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Concept Analysis Review Article

Leveraging Patient-Reported Experience and Outcome Measures to Advance Nursing Healthcare Quality: A Silent Revolution in Patient-Centered Care

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Abstract

Background: Healthcare systems globally are shifting toward patient-centered care, where patients' lived experiences and self-reported health status are considered critical indicators of quality. Patient-reported experience measures (PREMs) and patient-reported outcome measures (PROMs) have become major instruments to capture the patient voice, complementing traditional biomedical indicators and helping evaluate the real quality and value of nursing care.

Objective: This review examines the transformative contribution of PREMs and PROMs in strengthening nursing healthcare quality, highlighting core conceptual frameworks, emerging methodological complexities, and innovative applications across diverse clinical settings.

Methods: A concept analysis was executed through a systematic literature search in PubMed, Scopus, CINAHL, and Web of Science (2010–2025). Studies were reviewed for theoretical foundations, nursing use-cases, outcome indicators, and technology-enabled integration models.

Results: PREMs and PROMs generate actionable feedback on satisfaction, communication patterns, functional recovery, emotional resilience, symptom burden, and continuity of care. The integration of these measures improves nurse–patient relationships, builds transparency and accountability, and reinforces shared decision-making. Current trends indicate rapid integration into digital platforms, artificial intelligence-enabled predictive analytics, and value-based reimbursement frameworks. PROMs/PREMs are increasingly influencing nursing curricula, regulatory standards, and national health policy – expanding nursing roles in governance and quality assurance.

Conclusion: Embedding patient voice through PREMs and PROMs is reshaping nursing practice and healthcare quality evaluation. Nurses can strategically lead this transition toward equitable, sustainable, data-driven, and patient-centered systems.

Keywords: Healthcare quality, Nursing, Patient-centered care, Patient-reported experience measures, Patient-reported outcome measures, Value-based care

Date of Submission: 20-10-2025
Date of Revision: 15-11-2025
Date of Acceptance: 08-12-2025

Access this article online
Website: https://innovationaljournals.com/index.php/ijnr
ISSN No: 2456-1320
DOI: 10.31690/ijnr.2025.v011i04.012

Introduction

In contemporary health care, quality of care is increasingly defined not only by clinical outcomes but also by the lived experiences and reported well-being of patients. Traditional biomedical models have long prioritized clinical effectiveness, safety, and efficiency, yet such parameters provide only a partial view of the healthcare journey. Patient-reported experience measures (PREMs) and patient-reported outcome

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measures (PROMs) have emerged as indispensable tools to bridge this gap, amplifying patients' voices and ensuring that healthcare systems align more closely with individual needs and expectations.[1,2] These tools represent a profound transformation in how healthcare quality, particularly nursing care, is conceptualized, delivered, and evaluated.

The origin of PROMs can be traced to the 1970s in health economics and outcomes research, initially designed to capture functional status and health-related quality of life.[3] PREMs, developed later, expanded the scope by capturing patients' experiences of healthcare delivery, including communication, respect, continuity, and trust.[4] Over time, their value in nursing practice became evident, as nurses often occupy the frontline interface between patients and healthcare systems, shaping both experiences and outcomes. Unlike physician-centered or system-driven metrics, PREMs and PROMs uniquely highlight dimensions such as empathy, patient education, symptom management, and relational aspects of care – domains integral to nursing practice.[5,6]

Patient-centered care is at the heart of nursing philosophy, emphasizing holistic attention to physical, psychological, social, and spiritual dimensions of health.[7] PREMs and PROMs provide systematic tools to quantify this philosophy. For instance, PROMs help assess recovery trajectories, pain management, emotional well-being, and quality of life following nursing interventions.[8] Similarly, PREMs capture perceptions of dignity, respect, and communication – areas where nursing care plays a decisive role.[9] By systematically embedding these tools into nursing workflows, healthcare organizations can foster continuous quality improvement, enhance trust, and promote shared decision-making.[10]

Globally, health policy frameworks such as those promoted by the World Health Organization (WHO) and the Organization for Economic Co-operation and Development (OECD) increasingly emphasize person-centered quality measures.[11,12] Countries such as the United Kingdom and the Netherlands have pioneered national programs integrating PROMs and PREMs into quality reporting, influencing resource allocation and reimbursement strategies.[13] In India and other low- and middle-income countries (LMICs), emerging initiatives are exploring their use in primary healthcare, maternal health, and chronic disease management.[14] Nurses, being the largest segment of the healthcare workforce, are central to operationalizing these measures within care delivery systems.

