THE **CLINICAL** TEACHER ASME

Empathy maps in communication skills training

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Abstract

Background: Empathy is a cornerstone of patient-centred care. However, empathy levels among health care professionals and medical students are currently suboptimal. An empathy map is a tool which aids in understanding another person's perspective. Empathy maps have up until now not been used in a medical education setting.

Objective: To assess the attitudes towards, applicability and usefulness of empathy maps as part of medical student's communication skills training.

Methods: Empathy map training was introduced to first-year medical student communication skills training at two UK-based medical schools. Twenty-eight participants in total agreed to be interviewed about their experiences using the empathy map, including sixteen students and twelve patient partners who assisted with communication skills training.

Results: Medical students and patient partners perceive value in empathy map training. Medical students stated that the empathy map training impacted on their views of empathy and patient-centredness by highlighting the importance of patient-centred care. Medical students and patient partners enjoyed the experience of completing the empathy map and had suggestions for how it could be improved in the future.

Conclusions: Empathy maps could provide a cost-effective way to encourage empathic and patient-centred care in medical education. Furthermore, there is no reason why empathy maps would not aid in any caring profession. Further research is needed to confirm that empathy maps do increase empathy.

1 | INTRODUCTION

Empathy, the ability to understand and share the feelings of another, is a fundamental aspect of patient care.[1] Empathy shown by a health care professional to a patient, or 'therapeutic empathy', involves a) understanding the patient, b) communicating that understanding, and c) acting on that shared understanding in a helpful (therapeutic) way.[2] This would suggest that to authentically communicate understanding, or act upon that understanding there must *be* the understanding within the health care professional.

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The ability of physicians to display empathy has been positively associated with four outcomes of patient care. The first is treatment

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outcomes for patients, such as reducing pain and anxiety.[3] The second is patient adherence via the facilitation of information exchange, the growth of interpersonal trust and a sense of partnership.[4] The third outcome is patient satisfaction, primarily through the strengthening of patient enablement and lowering of patient anxiety and distress,[4] and the final outcome is a reduction in patients' thoughts of litigation.[5]

Evidence suggests current levels of empathy among medical students are suboptimal. Research measuring patient assessment of health professionals empathy using the CARE scale were pooled across 64 independent studies by Howick et al. (2017).[6] The authors found that medical students and physicians had the lowest average empathy scores compared with other health care professionals. This is despite the fact that empathy training (often experiential and skills-based) tends to be effective.[7]

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Further evidence has suggested that medical students' empathy declines as they progress from their first year of study to their final year and become junior doctors,[8] although see Smith et al.[9] Contributing factors include; a) a high volume of material to learn, b) time pressures, and c) a focus on the biomedical model of health and illness. Furthermore, when confronted with a clinical reality characterized by illness, human suffering and death, medical students may shift their focus from people to technology and objectivity.[10] The focus on the biomedical model of illness and a shift in attention focus to technology and objectivity could potentially leave medical students at a disadvantage when thereafter trying to understand the patients' perspective to base an empathetic response upon.

1.1 | Empathy maps – a novel approach

An 'empathy map' is a tool to assist understanding another's perspective.

They were originally developed in a business environment to develop customer profiles.11 The empathy map synthesizes known information on an individual through the visualization of what he or she says, does, sees and hears. Further sections focus attention on the individuals' worries, fears and frustrations, wants and needs and what makes them happy (See Figure 1). Those wishing to understand another's perspective complete the empathy map from the perspective of that individual.An 'empathy map' is a tool to assist understanding another's perspective.

