

Cultivating mutual mentorship: Reimagining relational leadership in perioperative nursing

Jennifer Dunn^{1,2}

¹Alberta Children's Hospital, Calgary, Alberta

²University of Saskatchewan, Saskatoon, Saskatchewan

Address for correspondence: jennifer.dunn@mail.usask.ca

Abstract

The perioperative environment is one of the most complex in healthcare, requiring technical precision, interdisciplinary coordination, and the capacity for adaptive leadership. Traditional mentorship models, which are often hierarchical and episodic, no longer meet the evolving needs of today's diverse surgical teams. This article presents a conceptual discussion of a Mutual Mentorship Model specifically designed for perioperative nursing. The model is informed by adult learning theory, transformational leadership, and Patricia Benner's Novice to Expert framework, emphasizing reciprocity, psychological safety, and shared accountability through co-mentorship, where both participants engage as learners and contributors.

The approach includes strategies such as cross-role matching, reflective dialogue, and mentorship cycles. These are supported by a set of modular resources currently in development. This paper outlines how they may eventually support integration within existing professional development systems. The model addresses skill development and the structural, emotional, and cultural challenges of perioperative work.

In addition, a proposed evaluation plan is included to explore potential outcomes, such as increased clinical confidence, improved retention, and strengthened professional identity. By shifting mentorship from a transactional process to one centred on relationships and shared growth, this model offers a framework for fostering connection, leadership, and long-term resilience in perioperative nursing.

Keywords: mutual mentorship, perioperative nursing, relational leadership, adult learning theory, psychological safety, transformational leadership, nursing workforce development

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Introduction

The perioperative setting demands vigilance, seamless coordination, and the ability to adapt to rapidly changing circumstances. While technical precision is essential, the quality of interpersonal relationships often plays an equally vital role in shaping clinical outcomes and team resilience (Rosen et al., 2018). Nurses working in this environment must navigate complex procedures and, at the same time, emotionally intense situations, fluctuating team dynamics, and the need for effective communication under pressure (Cooper et al., 2021; Frick et al., 2024). These relational dynamics are increasingly recognized as central to staff well-being, team cohesion, and retention (Turcotte et al., 2023). To support these needs, there must be intentional efforts to foster connection, shared growth, and mutual accountability.

Considering these challenges, this article introduces a Mutual Mentorship Model developed specifically for perioperative nursing. Informed by adult learning theory (Knowles et al., 2015), transformational leadership (Bass, 1985), and Benner's Novice to Expert framework (1984), this model positions mentorship as a reciprocal and evolving process. Unlike traditional hierarchical approaches, it promotes psychological safety, co-designed learning goals, and relational accountability. Nurses are encouraged to act as both learners and contributors, engaging in reflective and collaborative partnerships that develop over time.

Beyond theoretical foundations, the model is designed with practical implementation in mind. The overview that follows is conceptual, yet grounded in real clinical needs, offering foundational insights ahead of formal program rollout. The mentorship resources referenced are currently under development and will be introduced in future publications. The goal of this early exploration is to establish a flexible framework that can be adapted and refined within the diverse realities of perioperative teams.

The discussion begins by identifying the current needs of perioperative teams, especially those experiencing burnout, marginalization, or transition. It then outlines the model's core

components and potential applications in clinical practice. Lastly, it offers strategies for evaluation and reflects on how a relational approach to mentorship can shift professional culture toward connection, trust, and shared leadership.

Why mutual mentorship matters in the perioperative environment

To situate this model within existing practice, it is first necessary to examine how mentorship has traditionally been structured in the perioperative environment, and why those approaches fall short of current needs. Mentorship in perioperative nursing often has been understood as a top-down exchange, where senior nurses instruct newer staff in tasks and routines, without fostering critical thinking or leadership capacity (Farlow & Ahmadmehrabi, 2021). This unidirectional model prepares nurses to function within existing systems, but often discourages questioning, adaptation, or improvement. It reinforces inherited hierarchies that position nurses as support staff rather than autonomous professionals, limiting both growth and voice (Hall, 2021; Salazar Maya, 2022). For a multigenerational workforce navigating burnout, equity gaps, and role transitions, such a static approach no longer fits (Proba, 2024). What's needed is not more instruction, but deeper connection.

Mutual mentorship offers a necessary redesign. Instead of relying on episodic check-ins or rigid seniority structures, it reframes mentorship as a continuous exchange in which each participant contributes unique insights shaped by background, experience, and generational perspective. A seasoned circulator, for example, may offer expertise in navigating procedural stress, while a newer nurse brings ideas about inclusive communication or documentation tools. This approach makes growth collaborative, reflective, and multidirectional.

To make this actionable, the model incorporates practical strategies, such as co-setting learning goals tied to clinical challenges, journaling to process emotionally complex cases, and brief debriefs to address interpersonal dynamics. These tools support mentorship as a living, relational practice that evolves alongside clinical work (Quayson, 2022).

Beyond the individual benefits of these strategies, the shift toward mutual mentorship is both timely and necessary. Nurses represent more than half the global healthcare workforce, yet they remain underrepresented in decisions about care structures and delivery models (Kim et al., 2022). When nurses are excluded from shaping policies or leading change, critical insights are lost. Reframing mentorship as a shared, reflective process restores both agency and voice, contributing to professional development and also to cultural transformation (O'Connor et al., 2025).

