



New Trends in
Qualitative
Research



VOLUME 22 | N° 2

DOI:

<https://doi.org/10.36367/ntqr.22.2.2026.e1321>

Lujain Samarkandi

Nadia Fanous

Mohammad Al-Bsheish

PATIENT REPORTED OUTCOME MEASURES (PROMS): IN-DEPTH VIEW OF TWO EXPERTS

ABSTRACT

Saudi Arabia's Vision 2030 is a comprehensive transformation of the healthcare sector aimed at establishing a more efficient, accessible, and high-quality healthcare system, fundamentally driven by a patient-centric approach. Despite growing recognition of Patient-Reported Outcome Measures (PROMs), there remains a limited understanding of the specific opportunities and barriers encountered during their implementation within Saudi Arabia, particularly from the perspective of key stakeholders. This qualitative study aims to gather the perspectives of expert stakeholders regarding Patient-Reported Outcome Measures (PROMs), as well as the opportunities and barriers related to their implementation in Saudi Arabia. This research adopts an exploratory framework. Two in-depth interviews were conducted with pioneering experts actively involved in PROMs implementation within the country. Sample size was justified on the principle of "information power," given the high specificity of participants' backgrounds and the study's narrow exploratory aim. Data were collected through semi-structured interview guides, audio-recorded and transcribed verbatim, and analyzed using Braun and Clarke's (2006) six-phase thematic analysis. The study also includes a dedicated methodological reflection section that addresses epistemological assumptions, researcher reflexivity, and the transferability of the adopted design to other qualitative research contexts. Findings reveal that PROMs empower patients and are associated with improved health outcomes; the optimal data-collection setting was identified as the waiting room, which maximizes response rates. Nevertheless, physician resistance rooted in concerns about the subjectivity of patient-reported pain remains a salient challenge. The study underscores the need for systemic, cultural, and practical adaptation strategies to optimize the effectiveness of PROMs in Saudi clinical practice. As a preliminary qualitative exploration based on two expert interviews, findings should be interpreted as indicative rather than generalizable; future research engaging a broader range of stakeholders is warranted.

Keywords

Patient Reported Outcome Measures (PROMs); Opportunities and Barriers; Thematic Analysis; Cultural Adaptation; Saudi Arabia.

Submission date: July, 2025

Review date: May, 2025

Publication date: July, 2026

1. Introduction

Patient Reported Outcome Measures (PROMs) are standardized instruments designed to measure patients' perceptions of their health status and treatment outcomes (Black, 2013; Weldring & Smith, 2013). Their increasing global adoption reflects a broader shift towards patient-centered and value-based healthcare, emphasizing the quality and effectiveness of care from the patient's perspective (Porter, 2010; Fanous et al., 2024). The literature reports that patient-centered care practices are associated with positive outcomes among inpatients (Jarrar et al., 2025; Yu et al., 2023). PROMs, as an approach to patient-centered care, facilitate patient empowerment, improve healthcare outcomes, and offer crucial insights for clinical decision-making (Santana et al., 2015). The value of PROMs extends meaningfully beyond clinical data, as they focus on patients' perceptions of their health and quality of life. For example, the study by Jensen-Marini et al. (2025) explains how PROMs provide critical qualitative insights into the daily lived experiences of patients with lung cancer, ensuring that features such as symptom impact and functional status are understood directly from their perspectives, thus contributing to a more centered care approach.

Nevertheless, the implementation of PROMs faces several critical barriers, including challenges related to clinical workflow integration, healthcare provider resistance, patient survey fatigue, and significant cultural and linguistic validation requirements (Greenhalgh et al., 2018). A systematic literature review highlights persistent issues regarding physicians' skepticism and workload concerns, which may undermine successful integration (Ahmed & Fincham, 2015). Moreover, studies suggest that the lack of culturally validated instruments can substantially limit the use of PROMs in diverse healthcare settings, affecting the accuracy and relevance of patient feedback (Greenhalgh et al., 2018; Santana et al., 2015). In addition, experience from hospitals with successful PROMs programs in the United States indicates that effective implementation depends on multiple elements, including empowering clinicians' input in measures selection, ensuring a user-friendly data platform, and providing comprehensive education to clinicians (Hyland et al., 2023). These findings emphasize the importance of addressing both technological and human factors for effective PROMs implementation, a lesson relevant to diverse healthcare systems initiating similar transformations. The effective utilization of PROMs in clinical practice requires a structured approach, as detailed by Porter et al. (2016), which navigates both their sustained benefits and existing implementation challenges.

In the context of Saudi Arabia, with the significant healthcare transformation initiatives such as Vision 2030, PROMs implementation is emerging yet poorly documented (Almutairi & Moussa, 2014). Essential to Saudi Arabia's Vision 2030 is a comprehensive transformation of the healthcare sector aimed at establishing a more efficient, accessible, and high-quality system, fundamentally driven by a patient-centric framework that emphasizes personalized treatment and overall quality improvement across the Kingdom (Suleiman & Ming, 2025).

The Council of Health Insurance (CHI) has formally outlined a National PROMs Program, underlining the Kingdom's commitment to measuring meaningful patient outcomes as a core component of its healthcare strategy (CHI, 2025). Despite growing recognition of the importance of PROMs, there remains a limited understanding of the specific opportunities and barriers encountered during their implementation in the Kingdom, particularly from the perspective of key stakeholders (Alshehri et al., 2020; Al-Aqeel & AlKofide, 2025). This gap calls for exploratory qualitative studies to address the research question: "What are the opportunities and barriers to implementing PROMs in the context of Saudi Arabia from the perspective of PROMs experts?" Therefore, this research aims to identify the specific barriers and opportunities for implementing PROMs in the Saudi healthcare environment, with the goal of informing future research and policy development.

2. Methodology

2.1 Study Design

A qualitative research design was selected for its ability to provide comprehensive, contextually rich insights (Creswell, 2014). Recognizing the specialized and evolving nature of PROMs implementation, this research adopts an exploratory framework (Stebbins, 2001). This approach focused on examining "Opportunities and Barriers" through the lens of subject-matter experts. This specific focus provides a clear overview of the systemic barriers and opportunities that indicate the current state of PROMs, ensuring that the findings are grounded in high-level professional practice (Bogner et al., 2009). Two semi-structured, in-depth individual interviews were conducted with experts recognized as pioneers in PROMs implementation within Saudi Arabia. The sample size was determined based on the principle of "information power" (Malterud et al., 2016). Given the high specificity of the participants' backgrounds and the study's narrow exploratory aim, the conversation provided sufficient depth to address the research questions. The rigor of this qualitative study was ensured through in-depth expert interviews and an iterative, collaborative review of codes and themes by the research team. A transparent and systematic methodological approach, including semi-structured interviews, audio recording, verbatim transcription, and a structured analysis process, supported the reliability of the findings. Additionally, a detailed contextual description enhances the applicability of the results to similar settings.

