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# Transformative learning in community healthcare practicums: Impact on nursing students' professional development

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Copyright © 2025 by author(s). Journal of Infrastructure, Policy and Development is published by EnPress Publisher, LLC. This work is licensed under the Creative Commons Attribution (CC BY) license. https://creativecommons.org/licenses/by/4.0/ Abstract: This study explores the transformative learning experiences of nursing students during community health practicums, focusing on how these experiences shape their understanding and professional development in healthcare settings. Grounded in Mezirow's transformative learning framework, this qualitative study employs Interpretative Phenomenological Analysis (IPA) to examine participants' lived experiences, particularly their emotional and ethical challenges in real-world healthcare environments. Eighteen final-year nursing students, selected for their involvement in community health practicums, participated in semi-structured interviews. The participants, aged 19-21 years (with an average age of 20.68 years), comprised predominantly female students (88.88%). These students were chosen based on their exposure to complex healthcare challenges within the community healthcare context. The study identified four key themes. The first theme, Emotional Dilemmas Requiring Empathy and Professionalism, explores how students faced emotionally intense situations and developed essential emotional regulation skills. This theme highlights their ability to balance empathy with professionalism and navigate family disagreements in care decisions. The second theme, Ethical Dilemmas in Patient Care, addresses the ethical challenges students encountered, including decisions related to patients with limited recovery potential and respecting patients' autonomy when they declined treatment. Through these experiences, students refined their ethical reasoning and decision-making capabilities. The third theme, Navigating Roles and Responsibilities within Community Healthcare Teams, examines how students clarified their roles within multidisciplinary teams, improving their communication and collaboration skills. This theme emphasizes the growth in confidence and adaptability as students engaged in teambased care. The fourth theme, Resource Allocation Ethics in Community Healthcare, discusses the challenges posed by resource limitations. Students developed critical thinking and adaptability as they navigated ethical dilemmas related to resource constraints, particularly in home visits and access to care. Through these experiences, students critically reassessed their beliefs, refined their ethical decision-making, and developed emotional intelligence and problem-solving strategies. Reflective practices, including journaling, played a key role in bridging theoretical knowledge with experiential insights, further enhancing adaptability and relational understanding. The findings underscore the significance of integrating transformative learning principles into nursing education. Structured experiential and reflective practices foster critical thinking, emotional regulation, and interprofessional collaboration, thereby preparing nursing students to address the challenges of contemporary healthcare with professionalism and ethical integrity.

**Keywords:** transformative learning; nursing education; community health; professional development; reflective practice; ethical decision-making

## 1. Introduction

Transformative learning, as conceptualized by Mezirow, is a pivotal framework for understanding the professional development of nursing students. This theory emphasizes how adult learners critically reflect on and re-evaluate their existing assumptions when confronted with challenging and unfamiliar situations, known as disorienting dilemmas. These dilemmas act as catalysts for perspective transformation, fostering both personal growth and professional competence (Mezirow, 1997). Complementary theories, such as Kolb's Experiential Learning Theory and Freire's Critical Pedagogy, further enhance this understanding. Kolb underscores the iterative process of learning through experience, reflection, and application, while Freire highlights the role of dialogue and critical reflection in fostering empowerment and transformative growth (Freire, 1970; Kolb, 1984).

In nursing education, community health practicums offer a unique platform for transformative learning, exposing students to real-world challenges that disrupt their pre-existing assumptions. These settings bridge the gap between theoretical knowledge and practical application, compelling students to navigate complex and resource-constrained healthcare environments. For instance, managing patients with multifaceted health conditions demands innovative problem-solving and adaptability (Karam et al., 2021). Additionally, providing culturally competent care to diverse populations requires students to critically reflect on and re-evaluate their cultural assumptions (Govere and Govere, 2016). Social determinants of health, including socio-economic disparities, access to education, and environmental challenges, profoundly influence the ability of nursing students to provide equitable and patient-centered care. These determinants encompass the conditions in which individuals are born, grow, live, work, and age, highlighting systemic inequities that challenge health outcomes and access to care (NASEM, 2019).

Ethical dilemmas encountered during these practicums, such as end-of-life decision-making, demand nuanced understanding of medical ethics, interprofessional collaboration, and compassionate communication (Akdeniz et al., 2021). These multifaceted challenges not only shape students' professional development but also compel them to critically examine their roles within the broader healthcare system. Despite their complexity, such experiences provide essential opportunities for transformative learning, fostering introspection, critical thinking, and reflective practice (Béres and Fook, 2019; Mezirow, 2000).

This study investigates the transformative learning experiences of nursing students during their community health practicums, focusing on the role of disorienting dilemmas in fostering professional development. Specifically, it examines how these dilemmas influence students' critical reflection, ethical reasoning, emotional intelligence, and interprofessional collaboration. Employing a qualitative phenomenological approach, this research aims to uncover the lived experiences of nursing students, emphasizing how these challenges shape their professional competencies, ontological growth, and readiness to navigate the complexities of modern healthcare environments.

