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REVIEW ARTICLE

Patient and Family Perspectives on Patient Safety at Primary Healthcare: A Scoping Review

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ABSTRAK

Keselamatan pesakit adalah penting dalam perkhidmatan kesihatan primer (PHC) kerana sifatnya yang kompleks dan dinamik. Dianggarkan 4 daripada 10 pesakit mengalami kemudaratan dalam penjagaan primer dan rawatan pesakit luar, di mana 80% daripadanya boleh dicegah. Walaupun terdapat banyak kajian berkaitan keselamatan pesakit telah dilakukan dalam perspektif petugas kesihatan, pandangan pesakit dan keluarga masih kurang diterokai. Ulasan skop ini meneliti literatur sedia ada mengenai perspektif pesakit dan keluarga terhadap keselamatan pesakit dalam PHC. Berdasarkan kerangka Arksey dan O'Malley yang dipertingkatkan serta garis panduan PRISMA-ScR, pencarian menyeluruh telah dijalankan dalam pangkalan data PubMed, Scopus dan Web of Science pada November 2024. Artikel data primer yang telah disemak melalui tinjauan semula setara dan membincangkan perspektif pesakit dan keluarga terhadap keselamatan PHC telah dimasukkan tanpa sebarang had bahasa. Analisis tematik telah digunakan untuk mengenal pasti tema utama dalam penemuan kajian. Sebanyak 17 kajian daripada pelbagai kawasan geografi dan metodologi dimasukkan dalam kajian ini. Lima tema utama yang dikenal pasti iaitu; (i) penglibatan pesakit (12 artikel), yang menekankan peranan penyertaan aktif dalam penjagaan; (ii) komunikasi (10 artikel), yang mengutamakan pertukaran maklumat yang berkesan; (iii) kesinambungan dan kooordinasi penjagaan (8 artikel), yang menunjukkan keperluan untuk peralihan penjagaan yang lancar; (iv) insiden keselamatan dan pelaporan (5 artikel), yang membincangkan cabaran dalam mengenal pasti dan mempelajari daripada insiden; dan (v) isu sistemik (5 artikel), yang mendedahkan faktor organisasi yang mempengaruhi keselamatan pesakit. Keputusan kajian menekankan keperluan untuk penglibatan proaktif pesakit dan keluarga, komunikasi yang berkesan, serta penyelarasan penjagaan yang lancar bagi meningkatkan keselamatan PHC. Mewujudkan sistem maklum balas yang telus dan penambahbaikan sistemik dapat menyokong peningkatan keselamatan dalam persekitaran PHC. Mengintegrasikan pandangan ini ke dalam strategi keselamatan pesakit dapat mendorong pendekatan kolaboratif dalam penambahbaikan PHC. Kajian pada masa hadapan perlu meneliti intervensi khusus untuk mengintegrasikan perspektif ini secara berkesan.

Kata kunci: *Keluarga dan pesakit; keselamatan pesakit; perkhidmatan kesihatan; perkhidmatan primer; perspektif*

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ABSTRACT

Patient safety is critical in primary healthcare (PHC) due to its complex and dynamic nature. An estimation of 4 in 10 patients experience harm in primary and ambulatory care, with up to 80% being preventable. Despite extensive research on provider perspectives, patient and family insights, which are crucial for enhancing safety practices, remain underexplored. This scoping review examines existing literature on patients' and families' perspectives regarding patient safety in PHC settings. Following the enhanced Arksey and O'Malley framework together with PRISMA-ScR guidelines, a comprehensive search was conducted across PubMed, Scopus and Web of Science in November 2024. Peer-reviewed primary data articles addressing patient and family perspectives on PHC safety were included, with no language restrictions applied. A thematic analysis identified recurring themes across the findings. A total of 17 studies from diverse geographic regions and methodologies were included in this review. Five key themes emerged: (i) patient involvement (12 articles), highlighting the role of active participation in care; (ii) communication (10 articles), emphasising effective information exchange; (iii) continuity of care and coordination (8 articles), reflecting the need for seamless transitions in care; (iv) safety incidents and reporting (5 articles), addressing challenges in identifying and learning from patients' adverse events; and (v) systemic issues (5 articles), revealing organisational factors impacting patient safety. Understanding patient and family perspectives provides unique insights into PHC safety challenges. The results underscore the necessity for proactive involvement of patient and family, effective communication and seamlessly coordinated care to enhance PHC safety. Establishing transparent feedback systems and systemic improvements can foster safety enhancement in PHC settings. Incorporating these viewpoints into safety strategies can foster a collaborative approach to healthcare improvement. Future research should explore tailored interventions to integrate these perspectives effectively.

Keywords: Family and patient; patient safety; perspective; primary care; primary healthcare

INTRODUCTION

Patient safety is a fundamental component of healthcare quality and a worldwide critical focus of healthcare systems. Within the primary healthcare (PHC) setting, which serves as the first point of contact for most patient-healthcare provider interactions, ensuring safety is particularly vital. It directly impacts health outcomes and fosters public trust in healthcare systems (Feldman et al. 2019). Despite its importance, patient safety in PHC remains an area of growing concern, with estimates suggesting that as many as 4 in 10 patients are harmed in primary and ambulatory care settings, and up to 80% of this harm is potentially avoidable (Auraaen 2018).

The PHC setting presents unique patient safety challenges due to its dynamic and multifaceted nature. Frequent transitions of care, high patient volumes and the management of diverse medical conditions increase the risk of diagnostic delays, medication errors and missed opportunities for harm prevention (Morris et al. 2021; Rast et al. 2018). These challenges are often compounded by systemic issues such as resource constraints, fragmented care coordination and infrastructure limitations (Godycki-Ćwirko et al. 2015; Kable et al. 2015). Addressing these complexities requires a comprehensive understanding of safety, including insights from patients and families who can offer valuable perspectives on gaps and opportunities for improvement.