2.2 Study Settings

The study took place in the healthcare environment of Saudi Arabia, a nation undergoing transformation driven by its Vision 2030 strategic framework (Health Sector Transformation Program, 2025). This framework established a nationwide agenda outlining key reforms in the health sector, aiming to transition to a more efficient, accessible, and patient-centered system (Suleiman & Ming, 2025).

This context makes Saudi Arabia a particularly relevant setting for exploring the implementation of PROMs, as it seeks to align dynamically with international best practices in healthcare quality and outcomes measurement.

2.3 Criteria for Experts' Selections

The target sample for this study was physicians recognized as experts in PROMs implementation in their clinical and policy roles in Saudi Arabia. A purposive sampling approach was employed to select information-rich cases aligned with the research objectives (Patton, 2002). Inclusion criteria required participants to demonstrate direct professional involvement in the development or active application of PROMs initiatives within Saudi Arabia, as evidenced by leadership roles (e.g., program directors, national board members, senior advisors) or substantial research engagement. Individuals without direct clinical experience or theoretical knowledge of PROMs were excluded. Potential participants were identified through professional networks and publicly available records of national PROMs initiatives, then approached via telephone and electronic correspondence.

It is essential to acknowledge the implications of working with only two participants. The limited size of the eligible expert pool in Saudi Arabia, a growing field with few formally recognized PROMs pioneers, made a larger sample size methodologically impractical at this stage. Although two participants suffice to initiate theory-building in expert-centered inquiry (Bogner et al., 2009), the resulting data reflect the perspectives of two clinicians in specific specialties (orthopedic surgery and health insurance design). They cannot be taken to reflect the views of the broader healthcare workforce. Inferences drawn from this corpus must therefore be framed as exploratory and hypothesis-generating rather than conclusive. The concept of “information power” (Malterud et al., 2016) provides the principled justification: each interview yielded over sixty minutes of substantive data and more than six pages of verbatim transcript, establishing sufficient density for initial thematic development.

2.4 Ethical Considerations

Ethical approval was obtained from Batterjee Medical College prior to conducting the study under Ref. no. RES-2024-0031. Experts were informed about the study protocol. The experts signed an informed consent form before they started the interview. All interviews were conducted in a private setting between May and July 2024, either virtually via secure online platforms or face-to-face, as preferred by the participant, to ensure confidentiality. Participant identifiers were removed during transcription to ensure anonymity and confidentiality. This study successfully gathered qualitative insights from clinical leaders who have pioneered the implementation of PROMs in KSA.

3. Findings

3.1 Experts' Characteristics

Although both experts consented to the disclosure of their names and affiliations, we have chosen to include only their credentials and contributions to PROMs in Saudi Arabia to maintain focus on the subject matter and uphold professional discretion.

Two subject matter experts (medical professionals) were consulted for this study, each bringing specialized expertise to the development and implementation of PROMs in Saudi Arabia. The first expert is a surgeon with international surgical and academic experience and has played a national leadership role in introducing PROMs in Saudi Arabia. He has been instrumental in integrating PROMs into clinical practice in Saudi Arabia by introducing PROMs within foot and ankle surgery to monitor outcomes and influence national standards. As a member of the National Advisory Board for PROMs, he has helped shape the strategic direction for integrating PROMs across surgical specialties.

The second expert, who is also a physician and currently works on new health insurance ideas and value-based healthcare design, was in charge of planning how to use PROMs and clinician-reported outcome measures (CROMs) with different healthcare providers. This included completing an accredited translation of PROMs tools, mapping patient and provider journeys, and studying integration within bundled payment models for conditions such as low back pain and cataracts. The combined input from both experts supported the study's focus on practical, scalable, and outcome-driven approaches to PROMs adoption.

3.2 Interview Guide

In addition to eight sociodemographic questions regarding age, gender, occupation, specialty, years of experience, marital status, nationality, and lastly, the type of organization they work for. An interview guide was developed based on a previous literature review concerning global PROMs implementation challenges and opportunities, as well as the research team discussions (Dosanjh, 2025; Churruca et al., 2021; Greenhalgh et al., 2018; Porter et al., 2016; Ahmed & Fincham, 2015). The interview guide was based on several concepts, including participants' understanding and definitions of PROMs; their experiences with implementation and practical utilization; identified barriers and challenges to implementation; perceived opportunities and benefits; and the crucial importance of localization and cultural validation for PROMs in Saudi Arabia. The researchers used the following questions to guide their interviews with the physicians. Probe whenever possible.

1. What do you know about PROMs?
2. What do you think the main purpose of PROMs is?
3. How do you think PROMs implementation might help patients?

4. How do you think PROMs implementation can help doctors and other healthcare professionals?
5. What do you think the possible challenges could be for the implementation of PROMs?
6. What do you think can be the impact of PROMs implementation on the Saudi Healthcare system?
7. What are the possible strengths in the Saudi healthcare system that can support the implementation of PROMs?

The interviews were conducted in the period between May and July, 2024 by one of the research team members, who has a background in healthcare and was trained in qualitative interviewing techniques to ensure consistency and objectivity, and to foster rapport effectively. Each interview was audio-recorded, and immediately afterward, brief field notes were taken to capture nonverbal cues, the full context, and initial reflections.

3.3 Data Analysis and Coding Process

The interviews were audio-recorded, each lasting at least 60 minutes, and transcribed verbatim, yielding over six pages of transcript per interview. Despite the limited number of participants, their depth of experience yielded substantial qualitative data, enabling detailed exploration of key themes consistent with qualitative research principles prioritizing comprehensive understanding in initial explorations (Guest et al., 2006).

