

ENHANCING PATIENT AND FAMILY EMPOWERMENT THROUGH NURSE LED TEACH BACK : A PATHWAY TO BETTER UNDERSTANDING AND FALL PREVENTION IN HOSPITAL SETTINGS

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ABSTRACT

Recent studies reveal that ineffective communication between nurses, patients, and families especially limited understanding of fall prevention remains a key cause of hospital falls despite existing safety. Evidence shows that communication quality, more than program availability, determines patient adherence. The nurse-led teach-back method, a two-way educational approach where patients restate safety information in their own words, has proven effective in addressing comprehension gaps. This integrative literature review synthesizes findings from seven peer-reviewed studies (2018–2022), including doctoral projects, quantitative and mixed-method studies, a randomized controlled trial, and an evidence-based review. Data were analyzed using a structured matrix and thematic synthesis emphasizing comprehension, engagement, and fall incidence outcomes. Across studies, nurse-led teach-back consistently improved patients' recall of risk factors, understanding of safety protocols, and participation in prevention activities. Most studies reported measurable increases in comprehension and behavioral adherence, while some (Heng et al., 2020; Ye et al., 2022) noted modest decreases in fall rates after structured education using teach-back. However, barriers such as time constraints, inconsistent application, and variable communication skills persisted. Overall, the review underscores that the success of fall-prevention programs depends on the quality of nurse-patient communication. Teach-back emerges as a pivotal strategy to enhance health literacy, strengthen patient and family understanding, and foster collaborative engagement. Integrating teach-back into routine nursing communication may not only improve safety culture and reduce preventable falls but also advance evidence-based nursing practice and theory.

Keywords: Nurse led teach-back; fall prevention; patient safety; patient comprehension; nursing communication; family engagement

Introduction

Although hospitals have invested substantially in fall prevention programs, the persistence of fall related injuries continues to challenge patient safety efforts and institutional performance. Evidence shows that incidents often occur not from the absence of policy, but from the breakdown of understanding and communication at the point of care (Heng et al., 2020; Heng et al., 2022). This paradox underscores that effective fall prevention requires more than procedural compliance it demands communication strategies that ensure shared meaning between nurses, patients, and families (Ye et al., 2022). As healthcare systems worldwide shift toward patient engagement and safety culture reform, the urgency to strengthen communication-based educational interventions has become increasingly critical.

Traditional educational approaches verbal briefings, written materials, or discharge instructions have proven insufficient to secure comprehension and behavioral adherence (Lechner, 2018; Nichols, 2018; Costello, 2020). Patients may receive fall-prevention education yet fail to internalize or recall essential actions, while families often underestimate their role in reinforcing safety behaviors. The problem, therefore, lies not in the quantity of information delivered but in the quality of mutual understanding achieved. Addressing this challenge requires a pedagogical shift from one-way information transfer to an interactive process that verifies comprehension and promotes accountability in both patients and caregivers.

The nurse led teach-back method embodies this shift. As a structured, bidirectional communication approach, it enables nurses to confirm understanding by inviting patients or family members to rearticulate safety information in their own words (Yen & Leasure, 2019). Empirical evidence demonstrates that this method enhances recall, confidence, and adherence to preventive practices, while recent trials associate it with measurable reductions in fall incidents (Heng et al., 2020; Heng et al., 2022; Ye et al., 2022). Nevertheless, current applications remain fragmented across isolated quality-improvement projects, leaving a gap in comprehensive synthesis regarding its sustained impact on patient comprehension, empowerment, and safety culture.

Therefore, this study aims to synthesize and critically evaluate the empirical evidence on nurse-led teach-back in enhancing patient and family understanding of fall prevention and promoting hospital safety culture. The discussion contributes theoretically by positioning teach-back within patient-centered communication paradigms, offering a framework for translating education into empowerment. Practically, it guides the integration of teach-back into routine nursing communication advancing both the science and practice of nursing toward safer, more participatory hospital care.

