

Educational Perspective

Empathy, emotional intelligence and interprofessional skills in healthcare education

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ABSTRACT

According to the World Health Organization (WHO), health professionals maintain the health of citizens through evidence-based medicine and caring. Students enrolled in health professional programmes are required to have successfully attained all core learning outcomes by reaching key milestones throughout the course of their studies, demonstrating they have developed the required graduate skills and attributes upon completion of the programme. While some of the knowledge, skills and competencies that make up these learning outcomes are very discipline specific, there are more general professional skills across all disciplines which are difficult to define, such as empathy, emotional intelligence and interprofessional skills. These are at the heart of all health professional programmes that once defined, can be mapped through curricula and further evaluated.

Literature will be presented on these three professional skills: empathy, emotional intelligence, and interprofessional skills, based on studies that focussed primarily in health professional programmes and highlight some of the key findings and issues at undergraduate and postgraduate levels. The paper will present the need for these skills to be defined and then mapped through curricula so that students are better supported in their professional development. Empathy, emotional intelligence and interprofessional skills transcend the discipline specific skills and as such it is important that all educators consider how best these may be fostered. Efforts should also be made to further the integration of these professional skills within curricula to pro-

duce health professionals with an enhanced focus on person-centred care.

RÉSUMÉ

Selon l'Organisation mondiale de la santé (OMS), les professionnels de la santé préservent la santé des citoyens grâce à une médecine et à des soins fondés sur des preuves. Les étudiants inscrits dans des programmes professionnels de santé doivent avoir atteint tous les résultats d'apprentissage de base en franchissant des étapes clés tout au long de leurs études, démontrant ainsi qu'ils ont développé les compétences et attributs requis à la fin du programme. Alors que certaines des connaissances, aptitudes et compétences qui constituent ces résultats d'apprentissage sont très spécifiques à une discipline, il existe des aptitudes professionnelles plus générales dans toutes les disciplines qui sont difficiles à définir, comme l'empathie, l'intelligence émotionnelle et les compétences interprofessionnelles. Ces compétences sont au cœur de tous les programmes professionnels de santé qui, une fois définies, peuvent être mises en correspondance avec les programmes d'études et évaluées. La littérature sera présentée sur ces trois compétences professionnelles: l'empathie, l'intelligence émotionnelle et les compétences interprofessionnelles, en se basant sur des études qui se sont principalement concentrées sur les programmes professionnels de santé et en soulignant certains des principaux résultats et problèmes au niveau du premier cycle et du troisième cycle. L'article présentera la

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nécessité de définir ces compétences, puis de les intégrer dans les programmes d'études afin que les étudiants soient mieux soutenus dans leur développement professionnel. L'empathie, l'intelligence émotionnelle et les compétences interprofessionnelles transcendent les compétences spécifiques à une discipline et, à ce titre, il est important que tous

les éducateurs réfléchissent à la meilleure façon de les encourager. Des efforts devraient également être faits pour intégrer davantage ces compétences professionnelles dans les programmes d'études afin de former des professionnels de la santé qui mettent davantage l'accent sur les soins centrés sur la personne.

Taxonomy and keywords: Education; Empathy; Emotional intelligence; Health professions; Interprofessional skills; Professionalism

Background

Professionalism in an academic context refers to *“an individual's adherence to a set of standards, code of conduct or collection of qualities that characterize accepted practice within a particular area of activity”* [1]. In healthcare however, professionalism focuses on competencies, or more broadly, elements that can be taught, developed, measured, and assessed [2]. *Success at a professional level requires that graduates are capable of being professionally competent, which according to Epstein and Hundert is defined as “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 the community being served”* [3].