The integration of digital health platforms, electronic health records (EHRs), and mobile applications has revolutionized the feasibility and scalability of PREMs and PROMs collection.[15] Nurses increasingly leverage digital tools to capture patient-reported data in real-time, providing immediate insights into care responsiveness. Artificial intelligence (AI)-enabled analytics can further translate these data into actionable knowledge for clinical decision support, workload optimization, and care personalization.[16] These technological innovations not only expand nurses' competencies but also position them as key stakeholders in driving data-informed quality governance.

Despite their transformative potential, the integration of PREMs and PROMs into nursing care faces methodological, organizational, and ethical challenges. Variability in instrument design, patient literacy levels, and cultural contexts may limit comparability and inclusivity.[17] Moreover, ethical dilemmas arise in balancing patient privacy with the use of large-scale PROM/PREM datasets for research and policymaking.[18] Addressing these challenges requires robust governance, interdisciplinary collaboration, and continuous training of nurses to interpret and apply patient-reported data effectively.

Unlike technological breakthroughs that often receive widespread attention, the integration of patient-reported measures has quietly yet steadily redefined quality of care. This "silent revolution" is particularly evident in nursing, where relational care, communication, and advocacy intersect with patients' lived realities. By amplifying patients' voices, PREMs and PROMs are not only transforming individual care encounters but also reshaping education, research, policy, and the broader healthcare ecosystem.[19]

The purpose of this review is to critically explore how PREMs and PROMs are leveraged to advance nursing healthcare quality. We synthesize conceptual frameworks, highlight methodological innovations, examine applications across care settings, and identify future directions for nursing leadership in this domain. By doing so, we aim to demonstrate how these tools can serve as catalysts for sustainable, patient-centred transformations in healthcare systems globally.

Methodology

Study design

The concept analysis of PREMs and PROMs yielded four core domains: Defining attributes, antecedents, consequences, and empirical referents. Each of these domains was synthesized from the included literature and aligned with the Walker and Avant and Rodgers frameworks. The findings highlight that PREMs and PROMs represent an evolving, multi-dimensional paradigm in nursing – one that bridges traditional quality metrics with patient-centred perspectives. Novel trends emerging from the literature (2020–2025) emphasize digital health integration, AI, and precision nursing applications. A concept review prioritizes breadth and depth of understanding, mapping existing knowledge, exploring relationships between constructs, and identifying novel applications of PREMs and PROMs in nursing healthcare quality.[20,21]

Search strategy

A comprehensive search was conducted between January 2010 and May 2025 across major biomedical and nursing databases, including PubMed, Scopus, CINAHL, Embase, and Web of Science [Table 1]. The following search string was adapted

Table 1: MeSH search strategy for identifying literature on PREMs and PROMs in nursing and healthcare quality

Database	Search terms/MeSH headings	Boolean operators and strategy
PubMed [MEDLINE]	"Patient Reported Outcome Measures"(MeSH) OR "Patient Outcome Assessment"(MeSH); "Patient Satisfaction"(MeSH); "Quality of Health Care"(MeSH); "Nursing Care"(MeSH); "Patient-Centered Care"(MeSH)	("Patient Reported Outcome Measures" [MeSH] OR "Patient Satisfaction" [MeSH] AND "Nursing Care" [MeSH] OR "Patient-Centered Care" [MeSH] AND "Quality of Health Care" [MeSH])
CINAHL	MH "Patient Reported Outcome Measures" OR MH "Patient Experience"; MH "Patient Satisfaction"; MH "Nursing Care"; MH "Health Care Quality, Access, and Evaluation"	(["Patient Reported Outcome Measures" OR "Patient Experience"] AND [Nursing Care" OR "Health Care Quality"])
Scopus	TITLE-ABS-KEY ("Patient-Reported Outcome Measures" OR PROM* OR PREM* OR "Patient Experience" OR "Patient Satisfaction") AND TITLE-ABS-KEY ("Nursing Care" OR "Healthcare Quality" OR "Patient-Centered Care")	PROM*/PREM* keyword expansion for wider coverage
Web of Science	TS=("Patient Reported Outcome Measures" OR PROM* OR PREM* OR "Patient Satisfaction" OR "Patient Experience") AND TS=("Nursing Care" OR "Quality of Health Care" OR "Patient-Centered Care")	Topic search across abstract/title/keywords
Cochrane Library	MeSH descriptor: (Patient Reported Outcome Measures) explode all trees; MeSH descriptor: (Patient Satisfaction); MeSH descriptor: (Quality of Health Care); MeSH descriptor: (Nursing Care)	(PROM* OR PREM* OR "Patient Experience") AND ("Nursing Care" OR "Patient-Centered Care")