The findings of this study aim to contribute to the enhancement of nursing education by emphasizing the integration of transformative learning principles. By

identifying the critical dimensions of disorienting dilemmas and their role in fostering professional growth, this research seeks to inform the design of experiential learning opportunities. This research seeks to inform the design of experiential learning opportunities that equip nursing students with the skills and resilience needed to navigate contemporary healthcare challenges

#### 2. Literature review

# 2.1. Theoretical framework: Transformative learning theory

Transformative learning theory, conceptualized by Mezirow (1997), explains how individuals experience profound shifts in perspective through critical reflection on disorienting dilemmas. These dilemmas challenge existing assumptions, prompting learners to reevaluate their beliefs and adopt new perspectives. In nursing education, this theory emphasizes the role of experiential learning in complex environments, fostering critical thinking, ethical reasoning, emotional intelligence, and adaptability—skills crucial for addressing the demands of modern healthcare systems (Mezirow, 2000).

While Mezirow's framework remains central, integrating complementary theories broadens the understanding of transformative learning. For instance, Kolb's Experiential Learning Theory highlights the iterative cycle of concrete experiences, reflection, conceptualization, and active experimentation, which aligns with nursing students' learning processes in clinical settings (Kolb, 1984). Freire's Critical Pedagogy adds depth by emphasizing dialogue and reflection as tools for empowerment and transformation, particularly relevant in addressing cultural and ethical challenges in healthcare (Freire, 1970). Together, these theories provide a comprehensive foundation for exploring how nursing students develop professional competencies.

# 2.2. Disorienting dilemmas as catalysts for learning

Disorienting dilemmas play a crucial role in transformative learning, as they prompt individuals to critically question their assumptions and navigate challenging, often unfamiliar situations. In nursing education, such dilemmas frequently arise during community health practicums, where students face ethical conflicts, cultural diversity, and limited resources. Wu et al. (2021) describe how healthcare practitioners, including nursing students, often work in resource-constrained environments, where they must balance ethical considerations with practical realities. These experiences align with Mezirow's (1997) theory of transformative learning, which emphasizes the importance of critical reflection in developing adaptability, ethical reasoning, and professional growth.

In addition, these challenges allow nursing students to develop relational skills and apply theoretical knowledge in real-world healthcare settings (Kaikeaw et al., 2023; Van Manen, 1997). For example, managing conflicting cultural or religious beliefs about healthcare can build empathy and enhance ethical decision-making. This aligns with Budler et al. (2022), who emphasize the value of experiential learning in

fostering emotional intelligence and strengthening professional competencies in nursing education

# 2.3. The role of reflective practices

Reflective practices are integral to transformative learning, providing students with mechanisms to process their experiences and connect theoretical knowledge to practical applications. Journaling, as highlighted by Mahlanze and Sibiya (2017), serves as a powerful tool for nursing students, fostering self-awareness, critical thinking, and proactive decision-making. Through reflective journaling, students critically analyze their responses to challenging situations, enhancing their emotional intelligence and capacity for ethical reasoning.

Karam et al. (2021) further emphasize that reflective journaling enables nursing students to navigate emotionally charged scenarios, such as managing end-of-life care or mediating family conflicts over patient decisions. This practice helps students identify areas for improvement, develop coping strategies, and deepen their understanding of caregiving roles.

While Wu et al. (2021) primarily explore the challenges faced by community nurses in resource-constrained settings, the study underscores the value of confronting ethical dilemmas and resource limitations as opportunities for professional growth. Such experiences align with the transformative learning process by fostering adaptability and critical reflection.

Reflective practices, therefore, serve as a bridge between experiential learning and professional development, equipping nursing students to address the complexities of healthcare with confidence and competence.

#### 2.4. Contextual significance: Community health practicums in Bangkok

Bangkok's urban healthcare landscape provides a dynamic and multifaceted context for transformative learning, shaped by its socio-economic diversity, cultural richness, and systemic healthcare challenges. These factors present significant opportunities for nursing students to engage with a range of disorienting dilemmas, which Mezirow (1997) identifies as pivotal triggers for transformative learning. Such dilemmas compel learners to critically reflect on their existing assumptions, adapt to new perspectives, and develop the professional competencies required to navigate complex healthcare environments. The socio-economic disparities evident in Bangkok, particularly in informal settlements, highlight significant inequities in healthcare access and outcomes, underscoring the importance of delivering equitable and culturally sensitive care (Kaikeaw et al., 2023).

Engaging with these multifaceted challenges allows nursing students to integrate theoretical knowledge with practical applications, thereby enhancing their critical thinking, ethical reasoning, and adaptability. The urban context in Bangkok underscores systemic inequities and environmental health challenges, which provide a rich backdrop for transformative learning. Kaikeaw et al. (2023) discuss these issues, emphasizing the need for healthcare education to address such challenges. By incorporating this urban context into community health practicums, nursing students have the opportunity to reflect on and address the structural factors influencing health

outcomes, aligning with Mezirow's (1997) focus on perspective transformation through experiential learning.