Although substantial progress has been made in understanding patient safety from the perspective of healthcare providers, the perspectives of patients and their families remain underrepresented, particularly in the context of PHC. Existing literature has primarily focused on healthcare providers' insights into patient safety, with limited reviews specifically examining the experiences and perspectives of patients and their families (Daker-White et al. 2015; Hatoun

et al. 2016). While some studies have explored patient engagement in safety initiatives, there remains a lack of comprehensive synthesis that consolidates these perspectives in PHC settings. Their perspectives, shaped by lived experiences and direct interactions with healthcare systems, can uncover safety issues such as communication failures, uncoordinated care and systemic inefficiencies that may not be readily apparent to healthcare providers (Daker-White et al. 2015; Hatoun et al. 2016).

This gap in understanding is critical, as patients and families are increasingly recognised as active partners in promoting safety through incident reporting, voicing concerns and participating in shared decision-making processes (Correia et al. 2020). Addressing this gap is essential for advancing patient safety strategies in PHC, where the complexity of care necessitates collaborative efforts among all stakeholders.

The patient-centered care (PCC) model, patient-centered medical home (PCMH) framework and system theory collectively underscore the importance of integrating patient and family perspectives to create safer healthcare environments. For instance, the PCC model emphasises shared decision-making and patient engagement, leading to improved safety outcomes and higher patient satisfaction (Kuipers et al. 2019).

Despite these recognised benefits, a review consolidating patient and family perspectives on PHC safety remains limited. Therefore, this scoping review aimed to systematically examine the existing literature on patient and family perspectives regarding patient safety in PHC, addressing the identified research gap. Insights from this scoping review had the potential to inform policies aimed at strengthening safety practices, enhancing communication and fostering a culture of transparency in PHC.

MATERIALS AND METHODS

This scoping review was conducted according to the Arksey and O'Malley framework, incorporating enhancements proposed by (Levac et al. 2010) and in compliance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for scoping reviews (PRISMA-SR).

Identifying the Research Question

The research question of this review is 'What are the patients' and families' perspectives on patient safety in PHC?'.

Selecting Relevant Studies

The literature in the PubMed, Scopus and Web of Science (WOS) databases was searched in November 2024. The key concepts were based on the population, intervention and outcome (PIO) framework, where the population was the PHC setting, the intervention was patient safety and the outcome was the patients' and families' perspective. These three databases were selected as they encompassed a broad range of peer-reviewed healthcare, public health and interdisciplinary studies relevant to patient safety and PHC settings. Other regional or specialised databases were not included due to feasibility constraints, language limitations and the need for a high-quality peer-reviewed evidence base. Table 1 detailed the search string used.

Study Selection

The inclusion criteria encompassed research items with primary data, including original articles and dissertations. Studies utilising quantitative, qualitative and mixed-method study designs were included, with no language or geographical restrictions applied. However, narrative, scoping and systematic review articles were excluded.

The studies were selected for this scoping review using a rigorous and systematic approach, as illustrated in the PRISMA flow diagram (Figure 1). The initial comprehensive search yielded 2183 articles: PubMed, n = 755; Scopus, n = 805; and WOS, n = 623. The literature was organised using Endnote (version 20.4, Clarivate Plc, Philadelphia,

TABLE 1: Search string

Database	Search string
PubMed	(("patient safety" OR "safety" OR "care quality" OR "healthcare safety") AND ("patient* perspective*" OR "patient* experience*" OR "famil* perspective*" OR "famil* experience*") AND ("primary healthcare" OR "primary care" OR "community health" OR "ambulatory care" OR "general practitioner*")) AND ("communication" OR "engagement" OR "involvement" OR "participation") AND ("adverse events" OR "errors" OR "incidents" OR "harm"))
Scopus	(("patient safety" OR safety OR "care quality" OR "healthcare safety") AND ("patient* perspective*" OR "patient* experience*" OR "famil* perspective*" OR "famil* experience*") AND ("primary healthcare" OR "primary care" OR "community health" OR "ambulatory care" OR "general practitioner*"))
WOS	(("patient safety" OR safety OR "care quality" OR "healthcare safety") AND ("patient* perspective*" OR "patient* experience*" OR "famil* perspective*" OR "famil* experience*") AND ("primary healthcare" OR "primary care" OR "community health" OR "ambulatory care" OR "general practitioner*"))

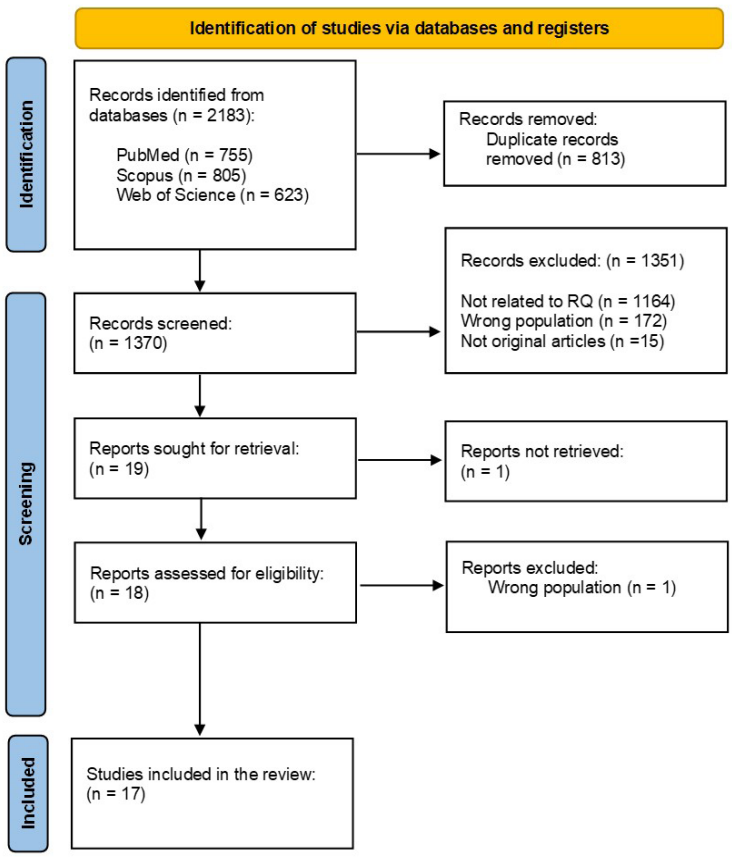

FIGURE 1: Article selection process based on PRISMA flow chart

PA, USA). After removing 813 duplicate articles, 1370 articles remained for the title and abstract screening.