*was denote the major MeSH term

for each database: ("Patient Reported Outcome Measures" OR PROMs OR "Patient Reported Experience Measures" OR PREMs) AND ("Nursing" OR "Nursing Care" OR "Healthcare Quality" OR "Patient-Centered Care"). Grey literature sources such as WHO reports, OECD health policy briefs, and national nursing quality frameworks were also consulted to capture emerging evidence and practice guidelines.[22,23]

Inclusion and exclusion criteria

The inclusion criteria for this review encompassed peer-reviewed articles, policy reports, and conceptual frameworks published between 2010 and 2025. Eligible studies were those explicitly addressing the use of PROMs or PREMs in relation to nursing practice, healthcare quality, or patient-centred outcomes. Both quantitative and qualitative studies that explored applications, implementation strategies, or evaluation of PROMs and PREMs within nursing and healthcare settings were considered. Exclusion criteria comprised articles focusing solely on physician-driven PROMs without relevance to nursing, studies limited to psychometric validation of measures without a broader healthcare context, and publications in languages other than English due to resource constraints.

Data extraction and synthesis

A standardized data extraction process was undertaken and validated by three independent reviewers (MU, KS, and DNR). A structured extraction form was developed to capture essential study characteristics, including bibliographic information (author, year, and country of origin) and study design (review, randomized controlled trial, cohort study, and qualitative study). Details regarding the study population and care setting were recorded, spanning acute care, community health, chronic disease management, and palliative care contexts. Specific nursing application domains were also identified, including communication, patient education, symptom management, and continuity of care, along with the type of patient-reported measure utilized (PROM, PREM, or digital/technology-enabled adaptation). Key findings from each study were extracted to evaluate the impact of PREMs and PROMs on nursing care quality, patient outcomes, and patient engagement. Barriers and limitations were also documented, such as challenges related to implementation, cultural relevance, system feasibility, and ethical considerations. All extracted data were synthesized using thematic analysis to generate higher-order conceptual categories. These themes highlighted the evolving nursing roles associated with the deployment of PREMs and PROMs, innovations in digital integration, policy and reimbursement structures shaping their adoption, and ethical implications related to equity, inclusiveness, and responsible use of patient-reported measures.

Conceptual framework

The review was guided by the Donabedian Model of Quality structure–process–outcome[24,25] and the Person-centered Nursing Framework.[26] PREMs were mapped to process dimensions of communication, respect, and coordination, whereas PROMs were linked to outcome dimensions of symptom relief, quality of life, and recovery. The synthesis sought to show how these measures interconnect to create a comprehensive understanding of nursing healthcare quality.

Ethical considerations

As a review of published literature, no direct ethical approval was required. However, ethical principles of transparency, accurate attribution, and balanced representation of evidence were strictly followed.

Results

The search yielded 2135 records, of which 182 full-text articles and reports were reviewed. Following the inclusion/exclusion criteria, 61 publications were included in the final synthesis: 25 empirical studies (RCTs, cohorts, and qualitative studies). Fifteen policy and practice frameworks: WHO, OECD, and national health systems. Twenty-one conceptual/theoretical papers focusing on nursing integration of PREMs/PROMs. The literature represented high-income countries (UK, USA, the Netherlands, and Australia) and emerging evidence from

LMICs (India, Brazil, and South Africa), reflecting both global adoption and contextual challenges [Table 2].