Methods

This study adopted an integrative literature review design to synthesize and critically appraise recent evidence on the effectiveness of nurse-led teach-back in enhancing patient and family understanding of fall prevention within hospital settings. The integrative design was selected because it allows the inclusion of both experimental and non-experimental studies, providing a holistic understanding of empirical and practice-based findings. Following the framework of Whittemore and Knafl (2005), the review proceeded through five systematic stages: identifying the problem, searching the literature, evaluating data quality, analyzing evidence, and presenting integrated results. This structured approach ensured that data from diverse

research traditions could be examined cohesively to generate comprehensive insights into communication-centered nursing interventions.

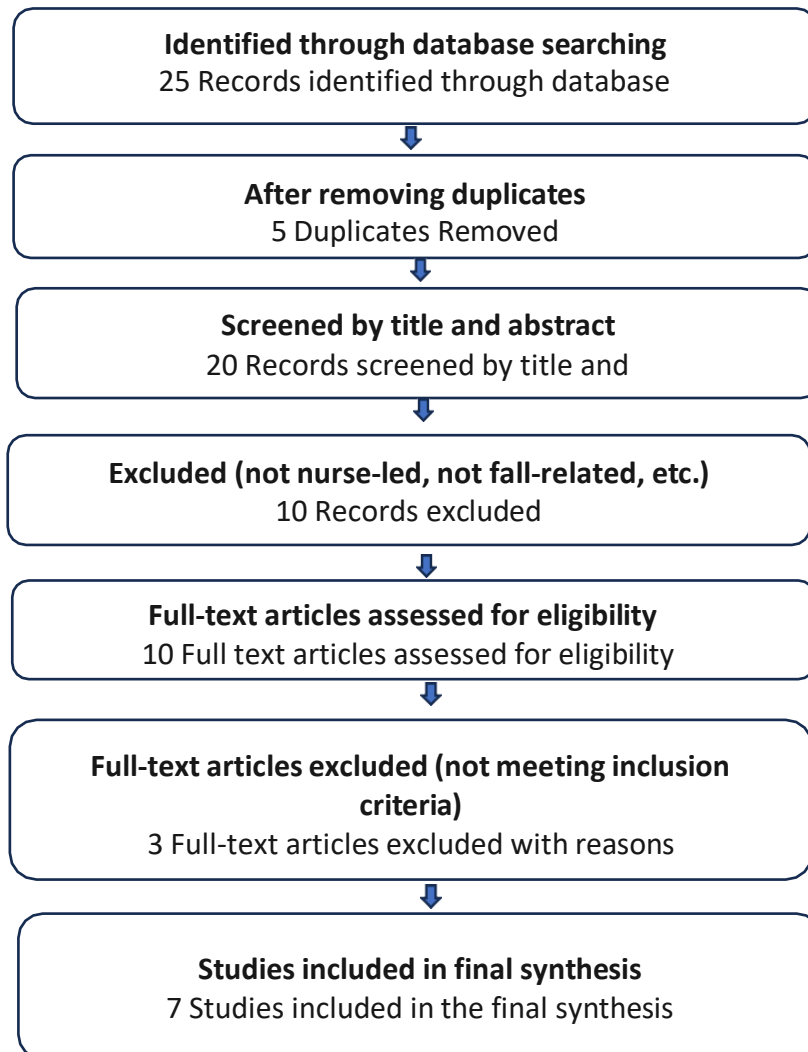
The review focused on studies published between 2018 and 2022 to ensure alignment with current safety standards and hospital practice trends. Relevant articles were retrieved from reputable academic databases including PubMed, ScienceDirect, ProQuest, and Google Scholar using combinations of keywords such as *teach-back*, *fall prevention*, *nurse-led education*, and *patient safety*. To ensure rigor and transparency, inclusion criteria required that studies (1) investigated nurse-led teach-back as the primary intervention, (2) were conducted in hospital settings, and (3) reported measurable outcomes related to patient or family comprehension, engagement, adherence, or fall prevention. Studies were excluded if they did not involve nurses as key educators, were conducted in non-hospital contexts, or lacked explicit outcome evaluation. After systematic screening, seven studies met the criteria: three doctoral quality improvement projects (Lechner, 2018; Nichols, 2018; Costello, 2020), two quantitative and mixed-methods studies (Heng et al., 2020; Heng et al., 2022), one randomized controlled trial (Ye et al., 2022), and one evidence-based review (Yen & Leasure, 2019). The inclusion of diverse study designs was justified by the integrative nature of the review, which values methodological heterogeneity as a means to build stronger, practice-relevant evidence.