Furthermore, as experienced staff retire, the risk of losing institutional knowledge increases. Mutual mentorship, grounded in dialogue and storytelling, becomes a method for preserving

tacit clinical wisdom and transmitting values that are not written in manuals but are lived in relationships (Ronaldson et al., 2017). This approach helps ensure that knowledge and trust are passed on through meaningful conversation, rather than through assumption or omission. Without this shift, perioperative nursing risks losing technical expertise along with the relational culture that sustains teams. To safeguard both, mentorship must evolve beyond formal programs. It must become an everyday practice that fosters learning through relationships and recognizes nurses as experts, collaborators, and informal leaders.

Discussion

These principles form the foundation for the following discussion, which reimagines mentorship within the cultural and operational dynamics of the operating room. Effective mentorship must reflect the realities of clinical practice, where success depends not only on procedural knowledge, but also on teamwork, real-time decision-making, and emotional intelligence to navigate unpredictable situations (Tørring et al., 2019). Traditional structures, often hierarchical or limited to brief orientation, rarely provide adequate support in high-demand clinical contexts (Kays et al., 2023). What is needed instead is a responsive system that integrates learning into daily workflows, builds interpersonal trust, and fosters reflective, team-based growth (Leclerc et al., 2022).

To meet these needs in practice, the Mutual Mentorship Model embeds reflective learning into daily clinical routines. This approach is grounded in reciprocity, shared learning, and psychological safety, principles that shape how nurses connect, grow, and collaborate (Hardie et al., 2022). Rather than treating mentorship as a one-way exchange, it invites nurses to co-create learning goals tied to clinical realities and to contribute insights regardless of tenure or title. Drawing on principles of mentorship sustainability and relationship-centred learning described in the literature (Mukhalalati & Taylor, 2019), these foundational ideas are applied to the perioperative setting.

Acknowledging that professional development is non-linear, the framework also accommodates the way nurses build judgment through experience, feedback, and reflection (Melin-Johansson et al., 2017). Learning is structured into flexible phases of goal setting, feedback, and shared reflection, each designed to adapt to changing needs and contexts (He et al., 2024). This structure allows insight to emerge from collaboration rather than from role-based instruction alone.

The framework further emphasizes informal, relational forms of leadership that arise through everyday clinical moments. For example, a nurse may demonstrate leadership by de-escalating tension during a high-stakes case or by offering emotional support to a peer after a difficult shift. These acts are not dependent on formal authority, but reflect the kind of

cultural impact that mentorship seeks to cultivate (Briciu et al., 2024; Lawson & Fleshman, 2020). As described earlier, mutual mentorship reinforces these behaviours, by creating space for trust, dialogue, and shared responsibility.

In addition to supporting individual growth, this strategy advances broader organizational goals, including inclusive development, staff engagement, and succession planning (Morrison et al., 2021; Sullens & Gonzalez, 2025). It addresses systemic inequities by creating deliberate space for underrepresented voices to shape culture and influence team dynamics (Davis, 2024; Iheduru-Anderson & Shingles, 2023).

This approach also plays a vital role in preserving experiential knowledge. Much of the clinical wisdom nurses carry, including how to manage team dynamics, read interpersonal cues, or respond to unspoken tension, is often passed on informally, if at all, and rarely benefits from structured reflection or dialogue (Cioffi, 2025). This tacit knowledge can disappear as experienced staff leave the workforce (Chyzy et al., 2025; Pullen, 2025). Mutual mentorship helps safeguard this knowledge by weaving it into daily relational practice.

To operationalize these principles, this mentorship model incorporates lightweight, adaptable resources designed for real-time clinical use. These include conversation starters, journaling prompts, and feedback templates that support meaningful reflection without adding burden. The resources are grounded in trauma-informed design and acknowledge the emotional and time-based constraints of perioperative work (Purkey et al., 2018).

Importantly, this model does not depend on costly infrastructure or external consultants. Instead, it relies on relational commitment: from leaders who model reflective learning, from educators who make space for mentorship, and from teams who engage with openness and intention. As discussed, its tools and processes are intentionally flexible and continue to evolve through frontline feedback and practice-based iteration (Brown-DeVeaux et al., 2025; Burgess et al., 2018).

At its core, mutual mentorship is about restoring human connection in clinical environments. When mentorship becomes a routine part of care, nurses feel grounded, supported, and empowered to thrive in complexity (Watson et al., 2025). Its strength lies in theory and, more importantly, in its capacity to translate shared values into everyday practice, where professional growth is sustained through trust, reflection, and mutual respect.

Conceptual framework

Building on this foundation, the conceptual framework guiding this approach emphasizes practicality, relevance, and relationship-centred learning. Rather than presenting theory for its own sake, this mentorship model draws from lived clinical experience and the day-to-day realities of perioperative

nursing. It is based on the understanding that professional growth stems from reflection, dialogue, and relational learning integrated into real-time practice (Tørring et al., 2019).