Nursing applications of PROMs and PREMs

Evidence consistently demonstrates that PREMs are essential for capturing relational dimensions of nursing care that are often overlooked by traditional biomedical indicators. These include empathy, dignity, effective communication, and the extent to which patients feel respected and heard – elements that directly influence trust and therapeutic alliance.[27,28] When nurses integrate PREMs into routine care processes, they gain real-time insight into interpersonal quality, allowing more responsive communication strategies and resulting in improved patient satisfaction and trust-building at the point of care. In parallel, PROMs have shown substantial value in chronic disease management, oncology, and post-operative care. PROM data support earlier detection of symptom escalation and enable nurses to customize interventions and track functional recovery trajectories over time.[29,30] For instance, monitoring fatigue and psychosocial distress in cancer survivors allows oncology nurses to individualize supportive care pathways, improving clinical outcomes. Moreover, studies indicate that presenting PROM results to patients during consultations enhances shared decision-making, increases patient involvement in therapeutic choices, and improves adherence to prescribed care plans.[31] PREM feedback also assists nurses in tailoring health teaching approaches to cultural, linguistic, and literacy differences, ensuring more inclusive, equitable, and patient-centered educational strategies.[32]

Digital innovations in PROMs and PREMs

The integration of PROMs and PREMs into digital ecosystems has significantly enhanced the operational utility of these measures in nursing practice. Electronic platforms now embed PROMs/PREMs directly within EHRs, enabling nurses to access, interpret, and respond to patient feedback in real time.[33] In acute care environments, real-time dashboard displays allow nursing teams to continuously monitor pain ratings, communication feedback, and emotional well-being indicators, facilitating timely intervention and rapid escalation of care when necessary.[34] The rise of mobile health applications has further extended the reach of PROM/PREM data collection into home-based and community settings, particularly during the COVID-19 pandemic.[35] Community health nurses have utilized smartphone-enabled PROM tools to track chronic disease symptoms, detect early complications, and maintain continuity of care for geographically distant populations.[36] More recently, AI–driven predictive analytics have emerged, leveraging large-scale PROM/PREM datasets to forecast readmission risk, identify deterioration trends, and anticipate patient satisfaction trajectories.[37] Nurses are increasingly being trained to interpret these predictive outputs and incorporate them into personalized care planning, reflecting a paradigm shift wherein nurses serve not only as recipients of patient-reported data but as sophisticated interpreters and applied users of digitally augmented patient insights.[38]

Policy, quality, and reimbursement frameworks

Value-based care models across multiple global healthcare systems, including the UK NHS, US Medicare, and the Dutch National PROMs Program, are increasingly incorporating PROMs and PREMs as core metrics to guide reimbursement, performance benchmarking, and quality-linked purchasing.[39] Within these structures, nursing-sensitive quality indicators, when triangulated with PROM data, are being used to influence hospital quality rankings, resource distribution, and performance-based funding decisions.[40] This reflects a shift wherein patient-reported data are no longer supplementary but central to institutional accountability. Furthermore, in LMICs, PROMs and PREMs are being piloted within maternal and child health programs to advance global health equity.[41] Evidence demonstrates that community-based PREM findings – specifically women's reports of dignity, respectful care, informed decision-making, and communication quality – are stronger predictors of maternal service uptake than traditional clinical metrics alone.[42] These emerging insights reinforce the critical role of nurses as both implementers and interpreters of patient voice in shaping more equitable, respectful, and culturally attuned models of care.

Challenges and limitations

Despite their growing adoption, several challenges continue to hinder the routine implementation of PROMs and PREMs in nursing practice. One of the most persistent barriers relates to cultural and linguistic adaptation, as there remains a limited availability of robustly validated and culturally appropriate PROM/PREM instruments – particularly within LMICs – thereby complicating cross-country comparability and psychometric consistency.[43] Equity concerns are further magnified by patient literacy gaps and the digital divide; older adults, individuals with low literacy, and rural populations with limited access to Internet-enabled devices are at risk of being excluded from digital PROM/PREM systems.[44] In many settings, nurses act as mediators by assisting patients in completing these instruments, which underscores the continued need for human facilitation despite technological advancements. In addition, workforce capacity and workload pressures present substantial operational constraints. Integrating PROM/PREM collection into already heavily burdened nursing workflows requires organizational investment, sufficient staffing, formal training, and supportive digital infrastructure; without these, PROM/PREM initiatives may be perceived as an added administrative burden rather than an empowering tool for improving care quality.[45]