Students participating in community health practicums in Bangkok are tasked with addressing critical issues such as managing health inequities, navigating environmental health challenges like air pollution, and adapting communication strategies to meet the needs of diverse cultural groups. For example, air pollution, a persistent public health issue in the city, has been linked to increased rates of respiratory and cardiovascular diseases, emphasizing the need for environmental health considerations in urban healthcare settings (Changsoo, 2023). Reflecting on such experiences enables students to develop a deeper understanding of the interconnectedness between environmental and social determinants of health, as articulated by transformative learning theory.

The urban context further presents unique challenges, such as resource limitations, traffic congestion, and a lack of accessible green spaces, all of which contribute to broader social determinants of health. These challenges, discussed by Changsoo (2023), remain highly relevant for nursing students as they engage with real-world scenarios requiring critical thinking, ethical decision-making, and adaptive problem-solving. By engaging with these challenges, nursing students not only develop practical skills but also undergo transformative learning processes, as defined by Mezirow (1997), enhancing their capacity to contribute to sustainable and equitable healthcare solutions in diverse and dynamic urban settings.

## 3. Materials and methods

## 3.1. Study design

This qualitative study employed Heideggerian hermeneutic phenomenology to investigate the lived experiences of nursing students participating in community health practicums. This approach focused on uncovering the meanings embedded in participants' narratives, emphasizing the concept of Being-in-the-world, which reflects how individuals exist, interact, and derive meaning within their lived environments. In this study, it highlighted how nursing students engaged relationally with patients, families, and healthcare teams while encountering ethical dilemmas, emotional challenges, and systemic constraints inherent in community healthcare settings.

The study further explored how these experiences contributed to ontological growth, understood as the development of students' professional identities and their evolving understanding of relational and ethically grounded care. Ontological growth reflected transformative changes in students' perspectives, emotional intelligence, and ethical reasoning as they adapted to the complexities of healthcare delivery. Heideggerian phenomenology was selected for its capacity to delve deeply into existential and relational meanings, offering a robust framework for examining transformative learning and fostering the holistic professional development of nursing students.

## 3.2. Study setting and participants

The study was conducted at a university in Thailand, where final-year undergraduate nursing students participated in community health practicums across diverse urban environments in Bangkok. These settings, characterized by resource limitations, health disparities, and cultural diversity, were intentionally chosen to align with the study's focus on transformative learning in complex community healthcare contexts. Urban environments provided a platform for students to confront multidimensional challenges, such as managing ethical dilemmas, resource constraints, and collaboration with multidisciplinary teams.

Participants were recruited using a purposive sampling strategy to ensure alignment with the study's objectives. The inclusion criteria required participants to have recently completed a practicum in urban community healthcare settings within the preceding six months, to have encountered diverse and complex health scenarios, and to demonstrate a willingness to reflect deeply on their experiences. A total of 18 participants were included in the study, with the majority being female (88.88%) and aged between 19 and 21 years (mean age = 20.68, S.D. = 2.38). Participants represented diverse cultural and socioeconomic backgrounds, which enhanced the richness of the data while reflecting shared experiences of transformative learning.

Ethical considerations were rigorously observed throughout the recruitment process. All participants provided informed consent, ensuring voluntary participation and confidentiality. Anonymized codes (e.g., P01, P02) were assigned to protect identities, and interviews were conducted in private and convenient locations chosen by participants to facilitate open and reflective discussions.

#### 3.3. Data collection

Data for this study were collected through in-depth, semi-structured interviews designed to facilitate detailed reflection and storytelling. The interview protocol was carefully developed and piloted to ensure cultural relevance and clarity, enabling participants to share their lived experiences with confidence. Interviews were conducted in private and convenient locations selected by participants to ensure comfort and minimize distractions. Each session, lasting between 40 and 90 min, provided ample time for participants to engage deeply with the questions and reflect on their practicum experiences.

The open-ended questions were designed to explore critical aspects of the practicum, including encounters with ethical dilemmas, emotional challenges, teamwork dynamics, and strategies for managing limited resources. For instance, participants were asked to describe specific situations involving ethical challenges or to reflect on how they navigated emotional difficulties while delivering patient care. These prompts encouraged participants to provide detailed narratives, offering insights into their contextual and relational engagement within diverse healthcare settings.

To ensure the credibility and trustworthiness of the data, reflexivity measures were incorporated throughout the data collection process. Researchers maintained reflective journals and conducted regular peer debriefing sessions to identify and address potential biases. These strategies enhanced the rigor of the study and supported a comprehensive understanding of participants' lived experiences, capturing the

relational and systemic challenges encountered during their community health practicums.