Each article was assessed during screening for relevance based on the predefined inclusion and exclusion criteria. Hence, 1351 records were excluded; 1164 were not related to the research question, 172 were the wrong population and 15 were not original articles.

A total of 19 articles were deemed relevant, and full-text retrieval was attempted. One article could not be retrieved, hence 18 articles were included for further eligibility assessment. Of these, one article was excluded due to the irrelevant population. Any discrepancies were resolved by discussion, and opinions were sought from the other authors. Finally, 17 articles met the eligibility criteria and were included in the final review. Figure 1 summarised the article selection process.

Data Charting

For this step, we developed and refined a data-charting form to ensure consistency in data extraction. Using a Microsoft Excel (Microsoft Corporation, Redmond, WA, USA) table, we extracted key details from the selected studies, including authors, publication year, country, title, objectives, study design, sample size, data collection, data analysis and findings. Two authors independently extracted data from the initial studies to ensure reliability and resolved any discrepancies collaboratively.

Result Summarisation and Reporting

The review encompassed a range of research designs, leading to an analysis of the articles through thematic lenses. A thematic analysis was performed to elucidate the perspectives of patients and families regarding patient safety in PHC. This process was conducted in three distinct phases to ensure rigor and alignment with established methodological standards (Levac et al. 2010).

The first phase began with an in-depth familiarisation with the data. Each included study was meticulously reviewed to identify significant concepts and recurring topics relevant to the research question. Using an open coding process, significant text segments were highlighted and annotated. The coding process was manually managed through a spreadsheet, ensuring consistency, accuracy and transparency. Following this, the codes were reviewed and grouped into broader categories that captured shared meanings and key insights.

In the second phase, reporting results, the identified categories were synthesised into five themes. The coding and categorisation processes were independently performed by HAR and FJ. These themes provided a comprehensive understanding of the perspectives of patients and families on patient safety in PHC. The synthesis was carefully aligned with the research objectives to ensure that the reported themes addressed the core focus of the study and contributed critical insights into the opportunities for improvement in PHC. Any discrepancies were addressed through consensus discussions and in instances where disagreements persisted, a third author, RS was consulted to reach a final decision.

The third phase, interpretation and implications, contextualised the findings to the study's purpose, analysing their relevance to future research, policy and practice. This step emphasised the potential of the findings to inform evidence-based strategies for improving patient safety in PHC and was conducted by AI and NA.

Consultation

The consultation phase, though optional, was conducted to enhance the validity and relevance of the study. Two public health medicine specialists and one medical officer were consulted to refine the thematic analysis and ensure its alignment with the study objectives. Preliminary findings were shared with these stakeholders, who provided critical feedback on the identified themes and their implications for patient safety in PHC.

The input from the public health medicine

specialists strengthened the themes by ensuring academic rigor and public health relevance, while the medical officer's perspective offered practical insights into the real-world applicability of the findings in clinical settings. Their feedback was systematically reviewed and integrated into the study, contributing to the refinement of themes and the overall analysis.

RESULT

Characteristics of Included Studies

This review encompassed a total of 17 articles. The publication years of the studies were distributed as followed: one article each from 2015, 2018, 2019, 2023 and 2024; two articles from 2016; three articles from 2020 and 2021; and four articles from 2017. Geographically, the majority of the studies (n=10) were conducted in the United Kingdom. Additionally, three studies were conducted in the United States and Australia, respectively, while one study each originated from Spain and Belgium. All included studies were conducted in high-income countries, with none originating from low and middle-income countries (LMICs). This geographic concentration suggested that patient and family perspectives on PHC safety may be more extensively explored in high-income settings, while research from LMICs remained limited.

Of the 17 studies reviewed, 10 employed qualitative methodologies, four utilised quantitative approaches, and three adopted mixed-method designs. This methodological variation underscored how different research approaches captured distinct aspects of patient safety, from qualitative insights into engagement challenges to quantitative assessments of reported incidents. Table 2 summarised the characteristics of the included studies.

Developed Themes

The scoping review identified five key themes reflecting patient and family perspectives on patient safety in PHC, based on 17 studies: (i) patient involvement (12 studies); (ii) communication (10 studies); (iii) continuity of care and coordination (8 studies); (iv) safety incidents and reporting (5 studies); and (v) systemic issues (5 studies). Table 3 illustrated the distribution of studies across the themes.

Patient Involvement

The active involvement of patients in ensuring patient safety within PHC was increasingly recognised as essential. However, significant barriers hindered its effective implementation. For instance, the National Health Service (NHS) Education for Scotland Medicines Reconciliation Tool revealed that discussions with patients or families were not consistently conducted, even when clinically necessary. Additionally, safety reviews still frequently focus on clinical decision-making and information transfer within healthcare teams, processes that were rarely transparent to patients (Hays et al. 2017). This highlighted gaps in engagement efforts, underscoring the need for changes to integrate patient perspectives into safety practices (Campbell et al. 2020; Giles et al. 2020).

Patients and families play a critical role as stakeholders in their care. Desmedt et al. (2017) emphasised that they should be included as active participants in safety discussions, contributing unique insights and observations. Family members often act as advocates and additional monitors for patients with chronic or complex conditions, thereby improving safety outcomes (Morris et al. 2021). Various tools and questionnaires have been developed to address these barriers and facilitate patient engagement. For example, the Primary Care Patient Measure of Safety (PC MOS) enabled patients to share explicit knowledge and unspoken insights to enhance safety environments (Hernan et al. 2016). Similarly, the PREOS-PC survey collected patient feedback on safety concerns and experiences, fostering their active participation (Serrano-Ripoll et al. 2019). Visit preparation guides further empower patients to express concerns and ask questions during consultations, encouraging