In the last couple of decades, much innovation in the area of healthcare has materialised through collaboration of healthcare providers, together with experts in Science, Technology, Engineering, and Mathematics (STEM) disciplines, as part of interprofessional teams [4]. Moreover, Kirch and Ast suggest that a prerequisite for high quality patient care is interprofessional collaboration [5]. Lamb et al. [6] propose that seven domains of interprofessional competency are needed to combine the knowledge and skills of these diverse professionals. In order for healthcare professional to master those domains they need to possess a certain level of EI and interpersonal skills [5].

Hojat et al.'s studies have identified empathy and teamwork as the pillars of interpersonal skills and an understanding of other people's needs in patient care. They also found that collaborative skills (e.g., communication skills) may be linked to an individual's level of EI [7]. Based on Luca and Tarricone's theoretical framework [8], there may be an association between EI and empathy with teamwork skills [9]. Moreover, empathy is positively correlated with EI in certain healthcare professions that have been studied, namely social workers [10,11].

It would be prudent, before delving into the relevant literature, to provide the reader with the definitions of empathy, EI, and interprofessional skills. Empathy is defined as *“the human ability to put oneself in the place of another in order to better understand what that other person feels or thinks.”* and in the health professions involves *“recognizing signs and patterns from patient cues”* [12,13]. It is an attribute that facilitates understanding of both physical and emotional situations.

EI was initially referred to as an ability which involves not only the evaluation and management of emotions but also the capacity of a person to have an appropriate emotional response

to others [14]. It is seen as a set of traits and abilities that predict emotional and social adaptation within environments [16]; a type of social intelligence [15,16]. This is captured in the Bar-On definition of EI as a *“cross-section of interrelated emotional and social competencies, skills and facilitators that determine how effectively we understand and express ourselves, understand others, relate with them, and cope with daily demands”* [15]. Others see EI as a mental ability that can also be viewed as a set of skills such as understanding and awareness, along with coping mechanisms, and tools with which to be resilient about, and be able to respond to, difficult situations and tackle tough decisions [17,18].

Interprofessional skills are strongly linked to interprofessional teamworking and are defined by the Interprofessional Education Collaborative as *“the levels of cooperation, coordination and collaboration characterizing the relationships between professions in delivering patient-centered care”* [19]. They are also linked to lifelong interprofessional learning (IPL), when students, or professionals, from two or more professions learn about, from, and with each other to enable effective collaboration and improve health outcomes [19,20].

From the definitions above it stands to reason then that there is a need for awareness and training in skill sets linked to empathy, EI, and interprofessional teamworking. Flowers et al. suggest that this need accounts for the increasing availability of EI skills training in medical centres [9]. The authors deliver such training workshops and hypothesise that they lead to an increase in EI, empathy, teamwork skills, and positive attitude toward interprofessional education.

This paper will initially explore the definitions of key skills to the professional growth of health science professionals, namely empathy, EI, and interprofessional skills. It will then explore how these skills are addressed in undergraduate education across different health science disciplines.

Methods

A search was undertaken through a Google Scholar search, using the three skills as the main element of the keywords. The inclusion criteria were: English language material; timeframe of last two decades (two thirds of the material on these topics is from the 2010s onwards); reporting on health sciences; focusing on undergraduate cohorts; mentions of the skills in curricula. For the synthesis of the collected evidence, we considered a scoping review as the most appropriate methodology

since we were aiming to clarify concepts and to contextualise information on those same concepts [21].

Discussion

Empathy

A healthcare professional's success in the practical aspect of his/her career requires a good foundation of professional skills that would be regarded in the literature as invaluable to possess, such as empathy [22,23]. Literature suggests across nursing, medicine, dentistry and social work, empathy leads to patients' increased compliance with and adherence to treatments [24–26], increased satisfaction [26–28]. Empathy improves staff's working relationships with patients and peers [25,29]; increases reflective ability [27,30,31]; and reduces the risk for staff burnout and work-related conflicts [27,28]. Empathy is also positively associated with reduced anxiety [26], and with EI [10,11] and emotional regulation [29].