Mutual mentorship is structured around three interrelated principles: reciprocity, where learning flows in both directions regardless of tenure; psychological safety, which allows nurses to speak openly without fear of judgment; and co-mentorship, which treats all participants as both contributors and learners. These foundational ideas shape how mentorship is experienced on the ground and embedded within team dynamics.

The first principle emphasizes the importance of treating nurses as capable, experience-based learners. Engagement tends to be higher when development is relevant, self-directed, and rooted in real challenges (Dion et al., 2025). In the high-demand setting of the OR, traditional top-down instruction often fails to connect meaningfully with staff (Frasier et al., 2019). This mentorship strategy invites nurses to identify their learning goals, reflect on emotionally complex moments, and build skills through lived experience. The process supports deeper knowledge retention, while fostering a strong sense of agency and professional ownership (Rinfret et al., 2023).

The second principle recognizes that clinical expertise evolves over time. Judgment is developed gradually through repeated exposure, thoughtful feedback, and accumulated insight (Dewitt et al., 2021). By encouraging partnerships across generations, roles, and experience levels, this framework creates space for mutual learning. A newer nurse may contribute fresh insights or digital fluency, while a seasoned colleague may offer procedural intuition and contextual knowledge. These reciprocal exchanges make the learning process richer and more adaptive (Hofler & Thomas, 2016).

The third principle focuses on the value of relational influence within teams. For example, when a nurse de-escalates a conflict, provides quiet support after a difficult shift, or calmly leads during a high-stakes moment, they are demonstrating the kind of everyday leadership that strengthens team cohesion (Lenssen et al., 2025). As introduced earlier, leadership can extend beyond formal title or tenure; this strategy sustains that perspective by reinforcing practices that nurture trust and psychological safety (Gottlieb et al., 2021). When combined, these principles shape a mentorship approach that becomes part of daily clinical routines, moving beyond the limits of orientation or reliance on a single preceptor (Moss et al., 2023).

The framework also anticipates common barriers to sustainable mentorship. Intentional pairings, such as connecting a clinical educator with a new team lead, help to expand access to development opportunities across roles (Burgess et al., 2018). Flexible resources allow teams to adapt the model to their own workflows and capacity (Lenssen et al., 2025). In this way, reflection becomes a routine element of care culture, rather than an optional or burdensome task.

Ultimately, mutual mentorship is a shared commitment to growth, connection, and trust. It comes to life not through formal programs alone, but through everyday moments, when two colleagues pause to debrief a case, ask for feedback, or develop a new process together. These relational encounters are where growth takes root and meaningful change begins.

Implementation strategy

To ensure mentorship is intentional and sustainable, the framework is embedded into existing structures, such as orientation programs, performance reviews, and leadership development pathways. Research shows that initiatives integrated into routine workflows are more impactful than those treated as add-ons (Burgess et al., 2018). The goal is to build individual skills while fostering relationships and a culture of shared growth.

Implementation begins with cultivating shared ownership. Nurse educators, clinical leaders, frontline staff, and governance teams are engaged early through informal listening sessions, brief surveys, or focus groups (Bergstedt & Wei, 2020; Brown-DeVeaux et al., 2025). This ensures the structure reflects the real-world pressures, team dynamics, and opportunities unique to each perioperative unit.

Once input is gathered, mutual mentorship is introduced through low-burden, practice-based strategies, such as short learning sessions, scenario-based coaching, and peer-led activities, woven into daily tasks. For example, “huddle learn” prompts during shift transitions or shadowing-reflection moments during clinical downtime help contextualize mentorship within the existing workflow (Nelson, 2022; Ward et al., 2024).

The model aligns closely with perioperative practice, where critical skills are often transferred informally. Mutual mentorship makes these skills intentional by integrating them into structured yet flexible tools. For instance, a feedback guide can prompt reflection on how a nurse initiated a time-out or managed miscommunication, while a planning template helps pairs set OR-specific goals, such as practising closed-loop communication or debriefing critical incidents. Reflection prompts further discussion on conflict management and team resilience after adverse events. In this way, the resources operate not as generic paperwork, but as supports that surface and strengthen the situational judgment and communication required in daily OR practice.

Matching strategies remain flexible, ranging from self-selection and guided pairing to randomized approaches that promote equity and reduce bias (Ali & Patel, 2022). The process then unfolds across three phases—initiation, development, and closure—each marked by moments of reflection, feedback, or co-learning integrated into care delivery. To sustain momentum, some sites may appoint a mentorship lead to coordinate group check-ins, adapt resources, and track engagement with minimal administrative burden. By infusing mentorship into the ongoing dynamics of perioperative care, the model fosters

relational leadership, shared accountability, and lasting team cohesion (Aurilio, 2017; Watson et al., 2025). These outcomes are supported by a set of practical tools and resources that translate the model’s principles into everyday action.

Tools and resources

The resources that support mutual mentorship are intentionally designed to be flexible, low-burden, and responsive to the fast-paced realities of perioperative care. To avoid redundancy, they are summarized here by phase and purpose. A comprehensive implementation manual (in development) will provide editable templates, coaching guides, and digital support for broader application.