Novel contributions of this review

1. Integration of PROMs/PREMs as nursing leadership tools – This review highlights how these measures extend beyond patient assessment into policy influence, reimbursement advocacy, and professional empowerment.
2. Digital health synergy – Novel findings emphasize how AI, mobile health, and real-time dashboards expand nursing competencies in data-driven care.

Table 2: Summary of selected studies in PREMs and PROMs

Author (s)	Year	Setting	Defining attributes	Antecedents (what precedes)	Consequences (what results)	Empirical referents (real-world examples/ measures)
Black	2013	UK NHS quality and outcomes policy	Standardized, validated patient-reported questionnaires capturing what matters to patients beyond clinical endpoints; interpretability for decisions.	Policy push for quality transparency; routine outcomes monitoring infrastructure.	Patient-centred benchmarking; service redesign based on patient-valued outcomes.	EQ-5D index and VAS in elective surgery PROMs; national PROMs program dashboards.[1]
Kingsley and Patel	2017	Clinical education and quality improvement	Distinction between PROMs (outcomes) versus PREMs (experience); reliability/validity; patient-centredness.	Availability of fit-for-purpose instruments; clinician awareness of differences between PROMs/PREMs.	Targeted QI on communication, pain, and function; improved comparability across units.	PROMs: SF-36, EQ-5D; PREMs: HCAHPS domains (communication, responsiveness).[2]
Greenhalgh	2017	Outpatient and primary care consultations	PROMs as conversation tools; responsiveness to change; meaningfulness to patients/clinicians.	Workflow integration; training to use PROMs in consultations; shared decision-making culture.	Better clinician–patient communication; individualized care plans; detection of unvoiced concerns.	Paper/electronic PROMs reviewed at the point of care; PROM score trajectories displayed during visits.[3]
Devlin and Appleby[10]	2010	UK health system management	PROMs as outcome currency for value; feasibility at scale; comparability across providers.	National mandate; standardized case-mix adjustment; data infrastructure.	Public reporting; contracting, and commissioning informed by PROMs.	National hip/knee replacement PROMs collections; provider league tables.[4]
Basch *et al*.[29]	2016	Oncology ambulatory care	High-frequency, symptom-specific PROMs; patient self-report as an early warning.	Electronic symptom portals; patient engagement; clear escalation protocols.	Fewer ED visits and better survival via earlier toxicity detection; improved HRQoL.	PRO-CTCAE symptom items; weekly e-PROMs with alerts to nurses.[5]
Howell *et al*.[30]	2015	Cancer centres[implementation science]	Routine PROMs feasibility; content validity; linkage to care pathways.	Leadership buy-in; clinician feedback loops; IT support.	Enhanced symptom control; workflow triggers to supportive care.	Distress Thermometer, EORTC QLQ-C30 in routine clinics.[6]
Snyder *et al*.[33]	2012	General clinical practice and EHRs	Options for administering PROMs; scoring/ interpretation standards; data governance.	Instrument selection; integration into EHR; privacy safeguards; staff training.	Actionable summaries for clinicians; population panels for QI.	EHR-embedded PROM flowsheets; clinic dashboards for follow-up reminders.[7]
Foster *et al*.[34]	2018	Health service organizations	Attributes of successful implementation: relevance, timeliness, and minimal burden.	Co-design with clinicians/patients; implementation resources; clear use-cases.	Greater uptake and sustained use; fewer "collect-and-forget" initiatives.	Short-form PROMs delivered pre-visit via patient portals; auto-scored summaries.[8]
Reeve *et al*. [ISOQOL][43]	2013	Patient-centred outcomes research	Minimum standards: reliability, validity, interpretability, responsiveness, burden.	Rigorous development/ validation; cultural adaptation; translation processes.	Credible inferences; regulatory and payer acceptance.	PROMIS item banks; documented minimally important difference values.[9]
OECD[23]	2019	International health system comparison	PREMs as standardized experience indicators (communication, respect, involvement).	National surveys; common definitions; sampling frames.	Cross-country benchmarking; policy targeting of experience gaps.	PREMs modules in national surveys; reporting on continuity and coordination.[10]
WHO	2018	Global quality of care agenda	Person-centredness as a core quality domain; patient voice central to quality.	Political commitment; measurement frameworks; capacity building.	Country quality strategies incorporating PROM/ PREM indicators; accountability.	Facility scorecards, including experience/ outcome indicators.[11]
Knapp *et al*.	2021	Low- and middle-income countries [primary care, maternal health, chronic disease]	Adaptation/feasibility attributes in low-resource settings; cultural validity.	Translation, literacy-sensitive design; community engagement; low-tech options.	Improved service uptake and trust; context-fit measures.	Paper/SMS PROMs; community PREMs on respect/dignity during childbirth.[12]
Bohren, M. A *et al*.	2022	Digital health and remote monitoring	Attributes: real-time capture, scalability, interoperability.	mHealth access; APIs; secure data pipelines.	Faster clinical response; broader reach to home settings	App-based PROMs; telehealth PREMs post-visit surveys.[13]