The literature suggests that empathy is of particular value because it allows for a more client-centred approach towards patients. For occupational therapists, this approach allows them to pursue what are meaningful occupational and therapeutic outcomes [30]. Such links between empathy and a patient-centred approach are also echoed in the radiography literature. Aweidha et al. [31] discuss the links between empathy and a patient-centred approach to the imaging of obese patients and describe the dominance of an “image-focused” approach over a “patient-focused” approach. Participating radiographers cited concerns over image quality, together with blame and frustration, ahead of empathy to the patients. Indeed, the negative influence that attitudes of qualified / senior radiographers have on the empathy and attitudes of student radiographers has been identified [32]. In radiotherapy, empathy and “empathic attention” have been identified among the many successful interventions for improving patient comfort during radiotherapy, allowing patients to endure a fixed position for longer [33]. It is also clear that radiographers place a value on an empathetic approach to their communications and interactions with patients as it enhances the patient experience and can also optimise examinations or treatments [34,35].

In the health professions, studies have found women to be more empathetic than men [22,36,37]. Motherhood also plays a crucial role in the socialisation of women, and their tendency to be more sensitive to interpersonal stimuli and being more polite [22]. This may manifest in awareness of, and appropriate response to, emotional signals expressed by patients.

Studies have identified that empathy decreases with age [38] and decreases over a health professional's and student's clinical practice [36,39]. It would be of value to highlight at this point factors that affect empathy among healthcare undergraduate students from a range of studies carried out in the last fifteen years. According to the literature, empathy in medical students declined in the third year of training [40,41], and empathy in dental students decreased similarly in the second year of dental training [42]. Nunes et al. observed in their study a decline in the mean empathy scores among all health disciplines

that they sampled (i.e., dental, nursing, pharmacy, physicians, speech therapists and veterinary medicine students) after completion of the first academic year. While nursing and dental students started with the highest empathy scores, they also demonstrated a significant decline in their scores as their studies progressed [43]. Pharmacy [44] and veterinary medicine [45] students were found on the other hand to have the lowest empathy scores on entering the first year of training, with little change in their empathy scores on completion of the first year. This suggests that the factors that affect the empathy decline in nursing, dental and medical students may not be applicable to these two groups. Sherman and Cramer in their cross-sectional survey of dental students commented that the empathy scores obtained by dental students were comparable to those of psychiatry residents [42].

A study by McKenna et al. found that the mean empathy scores of undergraduate midwifery students was somewhat lower than the mean empathy reported in other studies using the Jefferson Scale of Physician Empathy for Health Professionals (JSPE-HP) [46]. For instance, nurses were found to have a higher JSPE-HP score [47,48]. However, McKenna et al. note that the results of their study would have compared favourably to the results of these other studies if the participants in first year, who recorded low empathy scores, were removed from the sample [46]. According to the authors, this could be attributed to the fact that first year students would not have undertaken any midwifery clinical experience; this commences in the second year, at which point they would have contact with women in the clinical setting resulting in the increased empathy levels recorded.

In nursing, the decline in empathy has been attributed to among other factors, fear of making mistakes, negative interactions with other health professionals and time pressure [49]. Amongst social workers, empathy is limited due to daily stress, that is a risk factor for burnout and compassion fatigue [29]. Michalec has suggested that medical students ‘shed’ empathy as an adaptive response to school specific stressors such as workload, financial constraints, and perceived mistreatment [50]. In their study exploring the prevalence of compassion, fatigue, and burnout in radiation therapists, Sarra and Feuz [51] describe the impact of workload, and the increased pace of the clinical environment, on stress levels, empathy declines, and decreased productivity.

In considering changes in empathy over the course of a students' progress through their studies, a cautious approach must be taken, and one should not rely on a single measure of empathy alone. A triangulation of validated scores, self-reports, peer assessment, and patient perceptions, together with geo-social and cultural considerations, must all be considered to give a true insight into how significant any observed changes in empathy may be [52,53].