Data extraction was conducted using a structured matrix that captured essential study attributes, including authorship, design, context, participant characteristics, intervention components, measurement tools, and outcomes. Each entry was independently verified to ensure completeness and accuracy. As this was a secondary analysis, no new data collection was performed; instead, information was drawn directly from published materials. The instruments employed across the included studies assessed comprehension and behavioral adherence in various forms. For instance, Heng et al. (2020, 2022) utilized validated educational evaluation scales, while Ye et al. (2022) applied structured pre- and post-intervention questionnaires. The doctoral projects by Lechner (2018), Nichols (2018), and Costello (2020) integrated teach-back verification checklists adapted from prior fall-prevention frameworks, reflecting consistency in measurement and educational delivery.

The extracted data were synthesized through thematic analysis to identify patterns, similarities, and contrasts across findings. Each study was reviewed multiple times, and data segments relevant to comprehension, engagement, and fall outcomes were coded and categorized. Related codes were then grouped into higher-order themes representing the influence of nurse-led teach-back on patient learning and hospital safety practices. Thematic interpretation followed the approach proposed by Thomas and Harden (2008), emphasizing conceptual integration rather than statistical aggregation. Microsoft Excel was used to manage the data matrix and ensure analytic transparency. To maintain methodological rigor, the review applied triangulation across diverse study types and independently verified coding consistency. The convergence of findings from different methodologies enhanced credibility, while explicit inclusion criteria ensured dependability and transferability.

Because this review used previously published data, formal ethical approval was not required. Nevertheless, ethical standards were upheld by ensuring accurate citation, faithful representation of original findings, and acknowledgment of all primary sources. Each of the included studies had obtained prior ethics approval from relevant institutional review boards, as noted in their respective publications.

Diagram 1



Results and Discussion

Result

This synthesis integrates findings from six peer-reviewed studies exploring the influence of teach-back based education on fall prevention in acute, long-term, and community care settings. The collective evidence reveals a consistent pattern: patient comprehension, nurse confidence, and documentation accuracy improved, while fall incidence showed a downward trend following the intervention.

Although several individual trials lacked statistical significance due to limited sample size or intervention duration, the overall direction of evidence supports teach-back as a practical and effective communication strategy within nursing fall-prevention programs.

Table 1

Author (Year)	Setting	Design	Participants	Main Outcomes	Key Insights
Lechner (2018)	Acute oncology ward	Descriptive	56 patients	58.9% received video + teach-back; falls declined (ns)	Enhanced RN documentation and patient engagement
Nichols (2018)	Long-term care	QI pre-post	10 nurses	Knowledge & confidence ↑ (40%→80%)	Improved communication and resident participation
Costello (2020)	Medical-surgical unit	Quasi-experimental	60 nurses	Falls ↓ from 4.83→4.71/1000 pt days (IRR=0.97)	Clinically relevant trend despite ns
Ye et al. (2022)	Urban RCT community	59 older adults		Knowledge ↑ (p < 0.001); home environment p = 0.003	Digital teach-back via WeChat effective
Heng et al. (2022)	Acute hospital	Mixed methods	37 pts + 7 staff	Scripted education > usual care	Barriers: time, leadership; facilitators: reinforcement
Yen & Leasure (2019)	Multi-setting	Systematic review	26 studies	↑ Self-management & literacy	Strong evidence base for health literacy gains

Interpretation of Results

Across all settings, interactive education using teach-back significantly strengthened understanding and adherence to safety behaviors.