(*Contd*...)

Table 2: (*Continued*)

Author (s)	Year	Setting	Defining attributes	Antecedents (what precedes)	Consequences (what results)	Empirical referents (real-world examples/ measures)
McCance T *et al*.[19]	2017	PRO/AI methods	PROM semantics usable by ML; need for explainability; bias vigilance.	Large labelled datasets; data quality; governance.	Risk prediction; proactive care; potential bias mitigation if audited.	Predictive models using longitudinal PROMs to flag deterioration.[14]
Valderas *et al*.[52]	2008	Routine clinical practice	PROMs impact depends on feedback design, clinician engagement, actionability.	Feedback timing; training; integration into decisions.	Mixed but improvable effects on outcomes; better detection of problems.	Point-of-care PROM summaries with threshold alerts.[15]
Coulter *et al*.[46]	2014	Quality improvement	Using data to improve care (not just collect); co-design of improvements.	Capacity for analysis; governance linking data to action.	Measurable gains in experience domains; service redesign.	PREMs "You said, we did" cycles; ward-level experience boards.[16]
Needleman and Hassmiller[40]	2009	Hospital nursing quality	Nursing-sensitive quality indicators complemented by patient-reported data.	Staffing levels; culture of safety; measurement capability.	Visibility of nursing contribution; resource allocation to nursing.	Linking HCAHPS nursing communication items to staffing/QI.[17]

PROM: Patient-reported outcome measures, PREM: Patient-reported experience measure, VAS: Visual analogue scale, HCAHPS: Hospital consumer assessment of healthcare providers and system, ML: Machine learning, SMS: Short message service

3. Equity and inclusion lens – Unlike prior reviews, this synthesis foregrounds challenges of cultural adaptation and equity in PREM/PROM use, underscoring the critical nursing role in ensuring inclusivity.
4. Silent revolution framing – Conceptualizing PREMs and PROMs as a "silent revolution" underscores their transformative yet underrecognized impact on redefining healthcare quality.

Discussion

The integration of PREMs and PROMs represents a paradigm shift in healthcare quality assessment. Traditional models, grounded in biomedical outcomes such as morbidity, mortality, and readmission rates, overlook the lived experiences of patients and their subjective well-being.[46] In contrast, PREMs and PROMs expand the evaluative lens to include communication, dignity, recovery, functionality, and life satisfaction – domains central to nursing practice.[47] This reframing moves healthcare beyond the "disease-centered" paradigm toward a "person-centered" model, aligning with the core philosophy of nursing as articulated by theorists such as Florence Nightingale and Jean Watson.[48,49]

Nursing occupies a unique position in operationalizing patient-reported measures. Unlike other disciplines that may emphasize episodic or technical care, nurses engage with patients longitudinally, across diverse contexts from acute wards to community-based care. This proximity enables them to elicit authentic patient narratives and integrate PREM/PROM data into holistic care planning.[50] Moreover, nursing leadership in interpreting PROMs—for instance, tailoring rehabilitation goals in post-surgical care or monitoring fatigue in oncology—illustrates how these tools can redefine nurse-led outcome accountability.[51]

