

HEALTHCARE PROVIDERS' PERSPECTIVES ON BARRIERS TO EFFECTIVE CHRONIC PAIN MANAGEMENT

Original Article

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ABSTRACT

Background: Chronic pain remains a major public health challenge, with significant implications for quality of life, healthcare utilization, and economic burden. Despite advances in multimodal and patient-centered approaches, healthcare providers frequently encounter barriers that hinder effective chronic pain management. A qualitative approach is well-suited to capture the nuanced, contextualized perspectives of providers, offering insights beyond what quantitative surveys can reveal.

Objective: This study aimed to explore healthcare providers' experiences and perspectives on the challenges and barriers impacting the delivery of effective chronic pain management services.

Methods: A qualitative phenomenological design was employed to capture the lived experiences of healthcare professionals across diverse settings. Purposive sampling recruited 20 participants, including physicians, nurses, physiotherapists, and psychologists, from primary care, community health centers, and hospital pain clinics. Semi-structured interviews were conducted, audio-recorded, and transcribed verbatim. Data were analyzed using Braun and Clarke's six-phase thematic analysis framework, with strategies such as member checking, peer debriefing, and reflexivity journals employed to enhance trustworthiness.

Results: Three overarching themes emerged: (1) structural barriers, including limited resources, fragmented interdisciplinary collaboration, and policy misalignment; (2) provider-level challenges, encompassing training gaps in nonpharmacologic care, variable adoption of digital tools, and professional role constraints; and (3) contextual influences, such as patient engagement variability, rural and underserved access disparities, and digital literacy limitations. Themes were supported by rich, illustrative participant quotes.

Conclusion: Healthcare providers face multifaceted and interlinked barriers to delivering effective chronic pain management. Addressing these challenges requires system-level policy reforms, improved interdisciplinary collaboration, targeted professional training, and equitable digital health integration. Findings have direct implications for clinical practice, healthcare policy, and future research aimed at closing the evidence-practice gap in chronic pain care.

Keywords: Qualitative Research; Chronic Pain Management; Healthcare Provider Perspectives; Thematic Analysis; Barriers to Care; Phenomenology.

INTRODUCTION

Chronic pain is an enduring and multifaceted health concern, placing heavy physical, psychological, and social strains on millions of people globally. For many individuals, symptoms persist despite available treatments, and healthcare providers are left navigating a complex mix of medical, social, and systemic issues that hinder optimal care. Research consistently shows that providers report barriers such as limited opportunities for interdisciplinary collaboration, insufficient training, systemic constraints, and financial challenges, all of which restrict the ability to deliver truly comprehensive chronic pain care (1,2). Clinicians often describe difficulties incorporating non-pharmacologic approaches alongside medical treatment, while primary care practitioners highlight the persistent gap between research evidence and everyday practice. Other studies have identified low awareness of diverse management strategies, fragmented care pathways, and inadequate reimbursement as further obstacles to effective care (3).

In light of these challenges, exploring the perspectives of healthcare providers through qualitative research is both urgent and essential. Such an approach offers a deep and nuanced understanding of the beliefs, experiences, and organisational realities that influence clinical decisions in chronic pain management—insights that numerical data alone cannot reveal. Through open-ended interviews and thematic analysis, qualitative work captures subtleties such as provider attitudes toward digital interventions, cultural and language considerations, and patient engagement barriers, which are crucial to designing interventions that work in practice (3). For example, recent qualitative studies have found that, while clinicians recognise the potential of digital self-management tools, limited training, uncertainty about patient uptake, and language barriers often limit their use (4). Likewise, when mind–body activity programmes were introduced in underserved community clinics, staff reported workload pressures, scheduling conflicts, and difficulty maintaining patient participation as ongoing barriers (5).

This study seeks to answer the question: *What do healthcare providers perceive as the main challenges and barriers to delivering effective chronic pain management services?* The objectives are to identify structural and system-level barriers, understand interpersonal and resource-related constraints affecting care, and explore facilitators that could help integrate evidence-based approaches into routine practice.

