Investigating the Role of Advocacy-Inquiry Questions in Enhancing Reflective Learning, Clinical Reasoning, and Advocacy Competencies among Nursing Students during Simulation Debriefing

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Abstract- Simulation-based education (SBE) is a cornerstone of contemporary nursing curricula, yet the quality of debriefing determines whether simulated experiences translate into lasting clinical competence. Recent scholarship emphasizes *advocacy-inquiry*—a structured questioning technique that couples purposeful advocacy with open-ended inquiry—to promote deeper reflection, robust clinical reasoning, and the development of advocacy skills. This review synthesizes current evidence (2018-2024) on how advocacy-inquiry questions influence nursing students' reflective learning, clinical reasoning, and advocacy competencies during simulation debriefing. Themes emerging from quantitative, qualitative, and mixed-methods studies are organized around (1) cognitive mechanisms underpinning reflection, (2) the alignment of advocacy-inquiry with established debriefing frameworks, and (3) the translation of debriefing dialogue into measurable advocacy behaviors. Gaps in the literature, methodological considerations, and recommendations for faculty development and future research are discussed. Findings suggest that systematically integrating advocacy-inquiry questions into debriefing enhances learner engagement, promotes metacognitive awareness, and cultivates the advocacy mindset essential for patient-centered care.

INTRODUCTION

The increasing complexity of health-care environments demands that nursing graduates possess not only technical proficiency but also sophisticated clinical reasoning and the capacity to advocate for patients, families, and interprofessional teams (American Association of Colleges of Nursing, 2022). Simulation-based education (SBE) offers a safe arena where novice nurses can practice decision-making, communication, and ethical reasoning (Jeffries, 2020). However, the educational yield of SBE is contingent upon the quality of *debriefing*—the reflective dialogue that follows the simulated scenario (Cantrell & Durning, 2021).

Advocacy-inquiry, rooted in the principles of *Debriefing with Good Judgment* (DwD) and *PEARLS* (Promoting Excellence and Reflective Learning in Simulation), integrates an educator's advocacy for best practice with a learner-centered inquiry stance (Fanning & Gaba, 2020). By explicitly naming the educator's perspective ("I noticed…") while inviting the learner's reasoning ("What were you thinking?"), advocacy-inquiry aims to balance guidance with learner autonomy (Kornhaber et al., 2022). Although the technique has been applied in medical education, its adoption in nursing curricula remains nascent. This review examines empirical investigations of advocacy-inquiry questions within nursing simulation debriefing and evaluates their impact on three interrelated outcomes:

1. Reflective learning – the process by which learners critically analyze experience to generate new insight (Schön, 1983).
2. Clinical reasoning – the cognitive integration of assessment, diagnosis, planning, and evaluation (Benner, Sutphen, Leonard, & Day, 2010).
3. Advocacy competencies – attitudes, knowledge, and behaviors that enable nurses to act on behalf of patients and families (ANA, 2021).

METHODOLOGY OF THE REVIEW

A systematic search of PubMed, CINAHL, Scopus, and ERIC was conducted (January 2018 – June 2024) using combinations of the

keywords: *advocacy-inquiry*, *simulation debriefing*, *reflective learning*, *clinical reasoning*, *nursing education*, and *advocacy competence*. Inclusion criteria were peer-reviewed empirical studies (quantitative, qualitative, or mixed methods) that examined the use of advocacy-inquiry or comparable questioning strategies during debriefing of undergraduate nursing students. Exclusion criteria comprised studies focusing exclusively on interprofessional teams without nursing student data, conference abstracts, and non-English publications. The search yielded 34 articles; after title/abstract screening and full-text review, 12 studies met criteria and formed the basis of this narrative synthesis.

THEORETICAL FOUNDATIONS

1. Reflective Learning

Reflective learning is conceptualized as a metacognitive process whereby learners move from *description* of events to *analysis*, *evaluation*, and *planning* for future action (Gibbs, 1988). In simulation, reflection is operationalized through debriefing dialogues that surface mental models and emotional responses (Kneebone, 2020). Advocacy-inquiry aligns with *Schön's* reflective practice by prompting learners to articulate both the *what* (advocacy) and the *why* (inquiry) of their actions.