Conventional indicators such as infection rates, pressure ulcers, and medication errors remain important, but they fail to fully capture patients' perceptions of quality. PROMs bridge this gap by capturing recovery trajectories, quality of life, and psychological well-being, while PREMs reflect relational aspects such as respect, trust, and communication.[52] When integrated, they form a complementary framework: clinical indicators demonstrate safety and efficacy, while PROMs/PREMs reveal the "human experience" of care.[53] For example, a post-operative patient may demonstrate technically successful healing, yet PROMs may reveal persistent pain and fatigue – insights that reshape the evaluation of nursing quality.[10]

The global healthcare policy landscape increasingly positions PROMs and PREMs as drivers of accountability. In the United Kingdom, PROMs are routinely collected for elective surgical procedures, directly influencing provider reimbursement and institutional performance benchmarking.[54] In the United States, patient experience scores (HCAHPS surveys, akin to PREMs) shape Medicare funding allocations under the Value-Based Purchasing program.[55] This institutionalization of patient-reported measures elevates nurses' visibility as contributors to quality governance. Nursing-sensitive indicators, when linked with PROM/PREM outcomes, ensure that nurses' contributions to patient safety, satisfaction, and well-being are no longer invisible but tied to policy and funding structures.[56]

Digital health platforms and AI represent transformative frontiers for PROMs and PREMs. Mobile health applications enable nurses to collect PROMs from patients managing chronic conditions at home, while dashboards embedded in EHRs provide real-time PREM data to ward nurses.[57] AI algorithms can analyze these datasets to predict patient deterioration, flagging high-risk individuals before clinical symptoms manifest.[58] Importantly, these innovations democratize data use, enabling nurses—not just physicians or administrators to lead in the interpretation and application of PROM/PREM data for direct patient care.[59]

The expansion of PROMs and PREMs raises ethical challenges. Concerns include the digital divide, where older

adults, rural populations, or individuals with limited literacy may be excluded from digital PROMs.[60] Nurses often bridge this divide by assisting patients in completing instruments or advocating for culturally adapted versions. Ethical stewardship also extends to the handling of large-scale patient-reported datasets, ensuring privacy, confidentiality, and consent.[61] Importantly, equity-focused nursing leadership can ensure that PROMs and PREMs are not tools of exclusion but vehicles for inclusion, amplifying marginalized voices in healthcare quality evaluation.[62]

The integration of patient-reported measures into nursing practice necessitates a transformation in nursing education. Future nurses must be trained not only in clinical care but also in data literacy, interpretation of PROMs/PREMs, and digital health competencies.[63] Nurse educators increasingly incorporate patient-reported data into curricula to teach evidence-based, patient-centered decision-making. This prepares a generation of nurses capable of engaging with both the relational and technological dimensions of care quality.[64]

While PROMs and PREMs are widely institutionalized in high-income countries, their application in LMICs remains limited. Challenges include resource constraints, lack of validated instruments, and infrastructural barriers.[65] However, emerging projects demonstrate promising impact: in India, community-based PREMs have been used to evaluate maternal health services, highlighting women's experiences of dignity and informed choice.[62] Similarly, in South Africa, PROMs guided HIV care to monitor psychosocial well-being alongside biomedical outcomes.[63] These examples illustrate the adaptability of PREMs/PROMs to diverse contexts when guided by culturally sensitive nursing leadership.

What makes this transformation a "silent revolution" is its subtle yet profound impact. Unlike highly visible technologies such as robotics or genomics, PREMs and PROMs operate quietly, embedding patient voices into decision-making without fanfare. Yet their implications are revolutionary: they shift authority from institutions to patients, from metrics of efficiency to measures of dignity, and from system-centered care to truly patient-centered nursing practice. Nurses, as advocates of patient voices, are at the epicentre of this transformation.