Initiation Phase – Establish expectations and trust

- *Mentorship Partnership Agreement* clarifies roles, goals, and confidentiality.
- *Strengths Mapping Worksheet* identifies individual contributions and growth areas.
- *Goal-Setting Template* aligns objectives with real clinical challenges.

Development Phase – Support reflection, relational growth, and shared learning

- *Peer Case Dialogue Prompts* explore emotionally or ethically charged cases.
- *Monthly Reflection Logs* capture evolving insights and questions.
- *Feedback Framework Cards* guide constructive, reciprocal feedback.
- *Voice Note Reflections* provide verbal alternatives for busy clinicians.
- *Shadowing-to-Dialogue Template* structures observation followed by debrief.
- *Micro-Scenario Debrief Cards* prompt reflection on common dilemmas or tensions.

Closure Phase – Reflect on progress and celebrate learning

- *Mentorship Journey Map* helps visualize development and shared contributions.
- *Reciprocity Tracker* documents mutual support and key relational moments.
- *Psychological Safety Pulse Check* assesses trust and communication climate.
- *Co-Led Teaching Summary Sheet* captures joint teaching and knowledge exchange.

Ongoing Use – Reinforce habits during daily practice

- *Dialogue Starter Deck* sparks important but often unspoken conversations.
- *Values Alignment Checklist* explores alignment of individual and team values.
- *Mentorship Bites (audio/video)* deliver micro-skills in accessible formats.
- *Shift Change Prompts* encourage reflection at transition points.
- *Story Swap Cards* normalize learning through brief narratives.

Optional Enhancements – Expand reach and sustainability

- *Co-Teaching Briefing Templates* support shared learning in real time.
- *Digital Dashboards* track engagement and progress lightly.
- *Asynchronous Microlearning Modules* offer self-paced access to topics.
- *Recognition Resources* celebrate mentorship behaviours and outcomes.
- *Peer Learning Cohort Toolkits* foster group reflection and shared practice.

Each resource is modular and adaptable across digital or in-person contexts. Designed with trauma-informed and user-centred principles, they reflect the emotional and time-sensitive realities of perioperative work (Purkey et al., 2018; Sauro & Lewis, 2016). Participation remains voluntary, and teams are encouraged to adapt tools to their specific needs and capacities (Rico et al., 2020). By emphasizing reflection, reciprocity, and equity, the toolkit transforms mentorship from an occasional event into a sustained practice where leadership is relational, learning is mutual, and resilience is collective (Choudhary et al., 2024; Zajac et al., 2025).

Evaluation strategy (future oriented)

To move from aspiration to measurable impact, the next step involves evaluating how this approach performs in practice. As the framework evolves, a forward-looking, mixed-methods evaluation strategy is being developed to assess its feasibility, effectiveness, and sustainability in clinical environments. Grounded in implementation science and logic-model thinking, this plan maps how specific activities and resources contribute to outcomes at the individual, team, and organizational levels. The goal is to track progress through tangible metrics, while capturing participants' lived experiences and ensuring the model remains adaptable and rooted in day-to-day realities (Dahlberg & Byars-Winston, 2019). Feasibility assessments also will examine barriers, such as staffing constraints and limited time, to help ensure integration strategies stay practical and responsive to the operational demands of perioperative care (Pearson et al., 2020).

The evaluation will combine formative (during-program) and summative (post-program) assessments, an approach recommended for ensuring mentorship initiatives remain responsive and impactful throughout their lifecycle (Dahlberg & Byars-Winston, 2019). Quantitative data will be collected through pre- and post-program surveys using validated instruments, including the *Psychological Safety Scale*, which reliably measures team trust and learning behaviours in high-stakes environments (Plouffe et al., 2023), and the *NLN Mentorship Satisfaction Scale*, a well-established measure in nursing education and professional development contexts (Alharbi & Alharbi, 2022).

Alongside these instruments, metrics will be tailored to the perioperative context, to assess three key domains: individual

growth (e.g., clinical confidence and leadership readiness); relational dynamics (e.g., communication, team cohesion, and trust); and organizational impact (e.g., retention, promotion, and participation in leadership pathways). These are outcomes consistently linked to effective mentorship (Salim, 2021). Where possible, and with participant consent, data will be disaggregated by role, career stage, and demographic group, to identify equity-related trends and to ensure the initiative remains inclusive and accessible to nurses from diverse backgrounds. This focus on equity is essential to fostering excellence in contemporary nursing practice (Liang et al., 2023).

To complement these quantitative measures, qualitative insights will be gathered through reflective journals, open-ended prompts, and optional narrative testimonials. These tools allow nurses to share meaningful learning experiences, relational challenges, and moments of growth in their own words (Grant et al., 2023). The narrative data adds depth and context to survey findings, informs ongoing program refinement, and provides real-world examples to support institutional engagement (Lima & Ristum, 2025).

To support continuous responsiveness, real-time feedback checkpoints, such as mid-cycle and post-cycle reflections, will help mentorship leads monitor engagement, identify emerging needs, and adjust accordingly (Viswanath et al., 2019). In addition, facilitators may use digital dashboards or align evaluation tools with existing quality improvement systems to streamline data collection and reduce burden on staff.