TABLE 2: The characteristics of the included articles

No	Author, (Year)	Country	Study design	Sample size	Data collection	Data analysis
1	Xiao et al. (2024)	US	Quantitative -Nonrandomised cross-sectional stepped wedge cluster-controlled trial	405 patients who were recruited from three clinics.	Intervention (two partnership tools) -Visit preparation guide -Short educational video	Hierarchical models
2	Morris et al. (2023)	UK	Qualitative	18 patients and carers	Semi-structured interview	Inductive thematic analysis
3	Hernan et al. (2021)	Australia and England	Mixed-methods	1,329 -490 patients from England -839 patients from Australia	Quantitative: PC PMOS questionnaire Qualitative: Free-text comments in response to specific questions within the questionnaire	Quantitative: -Descriptive Statistics -Categorisation of Incidents: Patient-reported safety incidents were classified into various categories using the Primary Care Patient Safety Classification (PISA) System Qualitative: Thematic Analysis
4	Lasser et al. (2021)	US	Qualitative	65 participants	12 focus group interviews were conducted in 9 clinics	Thematic analysis
5	Morris et al. (2021)	UK	Qualitative	The total number of participants was not specified	Co-design workshops	Thematic analysis
6	Campbell et al. (2020)	UK	Mixed-methods	Quantitative: -1244 patients from 46 practices -335 staff members from 31 practices Qualitative: - Specific number of participants was not provided	Quantitative: -PREOS-PC questionnaire -The NHS Education for Scotland Trigger Tool Qualitative: -Patient Safety Toolkit Gathering insights from primary care staff	Quantitative: -Inverse probability weights Qualitative: -Were not reported in the document.

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No	Author, (Year)	Country	Study design	Sample size	Data collection	Data analysis
7	Giles et al. (2020)	UK	Qualitative	The exact total number of participants was not specified	Focus group interview	Thematic analysis
8	Lai et al. (2020)	US	Qualitative	166 participants	In-depth interview Focus group interview	Thematic analysis
9	Serrano-Ripoll et al. (2019)	Spain	Mixed-methods	1248 PHC professionals 3600 patients	Quantitative: -Spanish version of the MOSPSC) -For healthcare professionals -PREOS-PC Questionnaire -For patients Qualitative: -30 PHC professionals	Hierarchical models and analysis of covariance adjusted for minimisation factors. Thematic analysis
10	Daker-White et al. (2018)	UK	Qualitative	26 patients	Interviews with patients, GPs, and informal care providers. Observation of primary care consultations. Field notes from these observations. Electronic Health Records (EHRs)	Thematic analysis
11	Desmedt et al. (2017)	Belgium	Quantitative -Cross-sectional	339 participants -Members of the Flemish Patients' Platform	Questionnaire	-Bivariate correlations -Logistic regression models to assess predictive factors
12	Hays et al. (2017)	UK	Qualitative -Ethnographic	26 patients	In-depth, semi-structured interviews	Thematic analysis
13	Ricci-Cabello et al. (2017a)	UK	Quantitative -Cross-sectional	1190 patients who were registered in 45 family practices.	PREOS-PC questionnaire	-Linear multilevel multivariate regression models -Sensitivity analyses
14	Ricci-Cabello et al. (2017b)	UK	Qualitative	1244 patients	PREOS-PC questionnaire. -Standardised items and open-ended questions to gather detailed patient experiences.	Conventional content analysis

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No	Author, (Year)	Country	Study design	Sample size	Data collection	Data analysis
15	Hernan et al. (2016)	Australia	Quantitative	20 participants - 11 patients - 9 healthcare workers	The questionnaire was developed through a two-stage approach, -Modified Delphi process -Face validity testing with patients and staff	Reliability and construct validity
16	Ricci-Cabello et al. (2016)	UK	Qualitative	27 participants	Focus group interviews	Manual thematic content analysis
17	Hernan et al. (2015)	Australia	Qualitative	46 individuals	Focus group interviews	Thematic analysis

GP: General practitioners; NHS: National Health Service; MOSPSC: Medical office survey on patient safety culture; PC PMOS: Primary care patient measure of safety; PHC: Primary healthcare; PREOS PC: Patient reported experiences and outcomes of safety in primary care; UK: United Kingdom

meaningful engagement (Xiao et al. 2024). These tools highlighted how structured frameworks can amplify the patient's voice in safety practices.

A key concept supporting patient involvement was patient activation, defined as the knowledge, skills and confidence patients possess to manage their health (Ricci-Cabello et al. 2017a). Higher activation levels have been linked to improved safety outcomes, as activated patients are better equipped to detect and address safety risks. For instance, Ricci-Cabello et al. (2017b) and Hernan et al. (2016) found that patient activation significantly enhanced care experiences by fostering proactive safety behaviours. Medication reconciliation emerged as a critical area where patients desired greater involvement. Patient-centered visits characterised by active participation in medication safety not only built trust but also reduced errors (Lasser et al. 2021).

Communication

Effective communication between patients, families, and healthcare providers is a fundamental aspect of patient safety in PHC. Research consistently underscores the multifaceted role of communication in building trust, ensuring safety and preventing incidents. Patients frequently identify communication errors as significant safety concerns including healthcare providers failing to listen attentively, provide clear explanations about conditions or treatments and address patient concerns (Ricci-Cabello et al. 2017).

Desmedt et al. (2017) reported that failures in sharing essential information among healthcare providers accounted for 64.9% of safety incidents. Furthermore, confusion often arose from conflicting information or inadequate guidance during care transitions, can increase patient vulnerability (Giles et al. 2020; Morris et al. 2021). These challenges are further exacerbated when providers prioritise administrative tasks, such as using computers, over patient interactions, leaving patients feeling ignored or undervalued (Daker-White et al. 2018). Such lapses can result in delayed diagnoses, inappropriate referrals

