smajdor, Stockl & Salter, 2011). Would using less vague terms like etiquette and politeness be more effective in teaching and propagating empathic behaviour?

Paul Bloom (2016) in *Against Empathy* argues instead for what he calls rational compassion. He accuses empathy of being one of the main reasons for inequality and immorality in our world today. People have no mastery over their ability to judge rationally; their empathetic response is at best capricious and inconsistent with the situations at hand, sometimes leading to cruelty. He believes that our decisions are muddled, clouded or prejudiced by the sentiment and recommends a more measured purposeful distancing in the form of compassion. He warns that when empathy permeates into areas such as the justice system, education, philanthropy and charity, prejudice prevails over our judgment, rendering it unclear, unfair, and immoral.

This is one counterattack on the taken-for-granted goodness of empathy by an eminent Yale researcher. However, the mainstream ideas on empathy prevail. If psychiatrists, physicians and lexicologists cannot agree on a common definition of empathy, nor on its usefulness within healthcare, then let us turn our attention to discover what neuroscientists make of our empathetic nature.

2.6. The neuroscience of empathy

How do human beings empathise with others? Are their motives for doing so of a cognitive or instinctive nature? I have offered several definitions of empathy and argued for its importance in healthcare in particular, as well as in helping professions in general. Further exploration and understanding of the biological roots of empathy as an emotion is required.

To empathize, we basically need to be able to “invoke the representation of the actions associated with the emotions we are witnessing” (Carr, Iacoboni, Dubeau, Mazziotta, & Lenzi, 2003, p. 5502). It may not come as a surprise to the reader that there are neural mechanisms responsible for the feeling of empathy in human beings. This biological response, considered to be innate (De Waal, 2008) is attributed to what has been labelled as mirror neurons, part of the brain’s motor system. These neurons are termed such as they literally enable us to recognize and mirror the feelings, actions and experiences of others. Without going too much into the intricacies of the human brain and neuroscience, I think it vital that we understand the underlying workings of mirror neurons and their implications for our connection or relationship with others.

In the introductory paragraphs of this thesis, it was highlighted that the relationship or connection between the young doctor and her patients is eroded due to depersonalisation in the workplace, heavy workloads, high dependence on technology, stressors from lack of time and resources, fatigue and burnout. Working on the premise that there is a decline in empathy during the clinical years of medical education (despite some critical voices), it behooves us to examine possible physiological explanations for this.

A lot of research has been carried out, especially in the last two decades, on understanding the neural mechanisms of empathy (Gazzola, Aziz-Zadeh & Keysers, 2006; Hurley & Chatter, 2005; Iacoboni, 2009). Drilling down to the cellular level, our brains are equipped with mirror neurons that enable us to intuitively perceive and process others’ emotions, actions and intentions. These so-called ‘smart cells’ are known to fire when we experience an emotion in ourselves as well as when we observe others gripped by fear, anxiety, anger, surprise, disgust or washed by happiness and sadness.

The same brain activity occurs when we perform an action such as holding a child’s hand and when we observe others carrying out the action. Technology in the form of functional

MRI (Magnetic Resonance Imaging) allows us to literally see the firing of mirror neurons in the brain when such experiences occur. It is interesting to note that there is no willful or deliberate mechanism involved as we vicariously feel with others; we actually experience feelings and movements firsthand without having to think about them (Rizzolatti & Sinigaglia, 2008).

Reproducing or mimicking behaviours of others in response to observing or listening to their experiences is how we display empathy. Although this form of socialization and communication is rife in the animal kingdom, imitation attains its highest expression in humans.

Iacoboni (2009, p. 653) suggests that “social psychology studies have demonstrated that imitation and mimicry are pervasive, automatic and facilitate empathy”. Copying another’s demeanour, posture, mannerisms and facial expressions effortlessly, thanks to mirror neurons, is known as the ‘chameleon effect’ (Chartrand & Bargh, 1999; Rizzolatti, Fogassi & Gallese, 2001). A less flattering term is ‘monkey see, monkey do’ neurons – the observer automatically matches the perceived emotional state of the observed.

Neuroscience gives a detailed account of the biology in support of the cognitive, social and behavioural constructs of empathy (Decety, 2011; Shamay-Tsoory, 2011). These findings documented by neuroscientists substantiate my postulate that empathy can be taught. Logically, enhancing people’s skills in imitation and in showing more concern for others would facilitate social interactions, foster connectedness, increase liking and develop a demonstration of care (Ekman, 2003). Based on the imitative paradigm, good imitators make for good doctors.

Hickok (2009; 2014) and counterparts Kilner and Lemon (2013), however, are highly dubious about the action-understanding hypothesis. Can mirror neurons be attributed with conceptual understanding? Can they really associate meanings with actions? I appreciate Hickok’s skepticism towards the belief that semantics or meaning can be achieved neurally.

If empathic resonance through action representation or mimicry alone is not enough to understand the emotions of others fully and be able to empathize with them, I am keen to explore the cognitive and reflective aspects of teaching empathy. Building upon the reflexive and adaptive processes of inner imitation and copying behaviour, I will discuss my choice of using an intellectual and imaginative process - the medical humanities (in the form of video) to enhance empathy (Garden, 2009).

According to Kilner and Lemon (2013), we need to first have a better grasp about the connectivity of mirror neurons and their function across species types. Whether mirror neurons are a product of “functional adaptation and/or of associative learning during development” would determine the role they play in our biological makeup (2013, p. R1061).

Advances in neuroscience have led to further discoveries. It is believed that humans as well as animals are hardwired to connect, to be attuned to others. What about the exceptions to the rule?

A lack of empathy and prosocial behaviour can be explained by biological impairment whereby the mirror neurons are not being stimulated and thus not firing adequately. Physical damage to these cells or chemical imbalances in the brain may result in these persons being socially inept (Baron-Cohen, Tager-Flusberg & Cohen, 1993). The degree of ‘ineptitude’ depends on how atypical the brain and its circuitry are, corresponding to conditions referred to as light to severe or complex autism on the Autism Spectrum Disorder (ASD) and Asperger’s Syndrome (AS).

Baron-Cohen (2009) described the Mind-blindness theory; as the name suggests, it is an inability in autistic children to see and feel others’ thoughts and emotions. Together with his colleagues he later went on to complement that theory with the Empathizing-Systemizing Theory. They posited that although the autistic child is bereft of the capacity to empathize, she is, in spite of that, a keen and powerful ‘systemizer’ (one whose strong instinct is to systemize).

The researchers then taught autistic children empathy by systemizing their instruction using a Cartesian and repetitive methodology. I am curious to learn from prospective studies on adults if the same methodology would be effective in training adults who have consistently low empathy scores.

2.7. Emotional labour, stress and physician burnout

On one hand empathy is necessary for satisfying humanistic interactions and the display of care. On the other hand, we have to be wary of neural mechanisms being overstimulated, leading to over involvement in others' experiences and predicaments (Van Mol, Kompanje, Benoit, Bakker & Nijkamp, 2015). A set of emotional 'brakes' would serve a salutary function in avoiding empathy or compassion fatigue, by blocking affective empathy pathways, especially in persons working in the helping professions. This would safeguard against compassion fatigue and other documented manifestations of emotional exhaustion, psychological and physical frailty experienced in the nursing and medical professions (Sorensen, Bolick, Wright & Hamilton, 2016).

Newton (2013) debates the pros and cons of physicians' ability to have a hardened heart. He recognizes that burnout and stress have a negative effect on physician empathy whilst undergoing clinical training, yet he contends that an overflow of empathic concern in reaction to the patients' experiences will interfere with the physician's objective approach to providing effective care (p. 1). He advocates that physicians learn "to blunt affective empathic responses" and to develop a "certain degree of empathic detachment with the patient in order to provide objective care" (p. 1). It is as if the physician needs to walk a tightrope of therapeutic care, always vigilant of balancing herself between the extremes of callousness or apathy, and vulnerability.

Clinical empathy, as suggested by Larson and Yao (2005) can be interpreted as emotional labour in the physician-patient relationship. They define emotional labour (quoting

Morris and Feldman, 1996) as “the act of expressing organizationally desired emotions during service transactions” (p. 1101). The term emotional labour first appears in Hochschild’s 1993 seminal work, *The Managed Heart: Commercialization of Human Feeling*, referring to all service industries (airlines, hospitality, catering, tourism, healthcare, banking, insurance, etc.). Workers sell their physical as well as emotional labour to the clients, passengers, guests or patients in return for payment from their employers.

One of the costs of unmanaged emotional labour is psychological distress and burnout. Burnout is a commonly used term to denote a state of total motivation depletion and emotional exhaustion. There is evidence that burnout, and its side effect depersonalization, begins quite early in medical school, even before the clinical years (Mazurkiewicz, Korenstein, Fallar & Ripp, 2010). The author and her fellow researchers administered a cross-sectional survey to medical students entering their third year at the Mount Sinai School of Medicine (MSSM) in New York. This population is representative of students across all medical schools in the US where they traditionally receive no clinical training in their first and second years. The study found that students in the pre-clinical phase tend to suffer from a “lack of control and autonomy despite having greater freedom in their schedule relative to more senior students” (p. 194). These mental conditions (a sense of lack of personal agency and powerlessness over high workload) prolonged over time will lead to poor physical health as well.

In 2009, Eckerberry-Hunt and colleagues described an alarming increase in the rates of mental conditions (depression and anxiety) and drug consumption in the resident physician population in a study from the United States. It affected their levels of empathy negatively, whilst a poorer performance overall was reported during their training. Ensuing cynicism and demotivation renders the physicians apathetic or uninterested in their work. Typical residency stressors include demanding duty hours, sleep deprivation, lack of knowledge and self-doubt. Drybye and Shanafelt (2011) as well as Klimo, DeCuypere, Ragel, McCartney, Couldwell and

Boop (2013) claim that if trainees do not apply self-care or have watchful peers or colleagues who are able to provide support, the decline in wellness will undoubtedly tarnish their interactions with their patients as well as with their work mates. I have elucidated the toll emotional labour and burnout can take on doctors in training.

High costs of excessive emotional labour, stress and burnout render physicians susceptible to empathy depletion or even a deficit of empathetic capacity. In Belgium, the antidote Bragard, Razavi, Marchal, et al. (2006) found was to teach communication and stress management to physicians, especially those in specialties with a large amount of patient contact. Empathetic communication skills are reinforced in practice-based teachings to combat the depersonalization that sneaks up on even the most caring and attentive of physicians. We are hardly surprised that a certain ‘empathetic numbness’ sets in when students or doctors in training repeatedly perform painful procedures on their patients (Riess, 2013). It is a self-protective response to patients’ suffering. Physician personal distress at the pain and helplessness of persons in their care may be curtailed by compassion fatigue response, a systematic ‘tuning out’ or down-regulation of their empathy response (Decety, Yang & Cheng, 2010; Picard, Catu-Pinault, Boujut, Botella, Jaury & Zenasni, 2016).

In her doctoral thesis on investigating the effect of resident stress, burnout and empathy on the quality of communication with patients in instances of the long-call shift, Passalacqua (2010) concludes that residents’ impaired psychological states correlate with an erosion of empathy during the grueling extended shift duties. All three factors – the environment, the doctor, and the actual contact with the patient – affect the quality of patient-centred care. The high pressure and demanding environment of residency training is unlikely to change. The rate of physician suicides estimated at 250 a year in the United States is higher than the rate of suicide in the general population, mostly due to mental illness (Middleton, 2008). An updated article published online in Medscape (July 8, 2016) by Dr. Louise Andrew gives a less

conservative estimate of 300 - 400 physicians per year, averaging a doctor a day. The reason that it is difficult to have a precise figure of physician suicide is that the accuracy of the reported cause of death cannot be ascertained.

In the *New England Journal of Medicine*, Schernhammer (2005) reported on the alarming rate of physician suicide in Vienna, Austria during her fellowship in oncology. I was working in Austria from 2003 till 2008, and recall reading about physician suicide in the local newspapers then. Schernhammer made an astute observation (although it may seem obvious enough), that physicians being well-trained in bio-medical sciences, are capable of choosing extremely effective suicide methods. Their easy access to lethal doses of drugs also speaks for itself. Being victims of pimping, harassment or bullying were described as possible reasons for depression.

In the paragraphs that follow, we will be discussing methods used in undergraduate and graduate medical education to teach and sustain empathy. Take the example of doctors who work in Emergency Medical Services. Their work, not unlike that of firefighters, policemen, ambulance workers and paramedics involves dealing with scared, highly stressed, sometimes angry or violent people. Sliter (2015) describes these workplace stressors as constant and repeated, thus requiring vast amounts of emotional labour. “Victim conflict is an important workplace stressor for these first responders” (p. 22). There is a question to whether deep acting is really possible for employees in these professions on a consistent and prolonged basis. The sustained high demand on emotional labour omnipresent in these vocations will unsurprisingly affect empathy levels.

Training in the form of conflict resolution with the aim of helping conflictive victims calm down also entails being aware empathetically. Faking empathy through scripted surface acting may actually be preferable in such instances of high tension in a work setting. To be non-attached emotionally in order to cope with stress is also a central tenet of mindfulness

practice that I will elaborate upon further in the following paragraphs on teaching empathy to or pedagogy for the enhancement of empathy to doctors in training (Lovell, Lee & Brotheridge, 2009).

Nevertheless, in a US study, Shanafelt and his co-researchers (2012), established the fact that burnout occurs more commonly in doctors when compared with workers in the general US population. The detrimental effects on the quality of care and doctor health/wellbeing cannot be stressed enough. In the current thesis I am attempting to address one aspect of counteracting these detrimental effects (by enhancing physician empathy), but more research needs to be done in the way of organizational and societal interventions to alleviate the problem of physician burnout (Leung & Rioseco, 2017).

2.8. Teaching empathy – Pedagogy

The presence of too much clinical empathy in doctor patient interactions, according to the literature, leaves doctors emotionally depleted. Yet, from a broader standpoint, not enough empathy leads to self-neglect. Empathy (not sympathy), is a protective factor against burnout in physicians (Thirioux, Birault, & Jaafari, 2016). So getting the right dose is both prophylactic and therapeutic for doctors. What amount of empathy should be prescribed or taught, steering clear of the ill-effects of an overdose or of the documented damaging consequences of empathy deficiency?

Spiro (1992) affirms that empathy can be taught. He challenges the conventional method of practicing medicine, steeped in equanimity and stoicism. Instead of a detached doctor, he paints the portrait of an impassioned doctor, one who relates fully with her patients. Teaching empathy serves to “retain and enhance” (p. 844) the natural empathy of medical students and doctors. The stoic, somewhat aloof physician is no longer in fashion. The literature holds hardly any detractors of the belief that empathy can be taught (Batt-Rawden, Chisolm,

Anton & Flickinger, 2013; Kelley & Kelley, 2013; Lor, Truong, Ip & Barnett, 2015). In the subsequent paragraphs I will give examples of various pedagogical tools and strategies used to teach empathy to students and healthcare professionals.

Hojat (2009a) lists ten approaches for enhancing empathy in health and human service cultures: interpersonal skills training; audio/videotaping encounters with real or standardised patients; role modeling; patient shadowing or Patient Navigator (following a patient in order to experience her daily challenges first hand); role playing; dramatic performances or acting; taking on the lives of patients in activities such as the “ageing game” (donning wearables: to mar one’s vision temporarily; to compress one’s chest to provoke breathlessness; to weigh one down, thus impairing movement and agility) undergoing make-belief hospitalization experiences; the study of literature and the arts; working on narrative skills; and regular practice of the Balint method (1957, p. 412). Each one of these methods has merit in that all stakeholders in the patient experience and journey are actively involved.

For readers who may not be familiar with the Balint method, it essentially consists of a small group meeting for healthcare practitioners that occurs every three or four weeks over a period of at least a year. The original concept of open unstructured discussions about patient care was established by its founder Hungarian psychiatrist and psychoanalyst Michael Balint (1957).

Over the years there has been a greater focus on interpersonal skills and emotional ‘disturbances’ that arise between practitioners and patients as well as amongst practitioners in a team and administration staff in the hospital, clinic or hospice. Balint group fora are a platform for people who would not normally have a space and time to sit together and share difficult work stories to do just that. They support dialogue and build rapport. However, more articulate or ‘forceful’ individuals tend to dominate or sway the discussions, leaving little room for those who are less skillful in communicating or who are merely unassertive in nature.

Cataldo and his colleagues (2005) reported no significant difference (using the Jefferson Scale of Physician Empathy) in a comparative study on family medicine residents who underwent a Balint-type course and the control group that did not participate in the training. Teaching empathy is perhaps not as straightforward as it appears.

Communication skills are the bedrock of patient-centred care. Successful patient interviews that engage patients in their own care result in shared decision-making. A physician conducts up to 300, 000 medical interviews in a lifetime career (Lipkin, 1996), and probably more in contexts where the corporatization of care is the norm. Lipkin poses the question whether physicians prefer the role of a mythical Pegasus, soaring professionally and acting in patients' best interests, or the role of Sisyphus burdened with the toil of unbridled corporatization of care, compromising quality of care, autonomy and personal wellbeing in the process. Assuming that the statistic for medical interviews is accurate, and that the choice of the Pegasus analogy is preferred, communication skills training is indispensable for optimal care. Communication before, during and after treatment is a core clinical skill

Fallowfield and team (2002), in a randomized control trial involving 160 oncologists from 34 cancer centres in the UK, reported that communication training improved physician expression of empathy in patient interactions. Although the improvements were modest (measured three months after receiving communications skills and self-awareness training with feedback), they were deemed meaningful. Participants were in favour of recommending such training to their colleagues and 78% actually introduced more training opportunities for junior doctors in their respective hospitals within 3 months of having received training themselves.

The pedagogy employed by Bonvicini and colleagues, (2009) for communication training was more comprehensive. The intervention comprised a series of three 6-hour workshops (once a month consecutively). Not only were the physicians coached in exercising communication techniques to “engage, empathize, educate and enlist” patients (p. 6), they were

also taught how to persuade patients to effect behaviour and lifestyle changes through motivational interviewing techniques as well as to express or demonstrate empathy. The third and concluding workshop session was designed specifically to address difficult clinician-patient relationships. To top it all, this pedagogical package included individual coaching sessions by trainers after each workshop lasting 30-45 minutes, wherein participants could review an audio recording of one of their recent patient encounters.

In spite of the 51% rise from the baseline in empathetic scores for physician behavioural empathy, the authors caution that the results of study are not generalizable as the sampling was of primary care physicians, family medicine practitioners and gynaecologists in a particular location in the United States with a convenience sample of patients. The same results may not be obtained from different ethnic and cultural groups of patients or with physicians from other specialties and/or healthcare settings. Moreover, the use of audiotapes to assess empathy conveyed by the physician is limited to verbal articulation; it is not possible to gauge non-verbal empathetic communication such as facial expressions, eye contact, soft smile, tone of voice, use of touch, a nod or other visible but not audible body language.

Borrowing from research in business communication, persuasion skills of students in a managerial setting were improved with concurrent complementary training in empathy and nonverbal communication (Peterson & Leonhardt, 2015). The sum of both is more effective than concentrating on training in individual methods. Already, in a much earlier review of evaluation studies on teaching practising doctors communication skills (Hulsman, Ros, Winnubst & Bensing, 1999), a team of Dutch researchers highlighted the shortcomings in several domains: methodology, educational devices employed, duration and location of training, the instruments used and whether they were measuring physician self-ratings, behavioural observations, and/or patient outcomes, and the direct results of these training effects. Robust research study designs and methodologies are paramount in confirming the

hypothesis that training in communication skills first of all works, secondly that it improves empathetic care, and thirdly that its effects are sustained over time.

Using simulation as a strategy for teaching empathy allows learners to undergo experiential learning once they have assimilated the basics understanding of what empathetic behaviour entails. Balez, Berthou & Carpentier (n.d.) organized training sessions for 5th year medical students in announcing a lymphoma with simulated (standardized) patients and to a close 'relative'. The high-fidelity simulation sessions were carried out in small groups and captured on video, with some students playing the role of the patient or relative. The JSPE scales were used to assess the medical students' levels of empathy, regardless of their role in the role-playing simulation exercise.

The results indicated a significant rise in empathy after training. Announcing bad news to a patient (or relative) and practicing informed consent for shared decision-making in patient-centric care requires a whole lot of skill, empathy and patience.

Similar findings were observed in a prospective study consisting of a 3-day simulation teaching for second year pharmacy students. On each day an activity was incorporated: loss of dominant hand usage, vision, and speech consecutively. 7 days post-intervention (in the test group) revealed significant improvement. However, at the 90-day mark after the intervention, there were no significant positive results in empathy levels. This indicates that such improvement in empathy levels is short-lived, notwithstanding the effort, expertise, dedication and time poured into the 3-day simulation-based course for empathy building. It is noteworthy to point out that interventions for enhancing empathy in a different helping profession ie. that of teachers, also did not record sustainable changes (Stehlíková, & Valihorová, 2016).

The lasting impact of communication skills training can only be determined via follow up measurements throughout physician years in training and in practice. Repeat teaching each year is necessary in medical school (Stepien & Baernstein, 2006) and during residency as well

as continuing medical education (Aggarwal and Guanci, 2014). It would be erroneous to affirm that one-off training in these soft skills is sufficient for physicians to properly acquire, integrate and enact patient-centred communication (Carkhuff, 1969).