A systematic and rigorous analytical process was employed, following Braun and Clarke's (2006) six-phase approach to thematic analysis. Starting with the first phase, in which two researchers independently read and reread the verbatim transcripts multiple times to achieve deep familiarity with the data. During this phase, initial observations and potential patterns were noted. Next, a generation of initial codes began with a hybrid approach that combined inductive and deductive strategies. As seen in Figure 1, deductive codes were derived from the interview guide structure (e.g., "PROMs definition," "implementation barriers," "benefits," "localization needs"), which was itself informed by prior literature. Inductive codes emerged organically from the data to capture novel insights specific to the Saudi Arabian context (e.g., "waiting room data collection," "physician skepticism regarding subjectivity," "Vision 2030 alignment") (see Figure 1). Both researchers independently coded the transcripts line by line, assigning relevant segments of text to initial codes.

Then, the initial codes were collated and systematically reviewed by the research team to identify patterns and relationships. Codes were grouped into candidate themes based on conceptual similarity and thematic coherence. For example, codes such as "physician resistance," "survey fatigue," "EMR integration challenges," and "cultural validation complexity" were aggregated under the broader theme "Barriers and challenges in implementing PROMs."

A preliminary codebook was developed during this phase, documenting code definitions, inclusion criteria, and representative quotes. After that, the potential themes underwent iterative review to ensure internal homogeneity and external heterogeneity. This review involved checking that coded data extracts aligned meaningfully with their assigned themes and that themes accurately reflected the dataset as a whole. Two researchers independently reviewed the themes, and discrepancies were resolved through discussion and consensus-building, ensuring intersubjective validation. Themes that lacked sufficient supporting data or conceptual clarity were refined or collapsed into other themes. Lastly, findings were presented through narrative summaries for each theme, consistently supported by empirical verbatim participant quotes to enhance credibility and provide transparent evidence for the analytical interpretations. Representative quotes were selected to illustrate key points within each theme and to ground the analysis in participants' own words. The conceptual framework in Figure 1 illustrates the codes used and the themes established.

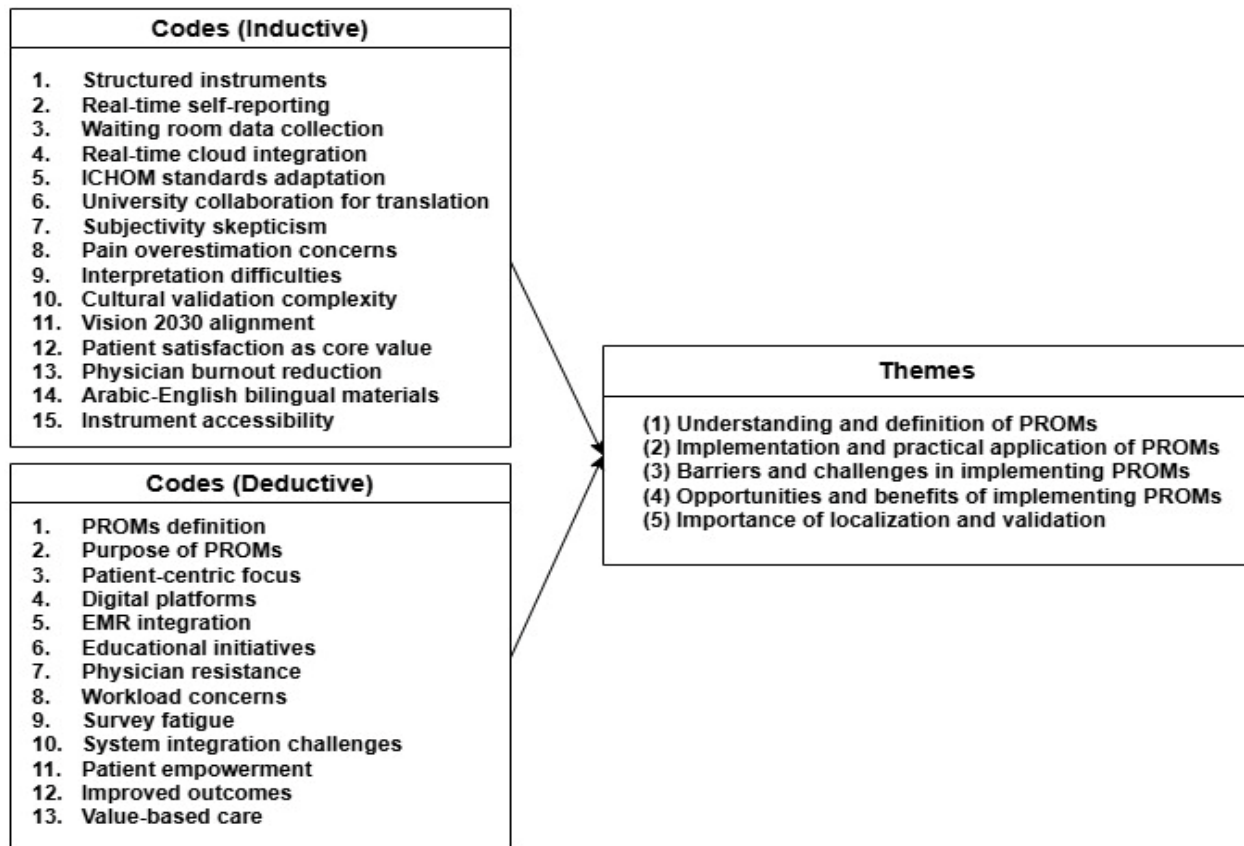


Figure 1. Conceptual framework for study codes and themes

3.4 Code and Transcript

Throughout the analytical process, the research team maintained an audit trail documenting coding decisions, theme development, and analytical reflections. This thematic analysis of two qualitative expert interviews provides a foundational understanding of PROMs implementation in the Saudi Arabian healthcare context, capturing insights into existing barriers and opportunities from the perspective of pioneering stakeholders. Table 1 provides a transparent breakdown of the relationship between the identified codes, their operational descriptions, and illustrative examples from the raw transcripts.