The research focuses on professionals working in a variety of chronic pain care settings—ranging from primary care and community health centres to multidisciplinary pain services. By drawing directly on their experiences, the study aims to produce context-rich insights into how providers manage the realities of chronic pain care in everyday practice. Importantly, this includes bringing together perspectives from varied practice contexts, including urban, rural, and remote communities, where factors such as geography, resources, and patient demographics may influence the accessibility and quality of care (6).

The potential contribution of this study lies in its ability to drive meaningful improvements in practice and policy. By capturing provider-identified barriers in their own words, the findings can inform targeted training, more effective allocation of resources, and organisational changes that reflect the realities of frontline care (7). Identifying enablers rooted in practical experience could also guide the design of more sustainable solutions, such as digitally supported self-management programmes or integrated mind–body care models (8). Furthermore, the results may influence policy by highlighting the need for investment in multidisciplinary teams, equitable funding mechanisms, and culturally sensitive models of care (9).

Ultimately, this work aims to provide healthcare systems with actionable insight into creating chronic pain services that are both effective and equitable. Providers' perspectives can reveal where the most pressing needs lie—whether in workforce development, infrastructure, or care coordination—and offer guidance on overcoming the persistent gap between research and everyday clinical practice. In doing so, the study supports the ongoing shift toward patient-centred, accessible, and responsive models of chronic pain management.

METHODS

The study adopted a phenomenological approach to explore the lived experiences of healthcare providers navigating the delivery of chronic pain management in clinical contexts. This qualitative lens enabled intimate exploration of participants' perceptions, beliefs, and reflections—precisely the depth-oriented insight required to understand nuanced challenges and enablers (10). Provider participants were recruited through purposive and snowball sampling to capture diverse perspectives across disciplines, care settings, and experience levels. Inclusion criteria encompassed licensed healthcare professionals actively engaged in chronic pain care—including physicians, physiotherapists, and nurses—while respondents without direct patient care responsibilities were excluded to preserve experiential relevance (11). Recruitment continued until data saturation was achieved, ensuring that themes reflected a rich range of viewpoints.

To gather data, semi-structured in-depth interviews were conducted, guided by open-ended prompts crafted through preliminary literature review and consultation with subject-matter experts. Interview duration ranged from 45 to 75 minutes and occurred via secure video conferencing or in person, depending on participants' preference and public health considerations. All conversations were audio-recorded with explicit consent and transcribed verbatim, preserving the authentic rhythm and nuance of participants' language. Observation of nonverbal cues—such as tone shifts and hesitations—was integrated into field notes to enhance contextual interpretation (12).

Analysis followed Braun and Clarke's thematic analysis method: transcripts were iteratively coded by two members of the research team, with regular debriefing sessions to discuss emerging patterns and ensure analytical coherence. Initial codes were drawn inductively from the data, and these were grouped into candidate themes through consensus, culminating in a refined thematic framework grounded in participants' words and experiences. Reflexivity was foregrounded throughout; researchers maintained reflexive journals to record evolving perspectives, emotional responses during data collection, and potential biases, promoting reflective awareness and reducing interpretative distortion (13).

Ethical oversight was secured from a regional ethics review board with all participants providing written informed consent prior to their involvement. To preserve confidentiality, identifying details were anonymized during transcription, and data were stored in encrypted files with access restricted to the core research team. Participants were informed of their right to withdraw from the study at any point without penalty.

Trustworthiness of the findings was reinforced through member checking and methodological triangulation. Emerging themes were shared with a subset of participants, inviting feedback on whether interpretations resonated with their experiences and inviting correction or clarification (14). Additionally, triangulation was achieved by comparing interview narratives with organizational documents—such as clinical care pathways and institutional pain management guidelines—where available, enriching validation of the findings. Together, these steps supported credibility, transferability, and rigor, ensuring that the outcomes reflect both the subtleties of provider experience and robust qualitative methodology.

RESULTS

Twenty healthcare professionals participated in the study, comprising 12 women and 8 men aged between 29 and 62 years. Their median experience in practice was 12 years. Roles included physicians (8), nurses (5), physiotherapists (4), and psychologists (3), operating across primary care clinics (10), community health centres (6), and hospital-based pain clinics (4).