Benbassat and Baomal (2004) argue that it is judicious to relocate a larger proportion of clinical clerkships from the traditional and much sought-after hospital setting to wider system-related settings: “primary care clinics and chronic care, home care, and hospice facilities” (p. 832) where students and physicians can establish and maintain ongoing and meaningful care for their patients.

Often considered esoteric or difficult to understand and use, mindfulness has over the years, gained in popularity as a strategy for teaching empathy and compassion (Epstein, 1999; Ludwig & Kabat-Zinn, 2008). Mindfulness, originally from Eastern philosophy, was integrated into western practice for the purpose of raising personal self-awareness (Ahrweiler, Scheffer, Roling, Goldblatt, Hahn & Neumann, 2014b), self-compassion, and acceptance or letting go. Dr. Jon Kabat-Zinn (1982), the father of mindfulness in modern medicine in the early 80s, began proposing the use of heightened noticing coupled with detached observation to “reduce the experience of suffering via cognitive reappraisal” (p. 33). He was, at the time, the director of the Stress Reduction and Relaxation Programme at the University of Massachusetts Hospital.

Essentially, mindfulness is a form of meditation. Over time, from patient applications, it was extended to physicians and other healthcare professionals who were experiencing stress and burnout, and possibly chronic pain or depression (Dos Santos, Kozasa & Carmagnani, Tanaka, Lacerda & Nogueira-Martins, 2016). By arming them with a technique that enables them to cope with life’s pressures, physicians are capable of better self-care, which in turn makes them more empathetic and compassionate, thus having a positive impact on patient outcomes.

The theory underpinning mindfulness, which is to benefit oneself first and foremost (before attempting to benefit others), not only makes sense, but is prized in instructional programmes where self-care is the foundational bedrock of care (Shadbolt, 2002; Gordon, 2003).

Physical muscles are strengthened by exercising them. Likewise, the ‘muscles’ of the mind can be worked through mindful practice to yield an augmented sense of well-being, and diminished feelings of anxiety, stress, negative self-judgment, helplessness and depression (Buchholz, 2015). The rewiring of the brain is possible due to its neuroplastic nature. The brain’s way of healing is best described in Dr. Norman Doidge’s (2015) seminal work of the same name. The brain changes its own structure and function in response to mental exercise and experience. Mindfulness for the enhancement of self-compassion and empathy is well documented in healthcare disciplines (Shapiro, Astin, Bishop & Cordova, 2005; Weng, Hung & Liu, 2011) especially nursing (Davies, 2008; Foureur, Besley, Burton, Yu & Crisp, 2013; Smith, 2014).

The internet is ubiquitous. Online learning is pervasive (Gyorki, Shaw, Nicholson et al., 2013). Strangely, there is no unanimous agreement as to the effectiveness of teaching soft skills online. Nasr Esfahani and colleagues (2014) ran a comparative study in teaching empathy where fourteen first year psychiatry residents were randomly distributed to participate in a 2-day workshop on communication skills; one group was physically present on both days, whilst the other group participated via distance learning on their first day by watching a video of the first day of the attending group and then participated face to face on the second day. Significant improvements in the level of empathy were measured in the attending group, but not in the distance group. In spite of the small sample (n=14), these findings suggest that more interactive and/or reflective pedagogy yields better results in the teaching of soft skills and empathy.

Contradicting evidence (in the very same year, so we can discount any argument pertaining to the level of development of technology for online instruction) is reported in an online course on pastoral care (McGarrah Sharp & Morris, 2014). However, speculation as to the superiority of the tools for teaching, or the overall effectiveness of the online teaching may be valid. It was observed that before and during the course, levels of anxiety became elevated for the teacher, students and the teaching assistant. Paradoxically, these raised levels of anxiety were effectively addressed through the online course design and facilitation – the researchers concluded that online pedagogy can crystalize the identification of anxieties, thus creating a virtual space for developing empathy as much, if not more than face to face teaching.

As debated so far, the teaching of empathy and raising the awareness for soft skills teaching is not entirely a pedagogical science, but an art too. I have discussed the importance of role modelling (presuming that the roles being modelled are exemplary ones) earlier under ‘professionalism’, participant observation via recorded videos with constructive feedback, use of standardized patients, the Balint method, and scripted communication modules for teaching empathy (Feighny, Arnold, Monaco, Munro & Earl, 1998). The value of different delivery styles such as face-to face-only versus online or blended (a mix of both face to face and online) strategies for teaching was explored.

In essence, medical education is teaching human beings to deal with other human beings who may be sick, frail or debilitated, disabled, injured; most of whom are suffering in varying degrees. The human factor of care behooves doctors to display empathy and compassion in their interactions with patients (Sinclair, McClement, Raffin-Bouchal, Hack, Hagen, McConnell & Chochinov, 2016a).

Conducting exercises in self-reflection is a strategy that medical educators have tried and tested to improve levels of empathy (Ahrweiler, Neumann, Goldblatt, Hahn & Scheffer, 2014a; Grosseman, Hojat, Duke, Mennin, Rosenzweig & Novack, 2014). Honing skills for

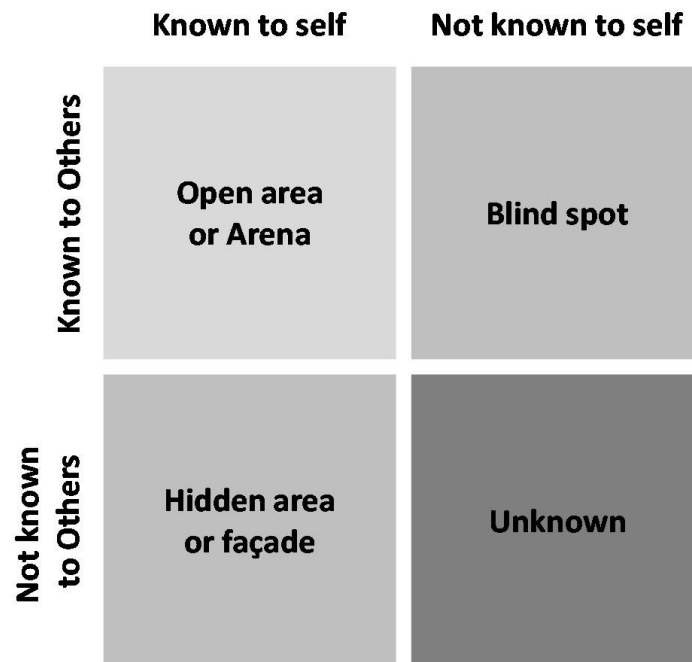
self-reflection can be achieved through appropriate role modeling and adequate relevant feedback. Reflection is a deeper form of understanding involving meta-cognition (Monaghan, Blakeley, Richardson, Miner, Cioffi & Harrington, 2012). In a study involving medical students working with hospice patients (and their families) in New Zealand, it was found that they learned to care for their frail and dying patients more effectively by reflecting on their experiences rather than merely describing them (Janssen, MacLeod & Walker, 2008). It made them think in a profound manner about life, experiences, beliefs, emotions, need for professional support, critical thinking and good holistic care (Maudsley & Strivens, 2000).

To a lesser extent, pedagogical methods involving the use of psychodrama for teaching empathy and improving relational interactions have been explored in the education of doctors and lawyers (Beverly, 2014). Dr. Jacob Moreno developed psychodrama as an action method that employs acting, dramatization, role playing and self-representation to reenact past situations and present circumstances. The group actors change roles guided by a qualified psychodramatist, so that the protagonist switches throughout the enactment – this enables actors to stand in others' shoes and experience empathy and display empathetic behaviour.

Despite our appreciation of empathy being the cornerstone of authentic caring relationships, the teaching of empathy during clinical clerkships is faced with real drawbacks in the wards - stress, high workload, tight time management schedules and difficult relationships with colleagues go against the culture of empathy development (Benbassat & Baumal, 2004).

In situations where non-empathic behavior between colleagues is exhibited, Bikker and her colleagues (2014) recommend an inward-looking approach involving team members. Self-awareness amongst peers can be assessed by framing it according to the “Johari Window” model with 4 quadrants representing Self (on the x-axis) and Other (on the y-axis) and what aspects are Known and Unknown within each (p. 47). The 1955 model was the brainchild of

psychologists Joseph Luft and Harrington Ingham, used to promote meta-cognition: to help people better understand themselves and their relationship with others.



The Johari Window Model

Fig.2. The Johari Window Model (Bikker et al., 2014)

In their seminal work *Embracing Empathy in Healthcare*, Bikker and her co-authors (2014) also highlight the use of the “CARE framework” (p. 36) for teaching empathy in healthcare. CARE is encompassed in an Emotional Intelligence (EQ) approach encouraging healthcare professionals to connect, assess, respond and empower each other and their patients naturally. It would seem that a conscious effort made to understanding oneself (what we know about ourselves and what we yet need to find out) as well as how we understand others and their feelings is crucial to our endeavor to seriously embrace empathy. This process is by no means linear and should be treated as a back and forth journey.

Using video as an educational tool in healthcare is not new (Aaron & Levenberg, 2014; Gartmeier, Bauer, Fischer et al., 2015; Hartland, Biddle & Fallacaro, 2003; Roland & Baslev,

2015; Self, 1990). For example, faculty harness the practicalities of video as a medium of instruction in teaching about mental illness and the importance of possessing insight and empathy as well as developing clinical competence (Stiberg, Holand, Olstad & Lorem, 2012). To stimulate the interest of the new generation of learners, facilitators must rely on evolving creative methods to give feedback, provide mentoring, encourage learning and instill the importance of cultivating a work-life balance.

Hojat and his colleagues (2013) found that the use of video was effective in delivering a module on enhancing students' empathy. It would not surprise us that leveraging on video triggers in medical education dates back to the 1960s (Hurtubise, Martin, Gilliland & Mahan, 2013). Short video clips or triggers of one to five minutes in length are a valued didactic tool for knowledge transfer, diagnostic and care management skills.

An Israeli team at the Faculty of Medicine has also confirmed the usefulness of using trigger films in helping students and residents learn professionalism in the clinical setting, complete with videotaped encounters with patients and/or their families (Ber & Alroy, 2002). What is interesting is that the authors do not insist on adhering strictly to scripted dialogues and scenarios; creating room for improvisation and spontaneity is seen in a positive light.

In another study at the Tufts Medical Centre Rheumatology Clinic (Kalish, Dawiskiba, Sung & Blanco, 2011), medical students were given the opportunity to heighten their awareness of compassionate care through reflection on annotated videotapes of clinical encounters. The experiential learning and reflective practice theoretical framework underpinning the research design was validated for the improvement of professional development, albeit on a small sample size (n=9) and on a single student group.

In spite of all these techniques and strategies described to teach empathy in medical education, some of the learning may not stick or prove to be sustainable over time. Care must still be taken during the recruitment procedure for the admission of students into medical school

to select empathic students (or at least those who appear to demonstrate empathy) by targeted interviews and assessing specific humanist characteristics (Hegazi & Wilson (2013).

2.9. The Medical Humanities

In the last segment of my literature review, I wish to delve into a lesser known and disputed (O'Neill, Jenkins, Mawhinney, Cosgrave, O'Mahony, Guest & Moss, 2016; Jones, 2014) area of study in medical education known as the medical humanities; I will give illustrations of how this particular humanities vista is useful in enabling empathetic care.

The subcategory of humanities referred to as the medical humanities is none other than the study of literature, philosophy, theatre, art, history, social studies, and anthropology in relation to the practice of medicine. A typical humanities module would comprise of the following: Philosophy and Medicine, History of Medicine, Law and Medicine, Meaning in Medicine, Bioethics and Conflict of Interest, Physician-Patient Relationship, Grief/Bereavement, Palliative/End of Life Care, Disability and Frailty, Mental Illness, Isolation and Loneliness.

Naturally, it is not restricted to these neatly defined domains; acting, or poetry, or film, also come under the broad category of the medical humanities (Bayne & Jangha, 2016; Coulehan, 2009; Dow, Leong, Anderson et al., 2007; Finestone & Conter, 1994; MacNeill, Gilmer, Tan & Samarasekera, 2014; Riess, 2013).

To question the utility of the inclusion of the medical humanities into the training of healthcare professionals is like asking if learning to draw or paint and learning to play sports would benefit a school child. In his paper entitled "In defence of utility: the medical humanities and medical education", Blease (2016, p.103) argues that not only is justification for teaching the medical humanities unnecessary; ignoring its instrumental value and intrinsic value to medical education would be a grave mistake. We do not question the utility of biomedical instruction in medical education. Likewise, the humanities are vital to education in doctoring.

In the same year, the team of Patterson, Sharek and Hennessy, Phillips & Schofield (2016) from Trinity College Dublin emphasize the prominent preparatory role that the medical humanities play in the medical school curriculum:

“...there is merit and real value in including a safe place where students can explore their future practice through the medical humanities and where many issues can be discussed and reasoned out before they have to be dealt with in reality.” (p. 120).

A dramatic illustration of doctoring is well presented in Becker and his co-authors’ (1961) seminal work *Boys in White*. They argue that the pairing of the knowledge of basic science and application of biomedical knowledge is complemented by the art of medicine:

“But science and skill do not make a physician; one must also be initiated into the status of a physician; to be accepted, one must have learned to play the part of a physician in the drama of medicine” (p. 4).

I would like to draw our attention to that stage whereupon the protagonist physician plays – where she seeks to draw closer to her patients, restoring and strengthening public trust for the overall improvement of quality of care and “add to the joy of being a doctor” (Delbanco, 1992, p. 417). Narratives of the joy of being a doctor are just as important as the narratives of the hardships, challenges (decreasing idealism or mounting cynicism) and loss that is faced in the practice of medicine (Becker & Blanche, 1958; Garvey, Kesselheim, Henrick, Woolf & Leichtner, 2014; Levine, Kern & Wright, 2008).

Altruism, preservation of human dignity, and social justice are recurring themes in the medical humanities (Low & LaScala, 2015). Who better than a seasoned physician and influential author/teacher, Abraham Verghese, to bring the point home (Reisman, Hansen & Rastegar, 2006). He extolls the usefulness of writing as an educational tool and ran an intensive 2.5-day workshop for doctors in training. Chosen themes in the writing included dysphoria (state of unhappiness or dissatisfaction with life), impotence of the physician, and the power of compassion for healing.

Data obtained from the focus group indicated that the process of writing during this intensive course was appreciated as a ‘distraction’ from the “rigors of medicine, created a sense of community among participants, enhanced both self-awareness and awareness of their patients' lives, and increased intra-institutional and extra-institutional interest in writing and the residency program” (p.1109). Verghese explains that when we feel joy, fascination, and empathy, these emotions stem from the right brain's capacity for imagination, which is different in the case of medical training that generally focuses on the left brain - logic, reasoning, cognitive faculties, rather than intuition and creative sensitivity.

The habitual approach is to interweave creative writing with more mundane clinical responsibilities i.e. whereby a clinician describes her response to a clinical incident (serious reportable incidents, resident log book entry, etc. Verghese’s approach is to incite the clinician to express emotion, to encourage a description of innermost feelings and appreciation of the event or incident. An open and earnest discussion normally ensues. The end goal is clear. When every member of the group writes, a shared vulnerability is created; the resulting openness of discussion can help dissolve the hierarchy that might otherwise prevent individual group members from speaking up.

It is not unexpected, however, that there are some reservations about the design of the study and the interpretation of its results. The initial experience was with a highly selected group of residents participating voluntarily (non-randomised). The actual effect of the workshop on practice is not known. Finally, it is unclear whether the process of writing, or the specific structure of the workshop or, more generally, the time and space for reflection and social interaction between residents afforded by the workshop accounts for the rich feedback received from participants.

How we translate seemingly banal stories and histories of health and of sickness into teachable moments for humanizing medical practice is where the challenge lies (Brady, Corbie-

Smith & Branch, 2002; Haslam, 2017). Dr. Rita Charon's (2001) work in narrative medicine has paved the way for others interested in developing compassionate care (including self-compassion) in the medical student and resident communities. There are many advocates of the effectiveness of reflective writing as a pedagogical tool for the improvement of professional practice (Arntfield, Slesar, Dickson, & Charon, 2013; Charon, 2012; DasGupta & Charon, 2004; Isaacson, Salas, Koch & McKenzie, 2008; Misra-Hebert, Isaacson, Kohn, Hull, Hojat, Papp & Calabrese, 2012; Tsingos-Lucas, Bosnic-Anticevich, Schneider, & Smith, 2017; Wald et al., 2012). Cognitive, affective and behavioral empathy is reported to have been restored or enhanced in trainees, contributing to improved demonstrable core competencies as mandated by the ACGME (American Council for Graduate Medical Education).

2.10. Key drivers that Frame the Research

To summarize, the nine subtopics I have elaborated upon in my literature review serve as a multi-pronged rationale for framing my research. In medical education, the end goal is to train doctors to be able to look after the general population's health. To this end, both the physical and mental wellbeing of patients and their doctors need to be seen to. Physician burnout, partly attributable to the cost of emotional labour and stress is discussed. Empathy is found to be lacking in doctors who suffer from emotional exhaustion and depersonalization. Expression of empathy is, not surprisingly, is a key component of quality in doctor-patient relationships. The reasons for why empathy is important in the healthcare industry leaves no doubt as to why it must be preserved and enhanced.

My thesis focuses on teaching empathy to young doctors as they begin their practice as recent graduates. Whilst at medical school, their skills and knowledge in biomedical science, clinical reasoning, and disease management were honed. The actual practice of medicine with real patients in a formal setting for care (outpatient and inpatient) requires interpersonal skills as well as the ability to be attuned to patients and fellow healthcare workers. Thus, the need for

training in empathetic care in the whole ecosystem of doctoring i.e. with nurses, allied health specialists, administrators, patient assistants.

Professionalism is considered the highest qualifying ensemble of skills, knowledge, attitudes, behaviours, and moral conduct guiding individuals in any job. Compassionate and empathic behaviour is described as one of the desirable traits of a professional physician. However, in a work environment, social learning from co-workers in general, and other more senior doctors in particular is known as the Hidden Curriculum. Positive outcomes from imbibing professional behaviour within the hidden curriculum should be encouraged, whilst negative outcomes attained through enacting unprofessional behaviour should be curbed. Display of unprofessional behaviour by team members affects the expression of empathy in the workplace.

By understanding the neuroscience of empathy, I am equipped with the tools with which to design a pedagogical strategy to teach empathy. We have determined that empathy is important in doctor-patient interactions, but how does one teach or at least impart the essence of empathic behaviour? Past work on teaching empathy was explored, citing its various degrees of effectiveness or impact on learners. I chose to incorporate certain strategies for teaching humanistic care from the Medical Humanities into my study. Medicine, is after all, as much an art as well as a science, according to the literature. What I uncovered by delving into past scholarly work has facilitated the design of my research in attempting to measure empathy, to enhance empathy, and to interpret the results of my study with the aim of promoting and protecting the humanistic practice of medicine.

The comprehensive literature review in 2.1 to 2.9 provided a preamble to the role that education plays in enabling empathy in clinical practice. Evidence from past research served as secondary data upon which I founded the *raison d'être* of my present inquiry. Collecting primary data was the next step. The research questions I needed to answer pertain to evaluating

physician (PGY1) empathy in their interactions with patients and patients' family, and to exploring a method in teaching empathy to doctors and professionals they work with. The overarching objectives of my study were to enhance care, to preserve the wellbeing of participants, their colleagues, and their patients (and patients' family), and to sustain good doctoring practice over time. I wanted to:

- Work with first-year medical residents and their colleagues to enhance empathy and humanistic care
- Identify the challenges in a typical inter-professional work environment that may discourage the expression of empathetic care
- Promote (and hopefully sustain) joy, purpose, meaning, and continued belief in their profession, whilst optimizing their interactions with their patients and colleagues.

The following sections describe the research process: ethics, philosophy, methodology, methods, data analysis and findings.

3. Study design and Methodology

3.1. Methodological approach

The research questions that I attempt to answer require more than a mono method inquiry. A composite approach is necessary to investigating the impact of a pedagogy for empathy enhancement in the clinical setting. Below is the sequence of interrelated research questions that I am attempting to answer:

- What is empathy and what is a reliable way of gauging it?
- The expression of empathy can be perceived differently from the physician's point of view and that of the corresponding patient (or patients, as there may be more than one patient for any particular doctor). How can I assess empathy using both self-assessments and third-party assessments?
- When teaching empathy, what actually occurs during the learning experience?
- How do I appraise the impact of that teaching?

I wish to distance myself from the conventional debate of pitting quantitative research against qualitative research, or the archaic view of positivism versus constructivism/interpretivism (Creswell & Plano Clark, 2007; Hanson, 2008; Johnson & Onwuegbuzie, 2004). What were once thought to be opposing paradigms are actually complementary and necessary worldviews contributing to a less simplistic perspective of the supercomplex environment we live and work in (Greene & Caracelli, 2002). This is even more so in a non-homogenous, multi-cultural, stratified, and multi-disciplinary industry such as the delivery of healthcare (Everest, 2014).

Employing pragmatism to frame my research is both relevant and appropriate. Pragmatism, as a research framework, enables the use of a mix of different research methods as well as modes of analysis and a continuous cycle of abductive reasoning, whilst being guided primarily by the researcher's desire to produce socially useful knowledge (Feilzer, 2009).