#### 3.4. Ethical considerations

Ethical approval for this study was obtained from the Human Research and Ethics Committee (Approval No: KFN 4/2023). Participation was entirely voluntary, and it was explicitly communicated that involvement in the study would not affect participants' academic progression. Informed consent was obtained following detailed explanations of the study's objectives, procedures, and participants' rights, including the right to withdraw at any time without penalty. Confidentiality was ensured through the assignment of anonymized codes (e.g., P01, P02), and all data were securely stored to safeguard participants' personal information.

## 3.5. Data analysis

Data analysis followed the principles of Interpretative Phenomenological Analysis (IPA), underpinned by Heideggerian hermeneutics. This iterative process sought to uncover the essence of participants' lived experiences and the meanings they ascribed to them, aligning with the study's focus on transformative learning. Heideggerian phenomenology was chosen over grounded theory due to its emphasis on interpreting existential and relational meanings embedded in participants' narratives, rather than constructing theoretical frameworks.

The analysis began with an immersive reading and re-reading of interview transcripts to identify significant statements reflecting ethical dilemmas, emotional challenges, and collaborative dynamics (Smith et al., 2009). Contextual and relational aspects of participants' experiences were explored through annotation and thematic grouping, emphasizing the concept of Being-in-the-world (Heidegger, 1962). Methodological triangulation, including cross-verification of data, reflexive journaling, and peer debriefing, was employed to enhance the credibility and trustworthiness of the findings.

Themes were synthesized to examine the interplay between emotional, ethical, and systemic dimensions of transformative learning, highlighting the holistic nature of professional development (Van Manen, 1997). The findings illustrated how nursing students' experiences fostered ontological growth, professional competence, and relational care dynamics (Benner et al., 2001).

#### 4. Results and discussion

# 4.1. Results

The community healthcare practicums provided nursing students with the opportunity to engage with real-world complexities, offering a framework for transformative learning. The study explores how the disorienting dilemmas encountered by students shaped their emotional intelligence, ethical reasoning, and professional growth, aligned with Mezirow's transformative learning theory.

1) Theme 1 Emotional Dilemmas Requiring Empathy and Professionalism

Nursing students frequently faced emotionally charged situations that tested their ability to balance empathy with professionalism. These dilemmas required students to engage deeply with patients' emotional needs while maintaining professional boundaries.

## (1) Subtheme 1.1 Balancing Empathy and Professionalism

Students navigated the tension between providing emotional support and maintaining professional objectivity.

For example, Participant P01 reflected: "When a patient broke down in tears due to their illness, I felt deep compassion but had to regulate my emotions to provide clear guidance."

Similarly, P03 shared: "A patient with end-stage renal disease appeared exhausted and in need of help. While I wanted to assist, I had to be cautious to maintain my professional boundaries."

These reflections highlight how students developed emotional regulation skills, which were essential for providing compassionate yet professional care. These experiences enhanced the students' self-awareness and emotional intelligence, both of which are crucial for professional development.

## (2) Subtheme 1.2 Navigating Family Disagreements in Care

Decisions Students often mediated family conflicts regarding care decisions.

Participant P04 shared: "In a family meeting about end-of-life care, there were differing opinions among members. I had to mediate to guide them toward the best decision for the patient."

P05 also noted: "I had to assist family members with varying viewpoints in understanding the importance of choosing the most suitable care plan for the patient."

These moments helped students hone their communication and conflict-resolution skills, critical aspects of their professional growth.

## 2) Theme 2 Ethical Dilemmas in Patient Care

Ethically complex situations, such as balancing patient autonomy with clinical outcomes, required students to refine their ethical reasoning.

#### (1) Subtheme 2.1 Ethical Decisions in Continuing

Treatment with Limited Prognosis Students grappled with the ethical implications of treating patients with limited recovery potential.

P06 explained: "Explaining the limited chances of recovery to families while respecting their hopes for the patient required a careful and gentle approach."

P07 added: "I had to encourage a family to think about the patient's quality of life, which was difficult but necessary."

These dilemmas allowed students to refine their ethical decision-making and gain a deeper understanding of patient-centered care.

## (2) Subtheme 2.2 Responding to Patients

Who Decline Treatment When patients refused treatment, students respected their autonomy while facilitating informed decisions.

P08 stated: "When a patient refused treatment, I explained its benefits without coercion, enabling them to make an informed decision."

P09 reflected: "I listened carefully to the patient's concerns and responded with explanations that respected their preferences."

This illustrates how the students applied Mezirow's concept of critical reflection in ethical decision-making, fostering trust and communication with patients.

3) Theme 3 Navigating Roles and Responsibilities within Community Healthcare Teams

Collaboration in multidisciplinary teams was central to students' development of professional identities. These collaborative experiences were instrumental in helping students clarify their roles and responsibilities within healthcare teams.

(1) Subtheme 3.1 Defining Responsibilities in Collaborative

Teams Students initially felt uncertain about their roles within community healthcare teams but gradually gained clarity through participation.