Table 1. Code and transcript example

Code ID	Code Name	Description /Definition	Example Quotation from Data
D-001	PROMs definition	Statements describing what PROMs are, their fundamental nature as measurement instruments	PROMs, in essence, are basically a very targeted, disease-specific way of asking the patient whether he was satisfied with the results
D-002	Purpose of PROMs	Statements about why PROMs are used, their intended goals or objectives	Measuring meaningful patient outcomes from the patient perspective
D-003	Patient-centric focus	Emphasis on PROMs as tools that center the patient's voice and perspective	Patient autonomy and self-reported outcomes without physician interference
I-001	Structured instruments	References to PROMs as standardized, validated measurement tools	Very targeted, disease-specific instruments
I-002	Real-time self-reporting	Emphasis on immediate patient input captured at a point in time	Perception of the patient's health status at that point in time
D-004	Digital platforms	Use of electronic/digital systems for PROMs collection or display	Digital integration into EMR systems
D-005	EMR integration	Specific integration of PROMs into Electronic Medical Records	Embedding PROMs directly into EMRs for real-time data accessibility
D-006	Educational initiatives	Training, education, or awareness programs for PROMs stakeholders	Informative videos developed in Arabic and English to educate patients and clinicians
I-003	Waiting room data collection	Specific strategy of collecting PROMs while patients wait for appointments	The best time to capture PROMs is in the waiting room.
I-004	Real-time cloud integration	Use of cloud technology for immediate data transfer and visibility	Patient answers, it goes into the cloud, and it shows up straight away in the platform on the doctor's desktop
I-005	ICHOM standards adaptation	Use of the International Consortium for Health Outcomes Measurement standards	Translation and cultural adaptation using validated standards from ICHOM
I-006	University collaboration for translation	Partnership with academic institutions for linguistic validation	Collaboration with linguistic departments at local universities for rigorous translation validation
D-007	Physician resistance	General opposition, reluctance, or hesitancy from physicians toward PROMs	Physicians are resistant to change... the biggest roadblocks are sometimes that you're worried about change
D-008	Workload concerns	Concerns about increased time, effort, or burden on healthcare providers	I've got to collect a survey. It takes time in my clinic.

D-009	Survey fatigue	Patient tiredness or reluctance due to excessive surveys	The last thing patients want is to fill out more surveys
D-010	System integration challenges	Technical or logistical difficulties in integrating PROMs into existing systems	System-level hurdles, such as integrating PROMs within electronic medical systems
I-007	Subjectivity skepticism	Physician doubts about the validity/reliability of subjective patient reports	Doctors don't like PROMs because patients tend to overestimate or overexpress their pain.
I-008	Pain overestimation concerns	Specific concern that patients exaggerate pain or symptoms	Patients tend to overestimate or overexpress their pain
I-009	Interpretation difficulties	Challenges in making sense of or comparing patient-reported data	Really hard to say if this patient and these patients are experiencing the same inflammation
I-010	Cultural validation complexity	Challenges specific to cultural and linguistic adaptation processes	Cultural and translation challenges in PROMs instruments
D-011	Patient empowerment	PROMs enabling patients to have a voice, agency, or involvement in care	PROMs empower patients
D-012	Improved outcomes	PROMs leading to better health outcomes or quality of life	There is a lot of evidence that shows that health outcomes across the board improve when you use PROMs
D-013	Value-based care	PROMs supporting value, quality, or outcomes-based healthcare models	Critical data for value-based healthcare
I-011	Vision 2030 alignment	PROMs fitting with Saudi Arabia's national healthcare transformation goals	Potential for achieving the objectives set by Vision 2030 in Saudi Arabia
I-012	Patient satisfaction as a core value	Emphasis on patient satisfaction as a fundamental measure of success	If value is not created at the patient level, then nothing else matters, honestly
I-013	Physician burnout reduction	PROMs potentially reducing physician workload or stress through efficiency	Potentially reducing physician burnout by streamlining patient evaluations.
D-014	Cultural adaptation	Need to adapt PROMs for cultural context and appropriateness	Cultural adaptation and localization for the Saudi context
D-015	Translation validation	Rigorous linguistic validation and translation processes	Thorough translation validation and instrument localization
I-014	Arabic-English bilingual materials	Development of materials in both Arabic and English languages	Videos developed in both Arabic and English
I-015	Instrument accessibility	Making PROMs understandable and usable for Saudi patients	Ensuring instruments are accessible and understandable to Saudi patients

3.5 Themes of the Study

The thematic analysis findings indicated five emerging themes: the Understanding and definition of PROMs; the implementation and practical application of PROMs; barriers and challenges in implementing PROMs; opportunities and benefits of implementing PROMs; and the importance of localization and validation. Table 2 summarizes the distribution and characterization of inductive and deductive themes.

3.5.1 The Understanding and Definition of PROMs

Both experts demonstrated a thorough understanding of PROMs, describing them as structured instruments that capture patients' perceptions of their health status and the outcomes of healthcare interventions. PROMs were explicitly defined as patient-centric tools that enable healthcare providers to evaluate treatment effectiveness based on patient experiences rather than clinical indicators alone. One expert highlighted PROMs as tools that assess patients' satisfaction with the outcomes of healthcare services, not the service process itself.

"PROMs, in essence, are basically a very targeted, disease-specific way of asking the patient whether he was satisfied with the results that the service provider got him, not of the service itself."

The other expert reinforced this notion by emphasizing the importance of patient autonomy and the importance of real-time, self-reported patient outcomes without physician interference, stating:

"PROMs are essentially a perception of the patient's health status, not experience, but what their health feels like to them at that point in time."

3.5.2 Implementation and Practical Application of PROMs

Both experts emphasized the importance of practical integration of PROMs into clinical workflows, particularly through digital systems such as Electronic Medical Records (EMRs). One expert described his experience in collecting PROMs from cataract patients, detailing the process of translating and culturally adapting instruments using validated standards from the International Consortium for Health Outcomes Measurement (ICHOM). This process included collaboration with the linguistic departments at local universities to ensure rigorous translation validation and localization.

The other expert elaborated on practical strategies such as embedding PROMs directly into EMRs and ensuring real-time data accessibility to healthcare providers. Key practical steps that the first expert highlighted included educational initiatives, such as informative videos in both Arabic and English, designed to educate patients and clinicians about PROMs, their benefits, and the importance of patient engagement at the point of care. The expert added that these videos were used prior to the launch of the PROMs project in a leading hospital in Saudi Arabia. He also shared his perspective on how to get the highest response rate from patients, noting that the last thing patients want is to fill out more surveys:

"The best time to capture PROMs is in the waiting room. Patient answers, it goes into the cloud, and it shows up straight away in the platform on the doctor's desktop for real-time feedback."

3.5.3 Barriers and Challenges in Implementing PROMs

Both interviewees consistently reported several barriers. Notably, both experts stated that a primary concern is physicians' resistance to implementing PROMs, primarily attributed to increased clinical workload and skepticism about the subjective nature of PROMs. One expert noted,

"Doctors don't like PROMs because patients tend to overestimate or overexpress their pain... It's really hard to say if this patient and these patients are experiencing the same inflammation."