Socially useful knowledge will contribute to formulating strategies for the enhancement of empathic interactions during the clinician-patient encounter.

Epistemologically speaking, the marrying of qualitative and quantitative research strategies results in a more replete and diverse approach in tackling the research question (Brewer & Hunter, 1989). Seemingly independent concepts surrounding adult education, empathy, and reflexivity, become connected.

Pragmatism, as a philosophy conditioning formal research design, renders the unveiling of previously unnoticed or undetected knowledge from the ground up. Emerging trends and unexpected data can be analysed from a deductive as well as inductive approach – tolerance for more than one truth in the integrated pragmatic philosophy is its strength. It is also versatile. What may first appear as a mishmash research paradigm is actually a flexible guide to the exploration and understanding of the plurality of social phenomena and social structures (Turner, Cardinal & Burton, 2017).

Conclusions will be drawn based on the assumptions posed for problem solving in the real social professional world. It is hoped that this pragmatic approach fosters more intellectual curiosity, and generates useful information from inter-dependent social, spatial and temporal phenomena. In line with pragmatism, I choose to focus on solving the research questions rather than place undue emphasis on methods alone. Reality and the laws of nature hold far less significance as there exists a world that is independent of our minds (Cherryholmes, 1992). Personal perspectives mould our reality.

3.2. Study design

In order to address the research problems, I chose a sequential mixed methods strategy (Creswell & Plano Clark, 2011) for Stage 1 of the study. The inquiry is framed by a quasi-experimental design with a test group receiving an intervention and a control group which does not i.e. non-double blinded randomized control study. Measurements are done before and after

to compare the effect of the intervention, taking care to control for factors (other than the intervention) capable of influencing the results. The multiple ‘truths’ derived from the quantitative survey together with the qualitative reflective feedback collecting exercise are meant to provide a subjective and comprehensive picture of reality (Rorty, 1991; Tashakkori & Teddlie, 1998).

The preliminary findings available from Stage 1 suggested that participants that had been exposed to the teaching intervention had a greater level of awareness, both of self and others. They also tended to judge themselves more harshly in their ability to interact empathetically with their patients. Patients, on the other hand, found the doctors in the test group to be more empathetic. Failure to conduct a sample size analysis before the study began, at least with respects to the collection of quantitative data via scales, could result in the descriptive statistics being less accurate. To improve reliability, quantitative data was complemented with qualitative data in the form of written reflective feedback from the PGY1s. Recurring themes emerged, with sub-themes.

In Stage 2, a subsequent qualitative exploration was done with doctors and their colleagues (team members in healthcare) participating. From a pragmatic approach, data collection from doctors and their co-workers was necessary. Empathy learnt by an individual is deemed effective for raising self-awareness. A further investigation of empathy learnt in teams to study inter-person awareness and what actually happens on the ground in teams at work was devised (Bryman, 2007).

The quality of the interaction between healthcare professionals determines how well collaborative care for patients and their families is enacted. Collegial relationships from developing interprofessional empathy not only improves the wellness of healthcare colleagues, but also means “improved care for patients” (Adamson, Loomis, Cadell & Verweel, 2018, p. 8).

Teaching empathy in an interprofessional environment was explored. Five empathy teaching sessions using the video were organised for doctors, nurses, allied health professionals, and administrators/managers, after which focus group discussions were held. In order to understand the phenomena surrounding the teaching of empathy, the classroom of learners was observed, serving as a laboratory. Details derived from classroom teachings, field notes, and emails from non-identifiable participants provide data to construct a version of the truth.

In qualitative research, field notes are valued for their contextual information. Such primary data is often ‘lost’ in research as little or no official guidance has been offered on how to include it into rigorous qualitative and mixed study methodologies. Philippi and Lauderdale (2018), in their paper entitled *A guide of field notes for qualitative research: Context and conversation*, seek to provide a succinct framework to the collection, integration, and dissemination of field notes for qualitative research. Field notes are recorded in a narrative descriptive style and are by nature less structured than note-taking in direct observation. The spirit in which field notes are recorded is spontaneous and ‘overt’, as opposed to planned and ‘covert’ data gathering for the direct observation method.

Journal space is limited in published articles, and detailed field notes do not make their way into the manuscript. However, for the purpose of this thesis, field notes are essential to the transmission of the full breadth and depth of the study context. A hospital environment is highly complex and full of undertones in its day to day functioning. In order to preserve the integrality of the context in which the research and participants find themselves, field notes relating to researcher reflection and other personal details from the researcher’s perspective are included in this study. The qualitative methodology encourages and acknowledges the researcher as an instrument within the inquiry, a key actor in shaping results and interpretation.

Field notes are a source of rich, thick, and fuller contextual description of the study context. Such data allows for secondary analysis and meta-synthesis. The contextual details with regards to time, culture, sounds, smells, colours, brightness or dimness, general mood, interpersonal dynamics, states of alertness or fatigue, willingness or hesitance, would all go unrecorded if it were not for effective field-note taking. When I was recording field notes, I became more aware of my perspectives, my biases, my idiosyncrasies as a researcher. It is hoped that putting these elements down in writing will inform data analysis and increase rigour and trustworthiness of the study methodology (Phillippi & Lauderdale, 2018).

Descriptive statistics as well as reflective written feedback from stage 1 gives us a cross-section view at a particular point in time of the PGY1 experience and their patients' experience of empathetic care. This first stage of primary data collection carried out on PGY1s is essentially based on self-reports that will be analysed through the lens of deductive and inductive (from the ground up) paradigms. The investigation into the empathy teaching itself in Stage 2, and how it impacts learning requires a granular understanding of their roles and responsibilities whilst working as a team in caring for patients. It is important to uncover the catalysts for learning. It is equally important to find out what the pitfalls to empathetic practice of medicine are for these men and women in healthcare. This socially useful knowledge can inform how empathy can be best taught to preserve and enhance empathy levels in healthcare professionals.

3.3. Measuring empathy

Measuring empathy in a scientific manner is not as straightforward as it may seem (Chen, Lew, Hershman & Orlander, 2007). Without exception, all definitions of empathy contain the notion of the connection between self and other. From the literature, laymen and researchers agree that empathy is a multi-dimensional concept, that it is important in developing and

sustaining interpersonal relationships and that because of its complexity, it is an elusive entity to measure.

If we wish to attempt to measure empathy, we must begin by defining it. What is it? What do we want to measure? How do we go about measuring it scientifically?

“In order to develop the maturation process of fresh medical graduates and trainees, we need integrated models combining culturally sensitive concepts of emotional intelligence and moral reasoning with refined understandings of the nature of empathy required for the safe practice of patient-centred medicine to map the process of developing medical student professional identity” (Roff, 2015, p. 783).

The definition of empathy is subject to interpretation. For the purpose of this study, I wish to consider empathy as having cognitive, affective and behavioural components (Stepien & Bernstein, 2006). For measuring physician empathy, I chose to rely on a self-report instrument, the Jefferson Scale of Physician Empathy (JSPE) which alone is not reliable because of biases associated with self-declaration (social desirability bias is one example whereby participants respond in a way that puts themselves in a better light).

Based on the rationale that patient outcomes are significantly linked to patient-perceived empathy, I decided that using a complementary instrument known as the Jefferson Scale of Patient Perception of Physician Empathy (JSPPPE) was also appropriate (Derksen, 2013). The aim was to have a more objective appreciation of physician empathy in practice, which is distinctly different from the patient perspective in the direct healer-patient relationship with the physician.

Cultural sensitivity is not to be ignored in the understanding of empathy (Berg, Blatt & Lopreiato, 2015). Of the three psychometric tools that I examined for the purpose of this study the Jefferson Scales for physician use and for patient use seemed to be the most appropriate.

The other two are the IRI - Interpersonal Reactivity Index (Davis, 1980), and CARE - Consultation and Relational Empathy measure (Bikker et al., 2014; Fitzgerald, Heywood,

Bikker & Mercer, 2014). IRI is designed to gauge individual differences in empathy for 4 dimensions: perspective taking, fantasy, empathic concern, and personal distress. The first three dimensions of the IRI are very similar to the JSPE in that perspective taking, capacity to imagine what it would be in someone else's shoes, and compassionate concern. However, it is not specific to the 'culture' of medicine or to doctor-patient relationships. It is purely a self-report instrument with a seven-point Likert scale with responses ranging from "Does not describe me well" to "Describes me very well" (n.p.). it does not have a third person assessment to complement the reliability or veracity of data.

The CARE model "Embracing empathy in healthcare" (Bikker, Fitzpatrick, Murphy & Stewart, 2015) is designed with the following criteria for measurement:

- a) "Understand the patient's situation, perspective and feelings (and their attached meanings)
 - b) Communicate that understanding and check its accuracy
 - c) Act on that understanding with the patient in a helpful (therapeutic) way"
- (n. p.).

Initially developed to cater to the cultural and healthcare context in the United Kingdom, it has been used in many countries since. Since Singapore's healthcare system has been founded on the UK system (being an ex-colony of the British Empire), it would have been logical for me to adopt the CARE tool for my research. Nevertheless, in view of the changes to postgraduate medical education which is now in alignment with the American Council of Graduate Medical Education (ACGME), it made more sense to choose the JSPE and JSPPPE for the purpose of my study.

Despite the palette of psychometric tools available for the measurement of empathy in professionals, my choice of the JSPE and JSPPPE reflects my belief that they are best suited to answering initial components of my research question(s). The specificity of the Jefferson Scales in assessing empathy in the doctor-patient relationship from both physician and patient perspectives, and its usability in the acute care setting (inpatient wards) were reasons justifying

my choice. The ruling out of possible tools, whilst ruling in the tool that best fits the task at hand; careful elimination and selection is done systematically, just as one would do when conducting clinical reasoning to come up with a differential diagnosis.

3.4. Modifying the tools used

Both the JSPE and JSPPPE are designed with a Likert type scale for responses ranging from Strongly Disagree to Strongly Agree.

The JSPE contains 20 items, of which are further aggregated into 3 sub-themes: 10 items on “Perspective Taking”, 8 items on “Compassionate Care” and 2 items on “Standing in the Patients’ Shoes (Appendix A). It is a psychometrically validated instrument – the Cronbach’s alpha for internal consistency reliability was reported as 0.87 for residents, with convergent construct validity for residents ($p < 0.05$): compassion criterion, $r = 0.56$; empathetic concern criterion, $r = 0.40$; perspective-taking criterion, $r = 0.27$; and fantasy criterion, $r = 0.32$ (Hojat et al., 2001). Interestingly, 10 of the items are purposely expressed as negative statements and intentionally evaluated in the reverse order (Hojat et al., 2002).

The reason for this is that in psychological assessment, negatively phrased sentences are engineered into the instrument to minimise the confounding effect of what is termed the *acquiescence response style*. What this simply means is researchers understand that there is a natural tendency in some individuals to systematically agree (yea-sayers) or to systematically disagree (naysayers), and we therefore try and word items both positively and negative to decrease the effect of the *acquiescence response style* phenomenon.

With the main author’s permission via email (Dr. Mohammadreza Hojat, the Centre for Research Medical Education and Health Care, Jefferson Medical College, 1025 Walnut St., Philadelphia, PA 19107; mohammadreza.hojat@mail.tju.edu), I added a 21st item to the JSPE.

I wanted an indicator at a glance of overall perception of physician empathy. It reads thus: “I believe that I constantly display empathy in my interaction with the patients under my care”.

Although the JSPE is created to try and ascertain the physician’s (self) perception of empathy, it remains a measure of attitude towards empathy in clinical practice and not of empathetic behaviour itself or actual ability to display empathy (Kunst-Wilson, Carpenter, Poser, Venhor & Kushner, 1981). Such a conceptual difference is based in the assumption that “empathetic attitudes (perceptions) and behaviours (actions) are two different aspects of empathy, even though they are correlated (Hojat et al., 2002, p. 1564). For scoring, the authors of JSPE recommend a twenty-fold increase for reporting internationally ie. the minimum score is 20 (corresponding to 1 on the Likert scale) on a continuum reaching a maximum score of 140 (corresponding to 7 on the Likert scale).

For the purposes of my study, I am interested in the variations in scores for each item on the scale as well as the differences in mean values between the baseline score and the post-intervention (post-empathy teaching) score in both the test and control groups. The absolute scores themselves do not add any relevance to my answering research question. I inverted the corresponding expressions of agreement in the JSPE and explained it to PGY1s. This was done to encourage them to be attentive to the way they answered, taking greater care than usual, pondering before answering rather than giving an automatic reply.

The rationale of the JSPPPE is very similar to that of the JSPE. Instead of 20 items, however, there are only 5 items on the original scale. Again, I deemed it useful to add two questions which enable us to have a global appreciation of patient perceived physician empathy. Authorisation was given by the author (Dr. M. Hojat) for me to add the following statements: “6. I believe that empathy is an important healing factor in medical treatment; 7. Doctor showed Empathy during our interactions during this admission”. These two questions summarize the perceptions of the importance of empathy in the doctor-patient therapeutic

relationship and the actual perception of empathy displayed by their treating physician from the patients' perspective (Appendix B).

3.5. Teaching empathy: The intervention

In the first phase of the study, I decided that the intervention would comprise of two interrelated events. Participants in the test group would be shown a video using various techniques in teaching empathy (<https://www.dropbox.com/s/kvr7v8b7rw7acuv/EMPATHY%20video%2016m.mp4?dl=0>) and the learning would be reinforced with a reflective feedback writing exercise. The questions were tailored to elicit their reactions to the teaching video, to generate self-awareness and to enhance their reflection on empathetic connections with their patients and peers from past experience. The reflection was further guided by including questions on how they would better manage situations at work requiring empathy and how they foresee their future abilities in sustaining these efforts in an iterative manner.

If feedback is to be effective in teaching values embodied in professionalism, it has to be overt, timely, honest and commensurate with the observed negative attitude or behavior (Cohen & Sherif, 2014). Reluctance to confront non-professional behavior with the appropriate words and actions is tantamount to encouraging it. Juniors and peers will mimic and perpetuate such role modelling, which is not what the formal or declared curriculum is meant to administer. In spite of good role modelling being an excellent strategy for teaching empathy as well as verbal and non-verbal communication, I made a conscious choice to teach empathy using a method that did not leave any doubt as to its intent, desired outcomes, or interpretation.

After the initial findings to the first phase were reviewed, in the follow-up study, the choice of participants was widened to include doctors and their colleagues. Participants consisted of self-selected healthcare professionals. They were shown the video in an interactive

classroom environment. A focus group discussion ensued. Audio recordings were made. The teaching intervention was then repeated on three other groups of participants. Collection of data was conducted over 12 weeks.

Stage 1 of the research lies in attempting to teach empathy to residents using a video and encouraging them to give reflective feedback after the viewing. Although the use of movie excerpts is not new in enhancing learners' affective abilities and reflection (Blasco, Moreto, Roncoletta, Levites, & Janaudis, 2006), its use in a teaching hospital in Singapore is novel. Trigger films have been used as an effective tool in teaching medical ethics for more than two decades (Ber & Alroy, 2002). Based on the findings of the pilot study, follow-up research was carried out. All resources in the video are available under a Creative Commons license.

In stage 2 of the study, five groups of healthcare professionals were exposed to the same teaching intervention. Data was gathered *in situ* i.e. in the classroom, as well as during an hour-long focus group session with each group. The idea of using the classroom as a laboratory was to have a more granular understanding of:

- i) the impact of the pedagogy on the participants
- ii) the impact the participants had on one another
- iii) the impact of the teaching environment and the teacher on the participants

For the intervention, I chose to use a short video produced by the Cleveland Clinic (available on Youtube: https://www.youtube.com/watch?v=cDDWvj_q-o8; permission was sought and given via email from Cleveland Clinic, on the provision that the video remains intact and in its original state) entitled "Empathy – the human connection to patient care". People from different ethnic groups and social backgrounds can relate to it because it is universal in its portrayal of the human condition. Men, women, youth and children are portrayed in the video with their shared joy, sadness, anxiety, hope and vulnerability. The

viewer is made aware of the protagonists' predicament at that particular point in time and is left to reflect and place herself in the protagonists' shoes (Mar & Oatley, 2008). There is no dialogue throughout; only written words describing each situation by way of a short vignette with background music.

Then I chose to use Van Gogh's painting of *The Good Samaritan*, where a weary traveller who has fallen off his horse is helped onto his steed again by a kindly gesture from a stranger (no copyright infringements were made as the image is available in the public domain – retrieved from Google Images). Apart from the dominant hues of blue that are present in the Dutch master's painting, the message here again is quite neutral and universal. The viewer is engaged in a work of art, invited to think about what she sees, feels and what sense the story depicted means to her.

The next story is a recording of a dance using a technique of silhouette choreography and lighting by a Hungarian troupe in a televised UK programme (*Britain's Got Talent*, posted on Youtube for public viewing) where individuals and groups compete to win the title of best performers. The visual stimulus is augmented by a sound stimulus – a moving song by Emili Sandé.

The first half of the teaching video to enable empathic responses is crafted with Roman Kzanaric's (2013) 4 of 6 attitudes of Highly Empathic People: "cultivate curiosity, challenge prejudices & discover commonalities, get into extreme sport, practice the art of conversation – listen up, open up, radical listening". It corresponds to the Looking Outwards and Looking Inwards strategies for enabling empathy described in the Introduction. The other two attitudes, "inspire mass action and social change" and "develop an ambitious imagination", complement the first two strategies in encouraging the audience to Look Forwards ie. be active participants responsible for reflective practice on the job.

For the reflection provoking portion of the video, several didactic recommendations and statements with photos inviting further ideas were added. “Using the right words at the right time” is an important communication tool for people who may be anxious, distressed, frightened. The acronym SPIKES is useful in assisting healthcare workers in announcing bad news. The viewer is introduced to the importance of adhering to a helpful protocol in breaking bad news: S – Setting, P – Perception, I – Invitation, K – Knowledge, E – Explore emotions/Empathize, S – Strategy & Summary. Again, the notion of exploring emotions and empathizing with the patient and/or her family is stressed.

At the same time, viewers are asked if they are mindfully looking out for themselves as well as for their colleagues. This ability to apply compassion to self and to others in the work setting is not automatic and needs to be cultivated. The Johari Window with its 4 quadrants of ‘self’, ‘other’, ‘known’ and ‘unknown’ was explained earlier (section 2.8). Constant reflection and adjustment to what we know, and that we need to be aware of not knowing about ourselves and about others is a good habit to nurture (Polanyi, 1974).

Table 1. on the following page presents the framework that I used for teaching empathy.

Table 1. Framework for teaching empathy

3 domains of focus	Habits of empathic people	Teaching strategy
Looking Outwards (Other)	cultivating curiosity, experiencing emotion, putting oneself in others’ shoes radical listening	Video
Looking Inwards (Self)	Self-knowledge, self-awareness challenge prejudices discover commonalities	Reflective feedback writing, interactive focus group session
Looking Forwards (Other, Self, Environment)	Reflection in action Continuous reflective practice Inspire mass action and social change	Combined video, reflection, and peer learning

In the final minute of the teaching video, the viewer is asked how she views technology in the work place. Computers, mobile phones, tablets and technology-enabled social media (Whatsapp, Facebook, Instagram, Snapchat, Skype) are ubiquitous in the clinical setting. Is technology a friend or a foe? Focus is drawn to the pervasive use of technology in patient-facing environment in inpatient and outpatient settings (wards, clinics, laboratory, radiology centre, pharmacy as well as retail and business offices).

It is suggested that viewers rethink the benefits and possible harmful effects of technology. How can such indispensable advances in information technology serve its purpose without eroding the physician-patient relationship (Merriënboer & Sweller, 2010)? Can empathy be present in a physician-patient interaction despite our heavy reliance on technology-enabled practice of modern medicine? In a study by Aggarwal and Guanci (2014), they found that of the participants who received empathy teaching as part of their psychiatry clerkship, those who had personal experiences of illness avowed feeling more empathic than their fellow participants who had not been through such an experience. In line with their findings, these three questions were put to the viewer – she is invited to reflect on them and to imagine herself in another’s shoes:

1. To have felt insensitivity is to be more kind
2. To have faced fear is to recognize it in the face before you
3. To have fought to live if to know who fragile life can be.

Guaranteed anonymity of the participants will allow them to express themselves freely. Unedited writing to open ended questions is a complementary source of data (Shapiro, Kasman & Shafer, 2006). The reflective writing exercise serves two distinct and equally important purposes. Firstly, it is part of the learning intervention itself, amplifying (hopefully) the effect of watching the video, and secondly, it provides a further source of rich data to evaluate the effectiveness of the intervention (Bolton, 1999).

Reference was made to millennials and how they learn earlier in the introduction. They are intuitive and visual learners (Aaron & Levenberg, 2014). The actual generation of residents is known as millennials in medicine. Unlike their predecessors who were mainly exposed to face-to-face lectures, these learners are stimulated by pictures, graphics, audio-visual content such as those found on YouTube and Vimeo (often propagated by social media platforms in double quick time!). They are described as naturally curious and adventurous; rather than be told or lectured to, they have a penchant for hands-on experiential learning (Dewey, 1938).

I would argue that previous generations of learners were likewise. What is different is the pervasiveness of technology using audio-visual stimuli in their everyday lives. Instruction that is interactive, fast-paced, non-didactic, grounded in discovery and uncertainty is far more attractive to the millennial (Elam, Borges & Manuel, 2011). The video that was made available to the participants was designed with these criteria in mind.