P10 remarked: "During my first day at a community clinic, I was unsure of my role, but gradually understood how to contribute effectively."

P11 reflected: "Understanding my role enabled smoother collaboration with the team."

These experiences helped students develop confidence and adaptability in teambased environments.

(2) Subtheme 3.2 Interprofessional Communication and Collaboration

Effective communication emerged as a vital skill in ensuring coordinated care.

P12 stated: "Presenting patient information in team meetings helped me improve communication and collaboration skills."

P13 noted: "I adjusted my communication style to suit team members from different disciplines, enhancing mutual understanding."

These experiences reflect how students enhanced their interprofessional communication skills, a key competency for nursing practice.

4) Theme 4 Resource Allocation Ethics in Community Healthcare

Resource limitations required students to innovate and prioritize care in ethically challenging environments. These dilemmas illuminated the systemic interconnectedness of healthcare delivery.

(1) Subtheme 4.1 Adapting to Resource Constraints During Home

Visits Students faced resource limitations in providing care during home visits.

P14 shared: "Sometimes, I made the best of available equipment to compensate for the lack of resources."

P15 added: "I had to find innovative solutions when faced with resource limitations during home visits."

These moments encouraged critical thinking and adaptability in constrained settings.

(2) Subtheme 4.2 Resolving Ethical Dilemmas

Around Access to Care Students encountered dilemmas when families refused necessary interventions.

P16 recounted: "When families refused care, I had to suggest alternatives without imposing undue pressure."

P17 reflected: "I had to explain the importance of care in a way that respected family beliefs while finding the best solution for the patient."

These reflections illustrate the importance of balancing ethical sensitivity and cultural considerations in patient care.

Summary

Community healthcare practicums provided nursing students with transformative learning experiences, profoundly shaping their professional and ethical development. These practicums exposed students to a range of emotional, ethical, collaborative, and resource-related dilemmas, fostering both personal and professional growth.

Emotional and ethical dimensions were central to the students' experiences. Their ability to regulate emotions played a crucial role in navigating ethical dilemmas, enabling them to make thoughtful, empathetic decisions. This balance between emotional awareness and ethical reasoning helped them provide patient-centered care while adhering to professional principles, instilling a stronger sense of responsibility.

Teamwork and resource management were also critical aspects of their development. Working within interdisciplinary teams highlighted the challenges posed by limited resources. These situations emphasized the importance of shared responsibility, adaptive communication, and systemic problem-solving, preparing students to manage complex, team-based care in resource-limited settings.

Reflective practice served as a bridging mechanism for integrating learning. Reflective journaling became a vital tool, helping students connect their emotional experiences, ethical challenges, and teamwork efforts. Through introspection, they integrated theoretical knowledge with practical application, allowing them to engage with their roles more deeply and with greater clarity.

Addressing ethical dilemmas honed students' critical thinking and decision-making skills, while emotionally charged experiences nurtured resilience and empathy. Collaborative teamwork enhanced interpersonal competence, and resource constraints inspired creativity and adaptability. These cumulative experiences deepened students' understanding of their role within healthcare systems and their interconnectedness with the broader community.

Through Heideggerian phenomenology, this study highlights how transformative learning equips nursing students to navigate complex healthcare environments with professionalism, compassion, and ethical integrity. **Figure 1** illustrates the key components of transformative learning experienced by nursing students during their community healthcare practicums.

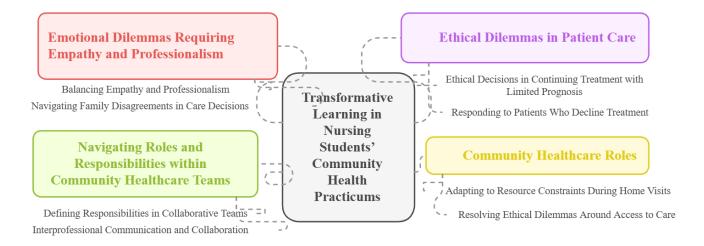


Figure 1. Transformative learning in nursing students' community healthcare practicums.

#### 4.2. Discussion

## 4.2.1. Transformative learning potential in community healthcare practicums

This study emphasizes the transformative potential of community healthcare practicums in shaping nursing students' professional competencies, fostering shifts in perspective, and promoting ontological growth. Challenging experiences such as ethical dilemmas, emotionally charged situations, and resource limitations catalyzed significant personal and professional development. These findings align with transformative learning theory, which posits that disorienting dilemmas act as catalysts for critical reflection, growth and increase professional competence (Mezirow, 1997; Taylor, 2007). Furthermore, the mentorship enhances transformative learning during practicums, who can help nursing student to develop relational skills and apply theoretical knowledge in community healthcare settings (Kaikeaw et al., 2023; Van Manen, 1990).

