

From Lived Experience to Learning Outcomes: Empathy as a Trainable and Assessable Competency in Higher Education

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Abstract

Empathy is increasingly recognised as a critical capability for professional practice, yet it is often assumed rather than intentionally developed within higher education curricula. This study examines whether empathy can be systematically supported and assessed within a formal foundation year medical education module. Using a mixed methods pre post design, the study integrates immersive, lived experience based learning with structured reflexivity and competency based assessment. Quantitative analysis using the Jefferson Scale of Empathy, student version, indicates a positive and statistically significant increase in self reported empathy following participation in the module. This finding is notable in light of established evidence that empathy often declines during early medical education. Qualitative reflective data further indicate enhanced perspective taking, ethical awareness and professional insight. Taken together, the findings provide evidence that empathy can be intentionally supported and meaningfully evaluated within formal higher education curricula, while highlighting the importance of structured pedagogical design in shaping professional capability development.

Keywords: *empathy; competency-based education; experiential learning; evaluation and assessment; innovation education; medical education*

1. Introduction

Empathy is increasingly recognised as an essential capability for professional practice in contexts characterised by social complexity, technological change and ethical uncertainty. Within higher education, however, empathy is often assumed to develop implicitly through exposure rather than being intentionally designed, taught and assessed within formal curricula.

While policy and research discourse emphasise the importance of human-centred capabilities alongside technical expertise, there remains limited empirical evidence demonstrating how

empathy can be systematically embedded and evaluated within accredited higher education programmes. Much existing work focuses on isolated or co-curricular interventions, leaving questions of curricular legitimacy, assessment and quality assurance insufficiently addressed.

This study examines empathy development within a foundation-year medical education module, positioning empathy as a trainable and assessable capability supported through immersive, lived-experience-based pedagogy and structured reflexivity. Using a mixed-methods pre–post design, the study contributes empirical insight to debates on experiential learning, competency-based education and the role of empathy in contemporary higher education.

2. Literature Review

2.1. Empathy in Higher Education

Empathy has long been recognised as an important component of professional competence, particularly within healthcare education, where it has been associated with improved communication, ethical judgement and relational practice (Hojat et al., 2002; Batt-Rawden et al., 2013). Within higher education more broadly, however, empathy has often been treated as an implicit personal attribute rather than as a formally articulated learning outcome.

International frameworks such as the OECD Learning Compass 2030 and the World Economic Forum's Future of Jobs reports position empathy and perspective-taking as critical graduate capabilities. Despite this, empathy remains unevenly embedded within formal curricula and is rarely operationalised through intentional pedagogical design or assessment (Bearman et al., 2015).

2.2. Experiential and Lived-Experience Learning

Experiential learning theory provides a strong foundation for understanding how empathy may be developed. Kolb's (1984) model highlights the importance of concrete experience and reflection in supporting deep learning. Immersive, lived experience based pedagogies, such as simulation, narrative engagement and role based learning, have been shown to support perspective taking and ethical awareness (Wear and Zarconi, 2008; Bennett and Rosner, 2019).

However, exposure alone is insufficient. Without structured reflexivity, immersive approaches risk superficial engagement (Bearman et al., 2021). This has led to increased emphasis on integrating experiential learning with facilitated reflection and critical interpretation.

2.3. Assessing Empathy in Higher Education

Empathy presents challenges for assessment due to its multidimensional nature. Within healthcare education, validated self report instruments such as the Jefferson Scale of Empathy

have been widely used to examine changes in empathic orientation over time (Hojat et al., 2009).

While such instruments do not capture behavioural enactment directly, they provide valuable insights when used alongside qualitative approaches. Mixed methods designs are increasingly recommended to support more nuanced interpretations of empathic development (Pedersen, 2010; Bearman et al., 2015).

Longitudinal studies have identified a tendency for empathy to decline during medical education, particularly during early stages of training (Hojat et al., 2009). This pattern has been widely recognised as a challenge in professional formation.

2.4. Positioning the Present Study

Despite growing recognition of empathy as a key professional capability, there remains a gap between its importance and its systematic integration within accredited curricula. This study responds to that gap by examining how empathy can be intentionally embedded, supported and evaluated within a formal medical education module.

3. Conceptual Framework

Empathy is conceptualised as a multidimensional capability encompassing cognitive perspective taking, understanding of lived experience and integration into professional judgement (Decety and Cowell, 2014; Pedersen, 2010). This aligns with competency based education, which emphasises explicit learning outcomes and structured assessment (Frank et al., 2010).

The pedagogical approach integrates immersive experience with structured reflexivity. Students engage with lived experiences and critically examine their assumptions and professional identity. This supports the translation of empathic insight into practice.

4. Methods

4.1. Study Design

A mixed methods pre post design was used to examine changes in students' empathic orientation. Quantitative and qualitative data were collected to support triangulation.

4.2. Educational Context and Intervention

The study was conducted within an accredited foundation year medical education module at the University of Galway during the 2025 to 2026 academic year, where empathy was positioned as an explicit learning outcome.

The module was delivered over 12 weeks, comprising two hours of structured teaching per week. The intervention integrated immersive, lived experience based learning with clinical insight and structured reflexivity. Students participated in four dedicated lived experience seminars, where individuals living with diabetes, and parents of children with diabetes, shared their experiences through panel discussions. These sessions focused on diagnosis, long term condition management, healthcare interactions, and the social and emotional dimensions of living with diabetes.

Additional clinical perspectives were provided through sessions with an endocrinologist and a diabetes clinical nurse specialist, offering insight into patient care and person centred practice. Students also engaged in experiential simulation activities designed to approximate the cognitive and practical demands of chronic illness management.