Emotional intelligence (EI)

The second professional skills that is considered important for a career in the health professions is EI. EI is closely linked

with the provision of quality psychological, emotional, and physiological care to patients by healthcare professionals [54]. This more holistic approach to health care can be positively associated with empathy [55], social support [56], resilience [57], and negatively associated with burnout [58]. These can directly or indirectly help sustain the caring behaviour of health professionals and thus lead to increased levels of EI [59].

Higher levels of EI have also been linked to self-compassion [60] and job satisfaction [55,61], whilst lower EI levels are linked to increased stress [62]. The implication of high EI skill levels is more positive outcomes in the client-professional interaction. Therefore, EI is valued in healthcare professions because of its relevance to interactions and patient needs [63]. This could have clear implications for healthcare professionals, where patients' willingness to attend and comply with interventions are vital.

As is the case with empathy, gender is a factor influencing student EI scores. In most studies, female students were found to have higher EI than their male counterparts. That is the case for medical undergraduate students [64–66] and for dental students [67]. Empathy is regarded as an inherent facet of EI [68] and several studies examining EI or empathy in medical students have found that women score more highly than men in terms of empathy and overall EI [64]. Moreover, one study directly compared EI and empathy skills and found that the two significantly correlated [68].

Age has also been shown to be a factor correlated to EI. Several studies provided evidence that EI increases as one progresses through one's career in healthcare broadly [69], in nursing [70] and medicine [71]. However, the picture is less clear among university students and early career professionals. For instance, Straton et al. compared the EI of medical students in their third year with EI in their first year and found it to be significantly decreased in the latter years [64]. Moreover, Wagner et al. found no differences in EI scores between faculty members and more junior doctors [72], whereas neither resident age nor level of training correlated with EI in a study of surgical residents [73].

Being novice practitioners, students develop an understanding about the nature of their professional practice and develop an identity over the course of their studies. Bulmer-Smith et al. have expressed that view about nursing students who enter the degree with different levels of emotional maturity and are subjected to mounting pressures and anxieties associated with nursing education [74]. They go on to suggest that students who develop EI may be better able to endure the pressures associated with nursing education. Mackay et al. argue that the significance of self-awareness and self-regulation of one's emotions is of high priority in many sectors but none more so than in health settings [63].

Experience also appears to be correlated to EI as several studies have found that EI increases with experience among healthcare professionals broadly once more [69], in nursing [75,76], and medicine [71,77].

In their 2012, United Kingdom (UK) wide analysis of trait EI within the radiography profession, Mackay et al. [63] used

the validated Trait EI questionnaire (TEIQue) [78] which provides a score for Global Trait EI and its four factors (Well-being; Self-control; Emotionality; Sociability). They found differences between the branches of the profession, e.g., diagnostic radiographers, radiotherapy, and nuclear medicine radiographers, and between those in leadership roles and other members of the profession. They also found that radiographers scored higher than the TEIQue normative group for Global EI and three of the four EI factors. This was followed by an Australian benchmarking study [79] which found differences in well-being between the UK and Australian radiographer workforce. No differences were found between diagnostic and radiotherapy radiographers, nor were differences found between EI and leadership as had been in the UK. When the relationship between EI and leadership, among Australian radiographers, was more closely explored, correlations were found between years of experience, hospital size, EI, and leadership behaviours of Australian chief radiographers with EI reductions linked to increasing years of experience [80].

This work was followed by an international study exploring EI in radiography students across four countries: Australia, Hong Kong, Ireland, and the UK [81,82]. In this study, significant differences were found between countries in terms of Global EI, well-being, and sociability, however, their three-year longitudinal follow-up highlighted the complexity of tracking EI over time and understanding the impact of curricular interventions [83]. These studies highlight the potential for interventions and the needs for curricula to consider content that can support, and potentially enhance, EI. Bleiker et al. [84] describe the need for better articulation of what we mean by compassionate care in radiography, including EI, along with the need for an evidence-based understanding of compassionate care in the unique context of diagnostic radiography, to better inform recruitment, education and training.