3.6. Selection of Participants

A purposive sample was chosen for Stage 1 of the study. The unit of analysis I chose was first year post-graduate residents or PGY1s. The inclusion criteria were that they had to be trainees in the subspecialty of internal medicine or surgery (General and Orthopaedic surgery), rotating through several departments for a year to gain knowledge and skills. There was an even distribution of male and female PGY1s. The predominant ethnic group was Chinese – this is an accurate representation of the wider community in the Singaporean population.

Based on the preliminary results from Stage 1, Stage 2 involved examining the learning within the classroom of doctors and other healthcare workers in the hospital ecosystem. The inclusion criteria for Stage 2 were all healthcare workers with a minimum of two years of experience and able to work autonomously and were experienced in their roles and responsibilities. Enrolled Nurses (EN) who were not Staff Nurses (SN) were excluded as they

are unable to practise without supervision. The presence of nursing preceptors with the enrolled nurses in a work environment influences their interactions with their colleagues. For the purpose of this study, it is preferable to collect data concerning direct and unaltered interactions (Cohen, Manion & Morrison, 2011).

English is the standard medium of communication in the workplace (written and spoken). Although there were variations in English proficiency amongst the participants, all the healthcare professionals were able to understand and converse with ease in English.

Stage 1

PGY1s

A cohort of 21 PGY1s were recruited for the study (n = 21). Of the 25 PGY1s (Internal Medicine and Surgery rotations) that had begun their training, 21 agreed to contribute to my study. We take the average age of female PGY1s to be 23 years and male PGY1s to be 25 years (there is a two-year compulsory National Service (NS) obligation for men before they enter university; some are able to defer their NS till after they finish medical school, just before entering graduate medical education). They were given verbal and written explanations via the Participant Information Sheet (PIS). Paper consent forms that had been read carefully were then signed and they have been stored in a file in a locked cupboard for safekeeping.

The cohort of 21 PGY1s comprised of Internal Medicine and General Surgery residents – I did not wish to consider these variables in the study as my main objective was to find out the impact of teaching empathy on fresh graduates, and not to compare their levels of empathy according to their posting type as they would be far too new in their specialties for the information to have any significance in the research.

It has been theorized that the effect of specialization cannot be ignored (Truax, Altmann & Millis, 1974). Those who choose people orientated specialties (Internal medicine, Primary care or Family Medicine, Paediatrics, Geriatrics, Palliative medicine, Oncology, Neurology,

Rehabilitation medicine, Psychiatry, Obstetrics and Gynaecology, Emergency medicine, Dermatology and Ophthalmology) are believed to be inherently more empathetic than those who opt for technology and/or procedure oriented specialties (Surgery, Radiology, Radiation Oncology, Anaesthesia, Ear-Nose-Throat or Otorhinolaryngology, Social medicine, Preventive medicine) (Newton et al., 2000; Hojat et al., 2001).

However, there is evidence in separate studies by Harsch in the US (1989) and Shashikumar and colleagues (2014) in India suggesting that there is no difference in inherent empathy levels of physicians based on the specialties they wish to pursue in graduate medical education. I did not differentiate the 21 PGY1s according to their specialty for the study. They had barely begun training in their foundational year and were not training in a specific residency programme.

I also opted to not focus on other variables such as gender, age and whether they attended medical school in Singapore or overseas. I chose to concentrate on the measurement of empathy before and after the intervention in both groups from the perspective of the physician and that of her patient, and to observe the impact of the teaching.

For Stage 1 of the study, I chose a comparative cross-sectional approach (effected over three months) as the first-year residents rotate to different teaching hospitals every four months. The participants were distributed into two groups randomly using computer software: 11 PGY1s in the test or intervention group and 10 PGY1s in the control group. As explained above I had decided to measure the empathy levels of physicians in both groups using a self-report tool, the JSPE, as well as a third-party assessment by their patient using the JSPPPE.

The intervention consisted of teaching empathy to the test group. The control group, as its name suggests, did not receive any empathy teaching. Participant names were tagged to an anonymising code so as to eliminate all possibility of recognition. The codes were then entered into the SPSS software for random distribution into equal groups: $n = 11$ for the test or

intervention group, n = 10 for the control group. This is a randomized control experiment, but for obvious reasons we were unable to make it a double blinded study. I had to inform participants in the intervention group very early on (conveyed in the PIS) that after 6 to 8 weeks after the baseline measuring exercise for empathy, they would be required to convene again for the intervention – empathy teaching.

PGY1s are required to complete 80 service hours a week in the wards, clinics and OT (for those undergoing training in the General Surgery/Orthopaedics Residency specialties). The protected time they have for formal learning (didactic lectures, small group tutorials, simulation activities in the Simulation Lab) is scarce – less than 5 hours a week. With competing training and service exigencies, I had to negotiate with programme directors and tutors directly in order to obtain their support and cooperation in effecting the study.

Concurrent with the tenets of adult learning theory, PGY1s were encouraged to partake in self-directed learning, with a reflective component to enable deep and meaningful learning. Asynchronous autonomous learning was made possible by providing a video they could watch at their disposal. The nature and scheduling of PGY1s' work does not always allow for them all to be receiving face-to-face teaching synchronously. Although they are awarded protected time for core teachings, PGY1s that are post-call or on sick leave will naturally be absent from the classroom.

The permission of ward sisters was sought as well, as we did not want our direct contact with patients (albeit brief, ie. not more than 5 minutes) to disrupt or negatively affect the work of clinical professionals vis a vis their patients. Finally, with a lot of persuasion and practical rules, we came to an agreement on how we could best facilitate the work of PGY1s with their patients and provide sufficient time and adequate space for empathy teaching as well as the collection of reflective feedback to be of value.

Patients

It was important to select patients who would not feel subjected to any form of power, coercion, discomfort or patients who would simply be unwilling to participate. Patients were recruited from normal wards, not from the Intensive Care Unit or High Dependency wards. In an inpatient setting, I also chose not to include patients that were extremely old or frail. Patients that were fragile (still under the effects of anaesthesia post-surgery or procedure like scope or invasive biopsies) or exhibiting signs of dementia or severe depression were excluded from the study.

Our teaching hospital does not have departments of Paediatrics, nor Obstetrics and Gynaecology. Therefore, I did not have to be mindful of excluding pregnant patients and children or minors. The JSPPPE questionnaire for patients to fill was in English; it was not translated into any other locally spoken language. We chose patients who we felt were able to understand English and the contents of the questionnaire as well as patients who were comfortable with the ward nurse who was able to further explain the questions and possible options on a Likert scale for them in Chinese (Mandarin or dialect) and Tamil, so as to ensure there was no ambiguity. One may find this ethically objectionable due to the influence that the nurse may have on a patient. It was decided that for two patients who needed further clarification before answering and to avoid misunderstanding the nuances, that the assistance of a nurse that they trust in paraphrasing in their mother tongue was deemed helpful. It was not feasible to hire a professional translator for two patients. The nurse who is bilingual and sociolinguistically competent in the Singaporean Chinese dialect of two participants was the best option for translator selection (Squires, 2008).

We excluded patients that were illiterate and not able to fully understand and appreciate the detailed PIS and Consent Form. Some patients who were enthusiastic about participating in the study asked for us to explain it to them verbally (they had no interest in reading the PIS)

and went ahead to sign the Consent Form based on their understanding of their rights, wishes and required involvement in the study.

Stage 2 - Focus groups consisting of PGY1s and healthcare professionals (N = 37)

In view of the small sample in Stage 1, further inquiry was needed in Stage 2. No patients were involved in the follow-up study. Results from the Stage 1 indicated that participants in the test group were more self-aware after the teaching intervention. Subsequent investigations on awareness of others and the perceptions of others in the work setting were deemed necessary (McGettigan & McKendree, 2015). For healthcare workers, knowing the theory surrounding empathy may seem apparent enough. Discovering what was actually being practiced on the ground day to day in the wards, emergency rooms, operating theatres, and interactions with administrators in the hospital was equally important.

The empathy teachings were taught in a learning centre classroom to five different groups of participants. The number of participants in each group varied from 7 to 9. Data was gathered from 37 participants over a period of 3 months. Each group was heterogenous in that it consisted of doctors, nurses, allied health professionals, and administrators. They were recruited via email. The Learning and Development (L & D) entity of the organization sends out regular emails publicizing courses that are available to all staff. Participants that were interested in attending can either contact the trainer (teacher) directly or sign up with the L & D department secretariat (self-selection). Participants were given details of the empathy teaching session so that they know what to expect.

As the entire teaching session and focus group discussion takes approximately 3.5 hours, participants needed to obtain permission from their reporting officers to absent themselves from their work stations. The problem of obtaining permission is more acute in the

nursing department as the profession is inherently hierarchical, and sometimes many 'layers' need to agree before final assent is given.

3.7. Summary

The strengths of these methods are in its i) practical and convenient teaching mode; ii) collection of rich and in-depth data on more than one site (surveys using self-report scales, written reflective feedback, focus group discussions, direct observations in the classroom, field notes); iii) inclusion of participants from all healthcare professions who work closely together; iv) inclusion of data gathered from patients (in Stage 1) to complement the data collected from doctors, thus avoiding the sole reliance on self-report surveys; v) multi-modal analysis and use of abductive reasoning (most likely explanation based on facts available, in accordance with a pragmatic approach); to allow for the emergence of socially valuable new knowledge.

4. Ethics and Data Collection

Ethics

Application for ethics approval was sought via the DSRB – Discipline Specific Review Board. As the Principal Investigator, I wrote to the NHG (National Health Group) website ‘Roam’ to obtain clearance for pursuing research. Further qualifications as a prerequisite for approval were asked for. I sat for the CITI online courses and assessments. Only after I had passed all the modules and uploaded the official scores, was I able to finally receive approval.

The study design, sampling/population and methods were described in detail. Once the Patient Information Sheet (PIS) and Informed Consent Forms had been deemed adequate, full ethics approval was granted for the research to proceed. Patients are considered vulnerable subjects (as are children, pregnant women, and the mentally disabled) and their anonymity, dignity and confidentiality need to be protected.

I gave open disclosure that there was no conflict of interest and declared that I have no power or influence over the study participants. Furthermore, I vouched that there would be no financial gain for the participants in exchange for their consent to partake in research.

Both patient participants and staff participants were reminded that they could at any point in time withdraw from the study should they wish to, without having to give any reasons. As the Principal Investigator, I confirm that I have no influence or power of any sort over the participants.

For the classroom teaching sessions, verbal consent was obtained from the participants. They agreed to have their contributions to the focus group discussions recorded (using my password protected mobile phone) and the written data from their feedback and emails to be used for the study. Audio files were saved onto my mobile phone device, and then subsequently transferred to a password protected computer, with a copy kept in an external hard disk. The hard disk is stored in a locked drawer. All files were deleted from my phone thereafter.

Similar ethics approval process was followed with respects to obtaining permission from the University of Liverpool Ethics Committee. Approval was granted once all the academic and ethics criteria were fulfilled. In the Singapore context, DSRB approval was also awarded once all the ethical, administrative and legal requirements were met.

Data collection

The timeline consists of 4 Phases: 1, 2, and 3 for Stage 1 of the study, followed by Phase 4 (Stage 2) for the intervention on five heterogenous groups of healthcare workers with focus group discussions. Details of the phases:

1. Baseline measurement of empathy using JSPE and JSPPPE,
2. 8 weeks later: Intervention (video and reflective feedback),
3. 2 - 4 weeks on: Post-intervention empathy measurement using JSPE and JSPPPE.
4. Over a 12-week period: Intervention and focus groups (5 discrete groups)

Stage 1

After obtaining consent, the JSPPPE third party assessment of patient perception of physician empathy was distributed to patients during their consultation with patients in the wards. I wrote the anonymised code on the forms, making sure that there were no patient identifiers on them. Whenever necessary, patients were offered further clarification on how to fill the survey.

Sometimes the same PGY1 would be assessed by more than one patient in a ward round consultation. Rather than discard the forms that had been filled by patients, I chose to take the mean score for each item (rounding off to the closest integer) for a more reliable representation of how the attending PGY1 was rated for perceived empathy.

Gathering of baseline data for JSPE and JSPPPE took about 10 days. On days where the wards were very busy or at times when workload was high for patient discharge needing a faster turnover, I did not give out the survey forms. When verbal translation of the participant

information sheet, consent forms and JSPPPE forms for non-English speaking patients became too onerous, I would wait for more appropriate participants as I was concerned about accuracy, and hence willing to sacrifice time.

Eight to ten weeks after the baseline data was collected from PGY1s and patients that they treated, half of the randomly selected test group (n = 10) were asked to make themselves available to view the teaching video on empathy. A tutorial room was booked for the teaching session.

The video contains a series of stories. It is designed to elicit cognizance (knowledge and/or awareness), emotions, thoughts and reflection from the viewer (Mazurek, 2015). There is no particular sequence for viewing and learning is not linear. In accordance with the tenets of self-directed adult learning, the viewer is free to view the video in its entirety, to view chunks (microlearning), or to view segments of it or all of it as many times as she wishes.

Immediately after the screening, the reflective feedback forms (Appendix C) were given out to the participants. I explained the content of the feedback form, encouraged the PGY1s to amply reflect on what they had observed, learnt and experienced during the session. PGY1s that were post call and not at work (mandatory rest and recuperation period) were sent an email with the Dropbox link to the video and link to the electronic feedback forms. They were given the same instructions about the content and expectations of the reflective feedback exercise. They were asked to print the forms and hand in the hard copies (without any participant identifiers on the forms, except maybe the inevitable possibility of recognizing their handwriting). All participants in the intervention group were told to return the forms by the end of the week.

At this juncture, I had collected the first round of quantitative data that I tabulated in a spreadsheet within the IBM SPSS software Version 22.0. The reflective feedback forms were turned over to a colleague for his initial appraisal of the qualitative data. My intention was to

triangulate the findings and to continue refining our combined efforts in search of matching themes, till saturation, whereby no new themes emerged from the data set.

The second round of quantitative data collection began the following week (Week 10 of the PGY1 rotation). A repeat of the process of administering JSPE and JSPPPE questionnaires was distributed to the PGY1 test group (n =10), PGY1 control group (n = 11) and the ward patients in their care at the time. One may argue that these patients are not at all identical to the patients that they treated in the baseline or first round of data collection. It would be impracticable and highly unrealistic to be able to ask the same patients two months later to answer the survey questions. In most cases, patients would have been discharged and the average 'long-stayer' does not exceed four weeks. Most patients requiring rehabilitation and prolonged care are normally transferred out of an acute restructured hospital into a community hospital or hospice/nursing home.

Stage 2

After collecting the first set of data in Stage 1 from PGY1 participants and their patients, complementary data was collected from healthcare professionals to explore the actual learning experience of doctors together with nurses, allied health professionals, and administrators. At the end of each empathy teaching session (5 groups of participants), focus group discussions with the following guiding questions were asked: the participants' thoughts about the pedagogy; what they felt 'stuck' in their minds; what they felt whilst watching the video; their reflections on their experience; what they found useful or not useful about the teaching; and what difficulties they may encounter (or already encounter) in practicing empathetic care towards their patients, patients' family members, and towards their colleagues.

In health research, focus groups interviews are central to extracting what it is exactly that individuals think, feel, do, and what motivates them. Underlying values, beliefs, cultural significance, meanings are also explored in such in-depth discussions. After watching the

teaching video on empathy in class, the participants from five focus groups were asked open-ended questions on the contents, the delivery method, and their appreciation of the teaching. Written transcriptions were obtained from audio recordings of the discussions. Themes were drawn from the text and analysed further till no new themes emerged.

This complementary source of primary data serves to inform the researcher on what the statistical data alone cannot achieve. Data from the focus group discussions allows for a more in-depth interpretation by appreciating the problem from various perspectives. This multiple-angle approach not only widens the interpretation, but also permits the researcher to dig deeper to uncover more 'realities' as to what occurs during the teaching and learning processes.

Audio recordings for each session were transcribed into Word documents. Field notes, direct observation in the classroom, and the contents of 4 e-mails that were sent post-session (approximately a week after the teaching) were also collected for data analysis. Although there were only 4 emails, I have included the salient points communicated by participants who wished to give spontaneous feedback. Permission was granted from the authors of the emails to use what they wrote as primary data for the purpose of this study.

The handwritten notes were not written in a linear, nor chronological manner; they are a collection of ideas and observations, as well as experiences. The majority of the notes were written during the data collection stages of the study and some notes were documented during the data-analysis stage.

5. Results

5.1. Stage 1: Quantitative data

The data from the JSPE and JSPPPE scales are shown in Table 2 in Appendix D.

There were fewer PGY1s available for the post-intervention evaluation using the JSPPPE by patients: n=6 in the control group, and n=5 in the intervention group. Here, it is important to note that the numbers on the Likert scale for 1 corresponds to Strongly Disagree, and 7 corresponds to Strongly Agree. For question 7, which was used as a question to summarize if the patient viewed their doctor as empathetic during the patient-doctor encounter, before the intervention (n=21), the number 4 appeared only once, the number 5 appeared 7 times, the value 6 appeared 11 times, and the value 7 appeared only twice. From the onset, it would seem that the majority of the patients found their doctor to be empathetic. The lowest score and frequency being 4, one could surmise that the cohort of PGY1s were generally found to be empathetic, rather than indifferent.

The mean scores (subject to t-test, where $p < 0.05$ is chosen for level of significance) of the other 6 questions using the JSPPPE scale as reflect the same tendencies (Table 3). There was no score below 4 for all the questions pre and post-intervention, indicating that the patients tended to view their physicians had displayed empathy in their interactions with them. For questions 1 and 5 pertaining to their doctor's ability to see things from their perspective and to convey understanding for their situation, a higher mean score of at least 5 was reported at baseline. However, post-intervention, there is a more significant increase in the score for "understanding doctor" (of almost a full point) compared to a very slight increase for perspective-taking.

For question 6, "I believe that empathy is an important healing factor in medical treatment", all, of the PGY1s gave a score of 4 and above at baseline. Of these, almost 65% of the respondents agreed emphatically or strongly (with scores of 6 and 7) on the importance of

empathy in the doctor-patient encounter for the healing process. There is a slight dip in the score post-intervention (a third of a point), but due to the small number of doctors assessed post-intervention (n=5 in the test group), and the fact that the patients at baseline and post-intervention are not the same, it is difficult to attribute significance to this result.

Question 21 refers to the PGY1's self-assessment, "I believe that I constantly display empathy in my interaction with the patients under my care". Here in the control group the scores tended to be more confident with greater frequencies for 2 and 3 post-intervention. The doctors believed that they were more empathetic towards the end of their surgical and medicine postings.

With the exception of two questions, there is a slight increase in scores overall for empathy (between baseline and post-intervention) for both the test and control groups from the patients' perspective. This correlation may be due to the fact that the junior doctors having trained in the hospital for the duration of their surgical and medicine postings have acquired better skills that are noticeable in their interactions with patients. It would be judicious for us to delve into the qualitative feedback that accompanies the post-intervention phase, where we can gain more insight into the enculturation process of doctoring for the PGY1 trainees.

Paradoxically, the PGY1s that had undergone the teaching module in the form of a video and reflective feedback appeared to have assessed themselves more harshly. The greater frequency of the scores in the intervention group lay between 3 and 3.5. The score of 1 corresponds to Strongly Agree and the score of 7 relates to Strongly Disagree. There is a marked shift to a more conservative self-appraisal reported in the intervention group. Most frequently, scores range between 2.0 and 3.0 for the control group.

The graphs (Fig. 3 - JSPE mean scores for Baseline and Post-test for Control and intervention groups & Fig. 4 - JSPPPE mean scores for Baseline and Post-test for Control and intervention groups) are shown in Appendix D on Pages 202 and 203.

5.2. Stage 1: Qualitative Data

Written Reflective Feedback from Pilot Study

Some PGY1s gave succinct answers whilst others wrote paragraphs which enabled my colleague and myself to gather fuller information when they expanded upon their ideas. There was a good mix of viewpoints given to the six questions (Appendix C) for reflection posed. The data collected from the written reflective feedback forms is presented under the subheadings Looking Outwards, Looking Inwards, and Looking Forwards.

Looking Outwards (Other)

One of the traits of a Highly Empathic Person (Krzanaric, 2014) is the ability to cultivate curiosity. By listening radically or with heightened attentiveness, one is able to display genuineness in one's interest for others. Some PGY1s felt they needed to be "more brave" or "politely encroach into their patients' lives by asking more questions about them".

Their curiosity was further aroused by watching the video where each patient and each person had their own story. No matter how draining it can be to direct our attention to each individual, it is worth trying. One participant noted that "Each patient is unique and we should not use a standard approach to being inquisitive about their lives". Another emphasized how she used her imagination and made belief that the patients she was treating were her "relatives".

Projecting the care that one would give to a loved one to each and every patient is not an easy task. According to a participant, curiosity could be further enhanced by cultivating a habit of exposing oneself to "people from different backgrounds, watch documentary regarding other cultures, read a book". Another habit worth reinforcing is asking more questions in order to listen intently to their stories about their "social background (family support, finance, insurance cover) and ideas/concerns/expectations of their current medical situation". Finding

out more about the socio-economic status is of significance to the doctor's ability to care adequately for her patient.