The empathy map engages with the sensed, lived experience of an individual, alongside their cognitive and emotional world. Empathy maps therefore have the potential to aid medical students in their understanding of a patients' perspective, the first component of therapeutic empathy. Furthermore, this understanding may
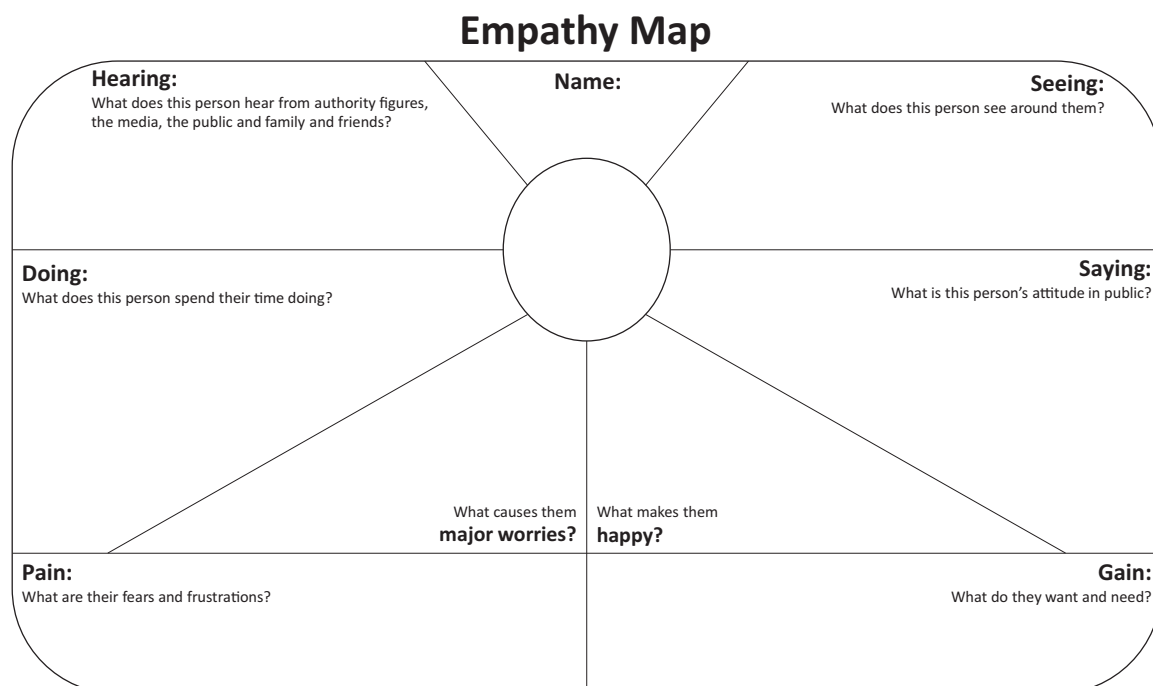

Empathy Map

Hearing:
What does this person hear from authority figures, the media, the public and family and friends?

Name:

Seeing:
What does this person see around them?

Doing:
What does this person spend their time doing?

Saying:
What is this person's attitude in public?

What causes them **major worries?** What makes them **happy?**

Pain:
What are their fears and frustrations?

Gain:
What do they want and need?

FIGURE 1 The empathy map

bring forth a sense of common humanity: that suffering is part of the shared human experience.[12] This sense would enable medical students to appreciate that communicating empathy and acting upon it, may be useful within the doctor-patient relationship, enhancing the likelihood that the second and third components of therapeutic empathy occur. However, to date we are unaware of any research which has examined the use of empathy maps within medical education.

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1.1.1 | Aims

The aim of this study was to understand the impact of using empathy maps within medical education on student perception of empathy within the doctor-patient relationship. To enable this we addressed the following research questions:

> *The aim of this study was to understand the impact of using empathy maps within medical education.*

1. How do patients and students currently experience empathy map training?
2. Is there an impact of empathy map training on student perceptions of empathy towards patients, and the doctor-patient relationship? If so, what do participants perceive is the mechanism of action?
3. Do patients and students have ideas as to how empathy map training could be improved?

2 | METHODS

First-year medical students and patient partners (current or former patients with a chronic illness who volunteer with medical teaching) from the Universities of St Andrews and Leicester who were taking part in training involving empathy maps were invited to take part in interviews. Sampling was purposive and opportunistic. Students

were invited to interviews at three time points; just prior to, shortly afterwards and three months following the empathy map training. Patient partners were invited to interview shortly after the empathy map training. Ethics approval was granted by the University of Leicester and St Andrews School of Medicine Ethics Boards (MD14036).

2.1 | Empathy map training

In both institutions first-year students in a group of no more than nine took part in conversations with patient partners on topics such as the meaning of words like 'patient' and 'health' and what health care experiences the patient partner had. In St Andrews this conversation was a single face-to-face meeting, whilst in Leicester there was an initial face-to-face meeting followed by a year-long online discussion. After these conversations, students drew on their interpretations of what the patient partner had said to complete an empathy map for their patient partner as a group. In both institutions patient partners completed a map from their own perspective to allow students to make comparisons. Students were unaware of the content of the empathy map prior to completing it.

2.2 | Participants and Interviews

Twenty-eight participants in total agreed to be interviewed, ten male and eighteen female (see Table 1). This included twelve patient partners (five in St Andrews and seven in Leicester) and sixteen students (eight in St Andrews and eight in Leicester) totalling forty-eight interviews which were approximately fifty minutes in length. These semi-structured interviews, carried out by PC and IP, focused on participants' views concerning empathy, patient-centred care and the use of empathy maps in medical training. EW, AL and AW developed the interview schedule. It was designed to prompt broad reflection of participants around areas of empathy and the doctor-patient relationship and as an evaluation of the empathy map training.

2.3 | Analysis

Interviews were audio recorded and transcribed. Transcripts were analysed qualitatively using framework analysis.[13] We adopted a relativist ontology which accepted that the representation of things in the world is socially constructed and cannot be taken as a simple reflection of how things are.[14] A selection of transcripts (students at each time point and patient partners) were read by three of the authors (PC, EW and AL) who then discussed the codes they drew from the data. Authors came from different training perspectives, health psychology, nursing and medical education respectively. This resulted in a refined set of codes, which could be compiled under broad themes. These codes were then applied to the rest of the dataset.