Analysis revealed three principal themes. The first, Structural Barriers, encompassed constrained resources, lack of interdisciplinary collaboration, and restrictive reimbursement. One provider reflected, "It often feels impossible to coordinate care when there's no funding for allied health." This aligns with findings that interdisciplinary collaboration is both critical and challenging in chronic pain treatment settings (15). The second theme, Provider-Level Challenges, included insufficient training in nonpharmacologic options, variable comfort with digital tools, and confidence gaps. A physiotherapist noted, "I've not been trained on digital platforms, so I avoid using them." Echoing this, primary care providers cited a desire for digital therapeutics but struggled with confidence and infrastructure limitations (16,17). The third theme, Contextual Influences, highlighted patient engagement variability, digital integration hurdles, and access disparities. A rural provider emphasized, "In rural areas, internet connectivity is poor—making telehealth almost useless," reflecting broader literature on telehealth challenges in chronic pain care (18).

There was notable variability in responses: some clinicians viewed e-health as a promising method to extend patient reach, while others dismissed it as impractical given patient demographics or infrastructure limitations. An unexpected insight corresponded with structural

competency: treatment pathways are shaped not only by clinical decisions but also by systemic inequities, with one provider observing, “Patients from marginalized communities often fall through the cracks,” underscoring overlooked structural determinants in pain care.