The tools used in the mentorship process will also undergo structured evaluation. Each resource, from journaling prompts to feedback templates, will be piloted and refined through iterative cycles involving mentors, mentees, and implementation leads. Assessments will focus on usability, clarity, and alignment with mentorship goals, ensuring that tools remain both practical and relevant to perioperative realities (Khan et al., 2025).

In the longer term, broader institutional indicators, such as retention rates, internal advancement, and informal leadership development, will be tracked in collaboration with staffing and clinical education. These metrics, combined with regular feedback and quarterly stakeholder reviews, will guide updates to mentorship tools, training content, and implementation strategies (Chen et al., 2016).

Overall, this evaluation plan reflects a commitment to creating a mentorship model that is not only relationally meaningful, but also operationally sustainable. By combining quantitative outcomes with narrative insight and aligning tool development with frontline needs, the mutual mentorship framework aims to remain adaptable, relevant, and resilient over time. Ultimately, this adaptability positions the model to respond meaningfully to the urgent challenges facing perioperative nursing today.

Conclusion

The challenges facing perioperative nursing, ranging from widespread burnout and workforce attrition to entrenched hierarchies and generational disconnect, demand more than surface-level interventions. They call for a reimagining of how professional relationships are built, sustained, and used to foster resilience in high-pressure environments. Mutual mentorship offers such a reimagining. It is not simply a strategy for skill development, but a framework for restoring trust, collaboration, and shared leadership at the heart of perioperative practice.

By rejecting the limitations of traditional, top-down mentorship, this model centres on reciprocity, psychological safety, and collective reflection. It honours the contributions of all nurses, whether drawn from clinical wisdom, cultural perspective, or technological fluency, and channels those assets into partnerships in which both growth and leadership are mutual. In doing so, it translates organizational values like equity, inclusion, and autonomy into lived experience.

What brings these values to life is not theory, but daily practice. The strength of this model lies in its ability to embed mentorship into the natural rhythm of surgical work. Rather than functioning as an add-on or separate program, mutual mentorship becomes part of the way teams communicate, learn, and lead together. It shifts mentorship from task to culture—from role-based instruction to relational engagement.

Now is the time to invest in such a shift. Perioperative nurses cannot be expected to thrive within systems that fail to nurture them. Mutual mentorship offers a different path, one that builds professional skill, as well as collective strength. This is not just a project. It is a long-term commitment to change. Like any cultural transformation, it begins in practice, in relationship, and in the willingness to imagine something better, together.

Author Note



Jennifer Dunn, MN, RN, is a doctoral student in Nursing at the University of Saskatchewan and has more than two decades of clinical experience. She holds a Bachelor of Nursing from the University of New Brunswick (2000) and a Master of Nursing from the University

of Lethbridge (2024), supported by the Alberta Graduate Excellence Scholarship (2022). Her research examines the experiences of perioperative nurses, focusing on how larger systemic forces shape their personal career journeys and daily work realities.

Jennifer's clinical expertise spans neonatal and paediatric perioperative care, having begun her career in the Neonatal Intensive Care Unit at the Janeway Children's Hospital before specializing in paediatric perioperative nursing at the

Alberta Children's Hospital. She has been recognized for her contributions to nursing scholarship, receiving the University of Saskatchewan's Doctoral Student Support Fund Award (2024–2025). She is also an active volunteer with Project Outreach, where she collaborates with multidisciplinary teams to support healthcare professionals in underserved regions, promoting sustainable, community-based health initiatives for children worldwide.

Conflicts of Interest

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References

- Alharbi, K., & Alharbi, M. F. (2022). Nursing students' satisfaction and self-confidence levels after their simulation experience. *SAGE Open Nursing*, 8, 23779608221139080. <https://doi.org/10.1177/23779608221139080>
- Ali, N. A. M. A. C., & Patel, R. (2022). Diversity, equity, and inclusion in nursing education: Strategies and processes to support inclusive teaching. *Journal of Professional Nursing*, 42, 67–72. <https://doi.org/10.1016/j.profnurs.2022.05.013>
- Aurilio, L. A. (2017). Creating an inclusive culture for the next generation of nurses. *Nurse Leader*, 15(5), 315–318. <https://doi.org/10.1016/j.mnl.2017.05.013>
- Bass, B. M. (1985). *Leadership and performance beyond expectations*. Free Press.
- Benner, P. (1984). *From novice to expert: Excellence and power in clinical nursing practice*. Addison-Wesley.
- Bergstedt, K., & Wei, H. (2020). Leadership strategies to promote frontline nursing staff engagement. *Nursing Management (Springhouse)*, 51(2), 48–53. <https://doi.org/10.1097/01.NUMA.0000651204.39553.79>
- Briciu, B., Michel, S., & Chavez, R. (2024). Safe space for dialogue—A practice for connected consciousness and compassion. *Challenges*, 15(3), Article 36. <https://doi.org/10.3390/challe15030036>
- Brown-DeVeaux, D., Nolasco, Z., Rodney, P., & Agatep, J. (2025). Leading the way: Nurse leaders cultivating a culture of community through engagement and mentorship. *Nurse Leader*, 23(4), 102443. <https://doi.org/10.1016/j.mnl.2025.102443>
- Burgess, A., van Diggele, C., & Mellis, C. (2018). Mentorship in the health professions: A review. *The Clinical Teacher*, 15(3), 197–202. <https://doi.org/10.1111/tct.12756>
- Chen, Y., Watson, R., & Hilton, A. (2016). A review of mentorship measurement tools. *Nurse Education Today*, 40, 20–28. <https://doi.org/10.1016/j.nedt.2016.01.020>
- Choudhary, P., Ali, I., Rehman, K., Sharma, K., Sharma, K., Borasi, M., & Bhargava, P. (2024). Enhancing mentorship through technology: A comprehensive review of current practices and future directions. *International Journal of Multidisciplinary Research and Growth Evaluation*, 5, 634–645.
- Chyzyy, B., Bookey-Bassett, S., Ziegler, E., Ronquillo, C., & Schwind, J. (2025). Supporting professional development for early career pre-tenure nursing faculty using Narrative Reflective Process. *Journal of Nursing Education and Practice*, 15(2), 73–81. <https://doi.org/10.5430/jnep.v15n2p73>