The other expert highlighted physician resistance to practice changes, patient survey fatigue, and system-level hurdles, such as integrating PROMs into electronic medical systems.

"Physicians are resistant to change... the biggest roadblocks are sometimes that you're worried about change... And you also think, I've got to collect a survey. It takes time in my clinic."

Additionally, survey fatigue among patients and logistical challenges in integrating PROMs into electronic systems were identified as significant barriers. The validation and localization of PROM instruments for the Saudi cultural context were also emphasized as critical yet challenging processes necessary for effective implementation and accurate data collection. They stressed the cultural and translation challenges, the complexity of PROM instruments, patient understanding, and physician resistance stemming from subjectivity and interpretive difficulties.

3.5.4 Opportunities and Benefits of Implementing PROMs

Both experts underscored the substantial potential benefits of effective PROM use, particularly within the context of value-based healthcare and patient empowerment. PROMs were identified as tools capable of significantly enhancing patient satisfaction, enabling objective monitoring of health outcomes, and providing critical data for benchmarking provider performance. One expert stressed the centrality of patient satisfaction, asserting,

"If value is not created at the patient level, then nothing else matters, honestly."

The potential for PROMs to contribute positively toward achieving Saudi Arabia's Vision 2030 healthcare transformation goals was also strongly emphasized. PROMs were seen as instrumental in facilitating patient empowerment, improving clinical outcomes, enhancing patient-provider interactions, and potentially reducing physician burnout by streamlining patient evaluations. One expert noted that PROMs are essential tools for patient empowerment and highlighted their potential to advance Vision 2030 objectives in Saudi Arabia, including improved patient outcomes, higher healthcare quality, and enhanced physician productivity.

"PROMs empower patients... There is a lot of evidence which shows that health outcomes across the board improve when you use PROMs."

3.5.5 Importance of Localization and Validation

Finally, the necessity for thorough cultural adaptation, translation validation, and instrument localization emerged as a pivotal theme. Both experts acknowledged the complexity and significance of creating culturally sensitive and linguistically accurate PROMs instruments. The collaboration with linguistic experts and academic institutions was identified as an essential strategy to ensure that PROMs instruments are accessible and understandable to Saudi patients, thereby improving the quality and reliability of the data collected. The interviews underscored a clear consensus on both the value and the challenges of PROMs implementation in Saudi Arabia, highlighting the need for systemic, cultural, and practical considerations to optimize their effectiveness in clinical practice.

Table 2. Distribution and characterization of inductive and deductive themes

Theme ID	Theme Name	Total Codes	Deductive Codes	Inductive Codes	Key Characteristics	Representative Codes
T1	Understanding and definition of PROMs	5	3	2	Conceptual/definitional codes addressing the fundamental nature and purpose of PROMs as patient-centered measurement tools	PROMs definition, Purpose, Patient-centric focus, Structured instruments, Real-time self-reporting
T2	Implementation and practical application of PROMs	7	3	4	Operational codes covering technological solutions, workflow integration, and educational strategies for PROMs deployment	Digital platforms, EMR integration, Waiting room collection, Cloud integration, ICHOM standards, University collaboration
T3	Barriers and challenges in implementing PROMs	9	4	5	Obstacle codes capturing physician, patient, system, and cultural-level impediments to successful implementation	Physician resistance, Workload concerns, Survey fatigue, Subjectivity skepticism, Cultural validation complexity
T4	Opportunities and benefits of implementing PROMs	6	3	3	Advantage codes highlighting positive impacts, strategic opportunities, and the transformative potential of PROMs	Patient empowerment, Improved outcomes, Value-based care, Vision 2030 alignment, Burnout reduction
T5	Importance of localization and validation	4	2	2	Cross-cutting codes addressing the critical need for cultural and linguistic adaptation in the Saudi context	Cultural adaptation, Translation validation, Arabic-English materials, Instrument accessibility

4. Discussion

The qualitative data showed that PROMs are increasingly recognized as essential tools for capturing patient-centric data and supporting the implementation of value-based healthcare. Our study's findings on understanding PROMs are consistent with the foundational definitions provided by Weldring and Smith (2013), who differentiate Patient-Reported Outcomes (PROs) as direct patient data from PROMs, which are the specific, standardized instruments designed to collect these reports reliably. This recognition is essential for accurate data interpretation and active clinician engagement, which directly impact the effective implementation of PROMs in clinical settings. Additionally, the study findings indicate that digital integration and user-friendly interfaces can significantly enhance the acceptance and utilization of PROMs among both patients and healthcare providers. This aligns with the findings of Khakzad et al. (2024), which highlighted that effective digitalization is fundamental to realizing the full benefits of PROMs data, including efficient integration into clinical practice, delivering real-time patient information to providers, and preparing the data for AI utilization. Correspondingly, digital tools can significantly boost the efficiency of PROM collection, yet their design must proactively mitigate clinician fatigue and ensure integration with existing health records (Dosanjh, 2025).

Moreover, resistance to change from healthcare providers remains a considerable barrier, underscoring the need for targeted strategies to promote adoption. This finding aligns with previous literature on organizational change in healthcare, where the success of new initiatives, such as the integration of PROMs, depends heavily on whether staff are given opportunities to influence the change, are adequately prepared for it, and ultimately value its perceived benefits (Nilsen et al., 2020). Additionally, cultural adaptation and rigorous validation of Arabic-language instruments continue to pose substantial challenges, highlighting an urgent need for context-specific solutions. The specific challenge of cultural and linguistic validation of PROM instruments for the Saudi context was strongly emphasized, indicating that this is not simply a technical step but a profound consideration for ensuring data accuracy and clinical relevance (Wild et al., 2005). The findings from these expert interviews align with the broader international literature identifying significant barriers, including physician resistance, integration difficulties, and patient survey fatigue (Greenhalgh et al., 2018; Ahmed & Fincham, 2015). This study critically highlights that these challenges are compounded within Saudi Arabia by additional cultural and linguistic validation requirements, necessitating context-specific adaptation strategies.

Despite these obstacles, the clear benefits of PROMs, including enhanced patient empowerment, improved clinical outcomes, and enriched interactions between patients and healthcare providers, reinforce their importance as a transformative element in contemporary healthcare practice.