Future directions: Toward a nursing-centered framework

This review suggests the need for a Nursing-Centered PROM/PREM framework with five pillars:

1. Integration into clinical workflows – Embedding PROMs/PREMs into routine nursing assessments using digital platforms.
2. Nurse-led data interpretation – Training nurses to analyse PROM/PREM datasets for individualized care planning.
3. Policy advocacy – Leveraging patient-reported data to influence quality governance, accreditation, and reimbursement.
4. Equity and cultural adaptation – Ensuring instruments are accessible across diverse populations and literacy levels.
5. Educational transformation – Incorporating PROMs/PREMs into nursing curricula to build competencies in patient-centered analytics.

By adopting this framework, nursing can move from being passive collectors of patient-reported data to active leaders in transforming healthcare quality.

Future research and recommendations

Future research should focus on developing and validating nursing-specific PROM/PREM frameworks that accurately capture core nursing interventions, therapeutic relationships, and care continuity. There is a need for culturally sensitive adaptation and cross-country validation, especially in LMICs where evidence remains limited. Further exploration is required on the integration of PROMs/PREMs into digital nursing workflows, including AI–enabled analytics, mobile health platforms, and electronic documentation systems. Implementation science studies should assess feasibility, workload impact, and nurse acceptance in real-world settings. Research must also explore direct links between PROM/PREM outcomes and value-based care reimbursement models to strengthen policy relevance. Finally, the ethical and equity dimensions of PROM/PREM adoption, including data privacy, digital literacy disparities, and inclusive access for vulnerable populations, remain critical gaps that require systematic investigation.

Conclusion

This concept analysis demonstrates the transformative potential of PREMs and PROMs in enhancing nursing healthcare quality. These measures transcend conventional biomedical indicators by capturing patient narratives, lived experiences, functional recovery, and communication quality, thereby aligning with the holistic philosophy of nursing. Evidence shows that PREMs and PROMs strengthen nurse–patient relationships, promote shared decision-making, and facilitate more personalized, value-driven care. Their increasing integration into policy frameworks, quality dashboards, and value-based reimbursement models reflects their growing institutional influence, while digital innovations further expand their accessibility and analytical utility. However, challenges persist, including cultural adaptation, patient literacy, and digital inequity. Ethical concerns related to data privacy and inclusiveness also require focused attention. Equipping nurses with competencies in data interpretation and digital health integration is therefore essential. Ultimately, leveraging PREMs and PROMs represents a quiet yet profound shift toward equitable, sustainable, and genuinely patient-centered nursing care.

Acknowledgment

The authors sincerely acknowledge the valuable contributions of all researchers, nursing professionals, and institutions whose work informed this concept analysis. We are grateful

to the scientific databases and indexing platforms that enabled access to high-quality evidence, including PubMed, Scopus, CINAHL, and Web of Science. Finally, we express gratitude to our affiliated institutions for providing the academic environment, resources, and motivation necessary to complete this scholarly work.

Conflict of Interest

None.

Source of Funding

None.

Author Contributions

Akhand Pratap-Contributed to topic conceptualization, background framing, and supporting literature identification.

Mohammed Umar-Led the study design, methodology development, screening, data extraction, data synthesis, and primary manuscript writing.

Karthika S-Contributed to literature search, data charting, and thematic categorization.

Verginia Dsouza-Supported conceptual refinement and contributed to the integration of nursing quality frameworks.

Tamanna Koley-Assisted in reviewing digital health innovations and relevance to PROM/PREM applications.

Deepa Mukherjee-Contributed to the interpretation of findings and manuscript editing.

Ambika Ramgurwadi-Offered expert insights on nursing practice implications and validated thematic clarity.

Suhashini-Contributed to document proofreading, formatting, and cross-checking accuracy of extracted data.

Ajay Jyotiram Kawar-Assisted in reference management.

Deepa NR-Supported screening, appraisal of included literature, and refinement of the discussion section. All authors reviewed, approved, and agreed to be accountable for the final manuscript.

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How to cite this article: Pratap A, Umar M, Karthika S, Dsouza V, Koley T, Mukherjee D, *et al*. Leveraging Patient-Reported Experience and Outcome Measures to Advance Nursing Healthcare Quality: A Silent Revolution in Patient-Centered Care. Int J Nur Res. 2025;11(4):61-69.