TABLE 3: Distribution of studies across themes

No	Author (year)	Themes				
		Patient Involvement	Communication	Continuity of Care and Coordination	Safety Incidents and Reporting	Systemic Issues
1.	Xiao et al. (2024)	√	√	X	√	X
2.	Morris et al. (2023)	X	√	X	X	X
3.	Hernan et al. (2021)	√	√	√	√	X
4.	Lasser et al. (2021)	√	√	√	X	X
5.	Morris et al. (2021)	√	√	√	X	X
6.	Campbell et al. (2020)	√	X	√	√	X
7.	Giles et al. (2020)	√	√	X	X	X
8.	Lai et al. (2020)	X	√	√	X	√
9.	Serrano-Ripoll et al. (2019)	√	X	X	X	X
10.	Daker-White et al. (2018)	X	√	X	X	√
11.	Desmedt et al. (2017)	√	√	√	√	√
12.	Hays et al. (2017)	√	X	X	X	X
13.	Ricci-Cabello et al. (2017a)	√	X	X	X	X
14.	Ricci-Cabello et al. (2017b)	√	√	X	X	X
15.	Hernan et al. (2016)	√	X	X	X	X
16.	Ricci-Cabello et al. (2016)	X	X	√	√	√
17.	Hernan et al. (2015)	X	X	√	X	√
	Total Articles	**12**	**10**	**8**	**5**	**5**

Note: A tick (√) denotes the presence of the corresponding theme in the study, whereas a cross (X) denotes its absence.

or emotional distress, ultimately undermining patients' confidence in their providers (Hernan et al. 2016).

Open communication was crucial. Patients valued the ability to voice concerns and ask questions without feeling rushed, as these interactions enhanced their perception of safety (Lasser et al. 2021; Morris et al. 2021). Moreover, clear written instructions, in addition to verbal communication, were critical for ensuring understanding and adherence, particularly during complex or transitional care processes (Morris et al. 2021). Structured communication framework, like the Patient-Centered Medication Safety (P-MEDS) checklists, demonstrated how clear and consistent communication can prevent

medication errors and foster trust (Giles et al. 2020; Lai et al. 2020).

To address these challenges, interventions often incorporated principles of psychological safety, creating environments where patients feel comfortable sharing concerns and actively participating in their care (Xiao et al. 2024). While these strategies intersected with the "patient involvement" theme, the emphasis here was on fostering a safe and non-judgmental space that encouraged open communication and prevents errors.

Continuity of Care and Coordination

Continuity of care and effective coordination were critical to ensuring patient safety in PHC. Patients consistently highlighted the value of maintaining long-term relationships with their PHC providers, emphasising that familiarity with their medical histories reduces diagnostic and treatment errors (Ricci-Cabello et al. 2016). Such continuity allowed providers to develop a deeper understanding of patient needs, minimising the likelihood of safety lapses (Hernan et al. 2016; Morris et al. 2021). For patients with chronic or complex conditions, continuity ensured that care remained cohesive across multiple encounters, enabling better health outcomes. The role of continuity became even more pronounced in cases where consistent provider-patient relationships cannot be maintained. In such situations, regular follow-ups and thorough reviews of health records during consultations serve as essential mechanisms to safeguard patient safety (Hernan et al. 2016; Lai et al. 2020).

Healthcare fragmentation, however, remained a significant barrier to coordination. When patients navigated between multiple providers, inconsistencies in care delivery often led to confusion and increased safety risks. This issue was especially pronounced during transitions between primary and secondary care, where uncoordinated efforts frequently resulted in adverse events (Campbell et al. 2020; Desmedt et al. 2017). Effective coordination during referrals and information-sharing processes was therefore crucial for improving patient outcomes (Hernan et al. 2016; Lasser et al. 2021).

Safety Incidents and Reporting

Safety incidents remained a critical challenge in PHC, with reporting systems often failing to capture the full spectrum of safety issues. Campbell et al. (2020) reported that 27% of safety events identified in patient records were associated with moderate or substantial harm, with 38% deemed potentially preventable. However, traditional reporting systems frequently overlooked patient-reported incidents, such as medication errors, access issues and diagnostic inaccuracies. This highlighted the need for more comprehensive and inclusive mechanisms tailored to both patients and providers (Hernan et al. 2016)..

Current systems often lacked transparency, leaving patients unsure how to report concerns or whether their reports are acted upon. Younger patients were more likely to engage with these systems, underscoring the importance of designing frameworks that accommodated diverse patient populations, including those with limited digital literacy (Desmedt et al. 2017; Ricci-Cabello et al. 2016).

Patients and families provide unique insights into safety concerns, particularly through structured tools like the Patient-Centered Primary Care Measure of Safety (PC PMOS) and the Trigger Tool, which identified unreported risks and facilitated proactive monitoring (Campbell et al. 2020). Unlike broader discussions of patient involvement, this theme highlighted the technical and procedural barriers to capturing and addressing safety incidents comprehensively.

To enhance incident reporting, integrating patient-reported data into existing systems was crucial. For example, tools designed for medication safety reviews can uncover overlooked issues, while direct feedback mechanisms fostered trust and collaboration (Xiao et al. 2024). These approaches distinguished reporting systems from broader systemic challenges, such as organisational inefficiencies, by emphasising

actionable frameworks for improving safety documentation.

Systemic Issues

Systemic issues were pivotal in shaping patient safety outcomes in PHC. These encompassed organisational workloads, consultation time limits, the accuracy of health records and policy restrictions, all of which had a substantial impact on safety incidents and the quality of care provided.

One prominent systemic issue was workload, which posed significant barriers to the delivery of safe and effective care. Excessive demands on healthcare providers can lead to errors, reduced consultation quality and compromised safety practices. For example, Desmedt et al. (2017) highlighted that the shift of chronic patient care from secondary to primary care settings had strained available resources and increased workload, affecting care quality. Similarly, Lai et al. (2020) emphasised that heavy workloads often result in insufficient consultation times, directly impacting patient safety.

Short consultation times further compounded systemic challenges. Healthcare providers frequently struggled to address patient concerns comprehensively within limited timeframes. Hernan et al. (2016) and Desmedt et al. (2017) observed that rushed consultations can lead to incomplete care and overlooked safety checks. This time constraint not only compromised care delivery but may also discourage patients from seeking care, particularly when they perceived providers as inaccessible or hurried (Daker-White et al. 2018).

Another critical systemic factor was the accuracy and currency of health records. Outdated or incomplete records were often implicated in safety incidents, as they can lead to inappropriate treatments or missed diagnoses. Ricci-Cabello et al. (2016) emphasised the importance of maintaining updated and accurate records, with proactive practices such as routinely verifying patient details during consultations proving effective in minimising errors.