# 4.2.2. Emotional dilemmas and professionalism

The emotional challenges faced by nursing students were central to their professional development. This aligns with research that highlights the importance of emotional intelligence in nursing practice (Cheraghi et al., 2023). The ability to balance empathy with professionalism in emotionally charged situations is crucial for providing effective care. This study supports the idea that managing such dilemmas helped students develop emotional regulation, a key skill for compassionate yet professional care (Akdeniz et al., 2021). These emotional challenges not only fostered self-awareness but also enhanced emotional intelligence, both of which are integral for professional growth (Atta et al., 2024).

#### 4.2.3. Teamwork and collaborative roles

Collaboration in interdisciplinary teams played a crucial role in students' development of professional identities and their understanding of healthcare roles. This finding supports previous studies on the significance of interprofessional education in fostering effective teamwork (Sangaleti et al., 2017). As students navigated their roles within multidisciplinary teams, they developed confidence and clarity about their professional identity, a theme that resonates with the work of Busari et al. (2017), which emphasizes the importance of role clarification and interprofessional collaboration in nursing practice. These collaborative experiences helped students enhance their communication and teamwork skills, contributing to their overall professional growth.

#### 4.2.4. Resource allocation and problem-solving

The challenges posed by resource limitations in community healthcare settings prompted students to innovate and prioritize care. This aligns with the findings of Khatiban and Falahan (2019) and Van Manen (1997), which highlight the importance of creative problem-solving when working within resource-constrained environments. The nursing students developed critical thinking skills as they managed limited resources, balancing ethical considerations and patient care. These experiences underscore the systemic interconnectedness of healthcare delivery and the need for resource management skills, which are essential in preparing students to address real-world challenges effectively.

#### 4.2.5. Reflective practice: Bridging experience and knowledge

Reflective journaling emerged as a critical tool for students to process their experiences, connect theoretical knowledge with practical applications, and enhance their critical thinking. The iterative nature of reflective practice helped students explore emotional, ethical, and relational dimensions of care, deepening their self-awareness and professional growth. This finding is consistent with existing research on the role of reflective practice in nursing education, which highlights its value in fostering self-awareness and professional development (Sinthuchai et al., 2018). Reflective practice enabled students to internalize learning from real-world experiences, helping them refine their approach to patient care.

## 4.2.6. Practical implications for nursing education

The findings underscore the importance of embedding transformative learning principles into nursing curricula. Structured experiential and reflective practices, such as journaling, case discussions, and simulations, can enhance critical thinking, emotional intelligence, and resilience among nursing students. As suggested by Khatiban and Falahan (2019) and Seshan et al. (2021), these practices prepare students to navigate complex healthcare challenges with professionalism and ethical integrity. However, it is essential to consider resource constraints when designing these learning opportunities, as infrastructure and training may be required to make these practices accessible to all students, especially in resource-limited settings.

## 4.2.7. Cultural and contextual variability

While this study was conducted within a specific cultural and educational context, its findings have broader implications for nursing education globally. Research by Ghasemi et al. (2020) highlights how cultural differences influence students' responses to disorienting dilemmas. Expanding this research to include diverse healthcare systems and educational settings can inform the development of globally relevant curricula, ensuring that nursing students are adequately prepared for the complexities, in rural or resource-scarce settings of international healthcare environments.

#### 5. Conclusion

This study provides critical insights into the transformative potential of community healthcare practicums in nursing education. By integrating transformative learning principles, these practicums help prepare nursing students to address the complexities of modern healthcare systems with professionalism, empathy, and ethical integrity.

The findings contribute to bridging the gap between theory and practice, offering actionable strategies for educators to foster reflective practices, critical thinking, and collaborative skills in their curricula. These approaches are essential for equipping students to navigate resource-limited and culturally diverse healthcare environments, enhancing their ability to deliver patient-centered care.

This research also emphasizes the need for sustained innovation in nursing education. Future efforts should focus on embedding transformative learning frameworks that prioritize systemic awareness and adaptability. By preparing students

to think critically and act ethically, nursing programs can empower future professionals to advance equitable and sustainable healthcare practices worldwide.

# 6. Limitations of the study

This study has several limitations that warrant consideration. First, the sample predominantly comprised female nursing students from a single university, which may limit the diversity of perspectives and the applicability of findings to broader populations of nursing students with varying cultural, educational, or demographic backgrounds. Second, the study was conducted within the urban context of Bangkok, which may not fully capture the realities of rural healthcare settings or those in other regions with distinct cultural norms and resource availability. Third, the relationship between the researchers and participants may have introduced potential biases, as this dynamic could have influenced how participants conveyed their experiences and how the data was subsequently interpreted. Despite these limitations, they align with the methodological aims of qualitative research, which prioritizes rich, contextualized insights over broad generalizability.