Consistent with this finding, Jeyaraman et al.'s (2025) study highlighted that PROMs promote stronger patient-provider interactions, enhancing patient engagement and treatment adherence, and are also crucial in clinical settings for monitoring disease progression and evaluating treatment effectiveness, especially for chronic and mental health conditions. Another study by Basch et al. (2018) mentioned that routine PROMs monitoring significantly enhances patient-clinician communication, improves symptom management, increases patient satisfaction, and positively affects quality of life.

While PROMs have shown promise in improving patient outcomes and healthcare quality globally (Santana et al., 2015), practical integration into routine clinical care remains fragmented. In addition, the comprehensive review by Churrua et al. (2021) highlights the growing importance of PROMs as standardized tools for collecting health outcomes directly from patients' perceptions, including features such as symptoms and quality of life. They highlight that a significant ongoing challenge lies in effectively selecting and applying the most reliable, valid, and "fit-for-purpose" instruments for routine practice. Existing research frequently identifies inadequate physician engagement, skepticism toward subjective patient feedback, and the logistical burden of implementing PROMs in already busy clinical practices as central issues (Ahmed & Fincham, 2015).

Beyond this finding, the study provides evident contribution based on its experts sampling design which purposefully engaged participants with deep institutional knowledge of PROMs implementation. By anchoring the sample size in the concept of information power established by Malterud et al. (2016), sample sufficiency depend heavily on the richness of information held by the individuals in relation to the research objective. As the research aim was highly specific and the expert's cohort acquired massive knowledge, the resulting dialogue was remarkably rich, that is concise with the study (Younas et al., 2025) which highlighted specialized sample was methodologically adequate to provide comprehensive understanding of the Phenomena.

This study adds critical qualitative depth to these insights by emphasizing the unique cultural and operational dynamics in Saudi Arabia. Specifically, the findings stress the need for substantial investment in local validation processes, culturally appropriate education, and systematic digital integration to overcome identified barriers and leverage PROMs effectively.

5. Methodological Reflection

This section constitutes the core methodological contribution of the article. It moves beyond a description of procedures to offer a critical analysis of the epistemological assumptions underpinning the study, the reflexive positioning of the researchers, the inherent limitations of the adopted design, and the broader relevance of the methodological choices for qualitative research in applied health contexts. Crucially, the methodological insights developed here are intended to be transferable beyond the substantive topic of PROMs implementation, offering a replicable framework for qualitative researchers working with rare expert populations in under-researched healthcare settings.

The section is organized into three sub-sections: epistemological assumptions, researcher reflexivity and positionality, and transferable methodological contributions.

5.1 Epistemological Assumptions: The Interpretivist Lens

Given the interpretivist perspective of this study, an exploratory framework was adopted that frames the implementation of PROMs as the subjective experience of key stakeholders rather than a static technical event (Creswell & Poth, 2016; Stebbins, 2001). In accordance with the nature of this inquiry, the study intentionally utilized a specific selection of expert stakeholders sampling strategy (Patton, 2002). Given the nature of qualitative research, the objective is not statistical generalization to a general population but rather analytical or conceptual generalization (Polit & Beck, 2010). The goal of this qualitative study is to provide a rich, contextualized understanding of experts' experience through the intensive exploration of PROMs implementation in a particular area. That is, this study focuses on the "expert narrative" as the fundamental element of analysis; the framework bridges the gap between abstract institutional models and the reality of clinical adoption. To translate this framework into an empirical process, the study employs a hybrid inductive-deductive thematic analysis approach (Braun & Clarke, 2006). This methodological choice allowed for the synthesis of five overarching themes: (1) understanding and definition, (2) implementation and practical application, (3) barriers and challenges, (4) opportunities and benefits, and (5) the importance of localization and validation.

5.2 Researchers' Reflexivity and Positionality

This study builds upon the team's previous work (Fanous et al., 2024), which established a comprehensive understanding of the systemic, cultural, and infrastructural readiness for PROMs within the Saudi Vision 2030 framework. This previous research highlighted the critical role of healthcare transformation and policy shifts in the Kingdom, providing the team with the internal credibility needed to access high-level, expert participants. However, the researchers recognize the potential for "prolonged engagement bias," in which prior experiences may lead to premature classification of data. To moderate this and ensure analytical depth, the team utilized both deductive and inductive coding processes, intentionally setting aside the conclusions from their earlier project to allow themes to emerge dependably from the current expert point of view (Tufford & Newman, 2012).

5.3 Transferable Methodological Learning and Contributions

The core methodological contribution of this study lies in the formation of a qualitative conceptual framework that focuses on highly specialized 'expert-centered exploration for narrative synthesis' within a healthcare context. This approach demonstrates that centering the dialogue on a specific PROM implementation yields deeper critical insights, ensuring that the findings are grounded in the participants' information power.

As Malterud et al. (2016) suggest, the depth of specialized knowledge among these clinical leaders offers a concentrated source of systemic insight, in which the suitability of the sample is determined by the depth of the discussion rather than the number of participants. These outcomes are highly transferable to future qualitative explorations seeking to address professional and organizational complexity in health services research, providing the overall description needed for researchers to assess the applicability of the findings across different medical settings. Moreover, this preliminary study offers foundational practice implications for advancing PROMs in Saudi Arabia, highlighting the critical need to prioritize the cultural adaptation of PROMs to ensure their relevance and acceptance within the local context. Practical challenges identified by pioneering experts, such as digital integration, acceptance by healthcare professionals and patients, and cultural and linguistic validation, must be addressed through effective planning and investment.

These procedural contributions are transferable across qualitative studies in health services research, particularly in settings where the number of relevant experts is small, the institutional context is distinctive, and the research aims are explicitly exploratory. Researchers conducting analogous studies in other Gulf Cooperation Council countries or in other emerging economies undergoing healthcare transformation will find this framework applicable, with appropriate contextual adaptation.

5.4 Dilemmas, Limitations, and Constraints

While those interviewed in this study are leading experts in PROMs implementation and provided in-depth insights through extended interviews, their perspectives alone do not capture the full spectrum of experiences and views from a broader set of stakeholders, such as frontline healthcare providers across specialties, healthcare administrators, and, most importantly, patients themselves. Additionally, reliance on self-reported data rather than interviews presents the potential for social desirability bias. Inferences about barriers and opportunities should therefore be framed as analytically plausible and theoretically generative, not empirically conclusive. Future studies should address these limitations through multi-stakeholder sampling.