When asked how a PGY1 would like to be treated by his physician or caregiver (putting herself in the patient's shoes),

"I would want my caregiver to treat me with kindness and respect, but not to overstep too much in comforting me. I think over-expressing empathy can feel artificial, pretentious, and patronising. If I were in such a situation, I would also want my doctor to make me feel like I am in control of my treatment, and that he or she always empowers me with information to help me make decisions".

Giving the right dose of clinical empathy, getting the posology right is highlighted by two other respondents:

"Not overly sympathetic".

"No need to dote on them".

The display of empathy, when it appears forced or exaggerated, is not encouraged either. There is emphasis made to remind us that empathy should be authentic and not contrived.

Being a good listener and communicator is perceived as conveying empathy towards a patient. It is a way of acknowledging their patients' concerns and treating patients with respect. Patient-centredness in practicing shared decision-making and truly enacting patient autonomy is also valued. Below are comments by two PGY1s in support of a patient-centred approach they would like to receive from their doctors:

"By talking to me every day, by spending more time by my side and assuring me instead of giving medicines and breezing past me in ward rounds like I didn't exist".

"I would like my doctor to at least update my family and I every 2-3 days of the current progress in management, and to update immediately if there were a sudden turn of events. I would like to be involved with decision making before a change in management occurs".

Looking Inwards (Self)

Being reflective in one's practice is not a given. The teaching of empathy requires that the learner possess the capacity to examine herself. Self-awareness and self-knowledge are also necessary in order for the practitioner to challenge her prejudices and at the same time discover commonalities. With introspection, several PGY1s were concerned about self-care. Not only would they have to treat their patients as whole persons (not just treat their disease), but they would have to tend to their own needs first. One junior doctor described holistic self-care thus:

“One must first strive to be a whole person; one who is well rounded and well developed in different dimensions...If one is overworked, exhausted or burnout, it is difficult to be curious and empathetic about your patients and be task oriented instead”.

In the context of having to break bad news or making an announcement about a difficult decision, a lack of awareness about the other person's perspective meant that they were less effective as communicators. Asked if they had ever experienced having to break bad news at work or in a non-professional setting, and whether or not it had gone well, they reflected and shared that they were cognizant that they could improve by being less abrupt:

“Yes. It could have gone better because I was not aware of how much the patient's family was aware of the condition so when I broke the news to the family, it was quite sudden”.

Sensitive and intimate discussions with family members about whether or not they would like their loved ones resuscitated in case of cardiac arrest were, participants felt, still beyond their reach. Some recalled the SPIKES model (Setting, Perception, Invitation, Knowledge, Explore emotion/Empathize, Strategy/Summary) that was taught to them in medical school. They evoked trying in such circumstances to “soften the blow”. There is no right or wrong way here; many preferred a form of direct, factual, and clear communication with relatives. One respondent felt that “with empathy, it can be even harder, but more

personal”. Announcing death or brain death is painfully difficult, even when one has trained for it over years.

More inward looking behaviour was expressed regarding the personal stories of individuals in the video. One relates how viewing the video made him reflect on balancing his own needs with that of his patients who had been admitted for a brain tumour and required an urgent biopsy of the lesion.

“In retrospect, the patient and his wife and son did seem a bit anxious about the whole thing, but in my hurry to go home, I probably didn’t provide them the assurance they deserved. The above core competency statement ‘*Responsiveness to patient needs that supersedes self-interest*’ hits me hard. I really want to learn to put my patients’ needs before my own”.

Insight was shared on the limitations of self, which was not what my colleague and I expected to read whilst going through the reflective feedback. There was realization that the self may not be competent in dealing with family in delicate situations. In such situations, they would ask for help from their colleagues.

“Need for Registrar level or Consultant to manage with family, NOK Humility. I don’t know. I know when and whom to ask for help”.

NOK refers to *next of kin*. One PGY1 recounted how she wished to be “more proactive in approaching families... volunteering a chit chat session”. Knowing that they don’t know enough yet and showing an active interest in wanting to change that is a very good start to their career. More could be done in promoting awareness for self-care in the face of uncertainty. It is drummed into junior doctors that their selflessness should extend to putting patients’ interests above their own, yet their own needs are often ignored.

The Mindfulness movement in medicine addresses these issues by proposing modules on Self-Compassion and Forgiveness. Often these modules fall under the broader umbrella of courses pertaining to resilience development and anti-burnout (emotional exhaustion, depersonalization, decreased personal achievement) and anti-depression strategies.

Looking Forwards (a combination of Other, Self, and Environment)

The main themes distilled here are to do with recurring challenges in the work environment. Time seems to be an issue. The testing workload and inordinate levels of stress have to be managed, which leaves little time and room for empathic care. Creating more profound doctor-patient relationships is a luxury, according to a PGY1:

“In my few months of housemanship, I feel like this is extremely difficult ... realistically, there isn't enough time to engage this curiosity for everyone, or no work will get done”. One of his colleagues echoed:

“No time, high stress, heavy workload. No handholding.... overburdened”.

Beyond self-care, they were asked about caring for others – peers, colleagues, team mates. One participant spoke about a fellow student in medical school who suffered from burnout and how simply lending a listening ear helped. Building camaraderie and team spirit seemed to be of importance. So was looking out for a peer who was struggling with prolonged illness. Another described how he became a confidant to a Patient Service Associate (PSA), an administrative assistant involved in patient-fronting duties. The PSA had been physically assaulted by a drunk spouse. He listened to her story and tried to comfort her. He believes that colleagues become friends and the trusting relationship is something co-workers can be grateful for:

“There was a PSA in one of the wards who came to work with a conjunctival haemorrhage. I asked her how she attained it, and she confided in me that her husband hit her when he was drunk. I managed to set aside some time to talk to her about her relationship issues and provided some advice. She may not have taken my advice eventually, but I knew she appreciated it, and wouldn't be afraid to look for me in the future to talk again”. The work place is full of ‘hidden’ or untold stories. People bottle them up for fear of exposing themselves. Providing a trustworthy, reliable, listening ear relieves the ‘sufferer’ with relief, albeit temporarily. Being a role model exhibiting compassion is valuable – “action speaks louder than words”.

The omnipresence of technology and the inability to have full control over its use appears to be a bugbear for many. By typing and looking at the computer screen, doctors are

not facing their patients. The engagement is of a poorer quality and non-verbal cues from the patient are lost. “I spend more time with computers than patients”, laments a PGY1. Surprisingly, one PGY1 reported that there was “no interference from computers. All face-to-face. No clinic setting”. In a purely inpatient service the first-year resident did not find that the computer stood in the way of her interactions with her patients.

As to the use of the mobile phone, several PGY1s admitted that “Calls are disruptive. Do not know the urgency of the calls. Need some form of triage”. Moreover, another PGY1 felt that “using mobile texting to conduct long conversations can lead to misunderstandings”. Dissonance in communication and misinterpretation can arise from texting longer or more complex discussions. The frequency at which the work mobile goes off is also of concern. One resident cited the following:

“...perhaps the work phone, especially during on-call, when it rings non-stop, on many occasions at inappropriate moments when I’m trying to converse with patients and relatives. You know you have to pick up the call because it could be something potentially serious, and when you do, you feel like your full concentration on the patient has been disrupted.”

The ability to discern between serious matters and those of a lighter nature is lost. If the phone keeps ringing constantly, it interrupts the moments that doctors are spending with their patients. On top of that, more urgent or graver cases are smothered by the calls that are more inconsequential in nature. Priority cannot be awarded to more serious calls and that is a big problem. Many PGY1s did not blame technology itself. It is a tool; a very efficient and indispensable useful tool but it reduces precious patient contact time.

When the team is short-staffed, especially in the in-patient setting, expediency takes over. The younger resident feels like a foot soldier - dutiful but made to do the scut work. Doctors in training would like to be valued and trained. They would like to be actively engaged in their training by receiving timely feedback as the impression is that “the feedback culture is

not strong”. In order to continue contributing to patient care, they feel they need to be reflective practitioners. Suggestions for more empathic and compassionate care (in accordance with ACGME core competencies discussed in 3.1) include:

“reduce workload on administrative areas to spend more time with patients”,
“genuineness, authenticity, caring, support, accountability, simple kindness, going the extra mile”
“simplify jargon, numbers, lab results, especially when communicating with the elderly”

With these progressive ongoing changes in self, other and the environment, the objective is to inspire mass action and social change in the world of medical education.

At the end of the collection of reflective writing exercise in the pilot study, I have in possession one dimension of artefacts on ‘words and wards’, as inspired by Shapiro, Coulehan, Wear & Montello, (2009) in their work on medical education. Complementary dimensions are obtained from five focus group discussions involving doctors and other healthcare workers after a teaching session, field notes, and other observations in the classroom. The interpretation of data will be done concomitantly, to depict a more complete tableau of themes for this thesis (Silverman, 2001).

5.3. Stage 2: Data from the Focus Groups

This data was collected from practitioners in a multi-disciplinary environment, thus attempting to replicate inter-professional situations found in the workplace. Once the audio recordings of the five focus group discussions were transcribed, they were printed onto A4-size paper. Manual coding was used to analyse large amounts of qualitative data. Elements of significance that had common themes were extracted and coded. These categorizations were done by myself, observing how the themes developed (or not) within each group of participants and across groups.

There were broader themes that were given codes, and their declensions were given sub-codes. This process of assigning codes and sub-codes was continued until no new themes emerged. In the interpretation of data, a conscious effort was made to explore possible connections or associations between the themes. Broadly, the themes that arose on learning how to be empathetic could be categorized into Looking Outwards, Looking Inwards, and Looking Forwards.

Looking Outwards

Interaction with patients

Being attentive to others' needs often requires, attentiveness, deep listening skills, putting oneself in their shoes, and imagination. In Focus Group 3, Participant 6 described:

“Visualising myself in my patient’s shoes and scenarios. Sometimes I might be harsh, not knowing what they say or how they feel. But maybe the next moment I will realise and apologize to them”.

Similarly, Participant 7 recounted how he could perceive his patients' frustrations through use of imagination and perspective-taking.

Empathetic behaviour may not always be what patients want. Their interactions with healthcare professionals may be of a very transactional nature. In such situations, there is little interest in empathy or ‘niceness’. As long as they are given what they want, they care little about how it is done or by whom. P5, FG 5 recounts her experience (MC below refers to a medical certificate):

“Actually, there are patients who feel that, maybe they think they are very smart, they want to outsmart the question. We show so much empathy they are not interested. It’s like, “I just want this.” Some of them just tell the doctor, “Don’t need to be so nice. Just give me my MC will do.” (M: Yes) Just, and they are so much in, now it is so much in practice that, “Oh. NUH will do this for me. How come you’re not doing this?” (M: Yes. They compare.) They compare. They are not interested in empathy. There are a group of people who are like that. (M: I know.) They’re not interested. Just give me what I want. I know what I want, I

know what I want that is best for myself. This is not what I want. You don't have to be a good person. Just do things that I want".

Interaction between colleagues

Beyond their patients and their families, participants shared that they wanted to look out for their colleagues' wellbeing. They were unwilling to burden their colleagues to take over their work even when they themselves were not feeling well. They also appreciated it when their colleagues were able to 'hold space' for them or just 'be there' for them.

They were also aware that their colleagues were struggling. In an environment that is not conducive to positive human interactions, workers will have trouble with demonstrating empathy. It is not that they are not empathetic; the atmosphere in which they practice is not optimal for empathetic interactions. P5, FG 5:

"Sometimes the core, the core of it is very nice. The core inside is good. But what comes out is bad because of their environment. Want to show they are nice but they can't. There are other things. Not allowing you to... cannot be nice".

Emotionally charged moments with colleagues also helps them deal with giving and receiving empathy. Painful personal experiences enabled them to gain insight and have a better understanding of empathy. P4, FG 4 broke down in tears when she remembered how she felt she had been betrayed or treated badly:

"Because I... I've personally been through many things. I'm a person who loves to listen and lend a shoulder if you need. But the person who I trusted a lot, had a false assumption on me. It really breaks my heart..." (cries).

When emotion and empathy start interfering with our effectiveness in being to deal with everyday situations at work, there may be a need to shut off or lessen the impact of such feelings on the individual. There may be a voluntary 'shutting off mechanism' that becomes automatic over time. It may be a form of self-preservation from the ill effects of emotional labour and compassion fatigue. P3 from FG1 explains how the type of work one does daily can in the long-run affect how they relate to others:

“I think like maybe for healthcare professionals, like the nature of the work it affects.... Like you mentioned surgeons, anaesthetists, you can, they were rude to the nurses, right? So like surgeons when they perform procedures, right, they tend to cover parts of the patient and only expose parts they are performing surgery on, because like, I think it’s supposed to be like a way for them to dissociate themselves. So, I mean if you’re in that role for a period of time, I mean it could like contribute to how you relate to people in general. I don’t know. That’s just a thought”

There is some detachment or dissociation experienced by certain healthcare professionals.

Interestingly, nurses from the Emergency Department (ED) spoke candidly about how they behaved towards junior doctors (MOs are Medical Officers; in second year of on-the-job training – PGY2). Because of the variability in the type of cases that present themselves to the ED and the unpredictability of workload and numerous backlogs to workflow, they express feeling frustrated with the perceived slowness of clerked patients being assigned to a ward. They felt it was hard to demonstrate empathy when basic care was not adequately dispensed.

Clerked patients on ambulatory beds find themselves “parked in front of the toilet or parked in front of the dirty utility” according to P1, FG 4. It was revealed that patient dignity was compromised. Trying to feed them in front of the toilets is bad practice. Attempting to change their diaper in full view is undignified; nurses have to wheel the patient all the way back to the cubicle, change them and then move them back to the makeshift corridor space.

Frustration and fatigue accumulate, and nurses take it out on the junior doctors. They know, that unlike the senior doctors who are part of the permanent care team, the junior doctors are only there for a few months (as they rotate through their training programmes in several acute hospitals). P1, FG 4:

“I can get away with scolding him, so it’s fine. We just scold them anyway. That’s how I can vent. With him I can vent. Because the MOs are new. Every 6 months they change, so probably they are the ones who need this course (in empathy). As they will face. A lot of frustration directed their way because they are new and they don’t know anything”.

They chide the junior doctors for being slow. They treat both male and female junior doctors the same way, declaring that there is no gender difference applied. They were also unempathetic towards their being task-focused, and unable to address issues as a whole. Examples were given to illustrate how junior doctors failed to perform their work to the required standards of care and were found to be lacking common sense.

“I think part of it is because medicine is so knowledge-based and assessment-based, they are so task-orientated that they fail to notice certain things that actually really impact the care of the patient and it frustrates you because if a family member picks it up, it backfires on the nurses. PR issues (communication), blood stains on the bed, how come we can't cannulate a patient properly without spilling blood, then the family comes and asks why is the patient so messy, is this how you guys take blood? That kind of thing”.

Super-specialisation of doctors has disadvantages. Their ability to prioritize was also discussed. Asked if they could identify why the junior doctors were unable to see beyond their individual tasks and care for the patient in a more holistic manner, P1 FG 4 replied:

“I think medicine is quite broad, and people rotating around. Definitely doctors have certain preferences. Some doctors will prefer to focus on Renal (medicine), some doctors will prefer to focus on other things. So when it comes to Emergency (medicine), they are not tuned to that yet. So they do not see it from that perspective, like what is urgent now! Oh what should I deal with now and should I answer some other things later”.

Some bedside manners were deemed to be lacking or insufficiently polished. Attending partially to the patients' needs and administering care in a fragmented manner by junior doctors was found to be frustrating for P1, FG 4:

“I don't mind so much the clinical decisions. I mind the common-sense things. The tourniquets, the cord sites, the sharps, the needles that they leave on the table and we have to clear it up. Because they are so focused on the task... and oh, I have the blood... I must faster bring the blood and they forget things... oh, I have to remove this thing. Yeah, I mean at the beginning probably I can remind them and stuff, but after a time, it gets frustrating”

The MOs do not seem to mind such treatment from the ED nurses. The nurses' lack of empathy or patience is explained by them wanting to get the job done in the best possible way. And if it means scolding the junior doctors, they may not have qualms about doing so, because they feel that the environment is not very hierarchical:

“I mean ED is quite flat I feel, because the nurses always have the experience so they don't dare to really vent too much. Yeah, the new MOs just take it. I mean previous batches... some had attitude... but this one is not bad, just blur. I just go excuse me whose is this? Can you please clear it? Then they say oh, sorry, sorry, and they just...”

In the next segment, we will look at how participants practise empathetic behaviour in their work environment.

Looking Inwards

Self-awareness

The participants noted that we need to be in tune with our emotions. We have to be considerate with others' feelings because we too have feelings. The idea of reciprocity is evoked. Self-knowledge and awareness helps us see ourselves more clearly. How accurately do we really see ourselves? The Dalai Lama's book on “How to See yourself as you really are” (2007) recommends self-evaluation at different points in our lives to know ourselves for who we are. Similarly, our own blind spots can slowly be revealed by working on our level of awareness.

Awareness of self enables us to be a more acute observer of our being in our interaction with others. Empathy is a cognitive, emotional, and behavioral appreciation of others' perspectives and lived experiences. The participants shared that the greater their levels of awareness, the more careful they had to be in how they were going to interact with others. They admitted that it made them think. They began to give more consideration before acting. This is not to say that they were impulsive before attending the teaching session on empathy; the

observation made was that they gave more thought to their interaction with their patients, colleagues, and family members.

Impatience, single-mindedness, and jumping to conclusions easily were identified as behaviours that were present in participants' interaction with others. Upon reflection, they realized that these 'automatic' reactions could hamper the expression of empathetic behaviour. Enhancing self-awareness was believed to be important in seeking to see themselves as they really are.

Participants spoke about how they noticed that they were sensitive to eye contact. They were pleasantly surprised by how significant establishing eye contact in interpersonal interaction is. Asked what they found useful, P2, FG 4 replied:

“I think more eye contact... the gazing, yes” (in order to be able to see the whole person, and not just the parts).

There was a search at a deeper level of understanding. They reflected on what they noticed, how they noticed things and events, and what they understood from the various phenomena. It was expressed that their ability to fully appraise a situation may be limited because of never having been themselves in the other person's shoes. P3 from FG1 described how she may not have the capacity to understand fully by giving this example:

“One of it was like maybe we have a colleague, her husband is fighting cancer, then ya, that's one thing that really... we can be emotional, physically support, but we are not there, we are not the one who face the problem, so we might not understand fully but ya...”

Having experience was articulated as being important. To be able to empathize, one is cognizant of what the other person is feeling because we oftentimes have already been in their shoes. One may have more difficulty fully appreciating someone else's predicament if one cannot imagine or have not experienced it themselves. P2 in FG1:

“I think like experience also contributes to how, how much empathy we feel towards something. Like its easier for us to relate to something if we have had personal experience with it. Like it helps us to understand better”.

Our biases, prejudices, and preconceived ideas may stem from our limited experience. A lack of imagination or having never been exposed to stories (made up or true) may hinder our understanding of how others feel. Keeping an open mind and nourishing our mind with imagination was thought to be a good way of preventing a fixed vision of the world around us and that constant cultivation of curiosity and a sense of wonder helps in perspective taking.

They were also keen to seek feedback from others to validate who they are, rather than go with their own perceptions of themselves. This would be better than pure introspection, which they found to be self-absorbing or too much like navel-gazing. Introspection, when practiced in isolation to other forms of building awareness, could in itself be a barrier to self-knowledge (Carlson, 2013).

Our actions and behaviour are determined by how we think. If we are able to have kind thoughts regarding ourselves (true self-compassion), there is a greater likelihood that we like ourselves for who we really are and can in turn be compassionate towards others. Displaying empathy requires one to be first kind to oneself. Self-compassion is also key to building resilience and developing a robust coping mechanism against stressors.

A question about stress in their daily work lives was asked. The moderator wanted to find out if the participants felt that it was worth going through all this stress. In spite of their feelings of annoyance and frustration at times, they try and look at long-term solutions and resort to accepting the day to day dissatisfactions with calm resignation. P8, FG 4:

“I think the stress is worth it. But I think when we do our work, we want to make sure we do it properly rather than just get it over with. Which is why there are readmissions in the first place... such things like that. So, I think such behaviour should be advised against you know and then make sure that we do our things properly. We get things done so that hopefully people do not have to come back again. Yeah, I think... but it is understandable because that’s human nature. When we really get tired of all that... then we also try to just say okay la, I don’t care. That sort of attitude...”

Self-awareness is only the first step to becoming more empathetic. Examining our inner world with all our beliefs, ways of thinking, and emotions contributes to greater self-understanding. Being cognizant of how one behaves in professional practice is the next step – Looking Forwards.

Looking Forwards

Tips and guides to how participants enact calm and empathetic behaviour at work were suggested. In Focus Group 1, Participant 5 recommended the STOP method – Stop, Take a breath, Observe, Proceed.

“In practice, using the STOP principle helps me... even for 10 seconds when I am in the middle of a busy and stressful day and don’t feel empathetic”

Creating room for ‘time out’ moments is a dependable aid when our empathy level wanes. And should finding that room or space not be possible, participants make a case for acting authentically or what Larson and Yao (2005) refer to as deep acting. Under pressure to demonstrate a caring attitude, they advocate acting as if they really cared (even when they do not feel in the least bit so). This is a form of projecting a persona that is not truly representative of oneself for a limited period – long enough to convince the person that we are trying to be empathetic towards that we care. Authentic acting comes to the rescue when natural feelings of empathy fail.