#### 7. Recommendations for future research

To further expand the understanding and application of transformative learning in nursing education, future research should explore diverse methodologies and study designs, including the following:

Investigate transformative learning experiences in both rural and urban settings, or across countries with varying healthcare systems. This approach would identify universal principles of transformative learning and highlight culturally specific adaptations that enhance its relevance across diverse contexts.

Utilize a mixed-methods approach that combines qualitative interviews with quantitative surveys. This methodology would provide a more comprehensive understanding of the cultural, systemic, and institutional factors that shape transformative learning outcomes.

Design and evaluate structured strategies for integrating transformative learning principles into nursing curricula. For instance, compare the effectiveness of interventions such as reflective journaling, simulation-based training, and long-term mentoring programs in fostering critical thinking, ethical decision-making, and professional adaptability.

Focus on creating and validating standardized tools, such as Critical Reflection Scales or emotional intelligence assessments, to measure the impact of transformative learning strategies systematically. These metrics would enhance the precision and reliability of outcome evaluations.

Conduct longitudinal studies to track nursing students beyond graduation and into their professional practice. Such research would assess the sustained impact of transformative learning on professional competencies, resilience, and patient care outcomes using quantitative tools like Professional Competency Assessments.

# 8. Implications for policy and curriculum design

This study provides a focused examination of the transformative effects of community healthcare practicums in nursing education, highlighting their essential role in facilitating professional growth, reflective practice, and the development of core nursing competencies. By addressing the practical challenges that nursing students encounter in real-world healthcare settings, these findings offer evidence-based recommendations for curriculum development and policy formulation.

## 8.1. Integration of experiential learning into curricula

The results of this study emphasize the necessity of incorporating experiential learning activities into nursing curricula to deepen students' engagement with complex healthcare environments. Educational strategies such as community practicums, case-based learning, and simulation exercises immerse students in realistic scenarios that mirror the challenges of professional practice. These activities enable students to critically reflect on their experiences, develop adaptive strategies, and cultivate practical competencies such as critical thinking, teamwork, and problem-solving. Embedding these activities within the curriculum prepares students to manage the multifaceted demands of contemporary healthcare settings effectively.

# 8.2. Developing emotional intelligence and ethical reasoning

Experiences involving ethical dilemmas and emotionally charged situations are critical for fostering emotional intelligence and ethical decision-making in nursing students. Emotional intelligence allows students to engage empathetically with patients and families, while ethical reasoning supports them in navigating complex moral challenges with confidence and integrity. Structured reflective practices, including journaling, guided peer discussions, and mentorship programs, should be integrated into the curriculum to enable students to process these challenging experiences and connect theoretical knowledge to their practical applications. This approach not only reinforces professional competence but also enhances the moral and empathetic dimensions of nursing practice.

# 8.3. Aligning policies with transformative learning principles

Educational policies should reflect the transformative learning framework by emphasizing experiential and reflective learning approaches. These policies should guide the development of curricula that prioritize critical reflection, adaptability, and professional integrity. Institutionalizing structured activities such as community-based practicums, interprofessional team exercises, and reflective workshops ensures that nursing students consistently encounter opportunities to build critical competencies. These policies can serve as a foundation for equipping future nurses to address diverse challenges in global healthcare environments while adhering to professional and ethical standards.

## 8.4. Encouraging ontological growth and systemic awareness

Transformative learning fosters ontological growth, equipping students with a deeper understanding of their professional roles within broader healthcare systems.

Immersive experiences in resource-limited environments encourage students to assess the systemic implications of their clinical decisions and adopt sustainable practices that prioritize both individual patient care and community health. Educational strategies should aim to cultivate this systemic awareness, empowering students to navigate healthcare inequities and advocate for equity and sustainability. Preparing students for this level of engagement strengthens their ability to address systemic challenges meaningfully and contribute to the development of resilient healthcare systems.