Policy constraints and national-level healthcare structures also played a significant role in shaping systemic challenges. For instance, resource allocation and operational efficiency were heavily influenced by broader policy contexts, limiting the capacity of PHC systems to address systemic barriers effectively. Hernan et al. (2016) noted that external constraints, such as rigid regulatory frameworks, often hindered innovation and adaptability in safety practices.

Unlike other themes, which addressed specific facets like patient involvement or incident reporting, this section underscored the interconnected, macro-level factors influencing safety. Addressing systemic challenges required a holistic approach, including workforce management strategies, policy reforms and resource optimisation. Table 4 showed the thematic analysis of the included studies.

Conceptual Framework for Patient and Family Perspectives on Patient Safety at Primary Healthcare

From the five themes revealed through this scoping review; patient involvement, communication, continuity of care and coordination, safety incidents and reporting, and systemic issues, we developed a comprehensive conceptual framework for patient safety in PHC from the perspective of patient and family. Figure 2 showed the conceptual framework for patient and family perspectives on patient safety in primary healthcare.

This framework integrated three theoretical models: (i) PCC; (ii) PCMH; and (iii) Systems Theory. These models collectively addressed the multifaceted dimensions of patient safety, while emphasising the critical role of patients and families in fostering a safer healthcare environment. Each model uniquely contributed to patient safety by highlighting different aspects of patient and family engagement, from individual-level participation to system-wide organisational factors.

At the heart of this framework lied the concept of patient-centered safety, which underscored

TABLE 4: Thematic analysis of included studies

No	Author (Year)	Study Design	Findings
			THEME 1: PATIENT INVOLVEMENT
1.	Xiao et al. (2024)	Quantitative -Cross-sectional stepped wedge cluster trial	The study assessed the impact of patient partnership tools designed to empower patients to make more effective use of their healthcare encounters, thereby enhancing patient involvement in their care. The visit preparation guide encouraged patients to ask questions and express their views, fostering active participation in their healthcare.
2.	Lasser et al. (2021)	Qualitative	Patients expressed a desire to be closely involved in the medication reconciliation process, which was a critical aspect of patient safety.
3.	Morris et al. (2021)	Qualitative	The co-design approach allowed participants to share their explicit and tacit knowledge, which was essential for developing initiatives that support patient involvement in safety.
4.	Campbell et al. (2020)	Mixed Method	The NHS Education for Scotland Medicines Reconciliation Tool showed that discussions with patients or carers did not always occur when clinically necessary, indicating a lack of continuity in care and coordination.
5.	Giles et al. (2020)	Qualitative	The study involved a patient and public involvement (PPI) group that contributed to the design of the research and the development of the P-MEDS framework. This involvement highlighted the importance of engaging patients in their care and decision-making processes.
6.	Serrano-Ripoll et al. (2019)	Mixed Method	The use of the PREOS-PC survey to gather patient feedback directly involved patients in the safety process, allowing them to express their experiences and concerns, thereby promoting patient involvement.
7.	Desmedt et al. (2017)	Quantitative -Cross-sectional	The findings suggested that patients had a key role in their care and should be part of the patient safety discourse.
8.	Hays et al. (2017)	Qualitative -Ethnography	The incident reviews were more likely to identify clinical decision-making, and information transfer between teams, neither of which were likely to be transparent to patients.
9.	Ricci-Cabello et al. (2017a)	Quantitative -Cross-sectional	The study emphasised the importance of patient activation, which referred to patients' knowledge, skills, and confidence in managing their health. Higher levels of patient activation were associated with better perceptions of safety, suggesting that involving patients in their care and educating them about safety can enhance safety outcomes.
10.	Ricci-Cabello et al. (2017b)	Qualitative	The study found that increased patient activation encouraged patients to speak up about their health care concerns.
11.	Hernan et al. (2016)	Quantitative	The PC PMOS was designed to allow patients to provide feedback on safety incidents, emphasising the role of patient involvement in safety management.

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No	Author (Year)	Study Design	Findings
			THEME 2: COMMUNICATION
1.	Xiao et al. (2024)	Quantitative -Ccross-sectional stepped wedge cluster-controlled trial.	The intervention explicitly recognised fear and reluctance in patient-professional communication, utilising concepts from psychological safety literature to enhance communication.
2.	Morris et al. (2023)	Qualitative	Patients often perceived communication errors as significant safety incidents, highlighting the need for clear and effective communication between healthcare providers and patients.
3.	Hernan et al. (2021)	Mixed-methods	Patients emphasised the importance of clear and honest communication to enhance trust.
4.	Lasser et al. (2021)	Qualitative	Patients wanted open and direct communication that allowed them to be involved in their care and ask questions without feeling rushed.
5.	Morris et al. (2021)	Qualitative	Clear communication (both written and verbal) about expectations and mechanisms to raise safety issues was emphasised by participants.
6.	Giles et al. (2020)	Qualitative	Patients reported failures in communication between healthcare professionals, particularly in sharing information about medications. The patient-centered medication safety framework (P-MEDS) places communication at its core, emphasising its critical role in preventing medication safety incidents.
7.	Lai et al. (2020)	Qualitative	One of the identified themes was "communicating attentively," which emphasised the importance of effective communication between healthcare providers and patients to ensure safety.
8.	Daker-White et al. (2018)	Qualitative	In the case of communication breakdowns, all issues were encountered, and additional factors that did not seem to fit the taxonomy were identified, such as “GP doesn’t interact with the patient but focuses on a computer screen."
9.	Desmedt et al. (2017)	Quantitative -Cross-sectional	64.9% indicated that poor communication between healthcare professionals was the main cause of these incidents.
10.	Ricci-Cabello et al. (2017b)	Qualitative	GPs did not listen or belief their patients or do not explain to them important aspects concerning their condition, treatment or prognosis.