Time constraints, heavy workload, technology in the workplace

Challenges to empathetic relationships or care that are inherent in the work that these healthcare professionals do are the lack of time, the heavy workload, the prevalence of the use of technology and mobile devices. (These are the same difficulties that the PGY1s reported in their written reflective feedback in the pilot study). P2, FG 2:

“So everybody is like rushing, so they... in terms of empathy, no time... because due to the time, to me it’s more for everybody is due to the time frame”.

P1, FG 4:

“Yeah, but they are also clerked as inpatients and so the ED nurses also handle them at the same time. They handle what they are supposed to handle - the acute patients, but they must add on to these extra workload as well”.

P2, FG 2:

“This generation, just like technology nowadays – smart phone. You cannot say you don’t learn how to use. It’s very difficult because everything is now smartphone”.

Cultural and societal expectations

Culture in the workplace was highlighted as a hindrance to empathetic care. The strong presence of hierarchy in the healthcare professions is held responsible for the difficulties encountered in expressing empathy to patients and to colleagues. The relatively high power-distance, which is translated to pronounced hierarchical interpersonal relationships, is already inherently more pronounced in Asian cultures. Leadership tends to be ‘top down’ (with hardly any exceptions’) and staff at the middle or lower rungs of the organization or intra-professionally, feel oppressed. They claim to be disempowered when it comes to making decisions in favour of more empathetic care.

When asked by the facilitator if they were able to find moments during their working hours or during the shift to have a quick pause or recovery from the intensity of caring for their patients, participants shared that they would wait till their break time. Sometimes critical incidents or ‘near misses’ (potential for grievous errors) require a forced pause is necessary.

The facilitator posed the following question to clarify further:

“Break time? So you keep continuing till there is a pause in the natural events of the day. Because you’re afraid that you’ll not be seen as a hardworking person, or slightly lazy?”,

Participant 1, FG 3 replied:

“Oh no, we don’t consider our colleagues....”

There were some hints that the participants were not entirely confident that they could rely on their colleagues to hold the fort while they took a short break outside of the official break time. It could also be interpreted as a work culture where there is a lack of psychological safety.

A cultural comparison between Western practices and the practices in Singapore was highlighted. The feeling is that in the West, words of encouragement are used to motivate subordinates and children. ‘Angmohs’ refers to Westerners. There is a culture of scolding rather than one of positive regard towards colleagues and children, as described by P7, FG1:

“So when we are in this culture, sometimes, y’know the words that come out from our mouths, you don’t motivate your maybe your subordinates or your children, because this is our brought up. So we are like that. But for angmohs I really see them encourage, words of encouragement. Yeah, very good and they will just give it a try even though they are they dare not but they will just give it a try because they have support behind. Supporting words will come out from their parents. So for us, just the words you stupid how come you don’t know. That’s what we always hear people scolding their... even you know I think it could be as I mentioned the culture la. It could be the way we’re brought up that’s why it’s bring”

‘Modern’ corporate culture in healthcare is purported to be responsible for the lack of control healthcare professionals have in their workplace. P5, FG 5 had this to say about the power struggle between nurses and executives in the wards and clinics:

“Because our culture is different already now all over Singapore. It’s like the executives and nursing. Those days, nurses, we control the time, the patient, the appointments, time everything. Now the executives will control how much finance should be given to you. Whatever product you need to buy, you have to go through them. They have to approve. So, I think, I think on the whole nurses are all educated, eloquent and opinionated but you cannot express all these now. It’s all gone. Because as you said ego – the executive must show power that they are higher than the nurses. Well, actually they won’t have any nursing background. They don’t know”.

Unrelated to the work itself, but to interpersonal matters, participants highlighted trust, compassion/empathy fatigue, having prejudices and assumptions to be challenging to expressing empathy. One member of staff had felt that she had been judged unfairly by a doctor (as a patient) when she made comments alluding to her being unclean. She felt hurt and wished that her doctor had not communicated in such a manner.

When 'paternalistic' medicine is practised, doctors have complete control over the care for patients. In other words, patients are not 'welcome' in shared control and shared decision-making. There is little patient autonomy. P4 FG2 described her experience with a paternalistic doctor who explained to her why she caught the flu' virus:

“Just like the flu vaccinations. Like we don't go for flu' vaccinations then we have flu, that's why I told you to go for flu' vaccination. You don't go, that's why you have flu'

P2, FG2 adds that corporate expectations have also come into play concerning the individual's choice in proceeding with the flu' vaccination or not. It feels like an imposition rather than the freedom to exercise choice:

“But now because of organization, you need to hit the KPI (Key Performance Indicator) and then you keep forcing people to go. I just go health screening and they promote the flu' jab”

The top-down style of getting staff to agree to take the flu' vaccination is reflected in the way paternalistic medicine is practiced in the wards and clinics. There is a sentiment of resentment when individuals are being imposed upon.

Emotional Labour

Participants made reference to their feeling drained, tired, defeated in their day to day activities at work. Despite working round the clock, a majority reported that they did not think they managed to accomplish as much as they would have liked to. In the Emergency Department, patients were left waiting in the corridors or patients that had been clerked and needed to be warded were still in wait for a bed. They felt helpless about such situations.

According to them, they did not lack empathy. Paradoxically, they wished that they felt less empathy towards their patients and overworked colleagues. This would have, they claimed, enabled them to better cope with the sense of not doing the utmost to relieve their patients' suffering. P5, FG 1:

“Because it's not being hypocrite, it's about making people feel better even though y'know you yourself facing a problem. But this is our nature job, we are supposed to make people feel better, to assure that everything will be fine. But that's when it comes, when you need to act”

The idea of 'acting' in roles from the helping professions (in which emotional labour is frequently solicited) is not new. Deep acting, as opposed to surface acting, is recommended. Participants shared that when they were unable to empathize in a manner that they felt was authentic, they acted or faked it.

P1, FG 4:

“Too much frustration. I can't really empathize, so I just fake it”

Even when they felt misunderstood or unappreciated, they were able to laugh about it. It is not as if they were resigned to being viewed as 'enemies' of hospital management or viewed as being incompetent. By taking a step back from the professional fray, they were able to appraise the bigger picture, cognizant that they were unable to meet demands and expectations all of the time.

P3, FG5: (ICU is the Intensive Care Unit; ED is the Emergency Department):

“And not only that. I think the whole hospital sees us like enemies. Is like when we send patients up to the wards, send patient to theatre, send patient to ICU; I mean not all ICU nurses are mean. She's one of the nice ones (*laughter*). So really like, it is not that we want them to be sick and it is not like we control the beds and stuff, but like everybody has this misperception that ED will always chooses to come to them at their busiest time, at the handover time, at the...

Hospital as a place of Hope

In spite of all the daily difficulties at work and challenges in the clinical environment, there are practitioners who view the hospital as a place of hope. Lives are improved, lives are extended, lives are saved. Amidst all the chagrin, frustration, anxiety, stress, and negative outcomes for some patients, clinicians view the hospital stand out as a beacon of hope in the community. P1, FG 2:

“I love working in a hospital, frankly speaking, because I know it is a place where you can save people. If not, you can’t prolong life, but you can save people a little bit... I dunno, because I always look at the hospital as a place of hope”

Staff see their workplace as a second home. The sense of attachment and belonging to their place of work is extremely strong. There is a moral component of loyalty embedded in their attachment to their professional practice. Professionalism and integrity are something that they strive for. They feel accountable for the work that they do. They exercise fair judgment in their professional decision-making, even when they are perceived to be in a negative light.

P4, FG 5:

“Become a threat?... Example like my senior. How can we be a better person so that people can sense that we are actually good people? We are not a threat. We just want to satisfy our own target. We just want to be happy. We always believe that workplace is a second home”

It was emphasized that the hospital does not have paediatric services. Emergency Department doctors and nurses have to deal with a constant influx of sick or wounded babies, children, and adolescents. When this occurs, stress levels are high and staff find it challenging dealing with patients that are ‘outside’ their range of competencies. This results in added stress on the clinicians and empathy levels may be stretched. P1, FG 4:

“So, when they come over to us, it’s always true this same phrase because we are a new hospital - how come you don’t have beds; how come your resources are so lousy? I mean I can’t answer them because I can’t speak bad of my own organization, right?... The SCDF (Singapore Civil Defense Force) sends cases

based on proximity and obviously we are always the closest to the housing areas, so it is a very hard thing for me to reply when patients ask me this. And the same thing with paediatrics... most patients when they panic and send their children to the Emergency, they are not going to recall that our hospital doesn't have a paediatric specialty, or they don't even know that when they come over and realise that we have to transfer they are not happy as well".

Comments on the Teaching itself

Participants said that the use of videos as part of the teaching strategy was useful – they felt that there was a form of emotional resonance they could identify with. It encouraged them to think about why they felt the way they did. Some even recognized themselves in certain roles portrayed in the videos. After the teaching session, participants reported that they were able to better identify situations in which they could have been more empathetic and contemplate instances in the future where they could demonstrate empathy – there was a backwards and forwards reflexive process on how they practice empathy in their lives. Discussions during the focus group also ignited thoughts on how teams in the workplace and teams at home (i.e. with family members) could rally together and be empathetic to one another. Some spoke of appreciating values, perspectives and willingness to listen attentively and to help effectively. P8, FG4:

“... empathy is also based on our perspective and our values as well, in terms of how we treat people, how we see people”.

Emotion was something they felt when watching the video, especially the silhouette shadow dancers. A discussion ensued about emotional labour, compassion fatigue, pain from deep emotional experience. The resulting questions were about people becoming desensitized or feeling less or caring less. P3, FG 2:

“I thought it was actually a very emotional performance, so one of the questions I had was like, if you are a very empathetic person and for example like as a healthcare professional you are always empathetic towards your patients, like you end up like, feeling very emotional? So, does it lead to burnout, and people

like start not to care anymore because they don't want to feel all those emotions?"

We talked briefly about burnout and the importance of protecting oneself from compassion fatigue. The three components defining burnout - emotional exhaustion, depersonalization, and low personal accomplishment were elicited. That a range of emotions was felt was also highlighted. They agreed, however, that they felt more emotions relating to pain and suffering than emotions relating to joy and peace in the Cleveland Clinic video on empathy. P3, FG2:

"I think that the video was very high and low. Coz they keep like some... some good experiences, some bad".

They attributed the predominantly sad mood due to it being about people in a hospital facility. Overall, they felt that there a fluctuation of high to low feelings while viewing the video as positive as well as negative vignettes of peoples' lives were shown.

The SPIKES model, they found, to be a useful framework for announcing bad news. Having to deliver unpleasant news requires skill and courage. They came to the realization that wrongly chosen words, poor listening abilities, and bad timing could be avoided when carefully applying the model. Expression of compassion and other prosocial behaviour is of utmost importance in times when people felt the most vulnerable. Often, they noticed that even breaking bad news in a proper fashion does not alter the pain and sense of helplessness or alienation that the receiver is going to experience. P3, FG 5:

"Actually, I really enjoyed this session. It's very meaningful. It incorporated so many nice videos. Nowadays, I know how to improve myself like with regards to empathy, because I think empathy is already there, I can listen to people and feel what they are feeling, but I can't make them feel better at the end of the day but I do not know what kind of words to use to make them feel better. So can we improve in that sense".

Participants would have liked to see examples (videos, art work, etc.) which was more culturally relevant to Asian society. Cultural differences and 'cultural appropriateness' were

mentioned by several participants. I have given more details in section 5.2.3 relating to data in the form of email correspondences. Developing cultural awareness is an important component for teaching empathy. P1, FG 2:

“There’s one China disabled performance troupe. They are generally disabled deaf and mute but they can dance without music an it’s beautiful... they coordinate... they dance to the rhythm... I have no idea how they do it”

‘Stickability’ is a notion central to how well we remember what is taught. Why and how certain concepts and ideas stick in our minds long after they have been imparted is of interest to teachers and learners. The participants found the videos that provoked emotions in them were powerful in communicating the value of empathy in our everyday interactions. This alone does not guarantee the sustainability of empathetic behaviour, but at least it is an indicator of what they can remember and why they remember. Understanding the factors that affect ‘stickability’ in a teaching environment is helpful.

“For me, learning is also through interaction. By watching, it meets the purpose, it’s like, it’s good to have interaction. You can learn more and understand more if you can hear different aspects as well, debating also”.

The fact that the Cleveland Clinic portrayed many stories, each with a personal vignette, participants could identify with one or more characters. That proved to be useful in helping them search within themselves, reflect and share more openly about their feelings and personal stories. P1, FG 3:

“I think it’s more personal, like it’s not the, it’s more personal, like it’s your own experience, and then you will open up more”.

Being able to be their authentic selves and having the comfort levels to be able to open up more was mentioned. In Asian society, individuals rarely speak openly about their innermost thoughts and feelings. Stepping into another person’s shoes (in this case by watching a short video) and experiencing vicariously what they are going through could be a powerful method in enabling participants to reach within themselves in order to open up to others.

Another strength they felt was in the value of social learning – a considerable amount of time was allocated for learners to interact with other learners and the teacher (in between excerpts in the teaching video). Classroom learning is explored under the Discussion section of this thesis. Using the classroom as a laboratory is definitely not new for observing younger learners in education research (Lonergan & Cumming, 2017). I thought it noteworthy to report findings of similar research involving adult learners (healthcare workers) in a classroom within a professional context. Below are some comments made by the participants:

“Role play... understanding. It’s the same thing as like PowerPoint and then sit down and do like what we do now and discuss” (P5, FG 1)

“... it’s like we can discuss. We can, more of a practical session kind of thing? Destressing. It’s just out of work” (P5, FG3)

“Yeah especially this type. It’s, see they can’t believe, it’s unbelievable for them because at work I’m very, really shy, you don’t see me like play around, but especially this one” (P5, FG3)

Participants appreciated the fact that the teaching was not solely didactic in the form of a Powerpoint presentation. They enjoyed a focused discussion around what they were learning about. They saw the practicality and unpressured environment offered in this method of pedagogy. For shy or reserved learners, this style of teaching (videos with music, personal vignettes, choreography) allowed them to ‘come out of their shell’ and participate actively.

There were reflective comments made by several participants about how they saw themselves benefit from the teaching, and yet described the shortcomings of a one-off teaching session. Repeat sessions to reinforce learning and sustain changes in behaviour were suggested. P8, FG 4’s feedback on the teaching intervention:

“I feel that it’s good, that I can see that there are attempts to try and hit multiple spots you know in terms of the whole spectrum of empathy. Including all the self-care, all the different methods of stress management, all that sort of thing. But at the same time because of that it feels quite unfocused, like it feels like

trying to achieve too much within a short period so I guess that might be effective for certain people like trying to achieve too much within a short period. So, I guess that everything will be forgettable in a sense. But maybe it would be more helpful to, I mean, if in the future maybe this might be more helpful in terms of a series rather than... We can't exactly say that oh! I teach one empathy class and expect it to go back and be practised"

Timing matters and mood affecting motivation too according to P1, FG 4:

"I also feel that empathy is very hard to teach in part because that person must be willing in the first place and I think it comes more naturally to someone who wants to empathise. Otherwise, someone whose innate character is very poor, or attitude is very poor, they won't want also. So, it's more a moral education kind of thing yeah. So, if you had asked me to do this course yesterday, I would probably have come in here with a bad attitude because of the way I was feeling about work, yeah".

Finally, critique for improvement of teaching was leveled at the lack of humour used in the teaching. The excerpts in the video were found to be of a serious and intense nature.

"Erm... personally, I thought it was thought-provoking. To make it more enjoyable, maybe you could include like humour?"

Although patients do not always view humour as an important aspect in their doctor's interaction with them, healthcare professionals, in the case of this present study, appreciate lighter moments in their learning. One could call it light-hearted inter-professional learning.

Two participants found the use of The Good Samaritan painting to be too abstract to convey empathy:

"Maybe like relatable examples? I thought the video... the Cleveland one was good. Coz it was like relatable examples".

But like, what was that, I thought the Van Gogh, the Samaritan picture was very abstract. Like if you didn't explain it, I personally couldn't tell that it was a Samaritan picture".

I am cognizant that impressionist art, or art of any form, may not resonate with learners. Depending on their educational background and cultural origins, people view art from very different perspectives. I have taken that feedback on board and am extra careful in teaching the

part of the video that talks about Van Gogh's painting. I pause the video to introduce the topic and ease into the artwork and its messages with more care, doing so more slowly.

5.4. Stage 2: Data from Field Notes

The focus group interviews were held in quiet rooms dedicated for learning purposes. The groups were heterogenous – group members belonged to different departments comprising of clinicians and non-clinicians. It was observed that upon arrival into the room, they looked around to see if they saw any of the 'friends' or familiar faces. Participants were encouraged to sit with whomever they felt comfortable with in a semi-circular arrangement of chairs with the intention of fostering interaction.

In general, it took about two to three minutes before participants were comfortable to speak freely and uninhibited. Whilst interacting with the facilitator (myself), each looked around for about three seconds before replying. This was probably a cultural habit of 'waiting' for a cue from the person seen as having authority (myself as the facilitator) before proceeding. Or the participant perhaps feeling self-conscious and waiting for validation from the group in order to continue.

During the 'silent periods', there was nonetheless non-verbal communication occurring. I observed their facial expressions, their seated postures, how they moved their bodies to face one another or not, and what they did with their arms (crossed, by their side, holding a pen and booklet to take notes, holding the sides of the chair, for example). It was interesting to watch how they took turns looking at one another and then at me. There was a bit of nervousness, not really knowing what to expect, or to say. From time to time, they would whisper to their neighbour, before saying something out loud. It was as if they were checking the suitability of the content before making an announcement to the rest of the class.

There were times when the facilitator seemed to monopolise the conversation. When participants were unsure of what to say, they kept quiet. Their reserved attitude was attributed to them being afraid of not giving the ‘right answer’. Cultural norms in Singapore consider that there is one correct answer. Most times, people are afraid to speak up as they weigh the likelihood of the answer being ‘correct’ before they speak. Even when they are unsure of what the question is asking of them, they would rather remain mum than to ask further questions to clarify the matter. During such moments of silence, the facilitator took time to elaborate on what she was asking. She gave several examples or illustrated with parallel ideas so that the participants would feel less self-conscious and they would reply in a less guarded manner.

On occasions when the air-conditioning was particularly strong, the participants felt cold and expressed their discomfort. They were encouraged to step out of the room to warm themselves up a little or to put on a jacket or vest if they had one. The temperatures are controlled centrally (for the entire building) and one is unfortunately unable to regulate it independently. Some participants warmed themselves up by wearing a jacket, which they later passed on to a colleague who did not have one. Willingness to care for one another was demonstrated. Empathy and its display was seen within cohorts of participants.

It was noticeable in each cohort that individuals were looking out for one another. When speaking, they would turn to address their colleagues and in turn listen with intent when others spoke. Although some listened passively, there were a few who were more comfortable in entering the discussion in class. They either willingly added to what had been said or challenged it politely by giving another perspective. There was mutual respect demonstrated within the classroom. For those that were ending their shift, it was particularly challenging to stay engaged and alert, yet everyone managed to participate.

The inherent bonhomie in each group of participants was appreciable. Even during the moments when individuals shared about difficult experiences at work, more often than not they

would offer a cheerful quip or positive suggestion. When describing moments of deep desperation with a patient or a patient's family, they would often end up laughing. In a way, it was to shrug it off as being in the past and they would do better the next time they encountered a similar situation. It was not laughing to make light of the painful events that had occurred.

A proportion of participants articulated the fact that they felt that the facilitator of the empathy teaching had herself shown empathy towards her learners. They were grateful for the pauses and contemplative moments that were made available to them in class. Some commented that the facilitator had a calm and soothing voice. Openness and a sense of psychological safety was present. Comments were made about the body language of the facilitator – leaning forward towards the participants and moving slowly to face the person speaking to her in a composed manner. The facial muscles of the facilitator were not tense or threatening. The expression from the eyes were interpreted as showing that she was listening with intent and followed with a comforting gaze. Even the more reticent participants began to 'thaw' after the initial ten to fifteen minutes. There appeared to have been a palpable connection between the facilitator and the participants. Questions of a more personal nature were posed to the facilitator. She replied with honesty and tried to make sure that the response answered (in part, or fully) what was being asked.

The connection with the facilitator persisted after the teaching sessions were over. Emails were sent with what is believed to be authentic descriptions of their experience and how they have chosen to move forward with the new skills and personal reflection. Unplanned encounters at the workplace either in the lift or corridors led to deeper discussions about how the empathy teaching had affected how they think, what they feel, and how they work. They also expressed a wish for repeat sessions to be incorporated into their training and professional development needs programme. From observation, a relationship based on trust had been

established during the teaching session. That ‘aura’ of a trusting and trustful relationship made for more spontaneous and authentic exchanges thereafter.

The classroom was a live laboratory for myriad observations. As the principal investigator, I am also reminded of the fact that I may not be aware of my potential blind spots (I may only see what I want to see) in this sample of self-selected participants in healthcare. I am cognizant that the redaction of field notes is thus one person’s view of a particular situation or context. My involvement as facilitator in class as well as in the focus group discussions that ensued may have influenced the behaviour or reactions of the participants.