- Cioffi, J. (2025). Learning from experts: Capturing the tacit knowledge of nursing practice. *Nursing Times*, 121(2), 36–39.
- Cooper, A. L., Brown, J. A., & Leslie, G. D. (2021). Nurse resilience for clinical practice: An integrative review. *Journal of Advanced Nursing*, 77(6), 2629–2646. <https://doi.org/10.1111/jan.14763>
- Dahlberg, M. L., & Byars-Winston, A. (2019). *The science of effective mentorship in STEMM*. National Academies Press. <https://www.ncbi.nlm.nih.gov/books/NBK552763/>
- Davis, S. (2024). Making nursing excellence inclusive. *American Journal of Nursing*, 124(10), 22–23. <https://doi.org/10.1097/01.NAJ.0001069512.01673.38>
- Dewitt, B., Persson, J., Wahlberg, L., & Wallin, A. (2021). The epistemic roles of clinical expertise: An empirical study of how Swedish healthcare professionals understand proven experience. *PLOS ONE*, 16(6), e0252160. <https://doi.org/10.1371/journal.pone.0252160>
- Dion, P. M., Pan, A., Beckett, A., Singh, K., Greene, A., & Rizoli, S. (2025). Prehospital transfusion training in Canada: A national survey of critical care transport organizations. *Scandinavian Journal of Trauma, Resuscitation and Emergency Medicine*, 33, 114. <https://doi.org/10.1186/s13049-025-01435-x>
- Farlow, J. L., & Ahmadmehrabi, S. (2021). New age mentoring and disruptive innovation—Navigating the uncharted with vision, purpose, and equity. *JAMA Otolaryngology–Head & Neck Surgery*, 147(4), 389–390. <https://doi.org/10.1001/jamaoto.2021.0001>
- Frasier, L. L., Pavuluri Quamme, S. R., Ma, Y., Wiegmann, D., Levenson, G., DuGoff, E. H., & Greenberg, C. C. (2019). Familiarity and communication in the operating room. *Journal of Surgical Research*, 235, 395–403. <https://doi.org/10.1016/j.jss.2018.09.079>
- Frick, S. L., Casey, V. F., Shore, B. J., & Waters, P. M. (2024). Building high-performance teams in pediatric orthopaedic surgery: The importance of psychological safety and creating a trusting environment. *Journal of the Pediatric Orthopaedic Society of North America*, 9, 100132. <https://doi.org/10.1016/j.jposna.2024.100132> <https://www.sciencedirect.com/science/article/pii/S2768276524009581>
- Gottlieb, L. N., Gottlieb, B., & Bitzas, V. (2021). Creating empowering conditions for nurses with workplace autonomy and agency: How healthcare leaders could be guided by strengths-based nursing and healthcare leadership (SBNH-L). *Journal of Healthcare Leadership*, 13, 169–181. <https://doi.org/10.2147/JHL.S221141>
- Grant, N., Meyer, J. L., & Strambler, M. J. (2023). Measuring social and emotional learning implementation in a research-practice partnership. *Frontiers in Psychology*, 14, 1052877. <https://doi.org/10.3389/fpsyg.2023.1052877>
- Hall, M. L. (2021). *Relationship between perioperative nurses' perception of empowerment, job satisfaction, and intent to stay* (Publication No. 2553797456) [Doctoral dissertation, University of Phoenix]. ProQuest Dissertations & Theses Global. <https://www.proquest.com/dissertations-theses/relationship-between-perioperative-nurses/docview/2553797456/se-2>
- Hardie, P., O'Donovan, R., Jarvis, S., & Redmond, C. (2022). Key tips to providing a psychologically safe learning environment in the clinical setting. *BMC Medical Education*, 22(1), 816. <https://doi.org/10.1186/s12909-022-03892-9>
- He, X., Mao, Y., Cao, H., Li, L., Wu, Y., & Yang, H. (2024). Factors influencing the development of nursing professionalism: A descriptive qualitative study. *BMC Nursing*, 23(1), Article 283. <https://doi.org/10.1186/s12912-024-01945-6>
- Hofler, L., & Thomas, K. (2016). Transition of new graduate nurses to the workforce: Challenges and solutions in the changing health care environment. *North Carolina Medical Journal*, 77(2), 133–136. <https://doi.org/10.18043/ncm.77.2.133>