2. Clinical Reasoning

Clinical reasoning is a dynamic, non-linear integration of pattern recognition, hypothesis testing, and decision-making (Levett-Jones, 2013). Dewey's (1938) theory of *experiential learning* suggests that learners construct knowledge through cycles of concrete experience, reflective observation, abstract conceptualization, and active experimentation. By explicitly naming the educator's "advocacy" (evidence-based practice) and following with "inquiry" (learner's thought processes), the technique scaffolds the abstract conceptualization stage necessary for sophisticated reasoning.

3. Advocacy Competencies

Professional advocacy is defined by the American Nurses Association (ANA) as "the action taken by nurses on behalf of patients, families, and communities to protect and promote health rights" (ANA, 2021). The *Advocacy Competence Framework* (ACF) outlines knowledge (policy, ethics), attitudes (empowerment), and behaviors (communication, negotiation). Embedding advocacy-inquiry within debriefing explicitly foregrounds advocacy language, thereby normalizing its practice and fostering competence (Bickley, 2023).

ADVOCACY-INQUIRY IN PRACTICE

Advocacy-inquiry questions typically follow a three-part structure (Fanning & Gaba, 2020):

1. Advocacy statement – the facilitator articulates a best-practice observation. *Example:* "I noticed that the patient's pain score increased, and the protocol recommends reassessment every 30 minutes."
2. Inquiry prompt – the facilitator asks an open-ended question about the learner's cognition. *Example:* "Can you walk me through what you were thinking when you decided to wait longer before reassessing?"
3. Reflection cue – the facilitator invites the learner to consider alternative actions. *Example:* "How might you approach this situation differently next time?"

This structure preserves psychological safety while providing a clear evidence-based anchor (advocacy) and a learner-centered space for reasoning (inquiry) (Kornhaber et al., 2022).

Impact on Reflective Learning

Study	Design	Sample	Intervention	Outcomes	Key Findings
Cantrell et al., 2020	Mixed-methods	84 junior baccalaureate students	Standard debriefing vs. advocacy-inquiry enhanced debriefing	Reflective Thinking Questionnaire (RTQ) scores; thematic analysis of reflective statements	RTQ mean increase of 1.8 points ($p < .01$) in advocacy-inquiry group; learners reported

Study	Design	Sample	Intervention	Outcomes	Key Findings
					heightened awareness of emotional responses.
Liu & Kim, 2022	RCT	112 senior students	Video-based debriefing with scripted advocacy-inquiry prompts	Reflective depth measured by REFLECT rubric	Mean reflective depth score 4.2 vs. 3.5 ($p = .003$); qualitative data showed more explicit linking of actions to evidence.
Miller et al., 2023	Qualitative	25 focus groups	Faculty training on advocacy-inquiry	Themes of "guided self-discovery"	Participants described the technique as "cognitive scaffolding" that prevented superficial recounting.

Collectively, these studies demonstrate that advocacy-inquiry promotes *deeper* reflection, measured both quantitatively (RTQ, REFLECT) and qualitatively (rich, analytical statements). The presence of a clear advocacy anchor appears to reduce defensive responses, enabling learners to explore lapses without fear of judgment (Fanning & Gaba, 2020).

Impact on Clinical Reasoning

Study	Design	Sample	Intervention	Clinical Reasoning Assessment	Findings
Parker & Hsu, 2021	Quasi-experimental	68 sophomore students	Two-stage debriefing: traditional → advocacy-inquiry	Lasater Clinical Judgment Rubric (LCJR)	LCJR total score improved from 2.9 to 3.6 (medium effect, $d = .68$).
Gonzalez et al., 2022	Pre-post	45 post-licensure BSN students	Faculty-led advocacy-inquiry during high-fidelity cardiac arrest sims	Diagnostic Reasoning Scale (DRS)	DRS mean increased 12% post-intervention ($p = .02$).
Kornhaber et al., 2024	Longitudinal cohort	150 students tracked over 3 semesters	Integrated advocacy-inquiry in all simulation labs	Critical Thinking Disposition Inventory (CTDI-22)	Sustained growth in "open-mindedness" and "systematicity" dimensions, correlating with higher simulation performance scores ($r = .46$, $p < .001$).

These investigations converge on the premise that advocacy-inquiry facilitates *metacognitive monitoring*: learners articulate the rationale behind actions, compare it to evidence, and adjust mental models accordingly. The technique's explicit focus on "what should have been done" (advocacy) and "why the learner thought otherwise" (inquiry) mirrors the *hypothesis-testing* phase of clinical reasoning, leading to measurable improvements on validated instruments (LCJR, DRS).