How I interpret data will be based on my perspective and experience. I will have to be attentive in reporting biases and personal preferences should they arise. My own awareness as a researcher has to be engaged in the work that I do. My assumptions, if any, should be clearly stated. The triple role as participant in the research environment, observer and interpreter of data may influence the results and findings.

My personalised empathetic responses to participants in my interaction with them throughout the study could also shape the data gathered and its subsequent interpretation. This is highly ‘socialized’ research and the outcomes will be consistent with the degree of my involvement in the research and the relationships that are formed with participants. Putting myself in participants’ shoes, seeing things from their perspective and displaying compassion whilst conducting research was something that I kept in the fore of my mind.

5.5. Stage 2: Data from Emails

Peripheral to data collection in the focus groups, 4 mails containing varied information were sent to me shortly after the teaching sessions (1 to 6 days after the teaching intervention). There was a certain ‘closeness’ demonstrated towards me (the researcher) in that the content

of the emails was personal. The main themes that emerged from the email correspondence were:

1. How they applied what they learnt to their work environment
2. How they transformed their interactions at home
3. Their experience of the teaching
4. Suggestions for improvement on the teaching of empathy

In the emails, the participants revealed that they found themselves to be more aware, or more self-aware, more forgiving, and accepting. A greater effort was made to be patient, attentive to the needs of patients, colleagues, and participants' own family members. There seem to have been minor, as well as significant transformations. One senior surgeon who trains junior physicians avowed that "It was very insightful... and helped access the Inner Man". It would appear that the post-session effects of the empathy teaching were of further reflection and self-searching.

A natural tendency for 'quickness in coming to conclusions' was shared. Our brains are wired to think in a specific way. Taking a step back to reevaluate our assumptions is not something we think of doing before reacting to what we see and hear. Imposing that 'healthy pause' and taking a step back to see and hear differently is a habit we need to reinforce.

Re-examining one's thoughts and ideas, especially about other people is not something one does automatically. It requires a conscious effort to do so. One participant shared how she had certain pre-conceived ideas about her boss and her child. There were some prejudices associated with her relationship with these persons and she noticed that she had been partial, biased, and judgmental.

She 'forced' herself to cultivate curiosity in her encounters with people around her. She sharpened her attunement with her willingness to listen, to notice non-verbal

communication, to hold space for others, and to simply be present for them and be fully with them. Her awareness of her feelings of anger and reactions were described:

“I was a quick-tempered person. Even though I have a kind heart, I suppose so, as I’ll cry when I watch touching movies and hear some heartwarming sharing. But, I always let my own anger have the upper hand when faced with circumstances not to my advantage and eventually hurting people with my words and actions”.

The participant tried to apply what she had learnt from the empathy teaching to resolving a difficult relationship with a colleague in a very senior position, and with the participant’s own adolescent son. The participant ended her email with a quote “The opposite of anger is not calmness, it’s Empathy” (attributed to Mehmet Oz). In this instance, empathy is perceived as the antidote to anger. Instead of punishing a ‘disobedient’ child, she chose to have a heart to heart talk with him. She discovered his reasons for behaving the way he did and saw the issue from his perspective. “I put myself in J’s shoes and offered him solutions. He accepted”.

Participants willingly shared ideas on how the teaching could have been improved. Recommendations for culturally similar or suitable videos with Asian actors for teaching empathy such as Korean hospital drama series, a Chinese dance performance with totally deaf dancers, Korean family saga and urban drama series were suggested – they all had real examples for teaching empathy within an Asian context. It was felt that similar (not at all identical) circumstances to the local Singapore culture would generate more interest in the topic. It was claimed by the participants that being able to identify ethnically with the protagonists in the videos was very helpful and lent authenticity to the learning experience.

In my email replies, I acknowledged their suggestions and spent a few hours going through some of the series in the link that they forwarded to me. Some of them were long and I have been thinking of creative ways to shorten and adapt the materials to my teaching. In my replies, I shared that training ourselves to be empathetic, also meant looking beyond our own

frames of reference. It is natural (as discussed earlier) to identify more easily with people who are like us, and thus feel closer to their needs. We tend to be kinder and more caring to 'our own kind'. The challenge lies in making the invisible visible i.e. teaching empathy by enhancing curiosity and creating situations in which empathy may not be overtly expressed. Being exposed to people that are very different from ourselves and observing how their lives are, may be key in promoting empathy.

The fact that the emails were sent to me about a week after the teaching session and focus group discussion meant that participants had been able to reflect and ponder over their whole learning experience. The clarity on how they viewed their earlier assumptions (of others and of situations) was expressed openly. From these electronic messages, it would appear that the reflective component for learning sustains and reinforces the initial teaching of empathy.

6. Discussion

The principal findings are:

- (i) Greater awareness, self-knowledge, connectedness
- (ii) Empathy is best gauged from multiple perspectives
- (iii) Not all patients want empathy
- (iv) Teaching empathy restores hope in humanistic care

Greater awareness, self-knowledge, connectedness

In our attempt to make visible the invisible, the main impact of the empathy teaching and reflective component post-teaching was greater awareness, self-knowledge and a feeling of connectedness. To the research question ‘what actually occurs during the learning experience’, the participants who underwent the empathy teaching felt they were more aware of being connected and were also able to identify situations where there was a lack of it. In cases where there was a lack of feeling connected, many reasons were given to explain the phenomenon. The reason that featured most prominently was the climate for medical education in the hospital or learning environment. It is not always conducive to the expression of empathy and a feeling of being connected with others.

A related unexpected finding was that the PGY1s in the test group assessed themselves more ‘harshly’ (than those in the control group) – the mean score of 3.6 is right in the middle of the 7-point Likert scale, whereby they neither agree nor disagree that they constantly display empathy whilst caring for their patients. We could infer that due to the greater awareness of the junior doctors after watching the video and engaging in reflective feedback, they are perhaps more ambivalent and are experiencing some doubt as to their capabilities of being consistently empathetic towards their patients.

In alignment with the Johari Window model (Bikker et al., 2014) presented on page 57, the increased knowledge to self and to others and corresponds to the upper left quadrant, *Open*

Arena. Learning and reflection helps improve this open arena area of the model. It strongly suggests that for the teaching of empathy to be successful, cognitive and meta-cognitive faculties of learners need to be engaged. That the connection between self and others is present in the open arena indicates that it is ‘visible’.

Empathy is best gauged from multiple perspectives

Paradoxically for the same PGY1s in the test group (that had a greater awareness and tended to assess themselves more harshly), their patients found them to be empathetic. With respect to the Johari Window model (Bikker et al., 2014), this corresponds to the upper right quadrant - *Blind Spot* – not known to self but known to others. Inference from the results suggests that using only physicians’ self-assessment of their own empathy is not sufficient. Patient involvement in evaluating their physician’s empathy is a source of useful data – contextual factors affect patient experience, which invariably influence patient perception of empathy. Recent findings by Bernardo, Cecilio-Fernandes, Costa, Quince, Costa and Carvalho-Filho (2018) claim that “time spent on consultation, time waiting for consultation, the general comfort of the environment, interactions with other health care professionals, the sense of the dignity, process of care, and the heuristic bias related to the act of paying for the consultations” (n.p.) could possibly influence patients’ perceptions.

For the purposes of medical education, it is vital that we include patients’ subjective experiences in assessing physician empathy, as well as the empathy levels of other members of the care team. For a patient-centred approach to care, empathy teaching should be dispensed to all healthcare professionals that work together in the clinical setting. Further research in teaching should look at a component of programme evaluation whereby patients’ (real or standardized) perception of empathy shown by their healthcare team is taken into consideration. It will help reduce the *Blind Spot* area in healthcare professionals.

Furthermore, in a meta-analysis of randomized control trials, patients' ratings of their physician's empathy were classified as objective whereas self-report measures were not (Teding Van Berkhout & Malouff, 2015). The findings supported the view that empathy training may lead to greater effects on objective measures (ability to accurately read and understand another person's emotions and also rate that translation into empathetic behaviour) than on self-report measures.

Empathy: not all patients want it

The finding that some patients accord less importance to empathy itself being an important healing factor in medical treatment could be explained. The notion of healing is closely associated with positive medical outcomes; empathy relates to the quality of doctor-patient interactions or the display of caring behavior and compassion, which may not necessarily guarantee healing in actual fact (Batson, Sager, Garts, Kang, Rubchinsky & Dawson, 1997). Similarly, some patients consult a doctor merely to obtain a medical certificate - the consultation is of a transactional nature. Some want a second or third opinion. It may be questionable whether an empathetic relationship with their doctor is of importance to them. The schematic diagram on page 34, Effect model of empathic communication in the clinical encounter (Neumann et al., 2009) illustrates long-term and short-term or intermediate benefits to patients. The study should be replicated in different cultural settings (non-European) to ascertain if there is, in effect, a category of patients that are not looking for empathic communication with their physician.

Futurist scenarios describing robots which are able to diagnose and devise a care plan for patients or simply deliver a medical certificate for patients may not be that far off. If the *robot doctor* is accurate, fast, and effective, patients may not care if their 'healthcare professional' displays empathy or not. Patients may value efficiency and precision over traditional empathetic care. Contrary to generalized belief in the literature, some patients

simply may not want their doctors to step into their shoes. This phenomenon, in effect, may be schematically represented by the bottom right hand quadrant on the Johari model (Bikker et al., 2014) – *Unknown* – not known to self and not known to others, remaining invisible.

Teaching empathy restores hope in humanistic care

Participants were able to relate to the teaching video and were sensitive to the messages conveyed. They were able to see through the protagonists' eyes and imagine their lives, as well as feel what they feel (creating emotional resonance or mirroring their emotions). A suggestion of adding culturally adapted material was taken into consideration and modifications made – it is believed that it could have an even greater impact on local learners.

In the teaching of empathy, the presence of empathetic interactions between teacher or facilitator and learners, as well as empathetic interactions between the learners is important. Empathy training seems to be more effective in a caring and benevolent environment. For the impact of empathy teaching to be sustained, PGY1s need to be exposed to training not just once, but repeatedly.

Although they felt that there are many challenges to their display of empathetic interactions in the workplace, they still saw the hospital as a place of hope – where humanistic care is primordial. There was evidence that experiential learning during the teaching of empathy in the classroom enhanced emotional (affect), behavioral, and moral empathy.

Expected findings

The expected findings were that heavy workload, the scarcity of time for patient care, and an over use of technology contributed to the inability of participants to display empathy in their professional interactions. This was in line with the literature described earlier. Furthermore, emotional labour and high demands on affect at the workplace also created challenges to the consistent expression of empathy. Unsurprisingly, the Hidden Curriculum in

the medical education environment was responsible for the paucity of empathetic care and of strong relationships.

The data revealing ‘inhospitable hospital’ factors (provoking negative emotions) may have affected the display of empathy were:

- Overly demanding workload and stressful environment
- Deeply entrenched hierarchy and large power distance
- Scolding
- Practice of paternalistic medicine
- Managerialism (management-centric rather than patient-centric practice)

Flattening hierarchy in the workplace and paying careful attention to how younger physicians are empowered to speak up without fear or apprehension or reprisals is essential. The idea of enacting psychological safety in the workplace is important. Scolding or humiliation of any form should be kept to a minimum. Data revealed that MOs were scolded by nurses and they just accepted it. Should such unpleasant situations occur, those responsible must make it a point to apologize and to refrain from repeating them. Juniors may reproduce such undesirable behaviour, or may opt to become detached, which will perpetuate the erosion of empathy.

Since the initiation of the study (based on preliminary findings), steps have been taken to modify culture, the curriculum, and processes to monitor juniors’ training on the ground. Sustaining and enhancing empathy in the clinical environment is seen as a priority for patient-centric care.

Changes and developments made in the practice setting (and with external stakeholders) at micro, meso, and macro levels include:

- (i) Engaging faculty to enact a more nurturing culture for trainees
- (ii) Holding regular feedback sessions with PGY1s and core faculty

- (iii) Conducting ongoing empathy teaching sessions
- (iv) Close collaboration with Ministry of Health (MOH) and other training institutions (SIs – sponsoring institutions) to ensure junior healthcare professionals' wellbeing
- (v) Deliberate resilience-building/wellness initiatives to reduce stress and burnout

Recommendations for the teaching of empathy

The challenge to make visible the invisible in empathy teaching is ongoing. Teaching for more empathetic physicians should encompass the following ten points that participants in our study found useful and that had impacted their learning in a positive way:

1. Include social learning: role play; interaction with co-learners/facilitator
2. Evoke cognitive and neural empathy: raise awareness of self and others through reflective practice; spark curiosity, imagination, perspective-taking; create emotional resonance
3. Make sense or be meaningful to the learners
4. Involve all members of healthcare teams
5. Be sustained (continuing medical education throughout their careers)
6. Be patient/person-centred and humane
7. Be facilitated with empathy
8. Be supported by leadership in medical education: in their emotional work; being given protected time for learning; providing a psychological safe work environment; ensuring a healthy and nurturing culture for clinicians
9. Be evaluated by trainers, peers, healthcare co-workers, as well as patients
10. Be culturally relevant to learners

Acknowledging the need for curricular change supporting the integration of teaching empathy is only part of the solution. Upon close inspection of the qualitative data, we managed to ascribe perceived barriers to empathic care to three things omnipresent in the workplace: technology, time pressure and administration. Thus, solutions need to be sought not only at an

organizational level, but at a systemic level (Cummings, 2013). Educators and hospital managers as well as leaders should coordinate their efforts to mitigate these barriers to empathetic care.

In response to the research questions, below is a summarized description of findings. Empathy is a connection (cognitive, affective, behavioral, moral) with others and a connection with self through self-awareness and self-knowledge. It should be gauged through self-assessment tools as well as third-party assessment tools. Evidence points towards assessment from patients, their families, and colleagues being more reliable than self-assessment alone. The concept of empathy, whilst being difficult to accurately define and thus gauge, is best appraised from mixed methods methodology to overcome the weaknesses in a single method approach.

6.1. Reflections on the quality of my research and reflexivity

The quality of my research, in essence, is reflected in

- i) how well the study answered the research questions I set for myself
- ii) what I did and what I could have done differently

This research undertaking is an exploration of method in teaching empathy. For the investigator (myself) to know the impact of the teaching, the invisible had to be made visible. Results were categorized broadly into 3 themes: Looking Outwards (how we connect with others), Looking Inwards (how we connect with ourselves, and Looking Forwards (how we interact at work). The Johari Window model (Bikker et al., 2014) was used as a framework to evaluate what is known and to whom it is known. The framework is versatile in a workplace setting as it recognizes perspectives and values that multiple professions come with.

In this study, there were different types and sources of data that needed to be integrated into a coherent whole. Unexpected results in the form of surprising data were seen as puzzles, and could be explained via the abductive approach which enabled me to reconcile both

numerical and non-numerical reasoning (Schvaneveldt & Cohen, 2010). Sometimes more than one ‘best’ explanation is given – there is room for multiple truths under the aegis of pragmatism.

Pragmatism was the underpinning philosophy chosen as it facilitates social progress. From this study, the questions answered about empathy in the workplace, enabled practical changes to be made to the environment, to the curriculum and to the teaching of empathy (pedagogy). These improvements to medical education in turn have fostered changes for more patient-centred care.

A strength of the study is its mixed methods design. Data was collected from multiple sources and used different modalities (JSPE, JSPPE, reflective feedback, focus group discussions, field notes, and email correspondences).

I would like to present some critique: for the quantitative collection of data, instead of using the JSPE and JSPPE scales, I could have selected the CARE approach. The CARE (Consultation and Relational Empathy) approach is more flexible as it is a framework for multidisciplinary care that is focused on patient-centredness. The 10-item CARE self-rating tool has another advantage because it has two essential questions on evaluating the healthcare practitioner’s skills in advocacy for patient autonomy: “helping them take control” and “making a plan of action with them” (Fitzgerald et al., 2014, n.p.). Upholding patient autonomy is a team approach and the CARE approach facilitates interpersonal relationships between individual team members as well as across different disciplines, facilities and settings. Gauging and measuring these patient-centred aspects of empathetic care by healthcare workers from different job groups in more than a single site for the study could yield different results.

More academic rigour in conducting research on a larger sample by including PGY1s from other hospitals both for statistical significance between the test and control groups (when

comparing paired t-test mean scores) and for generalizability. Such changes to design and methods would improve on the quality of the study.

Focus groups discussions were chosen to gather qualitative data for this mixed methods study. An alternative would have been to collect data via individual interviews. The reason I did not chose that method was that I found focus groups to be a quicker and therefore more efficient standardized way of collecting data from 37 participants. Focus groups as a data collection method is rarely used in isolation. It is used for gauging perceptions, beliefs, values. Through this approach one is able to interact with participants in order to probe more deeply concerning the why and how research questions – the participants' learning experience and how the teaching had impacted them were revealed during these sessions. Valuable data with regards to body language, facial expressions (or lack of them) were noted. Similarities and dynamics within each of the groups were documented.

With hindsight, although the focus groups were generally small (rarely exceeding 7 participants), the selection of participants could have been done slightly differently. Nurses in a hospital are the largest group of healthcare workers – I could have designed it such that there are proportionately more nurses distributed in each sample group rather than leave it to chance. One of the shortcomings of using focus groups to collect data is when participants are quiet or reticent; it is harder to obtain relevant data and one may need more time and more skill. Participants may feel pressured or experience discomfort, either with regards the facilitator's questions or answering in the presence of peers and other participants. Even for an experienced facilitator, it is hard to be consistent with each group. Although I tried to keep time consistently for all the topics for discussion in all five groups, I may have strayed. Furthermore, no two groups are identical. Since the participants were self-selected, some groups are more homogenous whilst others may be heterogenous. This may affect the quality of data and the accuracy of inferences made.

A possible way of overcoming a reticence of speaking freely in a focus group discussion is to use technology enhanced means for web conferencing. The facilitator can see the interviewees and they can in turn see the interviewer, but it can be 'filtered' such that the participants cannot see one another. However, voices are recognizable and true anonymity cannot be guaranteed. However, the fact that the discussion is done remotely rather than face-to-face may reduce anxiety in participants. Leveraging on technology for a solution, in video conferencing software there is a modality that allows for instant/real-time messaging between participants and the facilitator. This two-way messaging capability is highly interactive in nature and remains confidential in that participants can be de-identified in the messages. These sessions can be recorded and stored, to be retrieved later for transcription purposes.

Another thing I would do differently is to give the set of questions to be discussed at the focus group sessions to the participants beforehand so that they come prepared. This would offer them time for thought and reflection for some of the answers that rely on deeper thinking. At the same time, I wish to avoid scripted or contrived responses. I would prepare some activities or games to serve as ice-breakers before initiating the discussion proper. Such interactions could be a precursor to more authentic input/feedback and greater ease of execution. Adults from very different job groups - nursing, medicine, allied health – who find themselves 'thrown together' in a classroom could otherwise experience some difficulty in sharing their thoughts freely.

I am a prominent member of staff in my organization and being the principal investigator, it is possible that my presence could have influenced the data that was gathered. For the sake of academic robustness, a social scientist who is external to the organization could be invited to repeat the study in order to control for inequality of power which may affect the data collected. An independent set of values, beliefs, and assumptions from the external researcher could enrich the analysis and interpretation of the results and offer new

knowledge from a different perspective. Abductive reasoning from the ground up through a more neutral set of lenses may provide a ‘best explanation’ that is a variant from my ‘best explanation.’

6.2. Biases, Limitations, Scope for further research

One limitation is that that the study was not a longitudinal investigation carried out throughout residency training. Benbassat and Baomal (2004) confirm that formal empathy enhancement efforts in residency education was able to sustain empathy over 6 months but could not ascertain if empathy was sustained throughout their years of medical practice. Critics may refute the fact that empathy can be taught, arguing instead that it is imbibed vicariously over time and with experience. Irrespective of whether there are one, two or multiple factors affecting the ‘learning’ and display of empathy, there is no doubt that its loss or depletion must be curbed.

Another limitation is that the patients assessing the cohort of PGY1s before and after the teaching intervention are not the same. Greater subjectivity in patients’ assessments of physicians using the JSPPPE cannot be ignored. Furthermore, patients in acute care are generally sicker than their counterparts in primary care. They may tend to be more ‘forgiving’ or ‘lenient’ in their evaluation of empathic care. It would be good to carry out the study in an outpatient setting (clinics or primary care) whereby patients’ conditions are less serious and they tend to have higher expectations or are more demanding in general. Measuring empathic care in repeat visits to GPs, or longer-term patient-doctor relationships as seen in chronic care, home care or hospice facilities rather than short-term acute care would be complementary to the knowledge generated from the current research.

The JSPE is a self-report tool. Researchers have highlighted that self-assessments are susceptible to social desirability bias, where participants willingly (or subconsciously) paint

their abilities and/or attitudes in a much better light than they actually are in reality (Psychology Concepts, n.d.). The Hawthorne effect may have been responsible in part for the trend in scores being different from expectations (McCambridge, Wilton & Elbourne, 2014). It has been documented that research participants who are aware that they are the target of study may subconsciously display altered behaviours temporarily.