Interprofessionalism

IPL or Interprofessional Education (IPE) happens when members of two or more professions learn with, from and about each other, resulting in improved collaboration, improve job satisfaction, enhanced patient care and increase public appreciation of healthcare [85]. Interprofessional collaboration (IPC) is now considered a crucial competency for health care professionals, which can empower them to be able to deliver patient care of high standards, and also care to families and caregivers [86,87]. IPC can be fostered through IPE and has been linked to positive outcomes, such as improving patients' satisfaction rates and minimising medical errors [88], reducing hospitalisation time and costs, and decreasing hospitalisation and readmission rates [88,89].

Lack of provision of IPE to health professionals has been linked to lower patient satisfaction, more patient safety issues, low workforce retention, and other system wide inefficiencies [20,90]. This correlates with the WHO report findings of a consensus that IPE may improve interprofessional collaboration, enhance personal and population health, and promote

team-based health care [91], which are core competency domains 2 (Roles/Responsibilities), 3 (Interprofessional Communication), and 4 (Teams and Teamwork) respectively from the Interprofessional Collaborative Practice Competencies [19]. The development of IPE is associated with either top-down or bottom-up processes, and that a mixture of them could incentivise the implementation of an IPE approach [92,93]. A body of research work has shown that IPE can garner a desire among healthcare professionals to improve patient care through improvement in interprofessional collaboration and teamwork [93–95].

Several studies reported that the development and facilitation of IPE led to positive outcomes with regards to changes to organisational practice [93,96,97]. Similar positive outcomes have been reported with regards to patient/client care [97–99]. However, these positive outcomes are not consistent or consistently replicated with regards to students in university healthcare related IPE programmes. Studies suggest that students may initially enter those programmes and courses with positive attitudes, however those attitudes lessen after their participation in interprofessional learning activities [96,100], because for instance they consider IPE principles as idealistic [101].

With regards to the first competency from the WHO report on IPE *‘Values/Ethics for Interprofessional Practice’*, studies have found that students who participate in interprofessional collaborations can learn from each other about different angles they could take when tackling an ethical issue, based on their different training [102,103]. In some healthcare fields, such as physiotherapy, students are thought to have certain cognitive patterns and learning styles, and by the process of professionalisation or professional socialisation (becoming fully immersed in and identifying with a specified profession), they master the skills and values of the profession and assume their professional identity [104]. However, students in programmes such as medicine, dietetics, physiotherapy, and nursing, even though they show signs of high identification with their professional group, they are very willing to engage in IPE [105]. The stage at which professional socialisation takes place has been linked with those disciplinary differences [106].

Willingness to participate in IPE was due to its voluntary nature in a number of fields, which made students more motivated to collaborate with other fields/disciplines [96,107]. Research has been carried out in relation to students’ readiness to participate in IPE. Coster et al. surveyed preregistration students from eight healthcare groups and they concluded that IPE should be introduced at the start of training because students’ readiness for IPE was greatest early on in their courses [108]. Similar conclusions were made by Hind et al. and Cooper et al. in stating that IPE activities should be introduced before students develop negative stereotypical views about other professions [105,109].

Pollard et al. surveyed 10 professional programmes at three points (on entry, after participating in the second year IPE group, and at qualification) in order to evaluate a prequalifying interprofessional curriculum; students were found to be positive about their IPE experience at each data collection point,

with particular reference to their development of communication and team working skills [106]. Reactions of dietetics students to IPE were positive with respect to levels of interest, learning experience and value for clinical practice [110]. An evaluation of an IPE case study assignment concluded that the approach was an effective learning tool [111].