6. Final Considerations

This research proposes a roadmap for implementing Patient-Reported Outcome Measures (PROMs) in the Saudi Arabian healthcare context by identifying cultural adaptation, stakeholder engagement, and digital integration as the principal factors in their effectiveness. While the study acknowledges the constraints of a focused empirical corpus, its concentration is preserved by its depth of information and the high “information power” of its experts (Malterud et al., 2016). By engaging in exploratory, in-depth interviews with experienced subject-matter healthcare professionals, the findings tentatively point to unique insights into systemic barriers and opportunities.

These expert perspectives consistently define central themes that provide a core understanding of the institution's challenges. In accordance with the principles of data saturation in homogeneous groups, these expert perspectives may provide a well-substantiated and comprehensive map for implementation (Guest et al., 2006). Methodologically, this study demonstrated the value of exploratory qualitative inquiry in emerging research areas; by maintaining a transparent and systematic coding process, it yields a key exploratory insight with both analytical consistency and transferability. Because the finding is contextualized insights directly from two pioneering expert stakeholders, the overall conclusion is essentially inductive and contextual (Stebbins, 2001). This study provides exploratory, foundational evidence on expert perceptions to inform future multi-stakeholder evaluations, large-scale validation, and quantitative research into PROMs adoption and utilization across the region. Future research should develop robust frameworks for PROMs integration, address identified barriers, and evaluate the long-term impact on health outcomes and system efficiency. Further validation studies, particularly focusing on cultural and linguistic relevance, are crucial for broader adoption. This study lays a foundation for expanding PROM research in Saudi Arabia.

Ethical Approval: All ethical standards regarding the protection of study participants were met, in accordance with the World Medical Association's Declaration of Helsinki. Ethical approval was obtained from Batterjee Medical College prior to conducting the study (Ref. no. RES-2024-0031).

Informed Consent: Informed consent was obtained from all participants in this study before the interview began, ensuring respect for the principles of confidentiality and voluntariness. Participants also consented to the publication of specific quotations obtained from their interviews.

Declaration of Conflicts of Interest: The authors have no conflicts of interest to declare. All ethical standards regarding the protection of study participants were met, in accordance with the World Medical Association's Declaration of Helsinki. All authors have equally contributed to this work and have read and agreed to the published version of the manuscript.

Use of Artificial Intelligence (AI): The authors confirm that no AI tools were used for data generation, data analysis, interpretation of findings, or production of substantive scientific content. However, Artificial Intelligence tools were used only to support the preparation of this article, specifically for English writing proficiency editing, and text reformulation (i.e., Grammarly and Google Gemini).

Funding: The authors declare that they have received financial support for conducting this research, authorship, and/or publication of the article: the research reported in this publication was funded by Batterjee Medical College with reference number RES-2024-0031

7. References

- Ahmed, S., & Fincham, J. E. (2015). Physician perspectives on Patient Reported Outcomes Measures (PROMs) in healthcare: An exploratory study. *Journal of Patient-Reported Outcomes*, 2(1), 1–10.
- Al-Aqeel, S. A., & AlKofide, H. A. (2025). Patient-reported outcome measurements in clinical trials in Saudi Arabia. A cross-sectional analysis of ClinicalTrials.gov. *Saudi Medical Journal*, 46(6). 706–711. <https://doi.org/10.15537/smj.2025.46.6.20241071>
- Almutairi, K. M., & Moussa, M. (2014). Systematic review of quality of care in Saudi Arabia. *Saudi Medical Journal*, 35(8), 759–763. [PMID: 25129177](https://pubmed.ncbi.nlm.nih.gov/25129177/)
- Alshehri, F., Alarabi, A., Alharthi, M., Alanazi, T., Alohal, A., & Alsaleem, M. (2020). Use of patient-reported outcome measures (PROMs) by orthopedic surgeons in Saudi Arabia. *Journal of Orthopaedic Surgery and Research*, 15, 1–7. <https://doi.org/10.1186/s13018-020-02135-1>
- Basch, E., Barbera, L., Kerrigan, C. L., & Velikova, G. (2018). Implementation of Patient-Reported Outcomes in Routine Medical Care. American Society of Clinical Oncology educational book. American Society of Clinical Oncology. Annual Meeting, 38, 122–134. https://doi.org/10.1200/EDBK_200383
- Black, N. (2013). Patient reported outcome measures could help transform healthcare. *BMJ*, 346, f167. <https://doi.org/10.1136/bmj.f167>
- Bogner, A., Littig, B., & Menz, W. (Eds.). (2009). *Interviewing experts*. Springer.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Churrua, K., Pomare, C., Ellis, L. A., Long, J. C., Henderson, S. B., Murphy, L. E., ... & Braithwaite, J. (2021). Patient-reported outcome measures (PROMs): a review of generic and condition-specific measures and a discussion of trends and issues. *Health Expectations*, 24(4), 1015–1024. <https://doi.org/10.1111/hex.13254>
- Council of Health Insurance (CHI) Saudi Arabia. Measuring meaningful patient outcomes: National PROMs Programme for the Saudi Health System. Retrieved on 27/6/2025 from <https://www.chi.gov.sa/knowledge-center/DocLib3/PROMs%20White%20Paper.pdf>
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches*. SAGE Publications.
- Creswell, J. W., & Poth, C. N. (2016). *Qualitative inquiry and research design: Choosing among five approaches*. SAGE Publications.
- Dosanjh, G. (2025). Barriers and enablers to the implementation of patient-reported outcome measures within Cardiff and Vale University Health Board: A qualitative study of healthcare professionals' perspectives. *Cureus*, 17(4), e82127. <https://doi.org/10.7759/cureus.82127>
- Fanous, N., Samarkandi, L., Al-Bsheish, M., & Abu-Elenin, M. M. (2024). Patient-reported outcomes in the Kingdom of Saudi Arabia: An insight for a healthcare system undergoing reform. *World Medical and Health Policy*, 16(2), 218–228. <https://doi.org/10.1002/wmh3.590>
- Greenhalgh, J., Dalkin, S., Gooding, K., et al. (2018). Functionality and feedback: A realist synthesis of the collation, interpretation, and utilisation of patient-reported outcome measures data to improve patient care. *Health Services and Delivery Research*, 5(2), 1–280. <https://eprints.whiterose.ac.uk/id/eprint/111151/1/3009564.pdf>
- Guest, G., Bunce, A., & Johnson, L. (2006). How many interviews are enough? An experiment with data saturation and variability. *Field Methods*, 18(1), 59–82. <https://doi.org/10.1177/1525822X05279903>