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No	Author (Year)	Study Design	Findings
			THEME 3: CONTINUITY OF CARE AND COORDINATION
1.	Hernan et al. (2021)	Mixed-methods	Patients identified administrative errors and fragmented care as significant barriers to continuity and coordination.
2.	Lasser et al. (2021)	Qualitative	Care coordination was a significant theme, particularly regarding the referral process and sharing of information. Patients appreciated the ability to coordinate appointments for family members to be seen consecutively, which enhances continuity of care
3.	Morris et al. (2021)	Qualitative	Patient transfers across care settings were identified as critical moments when safety issues were more likely to occur. The need for a structured patient-provider exchange was mentioned, indicating that ongoing follow-up and coordination are necessary.
4.	Campbell et al. (2020)	Mixed method	The study highlighted that there were complex transitions and interfaces along the patient journey, where information exchange, coordination, and communication among providers and organisations were crucial for patient safety.
5.	Lai et al. (2020)	Qualitative	The necessity for seamless transitions and coordination among different healthcare providers to ensure patient safety.
6.	Desmedt et al. (2017)	Quantitative -Cross-sectional	The fragmented nature of care services was a systemic issue that can lead to unintentional harm to patients. Patients with more than two healthcare professionals involved in their care delivery felt that continuity of care among healthcare professionals is not consistent.
7.	Ricci-Cabello et al. (2016)	Qualitative	Participants expressed concerns about the lack of continuity, which can lead to safety incidents, such as the example of a patient who suffered harm due to inadequate follow-up care. Issues related to care coordination were also mentioned, with participants noting that transitions between different levels of care can pose safety risks.
8.	Hernan et al. (2015)	Qualitative	The connection over time with the same primary-care professional was noted as a factor that contributed to patient safety. Adequate information sharing during the transition between primary and secondary care were identified as necessary to prevent harm.
			THEME 4: SAFETY INCIDENTS AND REPORTING
1.	Xiao et al. (2024)	Quantitative -Nonrandomised cross-sectional stepped wedge cluster-controlled trial	The assessment collected data on patient-centered safety outcomes, including self-efficacy and clinical outcomes related to medication safety, which can help to identify safety incidents during medication reviews.

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No	Author (Year)	Study Design	Findings
2	Hernan et al. (2021)	Mixed Method	Patients reported a variety of safety incidents, including medication errors and access issues, which were often overlooked in traditional reporting systems. The study advocated for capturing patient-reported safety incidents to complement existing safety data and improve healthcare services.
3	Campbell et al. (2020)	Mixed Method	The Trigger Tool identified undetected patient harm, revealing that 27% of events found in patient records were associated with moderate or substantial harm, and 38% were potentially preventable, indicating significant safety incidents that need to be reported and addressed.
4	Desmedt et al. (2017)	Quantitative	The study suggested that patient-reported information can provide valuable insights into safety incidents, indicating a need for better mechanisms to capture and report these incidents.
5	Ricci-Cabello et al. (2016)	Qualitative	Participants expressed a desire for better mechanisms for reporting safety incidents, suggesting that transparency and open communication about errors could improve overall safety.
			THEME 5: SYSTEMIC ISSUES
1	Lai et al. (2020)	Qualitative	The study discussed the challenges faced by healthcare providers, such as workload and resource availability, which can impact patient safety. The findings suggested that excessive workloads for healthcare providers can lead to insufficient consultation times, affecting the quality of care and patient safety.
2	Daker-White et al. (2018)	Qualitative	The study discussed under and over-consultation as precursors to safety failures, indicating that insufficient consultation times can lead to patients avoiding seeking help. Besides, factors such as workload for healthcare providers and the accuracy and currency of health records were noted as significant contributors to safety incidents.
3	Desmedt et al. (2017)	Quantitative -Cross-sectional	The study highlighted that the increasing prevalence of chronic patients shifts care delivery from secondary to primary care, which may strain resources and affect the quality of care provided. The pressure of short consultations in primary care settings was noted as a factor that can contribute to safety incidents.
4	Ricci-Cabello et al. (2016)	Qualitative	Concerns were raised about the accuracy and currency of health records, with participants indicating that discrepancies in records could lead to safety incidents.
5	Hernan et al. (2015)	Qualitative	The need for sufficient time during consultations to undertake necessary tasks was identified as a systemic issue that can lead to safety incidents if not addressed. The study also suggested that excessive workloads for healthcare providers can hinder their ability to provide safe and effective care, impacting patient safety.

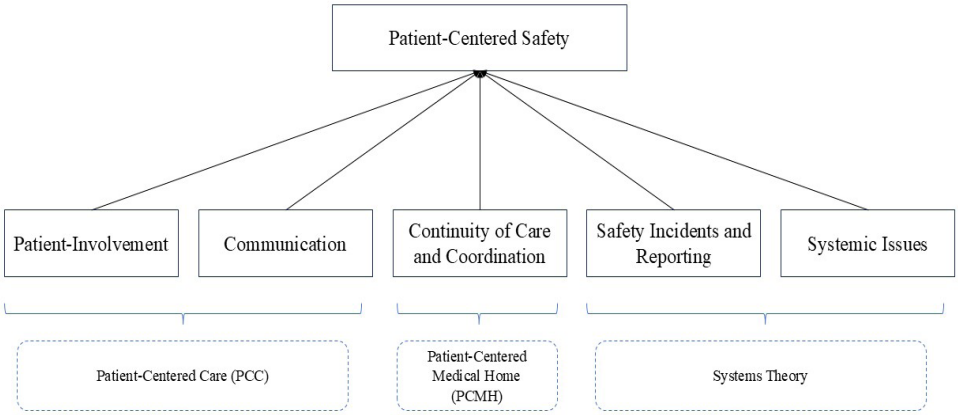

FIGURE 2: Conceptual framework for patient and family perspectives on patient safety at primary healthcare

the active involvement of patients and families in recognising and addressing safety issues. This central principle serves as the foundation of the framework, supported by the synergistic interaction of the five themes, each of which contributed uniquely to the cultivation of a robust safety culture within primary healthcare.

The first domain, patient involvement, was rooted in the PCC model, which prioritised the active engagement of patients and families in their healthcare processes. This theme highlighted the essential role of patients in decision-making, identifying potential risks and collaborating in safety improvement initiatives. The PCC model uniquely contributed by advocating for patient empowerment, shared decision-making and individualised care, ensuring that safety initiatives were not only clinician-driven but also informed by patient experiences.