Despite the overall positive attitudes towards and outcomes from IPE in the healthcare professions, there are some significant barriers to its implementation. There are timing, space and financing issues that limit access, related to lack of organisational support. For instance, Slater et al. offered their IPE workshops on weekends, which enabled more interactions between colleagues in a pressure free environment [93]. Lack of support for interprofessional student placement meant that IPE was an additional educational activity in their curriculum with timetabling consequences [112]. Moreover, faculty from different health professions have usually trained in different educational systems and learning contexts which results in them either being uncomfortable with an interprofessional approach to teaching and learning, or not sufficiently knowledgeable to teach within it [113]. Staff who are committed to IP methods of teaching and learning are often more positive role-models as they value diversity and unique contributions, which are considered key competencies [114].

Education considerations

It is clear from the literature that professional skills are highly regarded in all healthcare related disciplines; that the graduates do need them in order to succeed in their professional practice; the question then is, what have the higher education institutions done to support the students?

At the university level, most of the efforts to address EI have been programme-level exercises rather than inter-programme or institutional exercises. Nunes et al. suggest that organisational changes should be introduced that encourage supporting students academically and emotionally as they progress through their training [43]. Moreover, changes in curriculum design should ensure maintenance and development of professional skills such as empathy in students. These may include IPL, development of a team work ethic, changes in assessment process and a change in emphasis from fact-based learning to applied learning [44,115].

Nurses for instance, feel that they lack essential social skills [116]. and employers indicate that qualifying nurses are not equipped to adapt to the working world [68]. It has been argued that nursing is an emotional experience involving emotional knowledge and competencies and students need to be educated about the emotional reality of practice [68,117]. Freshwater and Stickley have therefore suggested that EI competencies should be made explicit for students within curricula as nursing practice is more than physical tasks [118]. They go on to state that *“an education that ignores the value and development of the emotions is one that denies the very heart of the art of nursing practice”* [118] Thus, the aims of incorporating EI training into nursing curricula should be to improve understanding of one-

self and others and to develop improved skills when addressing psychosocial needs.

On the basis that their work identified declining empathy levels as early as the first year, Nunes et al. have called for the introduction of training in empathic skills for all health sciences students throughout their training [43]. In fact, findings by Bonvicini et al. support the hypothesis that training in empathic behaviour made a significant difference in physician empathic expression during patient interactions [119]. Moreover, McKenna et al. have argued that it is important to provide holistic education when educating future midwives; in addition to facilitating the acquisition of midwifery knowledge, students should also be taught the importance of other aspects, such as caring, empathy and acceptance [46].

Mackay et al. argue that EI can actually be enhanced [63] and Vela suggested that “*it is imperative that students are provided with early interventions that involve emotional intelligence skills building*” [120] while Cook et al. argue that EI should be included among the skills that a university education must foster in accounting students to increase their ability to be successful in the profession [121]. On this basis there have been calls for the incorporation of EI skills in university curricula [122,123].

Both empathy and EI are also inextricably linked to interprofessional skills and teamworking and the need to enhance both IPE and IPC opportunities has been highlighted as a priority area [19,20,89-93].

Conclusion

From the reflection on three of the major professional skills, namely, empathy, EI, and interprofessional skills, it is clear that each is an essential graduate skill and attribute for all health professionals as evidenced by the literature. These professional skills transcend the discipline specific skills or attributes, and it must be noted, by those institutions delivering professional programmes, that efforts should be made to further the integration of these professional domains within curricula with the aim of trying to produce exceptional health professionals who are more employable and better positioned to enhance the patients’ / clients’ experience.

CRedit authorship contribution statement

Jonathan P. McNulty: Conceptualization, Visualization, Funding acquisition, Formal analysis, Data curation, Investigation, Project administration, Resources, Supervision, Writing – original draft, Writing – review & editing. **Yurgos Politis:** Visualization, Formal analysis, Data curation, Investigation, Methodology, Validation, Writing – original draft, Writing – review & editing.

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