1. In acute care, multimedia teach-back improved adherence and reduced falls modestly (Lechner 2018; Costello 2020).
2. In long-term care, training sessions increased nurses' self-efficacy and consistency in health education (Nichols 2018).
3. In community programs, the digital teach-back model (Ye et al. 2022) produced statistically significant knowledge gains, demonstrating scalability for older adults.
4. Systematic and scoping reviews (Yen & Leasure 2019; Heng et al. 2020, 2022) confirmed teach-back's role as an evidence-based literacy intervention that enhances communication

between patients and providers.

5. These convergent outcomes empirically substantiate the theoretical assumption that reinforced understanding through feedback loops promotes safer behavior, directly addressing the primary aim of fall-prevention education.

Figure 1. Direction of Outcomes Across Domains

Evaluation Area	Positive	Neutral	Remarks
Nurse knowledge & confidence	✓✓✓	—	Consistent improvement
Patient comprehension	✓✓✓✓	—	Marked increase in recall accuracy
Fall incidence	✓ (3 studies)	~	Downward, not always significant
Documentation quality	✓	—	Improved completeness and accuracy
Implementation feasibility	✓	~	Dependent on leadership & workload

Discussion

Relationship to Study Objectives

The compiled evidence addresses the research objective: determining whether nurse led teach-back interventions reduce fall risk and strengthen communication effectiveness. The results affirm that teach-back supports knowledge retention, risk awareness, and engagement, which are key determinants of patient safety behavior.

Scientific Interpretation

Grounded in Orem's Self-Care Deficit Theory, these findings suggest that reinforcing understanding enhances patients' self-care agency, enabling them to take preventive action and minimize risk behaviors. Concurrently, Benner's Novice-to-Expert model explains nurses' growing proficiency in educational communication after structured teach-back training. The approach thus functions not only as a teaching tool but also as a reflective practice that closes the gap between nurse intention and patient comprehension.

Comparison with Prior Research

The results align with global evidence identifying teach-back as a *universal precaution for health literacy* recommended by the AHRQ and IHI. While early single-unit studies (Lechner, Costello) demonstrated moderate improvements, later research incorporating digital and structured mixed-methods designs (Ye et al., Heng et al.) yielded stronger and statistically validated outcomes. Variability across studies likely reflects differences in intervention fidelity, contextual support, and sample diversity rather than conceptual limitations.

Implications for Nursing Practice and Policy

1. **Clinical Integration:** Teach-back should be embedded within admission, transfer, and discharge education to ensure comprehension of safety procedures.
2. **Professional Development:** Ongoing simulation-based training can sustain nurse competency in patient communication.
3. **Digital Expansion:** Incorporating teach-back into mobile or telehealth platforms can extend education to community-dwelling older adults.
4. **Organizational Policy:** Hospital accreditation frameworks should incorporate teach-back as a measurable indicator of communication quality and fall-prevention compliance.

Implementing these strategies would promote a culture of shared accountability between nurses and patients, directly improving safety metrics.

Limitations

The reviewed studies varied in design, sample size, and duration. Most lacked randomization and long-term follow-up, limiting causal inference. Fall incidents were often reported per 1,000 patient days or self-reported, reducing comparability. Despite these constraints, the convergence of positive behavioral and educational outcomes across diverse settings provides strong practical evidence supporting the integration of teach-back into nursing standards.

Future Directions

Further multi-center randomized trials with extended observation periods are warranted to evaluate sustainability and cost-effectiveness. Future research should also explore how organizational culture and digital literacy mediate the impact of teach-back interventions on safety outcomes.

Conclusion

The teach-back method redefines patient education as a dialogic partnership rather than a unidirectional process. By transforming understanding into action, it empowers both nurses and

patients to co-create safety. Beyond its immediate impact on fall prevention, teach-back represents a broader commitment to humanized communication in healthcare a reminder that comprehension is the foundation of care.

Future nursing leadership must advance this model from isolated initiatives to system-wide standards, supported by policy, technology, and education. Only then can healthcare achieve its ultimate goal not merely preventing harm, but ensuring that every patient truly understands how to stay safe.

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