TABLE 1 Demographics of study participants

	St Andrews		Leicester		Total	
	Students	Patient Partners	Students	Patient Partners	Students	Patient Partners
N	8	5	8	7	16	12
Average age	19.8 (2.25)	65.8 (1.1)	21.1 (2.98)	62.9 (13.3)	20.4 (2.8)	64.1 (10.3)
Gender	5 F, 3 M	4 F, 1 M	4 F, 4 M	5 F, 2 M	9 F, 7 M	9 F, 3 M

Notes:: Standard deviation in brackets. F = Female. M = Male.

3 | RESULTS

Three main themes were constructucted from the data (see Table 2 for themes and representative participant quotes). Firstly, both patient partners and students enjoyed the experience. Secondly, during interviews following the empathy map training students described how they had come to realise that greater empathic and patient-centred communication could lead to more trusting interactions and more accurate, personalized diagnoses and health care plans which were tailored to a patient's life. Finally, patient partners and students had ideas as to how the empathy map training could be improved by adding instructions, defining the context of the map more clearly and additional empathy map sessions.

4 | DISCUSSION

The results of this study suggest that empathy maps were a useful and enjoyable training tool for medical students within a multi-institutional setting. Empathy map training prompted reflection in students with regards to empathy, and also in relation to the doctor-patient relationship. Participants noted the empathy maps were important in changing the salience of empathy within clinical interactions resulting in a more partnership-based view of the doctor-patient relationship. To enable empathy map completion students were required to have greater understanding of the patient partner perspective by interpreting what had been said. Thus the empathy map impacted upon the three components of therapeutic empathy, understanding the patient, communicating that understanding, and acting on that shared understanding in a helpful way.[2]

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This research has limitations which should be considered. Our recruitment of medical students and patient partners for interview

TABLE 2 Selection of quotes from students and patient partners relating to the themes drawn out during thematic analysis

Theme	Student Quote	Patient Partner Quote
Empathy map training experience	'...yeah they're really, really good. They're a good piece, they're a good induction tool for students in general. I don't think just medical students, I think they'd be good for nurses and stuff as well, maybe dentists and pharmacists.' – **Stu_001_M_StA_T2**	'...we always come out saying that we enjoyed it, that it's really valuable, that it's nice to see them when they're sort of shiny and new em, so yeah I think we all take something different out of it.' – **PP_005_F_StA**
Impact of empathy map training on student perceptions of empathy towards patients, and the doctor-patient relationship.	'...if it weren't for the empathy map I don't think we would have the exchange with the patient, gotten to the situation, to the point where we realised that we're not necessarily thinking exactly as the patient does....' – **Stu_002_M_Lei_T3** 'It impacted in the way that it showed how the doctor-patient relationship should be and how it should be a two-way conversation and how it should be the doctor listening to what the patient values, and how it influences what the doctor's advice is and how they can coalesce that into a plan that works for both.' - **Stu_004_F_StA_T2**	Student question only
How the empathy map training could be improved	'Em, I think it might be slightly better if we had slightly longer at the end to go over the empathy maps, compare them and then have a facilitator just give us a platform to raise discussion with the group, all that we'd seen and all that we'd heard. Just a little bit more time to develop ideas and to hear what other people have to say.' - **Stu_005_F_StA_T2**	'I think maybe it would be interesting to have a subsequent one ... it might be quite interesting to see whether students were more receptive to what patients were telling them at that time or actually become less so after their two or three years of their degree course.' - **PP_004_F_StA**

was opportunistic and therefore the variety of views expressed may be narrower than those of the entire cohort. Those who agree to participate may be the most engaged.

Our findings tentatively agree with previous findings that empathy training can be effective and engaging.[7] Further research is needed to assess whether empathy map training is effective at increasing empathy in medical students, and if so, to what degree. Exploration of the mechanisms of action of the empathy map training is also warranted.

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The positive impact of the empathy map session was not greatly influenced by the main mode of interaction between students and patient partners (online or face-to-face) and lasted at least until the follow-up period three months following the teaching session. Therefore internet-based communication could prove useful in situations where face-to-face meetings are not possible. Minor modification suggestions to improve the empathy map experience focused on clarification of the activities within sessions and adding additional empathy map training to the curricula.

5 | CONCLUSION

This study examined the use of empathy map training with medical students. Students found the empathy map training engaging, perceived value in it and exhibited changes in perspectives as a result of the training. This shows that empathy maps could be a useful training tool to allow medical students to develop a more empathetic approach to health care.

CONFLICT OF INTEREST
None.

ETHICAL APPROVAL
Ethics approval was granted by the University of St Andrews School of Medicine Ethics Board (MD14036) and the University of Leicester School of Medicine Ethics Board. All participants gave signed consent for their evaluation data to be used for the purpose of publication.

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