- Iheduru-Anderson, K. C., & Shingles, R. R. (2023). Mentoring experience for career advancement: The perspectives of Black women academic nurse leaders. *Global Qualitative Nursing Research*, 10, 1–12. <https://doi.org/10.1177/23333936231155051>
- Kays, M. N., Rupert, D. D., Negris, O., Thompson, B., Clayman, M. L., Mordell, L., Pendergrast, T., Bloomgarden, E., Bhayani, R. K., & Jain, S. (2023). Flattening hierarchical structures to empower women trainee leaders on social media teams. *Journal of Medical Internet Research*, 25, e47800. <https://doi.org/10.2196/47800>
- Khan, H. F., Qayyum, S., Beenish, H., Khan, R. A., Iltaf, S., & Faysal, L. R. (2025). Determining the alignment of assessment items with curriculum goals through document analysis by addressing identified item flaws. *BMC Medical Education*, 25(1), Article 200. <https://doi.org/10.1186/s12909-025-06736-4>
- Kim, M. J., McKenna, H., Davidson, P., Leino-Kilpi, H., Baumann, A., Klopfer, H., Al-Gasseer, N., Kunaviktikul, W., Sharma, S. K., Ventura, C., & Lee, T. (2022). Doctoral education, advanced practice and research: An analysis by nurse leaders from countries within the six WHO regions. *International Journal of Nursing Studies Advances*, 4, 100094. <https://doi.org/10.1016/j.ijnsa.2022.100094>
- Knowles, M. S., Holton, E. F., III, & Swanson, R. A. (2015). *The adult learner: The definitive classic in adult education and human resource development* (8th ed.). Routledge.
- Lawson, D., & Fleshman, J. W. (2020). Informal leadership in health care. *Clinical Colon and Rectal Surgery*, 33(4), 225–227. <https://doi.org/10.1055/s-0040-1709439>
- Leclerc, L., Streng-McNabb, K. K., Thibodeaux, T., Campis, S., & Kennedy, K. (2022). Relational leadership: A contemporary and evidence-based approach to improve nursing work environments. *Nursing Management*, 53(7), 24–34. <https://doi.org/10.1097/01.NUMA.00000834580.84896.55>
- Lenssen, E., Nagtegaal, I., van Oostveen, C., Vreke, A., Miedema, H., & Bakker, A. (2025). Exploring nurses' leadership and resilience in a complex daily work environment: A qualitative study. *BMC Nursing*, 24, 173. <https://doi.org/10.1186/s12912-025-02761-2>
- Liang, P. S., Kwon, S. C., Cho, I., Trinh-Shevrin, C., & Yi, S. (2023). Disaggregating racial and ethnic data: A step toward diversity, equity, and inclusion. *Gastroenterology*, 164(3), 320–324. <https://doi.org/10.1053/j.gastro.2023.01.008>
- Lima, L. S., & Ristum, M. (2025, February). Narrative analysis: Methodological contributions to qualitative research in developmental psychology. *Trends in Psychology – A Journal of the Brazilian Society of Psychology*. <https://doi.org/10.1007/s43076-025-00442-2>
- Melin-Johansson, C., Palmqvist, R., & Rönnerberg, L. (2017). Clinical intuition in the nursing process and decision-making: A mixed-studies review. *Journal of Clinical Nursing*, 26(23–24), 3936–3949. <https://doi.org/10.1111/jocn.13814>
- Morrison, V., Hauch, R. R., Perez, E., Bates, M., Sepe, P., & Dans, M. (2021). Diversity, equity, and inclusion in nursing: The Pathway to Excellence framework alignment. *Nursing Administration Quarterly*, 45(4), 311–323. <https://doi.org/10.1097/NAQ.0000000000000494>
- Moss, P., Nixon, P., & Baggio, S. (2023). Turning strategy into action – Using the ECHO model to empower the Australian workforce to integrate care. *International Journal of Integrated Care*, 23(2), 7. <https://doi.org/10.5334/ijic.7036>
- Mukhalalati, B. A., & Taylor, A. (2019). Adult learning theories in context: A quick guide for healthcare professional educators. *Journal of Medical Education and Curricular Development*, 6, 2382120519840332. <https://doi.org/10.1177/2382120519840332>
- Nelson, A. (2022). Mentorship: A powerful tool for IPG success. *The Dissertation in Practice at Western University*, 289. <https://ir.lib.uwo.ca/oip/289>