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## References

- Akdeniz, M., Yardımcı, B., & Kavukcu, E. (2021). Ethical considerations at the end-of-life care. SAGE Open Medicine, 9. https://doi.org/10.1177/20503121211000918
- Atta, M. H. R., Hammad, H. A.-H., & Elzohairy, N. W. (2024). The role of Empathy in the relationship between emotional support and caring behavior towards patients among intern nursing students. BMC Nursing, 23(1). https://doi.org/10.1186/s12912-024-02074-w
- Benner, P. (2001). From novice to expert: Excellence and power in clinical nursing practice (Commemorative ed.). Prentice Hall.
- Béres, L., & Fook, J. (2019). Learning critical reflection: Experiences of the transformative learning process, 1st ed. Routledge.
- Budler, L. C., Gosak, L., Vrbnjak, D., et al. (2022). Emotional Intelligence among Nursing Students: Findings from a Longitudinal Study. Healthcare, 10(10), 2032. https://doi.org/10.3390/healthcare10102032
- Busari, J., Moll, F., & Duits, A. (2017). Understanding the impact of interprofessional collaboration on the quality of care: a case report from a small-scale resource limited health care environment. Journal of Multidisciplinary Healthcare, 10, 227–234. https://doi.org/10.2147/jmdh.s140042
- Changsoo, R. (2023). Changing Dynamics of Urbanization and Social Inequality: A Case Study of Informal Settlements in Bangkok, Thailand. International Journal of Science and Society, 5(3), 377–387. https://doi.org/10.54783/ijsoc.v5i3.757
- Cheraghi, R., Valizadeh, L., Zamanzadeh, V., et al. (2023). Clarification of ethical principle of the beneficence in nursing care: an integrative review. BMC Nursing, 22(1). https://doi.org/10.1186/s12912-023-01246-4
- Freire, P. (1970). Pedagogy of the oppressed. New York, NY: Herder and Herder.
- Ghasemi, M. R., Moonaghi, H. K., & Heydari, A. (2020). Strategies for sustaining and enhancing nursing students' engagement in academic and clinical settings: a narrative review. Korean Journal of Medical Education, 32(2), 103–117. https://doi.org/10.3946/kjme.2020.159
- Govere, L., & Govere, E. M. (2016). How Effective is Cultural Competence Training of Healthcare Providers on Improving Patient Satisfaction of Minority Groups? A Systematic Review of Literature. Worldviews on Evidence-Based Nursing, 13(6), 402–410. Portico. https://doi.org/10.1111/wvn.12176

- Heidegger, M. (1962). Being and time. New York, NY: Harper & Row.
- Kaikeaw, S., Punpuing, S., Chamchan, C., et al. (2023). Socioeconomic inequalities in health outcomes among Thai older population in the era of Universal Health Coverage: trends and decomposition analysis. International Journal for Equity in Health, 22(1). https://doi.org/10.1186/s12939-023-01952-0
- Karam, M., Chouinard, M.-C., Poitras, M.-E., et al. (2021). Nursing Care Coordination for Patients with Complex Needs in Primary Healthcare: A Scoping Review. International Journal of Integrated Care, 21(1), 16. https://doi.org/10.5334/ijic.5518
- Khatiban, M., Falahan, S. N., Amini, R., et al. (2018). Lecture-based versus problem-based learning in ethics education among nursing students. Nursing Ethics, 26(6), 1753–1764. https://doi.org/10.1177/0969733018767246
- Kolb, D. A. (1984). Experiential learning: Experience as the source of learning and development. Englewood Cliffs, NJ: Prentice-Hall.
- Mahlanze, H. T., & Sibiya, M. N. (2017). Perceptions of student nurses on the writing of reflective journals as a means for personal, professional and clinical learning development. Health SA Gesondheid, 22, 79–86. https://doi.org/10.1016/j.hsag.2016.05.005
- Mezirow, J. (1997). Transformative Learning: Theory to Practice. New Directions for Adult and Continuing Education, 1997(74), 5–12. Portico. https://doi.org/10.1002/ace.7401
- Mezirow, J. (2000). Learning to think like an adult: Core concepts of transformation theory. In Mezirow, J. & Associates (editors). Learning as Transformation: Critical Perspectives on a Theory in Progress. Jossey-Bass.
- National Academies of Sciences, Engineering, and Medicine, National Academy of Medicine, & Committee on the Future of Nursing 2020-2030. (2021). The future of nursing 2020-2030: Charting a path to achieve health equity. In: Flaubert, J. L., Le Menestrel, S., & Williams, D. R. (editors). Washington, DC: National Academies Press.
- Sangaleti, C., Schveitzer, M. C., Peduzzi, M., et al. (2017). Experiences and shared meaning of teamwork and interprofessional collaboration among health care professionals in primary health care settings: a systematic review. JBI Database of Systematic Reviews and Implementation Reports, 15(11), 2723–2788. https://doi.org/10.11124/jbisrir-2016-003016
- Seshan, V., Matua, G. A., Raghavan, D., et al. (2021). Case Study Analysis as an Effective Teaching Strategy: Perceptions of Undergraduate Nursing Students From a Middle Eastern Country. SAGE Open Nursing, 7. https://doi.org/10.1177/23779608211059265
- Sinthuchai, S., Dejpituksirikul, S., & Yoksuriyan, P. (2018). Reflective practice in nursing education. Journal of the Royal Thai Army Nurses, 19(2), 15-23.
- Taylor, E. W. (2007). An update of transformative learning theory: a critical review of the empirical research (1999–2005). International Journal of Lifelong Education, 26(2), 173–191. https://doi.org/10.1080/02601370701219475
- Van Manen, M. (1997). Researching Lived Experience: Human Science for an Action Sensitive Pedagogy, 2nd ed. Routledge.
- Wu, C. Y., Wu, Y. H., Chang, Y. H., et al. (2021). Community Nurses' Preparations for and Challenges in Providing Palliative Home Care: A Qualitative Study. International Journal of Environmental Research and Public Health, 18(22), 11838. https://doi.org/10.3390/ijerph182211838