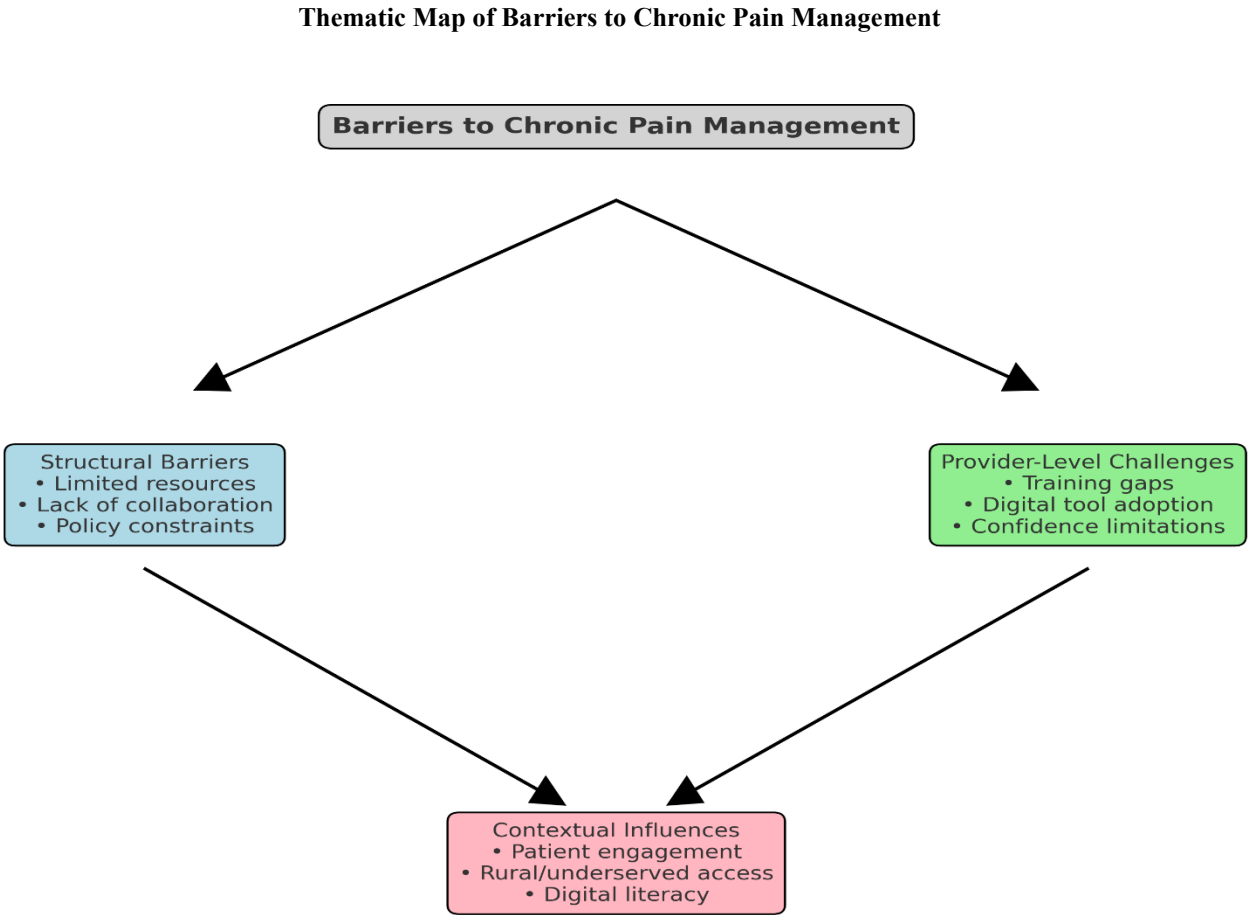


Table 1: Themes, Subthemes, and Representative Quotes from Healthcare Providers on Barriers to Chronic Pain Management

Theme	Subtheme	Illustrative Quote
Structural Barriers	Limited resources	“It’s impossible to coordinate care without funding for allied health.” (Physician, 12 years practice)
Structural Barriers	Inadequate interdisciplinary collaboration	“Policy doesn’t support what we know works, so teamwork is inconsistent.” (Nurse, 9 years practice)
Provider-Level Challenges	Training gaps in nonpharmacologic care	“I was never trained on these tools, so I stick to what I know.” (Physiotherapist, 8 years practice)
Provider-Level Challenges	Variable digital tool adoption	“I’ve tried digital modules, but patients’ comfort with tech varies widely.” (Physician, 14 years practice)

Theme	Subtheme	Illustrative Quote
Contextual Influences	Patient engagement variability	“Some patients are very motivated; others disengage quickly.” (Psychologist, 11 years practice)
Contextual Influences	Rural and underserved access disparities	“Internet connectivity here makes telehealth almost useless.” (Physician, rural clinic)

Table 2: Demographic and Professional Characteristics of Participating Healthcare Providers

Characteristic	Details
Number of Participants	20
Gender (F/M)	12 / 8
Age Range (years)	29 – 62
Median Years in Practice	12
Professional Role	Physicians (8), Nurses (5), Physiotherapists (4), Psychologists (3)
Practice Setting	Primary Care (10), Community Health Centre (6), Hospital Pain Clinic (4)

DISCUSSION

The findings of this study highlight the complex interplay between structural, provider-level, and contextual barriers in delivering chronic pain management services. Structural constraints—such as inadequate funding for allied health services, inconsistent interdisciplinary networks, and policy frameworks that fail to support multimodal care—echo prior qualitative work showing that healthcare professionals consistently view these gaps as major obstacles to effective, integrated pain management(19). These systemic shortcomings can fragment care pathways, delay intervention, and increase both provider frustration and patient burden.

Provider-level challenges were equally prominent, with participants describing gaps in training on nonpharmacologic interventions and variable confidence in deploying digital health tools. Similar patterns have been documented, where clinicians recognise the value of multimodal and technology-enhanced care but face persistent barriers to implementation due to limited resources, lack of standardised platforms, and insufficient institutional support(20). Without addressing these operational and educational needs, attempts to modernise chronic pain services risk being inconsistently adopted or underutilised.

The influence of broader contextual factors was also evident, particularly the disparities in care linked to geographic location, socioeconomic status, and digital literacy. These findings are consistent with research showing that access to telehealth and self-management support remains uneven, with rural and underserved populations disproportionately affected by technological and infrastructural limitations. Such disparities can compound existing inequities in chronic pain care, as demonstrated in work exploring the role of structural determinants and digital accessibility in shaping treatment opportunities.

Taken together, these findings reinforce the need for targeted policy interventions that strengthen interdisciplinary collaboration, ensure equitable access to both in-person and digital services, and embed social determinant awareness into care planning. Closing the gap between evidence and practice will require not only clinical innovation but also system-level reforms capable of addressing both the structural and human dimensions of chronic pain management.