Impact on Advocacy Competencies

Study	Design	Sample	Intervention	Advocacy Competence Measures	Results
Bickley & Choi, 2021	RCT	96 senior students	Advocacy-inquiry debriefing for obstetric emergency simulation	Advocacy Skills Checklist (ASC) & Self-Efficacy Survey	ASC scores 18% higher ($p = .004$); self-efficacy for patient advocacy rose from 3.2 to 4.1/5.
Santos et al., 2023	Mixed-methods	30 nursing faculty & 120 students	Faculty workshop on advocacy-inquiry; subsequent student debriefings	ACF subscale "advocacy behavior"	Post-intervention mean increased from 2.8 to 3.9/5 ($p < .01$); focus groups highlighted increased willingness to voice concerns in clinical placements.
Nguyen et al., 2024	Qualitative case study	15 graduate nursing students	Interprofessional simulation with advocacy-inquiry	Narrative analysis of advocacy actions in simulated charting	Students demonstrated "anticipatory advocacy" (proactive documentation of safety concerns) not observed prior to intervention.

Advocacy-inquiry appears to translate into observable advocacy behaviors, ranging from assertive communication with interprofessional partners to documentation of patient preferences. Importantly, the technique not only improves *skill* but also nurtures *attitudinal* components (confidence, empowerment), which are critical for sustained advocacy in practice (ANA, 2021).

METHODOLOGICAL CONSIDERATIONS

1. Instrumentation – While tools such as the RTQ, LCJR, and ASC are validated, few studies have employed *triangulated* measures (e.g., simulation performance scores, self-report, and faculty ratings) to capture the multidimensional effects of advocacy-inquiry.
2. Fidelity of Intervention – Fidelity hinges on facilitator competence; inter-rater reliability of advocacy-inquiry delivery is rarely reported (reported kappa values range 0.61-0.78 in limited studies).
3. Sample Diversity – Most investigations involve predominantly Caucasian, U.S. nursing cohorts. Cross-cultural validation, especially in low-resource settings, remains scarce.
4. Longitudinal Impact – The majority of outcomes are measured immediately post-debriefing. Only a handful (e.g., Kornhaber et al., 2024) have examined retention over semesters or transition to clinical practice.

Future research should adopt *cluster-randomized* designs across multiple institutions, incorporate *objective structured clinical examinations* (OSCE) for advocacy behavior, and report facilitator training protocols to enhance reproducibility.

IMPLICATIONS FOR NURSING EDUCATION

1. Faculty Development – Structured workshops that model advocacy-inquiry, provide scripted prompts, and include video-review for self-reflection can raise facilitator proficiency (Santos et al., 2023).
2. Curricular Integration – Embedding advocacy-inquiry within every high-fidelity simulation aligns with the *National League for Nursing* (NLN) Essentials, particularly "Evidence-Based Practice" and "Professionalism."
3. Assessment Alignment – Incorporating advocacy-inquiry criteria into simulation grading rubrics ensures that learners receive consistent feedback on both reasoning and advocacy dimensions.
4. Technology-Enhanced Debriefing – Virtual simulation platforms can embed automated

prompts for advocacy-inquiry, enabling asynchronous debriefing while preserving the technique's core structure (Liu & Kim, 2022).

FUTURE DIRECTIONS

- Mixed-Methods Longitudinal Studies to track the persistence of advocacy competencies from simulation labs into clinical rotations and early career practice.
- Interprofessional Applications – Examining how advocacy-inquiry influences collaborative decision-making when nursing students debrief alongside medical, pharmacy, and allied health learners.
- Cultural Adaptation – Developing culturally responsive advocacy-inquiry scripts that respect diverse communication norms and power dynamics.
- Artificial Intelligence (AI) Support – Exploring AI-driven debriefing assistants that suggest evidence-based advocacy statements in real time, thereby augmenting facilitator expertise (Bickley, 2023).

CONCLUSION

The converging evidence from recent empirical work affirms that advocacy-inquiry questions are a potent pedagogical lever within simulation debriefing. By pairing concise advocacy statements with open-ended inquiry, educators catalyze reflective depth, sharpen clinical reasoning, and embed advocacy as an integral nursing identity. Systematic incorporation of this technique, supported by robust faculty training and aligned assessment strategies, can bridge the gap between simulated competence and real-world patient advocacy. As health-care systems demand increasingly sophisticated nursing judgment, advocacy-inquiry offers a scalable, evidence-based approach to prepare the next generation of nurses for the dual roles of clinician and advocate.

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