It could be argued that the impact of empathy teaching itself is negligible. The improvement in PGY1 empathy scores in the test group could be attributed to them having been in post-graduate training for 8 weeks (since the beginning of their posting) where they have gained insight and have experienced patient care firsthand (Balmer, Richards & Varpio, 2015). They are therefore more inclined to give themselves a score which reflects a greater agreement with their continued display of empathy for their patients.

Statistical findings from Stage 1 were inconclusive due to the study of a single cohort that was not repeated over time (due to trainee logistic constraints). However, upon analysis, the qualitative data from Stage 1 was found to corroborate data from Stage 2. Future studies should go beyond measuring empathy using descriptive statistics by including a qualitative component.

7. Conclusion

Reflective practice is lacking in current medical education curricula; I highly recommend its inclusion to raise physicians' awareness of themselves, of their practice, and of their interactions with colleagues. After the empathy teaching, it was noted that participants were better able to appreciate their thoughts, emotions, and actions. Exploring the subject of empathy and reflecting on their own behaviour allowed them to make the changes they felt were necessary.

Stress and well-being are associated with physician empathy. Researchers should further investigate how this nascent understanding regarding the psycho-social determinants of physician empathy could be developed in order to promote empathetic practice. The nefarious effects of emotional labour could be curbed by introducing self-care and resilience-building initiatives. Making space for empathy, that is, fostering reflection and removing the above-mentioned challenges, allows for making visible the invisible – empathetic practice. In measuring empathy, researchers should not only rely on self-reports; gauging empathy from multiple perspectives is a method that gives more accurate data.

In summary, for educators to note in teaching empathy: developing cognitive capabilities (awareness of self and of others, curiosity, imagination, perspective-taking); creating emotional resonance (neuroscience of empathy); building resilience and strengthening coping mechanisms; devising meaningful and culturally appropriate strategies (role play, class discussions); fostering reflective practice; facilitating or teaching with empathy. In the clinical environment, factors that may hamper the learning and expression of empathy are the Hidden Curriculum, excessive emotional labour, managerialism (that often detracts from patient-centred care), stressors due to heavy workload, time pressure, and inappropriate use of technology. Supportive and nurturing faculty, colleagues and peers are needed throughout junior doctors' training and residency. In medical education, the

effectiveness of empathy teaching is best evaluated from the perspectives of patients, peers, and colleagues.

Weinberg (1995) describes his life-changing experience of having helped a patient, a victim of rape who had suffered years in silence, by listening with intent:

“I had been chosen to receive a gift of trust, and of all the gifts I had ever received, none seemed as precious. That afternoon, I left the clinic feeling exhilarated and full of love for my profession” (p. 805).

Whilst in training, it is vital that junior doctors experience the joys of purpose, fulfilment, excitement for discovery, and love for their profession.

The implications of this research are transferable to other clinical environments – helpful to managers of GP or ambulatory clinics, maternities, abortion clinics, rehabilitation centres, nursing homes, hospices, daycare centres for the elderly and disability centres, for example. I see further potential in its relevance and applicability to funeral homes and cremation facilities. On one or on several occasions, we will face disease, disability and death, as well as good health, vigour and birth. I would like to advocate a nurturing, supportive, compassionate and forgiving climate for medical education. In spite of societal expectations for doctors to be superhuman, junior doctors as well as other healthcare professionals would thrive in a psychologically safe work setting (Kalanithi, 2016).

Whilst personality traits determine our natural empathy, empathetic practice is a skill that can be enhanced. In so doing, we attempt to make the invisible visible. Adopting Carol Dweck’s (2015) Growth Mindset theory, empathy is an infinite resource and it is a renewable resource.

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Appendices

APPENDIX A – JSPE

JSPE (adapted for Singapore PGY1s, with author's permission, 2015.)

1. An important component of the relationship with my patients is my understanding of the emotional status of the patients and their families.
2. I try to understand what is going on in my patients' minds by paying attention to their nonverbal cues and body language.
3. I believe that empathy is an important therapeutic factor in medical treatment.
4. Empathy is a therapeutic skill without which my success as a physician would be limited.
5. My understanding of my patients' feelings gives them a sense of validation that is therapeutic in its own right.
6. My patients feel better when I understand their feelings.
7. I consider understanding my patients' body language as important as verbal communication in physician-patient relationships.
8. I try to imagine myself in my patients' shoes when providing care to them.
9. I have a good sense of humor, which I think contributes to a better clinical outcome.
10. I try to think like my patients in order to render better care.
11. Patients' illnesses can be cured only by medical treatment; therefore, affectional ties to my patients cannot have a significant place in this endeavor.
12. Attentiveness to my patients' personal experiences is irrelevant to treatment effectiveness
13. I try not to pay attention to my patients' emotions in interviewing and history taking.
14. I believe that emotion has no place in the treatment of medical illness.

15. I do not allow myself to be touched by intense emotional relationships among my patients and their family members.
16. My understanding of how my patients and their families feel is an irrelevant factor in medical treatment
17. I do not enjoy reading nonmedical literature or experiencing the arts.
18. I consider asking patients about what is happening in their lives an unimportant factor in understanding their physical complaints.
19. It is difficult for me to view things from my patients' perspectives.
20. Because people are different, it is almost impossible for me to see things from my patients' perspectives.

Additional General question not from original JSPE

Empathy is an ability to be able to understand and/or feel another individual's concerns, pains or suffering.

21. I believe that I constantly display empathy in my interaction with the patients under my care

APPENDIX B - JSPPPE

JSPPPE (adapted for Singapore PGY1s, 2015)

1. Can view things from my perspective (see things as I see them).
2. Asks about what is happening in my daily life.
3. Seems concerned about me and my family.
4. Understands my emotions, feelings and concerns.
5. Is an understanding doctor.
6. I believe that empathy is an important healing factor in medical treatment
7. Doctor showed empathy during our interactions during this admission

APPENDIX C

Post video screening questions

Thank you for watching the video on Empathy. Here are some ideas for reflection and we look forward to your replies.

- 1) Highly Empathetic Persons have several distinctive traits. One of them is they cultivate curiosity. Ask yourself how you could cultivate your curiosity?
- 2) “Get into extreme sport” is a about trying out someone else’s life out for real. Think of a person who has had a stroke, suffered loss of a loved one, is paralysed or undergoing dialysis daily. Put yourself in his/her shoes. How would you like your doctor or caregiver to treat you?
- 3) Have you ever encountered a colleague in distress or in trouble? Did you try to help him or her? Was the outcome positive after your intervention?
- 4) Could you share an experience of how technology may have come in the way of your empathetic practice of medicine?
- 5) Have you ever had to break bad news at work or in a non-professional context? How did it go? How would you have done it differently if you could?
- 6) Take a look at 3 out of 6 of the ACGME Core Competencies in bold below.

Patient Care requires residents/fellows to demonstrate their abilities in providing patient care that is compassionate, appropriate and effective for the treatment of health problems and the program of health, and as further specified by the ACGME Residency Review Committee.

Professionalism

- Compassion, integrity, and respect for others;
- Responsiveness to patient needs that supersedes self-interest;

- Respect for patient privacy and autonomy;
- Accountability to patients, society and the profession;
- Sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation.

Interpersonal skills and communication

- Communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds;
- Communicate effectively with physicians, other health professionals, and health related agencies;
- Work effectively as a member or leader of a health care team or other professional group;
- Act in a consultative role to other physicians and health professions, and health related agencies;
- Act in a consultative role to other physicians and health professionals; and
- Maintain comprehensive, timely and legible medical records, if applicable.

What would you do differently tomorrow to be more empathetic/compassionate in order to adhere to the core competencies required of you?

APPENDIX D – 2 tables

On the following page is a presentation of descriptive statistics using IBM SPSS (Version 22). Table 2 shows mean scores (paired t-test, $p < 0.05$) for baseline and post-test for the PGY1s in the control and intervention groups. The figures relating to the control group are featured in bold (normal font for the control group).

Table 2. JSPE mean scores for Baseline and Post-test (Control and intervention groups)

1 = Strongly Agree, 7 = Strongly Disagree

JSPE: Jefferson Scale for Physician Empathy	Baseline		Post-test	
	N	Mean	N	Mean
N in bold = Intervention group				
JSPE Question 1 An important component of the relationship with my patients is my understanding of the emotional status of the patients and their families	11	3.45	6	1.83
	10	3.30	5	2.60
JSPE Question 2 I try to understand what is going on in my patients' minds by paying attention to their nonverbal cues and body language	11	3.91	6	2.00
	10	2.80	5	3.00
JSPE Question 3 I believe that empathy is an important therapeutic factor in medical treatment	11	3.36	6	1.67
	10	2.60	5	2.40
JSPE Question 4 Empathy is a therapeutic skill without which my success as a physician would be limited	11	3.36	6	1.33
	10	2.80	5	2.60
JSPE Question 5 My understanding of my patients' feelings gives them a sense of validation that is therapeutic in its own right	11	3.55	6	1.83
	10	3.00	5	3.20
	11	3.55	6	1.67

JSPE Question 6				
My patients feel better when I understand their feelings.	10	2.50	5	3.00
JSPE Question 7	11	3.55	6	2.00
I consider understanding my patients' body language as important as verbal communication in physician-patient relationships.	10	3.10	5	2.80
JSPE Question 8	11	3.91	6	2.33
I try to imagine myself in my patients' shoes when providing care to them.	10	3.40	5	3.60
JSPE Question 9	11	4.55	6	2.50
I have a good sense of humour, which I think contributes to a better clinical outcome.	10	4.30	5	4.20
JSPE Question 10	11	3.64	6	3.17
I try to think like my patients in order to render better care.	10	4.20	5	3.20
JSPE Question 11	11	4.55	6	4.50
Patients' illnesses can be cured only by medical treatment; therefore, affectional ties to my patients cannot have a significant place in this endeavor.	10	5.90	5	5.40
JSPE Question 12	11	4.55	6	5.17
Attentiveness to my patients' personal experiences is irrelevant to treatment effectiveness	10	5.00	5	5.40
JSPE Question 13	11	4.27	6	5.33
I try not to pay attention to my patients' emotions in interviewing and history taking.	10	5.10	5	4.60
JSPE Question 14	11	4.18	6	5.50
I believe that emotion has no place in the treatment of medical illness.	10	5.30	5	5.20
JSPE Question 15	11	3.73	6	4.50

I do not allow myself to be touched by intense emotional relationships among my patients and their family members	10	4.60	5	5.00
JSPE Question 16 My understanding of how my patients and their families feel is an irrelevant factor in medical treatment	11	4.45	6	5.50
	10	5.40	5	5.60
JSPE Question 17 I do not enjoy reading nonmedical literature or experiencing the arts.	11	4.73	6	5.67
	10	5.70	5	6.00
JSPE Question 18 I consider asking patients about what is happening in their lives an unimportant factor in understanding their physical complaints.	11	4.18	6	4.33
	10	4.90	5	5.60
JSPE Question 19 It is difficult for me to view things from my patients' perspectives.	11	4.45	6	5.33
	10	4.90	5	4.20
JSPE Question 20 Because people are different, it is almost impossible for me to see things from my patients' perspectives.	11	4.36	6	5.00
	10	5.00	5	5.20
JSPE Question 21 21. Doctor showed empathy during our interactions during this admission	11	3.55	6	2.17
	10	3.30	5	3.60

Note: The t-test is a way of mathematically assessing if the two means pre and post-test/post-intervention are significantly different ($p < 0.05$).

Table 3. JSPPPE mean scores for Baseline and Post-test (Control and intervention groups)

1 = strongly disagree; 7= strongly agree

JSPPPE: Jefferson Scale for Patient Perception of Physician Empathy	Baseline		Post-test	
	N	Mean	N	Mean
N in bold = Intervention group				
JSPE Question 1 Can view things from my perspective (see things as I see them)	11 10	5.00 5.10	6 5	4.92 5.50
JSPE Question 2 Asks about what is happening in my daily life.	11 10	4.18 4.50	6 5	5.15 5.13
JSPE Question 3 Seems concerned about me and my family.	11 10	4.64 5.00	6 5	4.54 5.25
JSPE Question 4 Understands my emotions, feelings and concerns.	11 10	4.64 5.50	6 5	4.92 5.13
JSPE Question 5 Is an understanding doctor	11 10	5.27 6.00	6 5	5.69 6.00
JSPE Question 6 I believe that empathy is an important healing factor in medical treatment	11 10	6.36 6.60	6 5	6.15 6.25
JSPE Question 7 Doctor showed empathy during our interactions during this admission	11 10	5.55 5.80	6 5	5.67 6.00

APPENDIX E – 2 graphs

Fig. 3. JSPE mean scores for Baseline and Post-test (Control and intervention groups)

Fig. 4. JSPPPE mean scores for Baseline and Post-test (Control and intervention groups)

JSPE

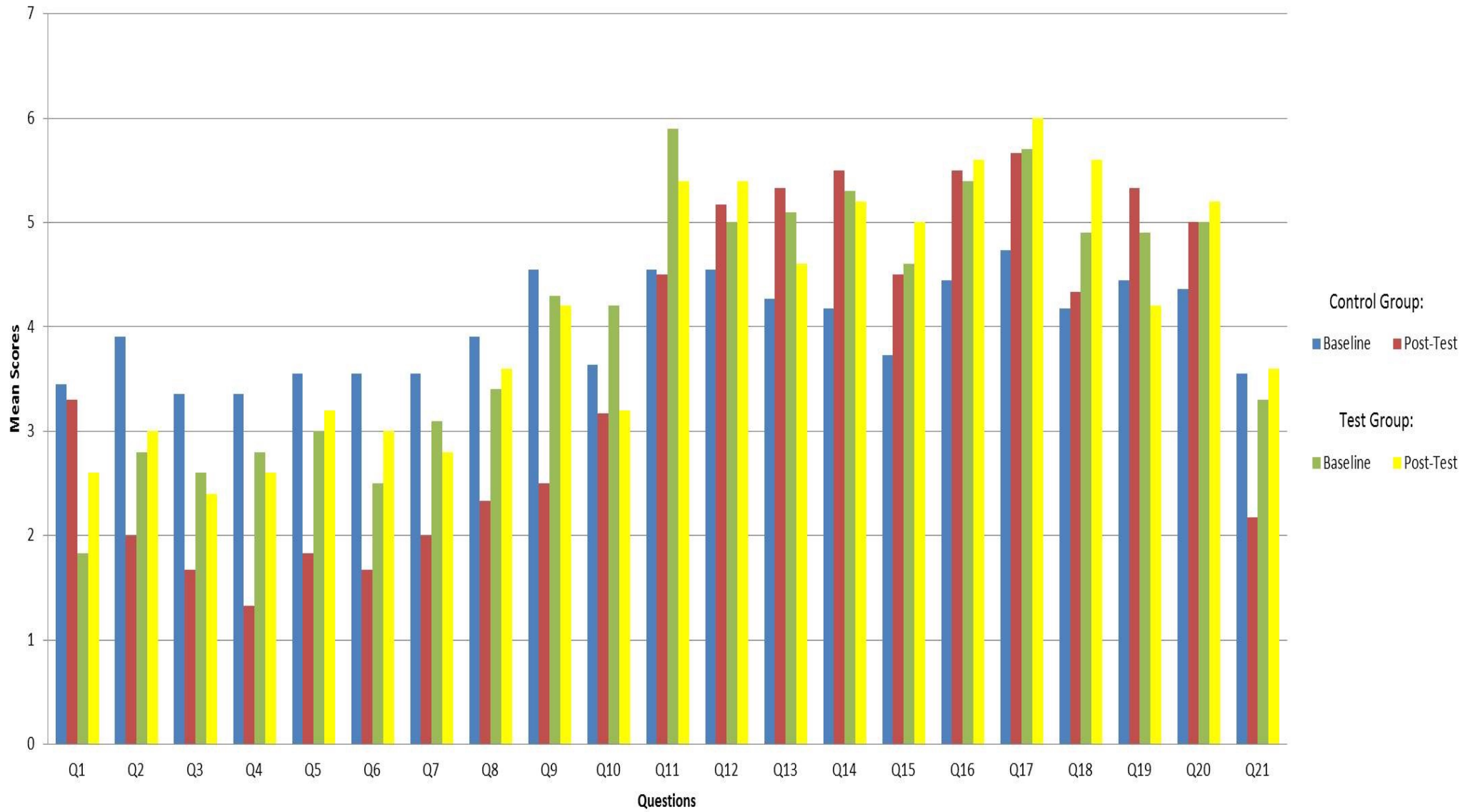


Fig. 3. JSPE mean scores for Baseline and Post-test (Control and intervention groups)

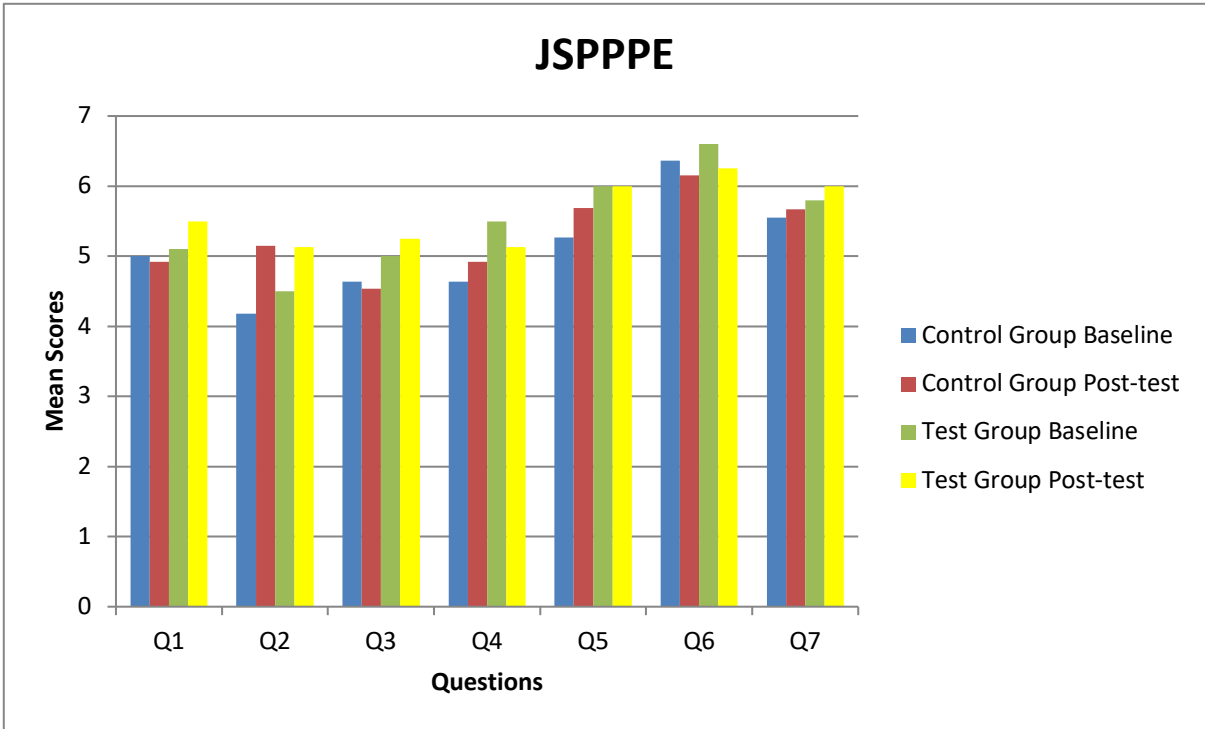


Fig. 4. JSPPE mean scores for Baseline and Post-test (Control and intervention groups)



Dear Maleena

I am pleased to inform you that the EdD. Virtual Programme Research Ethics Committee (VPREC) has approved your application for ethical approval for your study. Details and conditions of the approval can be found below.

Sub-Committee: EdD. Virtual Programme Research Ethics Committee (VPREC)
 Review type: Expedited
 PI:
 School: Lifelong Learning
 Title:
 First Reviewer: Prof. Morag A. Gray
 Second Reviewer: Dr. Marco Ferreira
 Dr. Baaska Anderson; Dr. Lucilla Crosta; Dr.
 Other members of the Peter Kahn; Dr Viola Manokore; Dr. Carol Ray
 Committee Philips
 Date of Approval: 3rd March 2015

The application was APPROVED subject to the following conditions:

Conditions

1	Mandatory	M: All serious adverse events must be reported to the VPREC within 24 hours of their occurrence, via the EdD Thesis Primary Supervisor.
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This approval applies for the duration of the research. If it is proposed to extend the duration of the study as specified in the application form, the Sub-Committee should be notified. If it is proposed to make an amendment to the research, you should notify the Sub-Committee by following the Notice of Amendment procedure outlined at <http://www.liv.ac.uk/media/livacuk/researchethics/notice%20of%20amendment.doc>.

Where your research includes elements that are not conducted in the UK, approval to proceed is further conditional upon a thorough risk assessment of the site and local permission to carry out the research, including, where such a body exists, local research ethics committee approval. No documentation of local permission is required (a) if the researcher will simply be asking organizations to distribute research invitations on the researcher's behalf, or (b) if the researcher is using only public means to identify/contact participants. When medical, educational, or business records are analysed or used to identify potential research participants, the site needs to explicitly approve access to data for research purposes (even if the researcher normally has access to that data to perform his or her job).

Please note that the approval to proceed depends also on research proposal approval.

Kind regards,

Morag Gray

Chair, EdD. VPREC