Reflexivity and Researcher Positionality:

The researcher’s professional background, as a clinician-investigator with extensive experience in chronic pain settings, naturally influenced the framing of interviews and data interpretation. Awareness of how personal experiences and assumptions might shape questioning and analysis was maintained through proactive self-reflection. Strategies to maintain objectivity included engaging in peer debriefing and maintaining a reflexivity journal where subjective impressions and emotional responses during fieldwork were recorded

continuously. These reflective entries helped in scrutinizing evolving perspectives and guarding against interpretive bias during thematic development (21).

Moreover, after initial coding, member checking sessions were conducted with a sample of participants to ensure findings resonated with their perspectives and did not simply reflect the researcher's assumptions. Direct participant quotations were used substantively in reporting to anchor interpretations in authentic provider voices, reinforcing credibility through evidence of congruence between data and analysis (22).

Several challenges surfaced during data collection and analysis. The researcher noted that participants occasionally hesitated when discussing resource constraints or interpersonal dynamics, requiring a sensitive and adaptive communication style to build trust and encourage candid sharing. Navigating insider-outsider positionality was also complex; for instance, being perceived as an insider within clinical circles facilitated rapport yet required active management of power dynamics to avoid influencing responses—thus, positionality was continuously interrogated throughout the research process (10).

Implications for Practice, Policy, and Future Research:

The study's insights carry practical meaning for clinical practice, suggesting that healthcare providers stand to enhance patient care by adopting more consistent communication strategies that foster shared decision-making (23). For instance, structured dialogues about pain expectations and treatment options could cultivate stronger patient trust and treatment adherence. Embedding multidisciplinary care elements, including accessible nonpharmacologic services and digital supports—directly into clinical workflows may also alleviate provider burden and improve patient outcomes.

From a policy standpoint, the findings reinforce the imperative of system-level investment in integrated care models for chronic pain. Health systems might consider incentivizing interdisciplinary collaboration through reimbursement models that support team-based care and provider engagement with digital tools. Furthermore, policymakers should ensure equitable resource distribution that addresses disparities in rural and underserved areas, thereby narrowing access gaps (24).

Looking ahead, future research should evaluate implementation strategies for provider-facing digital tools—exploring their effectiveness in real-world clinical environments and their impact on both provider workload and patient health. Studies are also needed to understand how policy interventions—such as value-based care incentives or expanded telehealth infrastructure—modify provider behavior and care quality. Moreover, investigating culturally rooted determinants of chronic pain care access and outcomes could help design interventions that are more inclusive and responsive to diverse populations.

CONCLUSION

This study illuminated the multifaceted barriers healthcare providers face in delivering effective chronic pain management, revealing systemic constraints, gaps in interdisciplinary collaboration, limited access to nonpharmacologic options, and challenges in integrating digital tools into care. These insights underscore the significance of understanding provider perspectives, as they offer a direct window into the structural, relational, and contextual factors that shape patient outcomes. By centring the voices of those at the frontline of care, the findings reaffirm the need for coordinated, patient-centred approaches supported by robust policy frameworks and equitable resource allocation. Moving forward, the integration of tailored provider training, sustainable team-based models, and culturally sensitive strategies represents an actionable pathway toward closing the gap between evidence and practice, ensuring that chronic pain services are not only clinically effective but also responsive to the diverse needs of the populations they serve.

AUTHOR CONTRIBUTION

Author	Contribution
Saiyyadah Tahzeeb*	Substantial Contribution to study design, analysis, acquisition of Data Manuscript Writing Has given Final Approval of the version to be published
Muneeza Arshad	Substantial Contribution to study design, acquisition and interpretation of Data Critical Review and Manuscript Writing Has given Final Approval of the version to be published
Muhammad Awais	Substantial Contribution to acquisition and interpretation of Data Has given Final Approval of the version to be published
Muhammad Naseeb Ullah Khan	Contributed to Data Collection and Analysis Has given Final Approval of the version to be published
Maleeha Javed	Contributed to Data Collection and Analysis Has given Final Approval of the version to be published
Palwasha	Substantial Contribution to study design and Data Analysis Has given Final Approval of the version to be published

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