Structured reflective writing was embedded throughout, supported by guided prompts encouraging critical examination of assumptions, emotional responses and emerging professional identity. These elements were sequenced to support progression from exposure to interpretation and integration within a professional context.

Student feedback was broadly positive, with particular impact reported from lived experience contributions, including insights into complex care contexts such as co occurring conditions, distinctions between Type 1 and Type 2 diabetes, and experiences of stigma. These reflections reinforced the value of integrating lived experience within formal medical education.

4.3. Participants

All students enrolled in the module were invited to participate. A total of 98 students provided matched pre and post responses on the Jefferson Scale of Empathy and were included in the cohort level analysis.

4.4. Data Collection

The Jefferson Scale of Empathy, student version, was used. It is a validated instrument specifically designed for use in undergraduate medical education to assess empathic orientation at early stages of professional formation. The instrument is widely used in studies examining empathy trajectories in medical students. The JSE was used in this study with permission from Thomas Jefferson University.

Qualitative data were collected through structured written reflections and facilitated discussions.

4.5. Data Analysis

Quantitative analysis was conducted using descriptive statistics and paired samples t tests to examine changes in empathy scores between pre and post module measurement points.

Qualitative analysis followed a reflexive thematic approach, involving iterative coding and theme development. Findings were triangulated with quantitative data to support interpretation.

4.6. Ethical Considerations

Ethical oversight was provided through institutional governance structures. Participation was voluntary and anonymised. Contributors with lived experience were supported through established Patient and Public Involvement processes to ensure ethical representation and safeguarding.

5. Results

5.1. Pre Post Empathy Outcomes

A total of 98 matched pre and post responses were included in the analysis. Cohort level Jefferson Scale of Empathy scores increased from a mean of 80.61 (SD = 9.37) at pre module measurement to 86.24 (SD = 13.40) post module. A paired samples t test indicated that this increase was statistically significant ($t = 3.40$, $p < .01$), suggesting a measurable improvement in self reported empathy across the cohort.

These findings indicate increased attentiveness to perspective taking and relational dimensions of professional practice following participation in the module.

Table 1. Jefferson Scale of Empathy Pre and Post Results

Measure	N	Mean	SD
Pre Module	98	80.61	9.37
Post Module	98	86.24	13.40

5.2. Integration of Quantitative and Qualitative Findings

Qualitative reflections indicated increased awareness of lived experience, ethical sensitivity and professional responsibility. Students demonstrated deeper understanding of patient perspectives and the limitations of purely clinical approaches.

5.3. Interpretation of Findings

The quantitative findings indicate a statistically significant increase in self reported empathy at cohort level. While self report measures do not capture behavioural enactment directly, the convergence of quantitative and qualitative evidence strengthens confidence in the educational relevance of the approach.

6. Discussion

This study examined whether empathy can be intentionally developed and assessed within a formal higher education curriculum. The findings provide indicative evidence that empathy can be supported through deliberate pedagogical design combining immersive, lived experience based learning with structured reflexivity.

From a theoretical perspective, the results align with experiential learning theory, which emphasises the role of concrete experience and reflective processes in supporting deeper learning (Kolb, 1984). Students engaged not only in exposure to lived experiences, but in structured opportunities to interpret and integrate these experiences through guided reflection. This supports the view that empathy development is not a passive outcome of exposure, but an active process requiring scaffolding, critical engagement and meaning making (Bearman et al., 2021).

The findings also reinforce conceptualisations of empathy as a multidimensional capability, encompassing cognitive perspective taking, contextual understanding and integration into professional judgement (Decety and Cowell, 2014; Pedersen, 2010). Qualitative reflections demonstrated shifts in how students understood patient experience, ethical responsibility and the limits of purely technical approaches, suggesting that empathy was being internalised as part of emerging professional identity rather than as an isolated affective response.

While the magnitude of quantitative change is moderate, this finding is notable when considered alongside longitudinal evidence indicating that empathy often declines during medical education (Hojat et al., 2009). In this context, the observed stability and increase suggest that intentional curricular design can play a role in interrupting or mitigating this trend. Rather than positioning empathy as an implicit outcome of professional socialisation, the study demonstrates the value of making empathy an explicit, structured and assessable component of the curriculum.

Importantly, the study contributes to competency based education by demonstrating how a complex and often intangible capability can be articulated, supported and evaluated within an accredited module (Frank et al., 2010). The integration of experiential learning, lived experience engagement and structured assessment provides a model for operationalising empathy within

formal education systems. This addresses a persistent gap between the recognised importance of empathy and its practical implementation within curriculum design (Bearman et al., 2015).

At a broader level, the findings speak to the role of human capabilities within increasingly complex and technology enabled professional environments. As healthcare and other sectors continue to evolve, the ability to integrate technical expertise with relational and ethical understanding becomes increasingly important. In this context, empathy functions not as an alternative to technical competence, but as a complementary capability that supports responsible, inclusive and person centred practice (OECD, 2019; World Economic Forum, 2023).

7. Conclusion

This study demonstrates the feasibility and educational value of treating empathy as a trainable and assessable capability within a compulsory higher education module. By integrating immersive, lived experience based pedagogy with structured reflexivity and evaluation, it provides a practical and transferable model for embedding empathy within accredited curricula.

The findings shift the conversation from whether empathy can be taught to how it can be intentionally designed, supported and evaluated within formal education systems. The statistically significant improvement observed is particularly notable in light of established patterns of empathy decline in medical education, suggesting that structured pedagogical approaches can support empathic development during early professional formation.

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