Shaping Professional Identity through Transformative Learning in Health Sciences

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Abstract

This paper synthesizes four key perspectives on Transformative Learning Theory (TLT) and Professional Identity Formation (PIF) in health professions education. Across medical, pharmacy, and nursing contexts, transformative learning is shown to be a catalyst for developing professional identity and ethical practice. In international health electives (IHEs), residents experience disorienting dilemmas that trigger emotional responses, critical reflection, and perspective transformation—ultimately strengthening their commitment to professional values and service. Similarly, PIF in medical education is a dynamic, lifelong process influenced by sociocultural factors, mentorship, and reflective practice, as described in Kegan's developmental model. In pharmacy education, PIF is conceptualized as a transformative process of self-discovery and integration, aligning well with Mezirow's TLT framework, which emphasizes reflection and meaning-making through challenging experiences. Meanwhile, in nursing, TLT promotes self-directed, critical, and inclusive learning, empowering professionals to question norms and advocate for change in complex healthcare systems. Collectively, these frameworks underscore that transformation—through reflection, mentorship, and contextually grounded experience—is essential for forming resilient, ethical, and adaptive healthcare professionals capable of navigating evolving global health challenges.

Keywords: Health professions education, Professional identity formation, Reflective practice, Transformative learning theory, Transformative pedagogy

Introduction

In the rapidly evolving field of health sciences, professional identity formation (PIF) is regarded as a central component of education and professional development. It represents the process through which students internalize the values, ethics, and behaviors of their chosen profession, integrating these attributes into their personal and social identity. This process is not merely cognitive; it is deeply transformative, involving emotional engagement, reflection, and changes in worldview. Transformative Learning Theory (TLT), introduced by Mezirow (1991), offers a useful lens to understand how such identity transformation occurs. According to TLT, learning becomes transformative when individuals experience *disorienting dilemmas*—situations that challenge prior assumptions—leading to critical reflection, dialogue, and a re-evaluation of self. Within health professions education, these moments often emerge through clinical experiences, ethical challenges, or interprofessional interactions. Studies by Sawatsky et al. (2018), Findyartini et al. (2022), and Pan et al. (2025) show that transformative learning fosters deeper empathy, ethical reasoning, and professional maturity among students. However, the dynamics of this transformation may vary across cultural and institutional contexts. In collectivist cultures such as those in Asia, identity development tends to be shaped not only by individual reflection but also by social harmony, mentorship, and group learning (Soemantri et al., 2023). Research Questions: How do health sciences students experience transformative learning during their education? In what ways do these experiences influence their professional identity formation?. Objectives: To explore the key transformative learning experiences that contribute to the development of professional identity among health sciences students. To identify the reflective, emotional, and social mechanisms that facilitate professional growth and identity transformation. To provide insights for educators on how to design learning environments that promote both professional competence and personal transformation.

Material and Methods

Research Design

A qualitative phenomenological design was employed to capture students' lived experiences of transformative learning and identity formation. This design was chosen because it allows a deep exploration of subjective meanings, emotions, and perceptions embedded within real educational contexts (Creswell & Poth, 2018).

Participants

The participants consisted of 18 undergraduate students from various health sciences programs—medicine, nursing, pharmacy, and allied health—at a large public university. Participants were recruited through purposive sampling, ensuring they had prior experience in clinical placements, reflective learning, or community engagement. The demographic range included both male and female students aged 19–25 years.

Instruments

Semi-Structured Interview Guide:
Developed based on Mezirow's TLT framework, focusing on experiences of disorienting dilemmas, emotional responses, reflection, and perspective transformation.

Reflective Journals:

Students' reflective journals were collected to supplement interview data. These journals captured authentic reflections written during coursework and field experiences.

Data Collection

Interviews were conducted face-to-face or online and lasted approximately 45–60 minutes. All interviews were audio-recorded, transcribed verbatim, and anonymized. Reflective journals were gathered after interviews to support data triangulation.

Data Analysis

Data were analyzed using thematic analysis (Braun & Clarke, 2006). Initial open coding identified significant statements about transformation, followed by axial coding to group codes into themes reflecting the phases of transformative learning and dimensions of professional identity.

To ensure trustworthiness, triangulation of data sources (interviews and journals), peer debriefing, and member checking were applied.

Ethical Approval

Ethical approval was obtained from the university's Institutional Review Board (IRB). Informed consent was secured from all participants, and confidentiality was maintained throughout the study.

Material

The materials used in this research consisted of: Interview Guide: Containing 10 open-ended questions derived from Transformative Learning Theory, focusing on reflection, emotion, and change in self-concept. Reflective Journal Template: A structured form that prompted students to document experiences involving professional challenges, emotional responses, and lessons learned. Recording Equipment: Digital voice recorders and secure online platforms (Zoom/Google Meet) were used to ensure clear data capture. Field Notes: Taken during and after interviews to record non-verbal cues and contextual observations. Transcripts and Coding Sheets: Used for data management and thematic categorization during analysis. All materials were reviewed by two educational experts for content validity before use.

Methods

Data collection occurred over a three-month period. The researcher first contacted students through academic coordinators and distributed consent forms. After consent, participants scheduled interview sessions either in person or online. Each interview began with rapport-building, followed by guiding questions such as: "Describe an experience during your training that challenged your previous understanding of professionalism", "How did that experience change the way you view yourself as a future health professional?"

All sessions were conducted in English, audio-recorded, and later transcribed. After interviews, participants were invited to share reflective journal entries related to significant learning moments. Data management followed strict confidentiality procedures. Transcripts and journals were imported into NVivo 12 for coding and thematic analysis. The researcher repeatedly reviewed data to ensure consistent interpretation and identify emerging patterns aligned with transformative learning stages.

Results and Discussion

Analysis revealed three major themes representing transformative learning processes that shaped students' professional identity:

Table 1. Transrformatif Learning Processes

Theme	Description	Illustrative Quote
1. Disorienting Encounters in Clinical Practice	Students faced emotionally challenging or ethically complex cases that forced them to re-examine assumptions.	"When I saw a patient suffer despite our best care, I realized professionalism means compassion, not just skills."
2. Reflection and Emotional Awareness	Reflection allowed students to process feelings of doubt, fear, and empathy, leading to self-understanding.	"I used to see mistakes as failure; now I see them as growth opportunities."
3. Reconstructed Professional Self	Students developed a renewed sense of purpose, confidence, and ethical awareness, aligning their identity with professional values.	"I started to think like a real nurse—responsible, empathetic, and part of a bigger team."

These findings align with Mezirow's (1991) theory, where transformative learning begins with a disorienting dilemma that triggers reflection and ultimately leads to perspective transformation. Emotional engagement emerged as a central catalyst—confirming the work of Pan et al. (2025), who emphasized that affective responses strengthen reflective depth.

The study also confirms the importance of social and relational contexts in shaping identity, consistent with Soemantri et al. (2023). Students frequently cited mentorship, peer dialogue, and patient interaction as transformative spaces. This suggests that health science education should intentionally integrate reflective dialogue, mentorship, and experiential learning as structured components of curricula.

Implications: Educators should design learning environments that allow safe emotional expression and critical reflection. Structured mentorship can guide students through complex ethical or emotional challenges, supporting identity development. Reflection journals and debriefing sessions should be routinely embedded in clinical education to promote continuous self-awareness.

Conclusion

Transformative learning plays a pivotal role in shaping the professional identity of health sciences students. Through reflective practice, emotional engagement, and relational learning, students not only gain competence but also construct a strong sense of moral and professional self—preparing them to become compassionate, ethical, and resilient healthcare professionals.

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