- Health Sector Transformation Program. Saudi Vision 2030. Retrieved on June 27, 2025, from <https://www.vision2030.gov.sa/en/explore/programs/health-sector-transformation-program>.
- Hyland, C. J., Mou, D., Virji, A. Z., Sokas, C. M., Bokhour, B., Pusic, A. L., & Mjåset, C. (2023). How to make PROMs work: qualitative insights from leaders at United States hospitals with successful PROMs programs. *Quality of Life Research*, 32(8), 2259–2269. <https://doi.org/10.1007/s11136-023-03388-z>
- Jarrar, M. T., Al-Bsheish, M., Alshahri, B. K., Bamashmoos, M. A., Alnaimi, M. I., Alsayil, S. A., ... & Al-Rawashdeh, A. B. (2025). Associations of self-management care and shared decision-making with glycemic control and psychosocial outcomes in type 2 diabetes mellitus. *Patient preference and adherence*, 19, 2295–2307. <https://doi.org/10.2147/PPA.S534066>
- Jensen-Marini, E., Ayton, D., Zalcborg, J., & Stirling, R. G. (2025). Exploring patient-reported quality of life in lung cancer patients: A qualitative study of patient-reported outcome measures. *Asia-Pacific Journal of Clinical Oncology*, 21(2), 163–173. <https://doi.org/10.1111/ajco.14056>
- Jeyaraman, N., Jeyaraman, M., Ramasubramanian, S., Balaji, S., & Muthu, S. (2025). Voices that matter: The impact of patient-reported outcome measures on clinical decision-making. *World Journal of Methodology*, 15(2), 98066. <https://doi.org/10.5662/wjm.v15.i2.98066>
- Khakzad, T., Putzier, M., Bartschke, A., Poyraz, R. A., & Taheri, N. (2024). Standardized usage of electronic patient-reported outcome measurements is time-efficient and feasible. *Journal of Personalized Medicine*, 14(9), 986. <https://doi.org/10.3390/jpm14090986>
- Malterud, K., Siersma, V. D., & Guassora, A. D. (2016). Sample Size in Qualitative Interview Studies: Guided by Information Power. *Qualitative health research*, 26(13), 1753–1760. <https://doi.org/10.1177/1049732315617444>
- Nilsen, P., Seing, I., Ericsson, C., Birken, S. A., & Schildmeijer, K. (2020). Characteristics of successful changes in health care organizations: An interview study with physicians, registered nurses and assistant nurses. *BMC Health Services Research*, 20, 1–8. <https://doi.org/10.1186/s12913-020-4999-8>
- Patton, M. Q. (2002). *Qualitative research & evaluation methods*. SAGE Publications.
- Polit, D. F., & Beck, C. T. (2010). Generalization in quantitative and qualitative research: Myths and strategies. *International Journal of Nursing Studies*, 47(11), 1451–1458. <https://doi.org/10.1016/j.ijnurstu.2010.06.004>
- Porter, I., Gonçalves-Bradley, D., Ricci-Cabello, I., Gibbons, C., Gangannagaripalli, J., Fitzpatrick, R., Black, N., Greenhalgh, J., & Valderas, J. M. (2016). Framework and guidance for implementing patient-reported outcomes in clinical practice: Evidence, challenges and opportunities. *Journal of Comparative Effectiveness Research*, 5(5), 507–519. <https://doi.org/10.2217/ce-2015-0014>
- Porter, M. E. (2010). What is value in health care? *New England Journal of Medicine*, 363(26), 2477–2481. [doi: 10.1056/NEJMp1011024](https://doi.org/10.1056/NEJMp1011024)
- Stebbins, R. A. (2001). *Exploratory Research in Social Sciences*. SAGE Publications.
- Suleiman, A. K., & Ming, L. C. (2025). Transforming healthcare: Saudi Arabia's Vision 2030 healthcare model. *Journal of Pharmaceutical Policy and Practice*, 18(1), 2449051. <https://doi.org/10.1080/20523211.2024.2449051>
- Tufford, L., & Newman, P. (2012). Bracketing in qualitative research. *Qualitative Social Work: Research and Practice*, 11(1), 80–96. <https://doi.org/10.1177/1473325010368316>
- Weldring, T., & Smith, S. M. (2013). Patient-Reported Outcomes (PROs) and Patient-Reported Outcome Measures (PROMs). *Health Services Insights*, 6, 61–68. <https://doi.org/10.4137/HSI.S11093>
- Wild, D., Grove, A., Martin, M., Eremenco, S., McElroy, S., Verjee-Lorenz, A., & Erikson, P. (2005). Principles of good practice for the translation and cultural adaptation process for patient-reported

outcomes (PRO) measures: Report of the ISPOR task force for translation and cultural adaptation. *Value in Health*, 8(2), 94–104. <https://doi.org/10.1111/j.1524-4733.2005.04054.x>

Younas, A., Masih, Y., & Sundus, A. (2025). Alternatives to 'saturation' for greater transparency in reporting of sample size decision-making in qualitative research. *Evidence-based nursing*, 28(2), 77–80. <https://doi.org/10.1136/ebnurs-2025-104292>

Yu, C., Xian, Y., Jing, T., Bai, M., Li, X., Li, J., ... & Zhang, Z. (2023). More patient-centered care, better healthcare: the association between patient-centered care and healthcare outcomes in inpatients. *Frontiers in Public Health*, 11, 1148277. <https://doi.org/10.3389/fpubh.2023.1148277>

Lujain Samarkandi

Health Management Department, Batterjee Medical College, Jeddah 21442, Saudi Arabia

 <https://orcid.org/0009-0002-1050-9313>

✉ lujain.samarkandi@bmc.edu.sa

Nadia Fanous

Health Management Department, Batterjee Medical College, Jeddah 21442, Saudi Arabia

 <https://orcid.org/0000-0003-4752-7910>

✉ nadia.fanous09@gmail.com

Mohammad Al-Bsheish

Health Management Department, Batterjee Medical College, Jeddah 21442, Saudi Arabia

 <https://orcid.org/0000-0003-2698-8101>

✉ mohammed.ghandour@bmc.edu.sa