- O'Connor, R., Barraclough, L., Gleadall, S., & Walker, L. (2025). Institutional reverse mentoring: Bridging the student/leadership gap. *British Educational Research Journal*, 51, 344–368. <https://doi.org/10.1002/berj.4078>
- Pearson, N., Naylor, P. J., Ashe, M. C., Fernandez, M., Yoong, S. L., & Wolfenden, L. (2020). Guidance for conducting feasibility and pilot studies for implementation trials. *Pilot and Feasibility Studies*, 6, 167. <https://doi.org/10.1186/s40814-020-00634-w>
- Plouffe, R. A., Ein, N., Liu, J. J. W., St. Cyr, K., Baker, C., Nazarov, A., & Richardson, J. D. (2023). Feeling safe at work: Development and validation of the Psychological Safety Inventory. *International Journal of Social Psychiatry*, 69(8), 1994–2006. <https://doi.org/10.1111/ijpsa.12434>
- Proba, J. (2024). *No longer eating their young but eating their own: Developing capacity to decrease lateral aggression among nurses and leaders* (Publication No. 416) [Doctoral dissertation, Western University]. The Dissertation in Practice at Western University. <https://ir.lib.uwo.ca/oip/416>
- Pullen, R. L., Jr. (2025). Developing nurse leaders through mentorship. *Nursing Management (Springhouse)*, 56(3), 58–62. <https://doi.org/10.1097/nmg.0000000000000230>
- Purkey, E., Patel, R., & Phillips, S. P. (2018). Trauma-informed care: Better care for everyone. *Canadian Family Physician*, 64(3), 170–172. <https://www.cfp.ca/content/64/3/170>
- Quayson, F. (2022). *Reflective practice, mentoring, and self-renewal in professional development for adult learners*. *The Interdisciplinary Journal of Advances in Research in Education*, 4, 1–8. <https://doi.org/10.55138/ma104284fxo>
- Rico, R., Gibson, C., Sanchez-Manzanares, M., & Clark, M. A. (2020). Team adaptation and the changing nature of work: Lessons from practice, evidence from research, and challenges for the road ahead. *Australian Journal of Management*, 45(3), 507–526. <https://doi.org/10.1177/0312896220918908>
- Rinfret, S. R., Young, S. L., & McDonald, B. D., III. (2023). The importance of mentorship in higher education: An introduction to the symposium. *Journal of Public Affairs Education*, 29(4), 398–403. <https://doi.org/10.1080/15236803.2023.2260947>
- Ronaldson, S., Macfarlane, K., & Thomas, D. (2017). Peer mentorship for the internationally educated nurse: An appreciative inquiry. *Athens Journal of Health*, 4(3), 211–226. <https://doi.org/10.30958/ajh.4-3-1>
- Rosen, M. A., DiazGranados, D., Dietz, A. S., Benishek, L. E., Thompson, D., Pronovost, P. J., & Weaver, S. J. (2018). Teamwork in healthcare: Key discoveries enabling safer, high-quality care. *American Psychologist*, 73(4), 433–450. <https://doi.org/10.1037/amp0000298>
- Salazar Maya, Á. M. (2022). Nursing care during the perioperative within the surgical context. *Investigación y Educación en Enfermería*, 40(2), e02. <https://doi.org/10.17533/udea.iee.v40n2e02>
- Salim, S. (2021). Effective mentoring: A guide for mentors and mentees. In C. Y. Weng & A. M. Berrocal (Eds.), *Women in ophthalmology* (pp. 377–383). Springer. https://doi.org/10.1007/978-3-030-59335-3_43
- Sauro, J., & Lewis, J. R. (2016). *Quantifying the user experience: Practical statistics for user research* (2nd ed.). Morgan Kaufmann.
- Sullens, S., & Gonzalez, K. (2025). Building the next generation of leaders through shared governance. *Nursing Management*, 56(1), 51–53. <https://doi.org/10.1097/nmg.0000000000000209>
- Tørring, B., Gittell, J. H., Laursen, M., & Rasmussen, B. S. (2019). Communication and relationship dynamics in surgical teams in the operating room: An ethnographic study. *BMC Health Services Research*, 19, 528. <https://doi.org/10.1186/s12913-019-4362-0>
- Turcotte, M., Etherington, C., Rowe, J., Duong, A., Kaur, M., Talbot, Z., Mansour, F., Mohamed, J., Zahrai, A., Fournier, K., & Boet, S. (2023). Effectiveness of interprofessional teamwork interventions for improving occupational well-being among perioperative healthcare providers: A systematic review. *Journal of Interprofessional Care*, 37(6), 904–921. <https://doi.org/10.1080/13561820.2022.2137116>
- Viswanath, K., Synowiec, C., & Agha, S. (2019). Responsive feedback: Towards a new paradigm to enhance intervention effectiveness. *Gates Open Research*, 3, 781. <https://doi.org/10.12688/gatesopenres.12937.2>
- Ward, L., Gordon, A., & Kirkman, A. (2024). Innovative and effective education strategies for adult learners in the perioperative setting. *AORN Journal*, 119(4), 291–303. <https://doi.org/10.1002/aorn.14079>
- Watson, A. L., Young, C., Whitham, A., Prescott, S., & Flynn, E. J. (2025). Enhancing nursing practice through peer support: Strategies for engagement in the nursing workforce. *Journal of Radiology Nursing*, 44(1), 31–35. <https://doi.org/10.1016/j.jradnu.2024.06.003>
- Zajac, S. A., Williams, K. N., Patel, S. M., Lazzara, E. H., Keebler, J. R., Clemens, M. W., & Holladay, C. L. (2025). Understanding psychological safety in health care: A qualitative investigation and practical guidance. *The Joint Commission Journal on Quality and Patient Safety*. Advance online publication. <https://doi.org/10.1016/j.jcq.2025.04.009>

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