The second domain, communication, was another key component of the PCC model. Effective communication between healthcare providers and patients was crucial for fostering mutual understanding and trust. Open and consistent communication minimised misunderstandings and enhanced collaborative nature of PCC. The PCC model uniquely contributed to patient safety by emphasising clear, open and bidirectional communication, which enabled patients and families to express concerns, ask questions and participate actively in their care.

The third domain, continuity of care and coordination, was derived from the PCMH model. This theme addressed the need for seamless transitions and efficient coordination among healthcare providers, which were essential for reducing care gaps that may lead to safety risks. The PCMH model uniquely contributed by ensuring that patients receive coordinated, continuous care through structured healthcare teams, comprehensive medical records, and proactive follow-up strategies.

The fourth domain, safety incidents and reporting, was based on systems theory, which provided a framework for identifying, reporting, and learning from safety incidents. This theme prioritised the establishment of feedback to encourage a culture of transparency and continuous improvement. The systems theory ensured that safety incidents were viewed as opportunities for learning and improvement at an organisational level rather than being treated as isolated errors.

The fifth domain, systemic issues, also drew from systems theory. This theme focused on organisational-level factors such as healthcare provider's workload, limited consultation time,

accuracy of health records and policy constraints, which directly influenced patient safety. Systems theory underscored the interdependence of these elements in creating a safe and sustainable healthcare environment. This theme emphasised the importance of addressing systemic challenges to achieve meaningful improvements in patient safety.

This conceptual framework was both comprehensive and adaptable, integrating the PCC, PCMH and systems theory models to provide a holistic perspective on patient safety in primary healthcare. It emphasised the central role of patients and families in safety initiatives while addressing the complexity and interconnectedness of healthcare systems. By offering actionable strategies, the framework laid a strong foundation for practical interventions that promote a safer, more patient-centered healthcare environment. The integration of these models ensured that all critical safety themes were addressed, enabling patients, families, healthcare providers and policymakers to implement targeted strategies for improved safety outcomes.

DISCUSSION

This study identifies critical themes related to patient safety in PHC from the perspective of patients and family members, shedding light on the existing gaps and proposing actionable solutions. The findings emphasise the importance of patient involvement, effective communication, continuity of care, safety reporting and systemic improvements in enhancing PHC safety practices.

Patient involvement remains a keystone of safety yet is often undermined by inadequate encouragement from providers and low health literacy levels, which discourage shared decision-making (Scholl et al. 2012). Patients may feel disempowered when they perceive their contribution is undervalued or ignored (Park & Cho 2017). Addressing this requires a dual approach: empowering patients through educational interventions to improve health literacy and training healthcare providers to foster shared decision-making and actively solicit patient feedback (Nursyafitri et al. 2021). Policymakers could support these initiatives by integrating patient involvement metrics into healthcare quality assessment and encouraging the integration of smaller primary care practices into more extensive networks to improve access to safety resources and standardised protocols (Nursal et al. 2018) (Gaal et al. 2010).

Additionally, implementing patient advocacy groups can promote greater engagement in safety practices. Successful models from other healthcare settings, such as the "Patient Partner Program" in Canada, demonstrate how structured involvement strategies can empower patients and improve PHC safety outcomes. Adopting this best practice may offer valuable insights for strengthening patient participation in PHC settings (Holmes et al. 2018).

Effective communication is fundamental to patient safety but is often hampered by factors that prioritise documentation over meaningful patient engagement (Chiejina 2017). To overcome these challenges, healthcare organisations should invest in communication training programs emphasising empathy, active listening and patient-centered dialogue (Ifrim et al. 2022; Rishipathak et al. 2021). Frameworks such as Sufficiency, Accuracy, Clarity, Contextualisation and Interpersonal Adaptation (SACCIA) provide structured approaches to improving communication quality (Hannawa 2018). Additionally, implementing advanced electronic health record (EHR) systems can reduce administrative burdens and enable providers to dedicate more time to patient interactions (Ahmad Almeshari et al. 2023).

In resource-limited settings, such as PHC facilities with workforce shortages, simplified communication frameworks and mobile messaging platforms may provide practical alternatives. For example, the mHealth app in rural India has improved provider-patient communication despite limited resources (Charanthimath et al. 2021). The effectiveness of mHealth applications has been well-documented in various studies. For instance, Zhou et al. (2023) conducted a meta-analysis demonstrating that

mHealth interventions can significantly enhance patient awareness of disease management and improve communication between providers and patients, particularly in managing chronic conditions like hypertension. Policymakers could leverage these findings to develop policies that integrate mHealth solutions into PHC settings and by implementing such policies in underserved PHC settings could strengthen communication pathways, optimise limited workforce capacity and ultimately improve patient safety.

Continuity of care and coordination are frequently disrupted by high healthcare provider turnover and fragmentation within healthcare systems, particularly between primary and specialist care or among multidisciplinary teams (Reddy et al. 2015; Sabety et al. 2021). These disruptions undermine patient confidence, delay diagnoses and compromise treatment efficiency. Policies to improve provider retention, including better compensation and supportive work environments, could mitigate turnover rates and strengthen continuity (Sabety et al. 2021; Sow et al. 2016). Furthermore, digital platforms facilitating real-time communication and record-sharing among providers can reduce care fragmentation and enhance coordination (Yashina et al. 2023).

Safety reporting remains underutilised, as patients and families often perceive it as burdensome or unproductive (De Brún et al. 2016). Limited awareness and knowledge about reporting systems further exacerbate this issue (Aljeezan et al. 2022; Sabblah et al. 2017). Strategies to improve reporting include establishing a single, official reporting system accessible to both patients and providers, providing feedback to reporters and educating patients on their rights (Aljeezan et al. 2022; Vaismoradi et al. 2019). For example, an educational smartphone application, "Safe Patients," has shown promise in enhancing patient knowledge of safety issues and encouraging reporting (Cai et al. 2024). Anonymity and feedback mechanisms are also critical for fostering a positive reporting culture.

Systematic issues such as insufficient resources, outdated health records, and excessive provider workloads reflect structural inefficiencies in the healthcare system. Budget constraints and inadequate investments in healthcare further exacerbate these problems. Budgetary constraints and limited investment in PHC exacerbate these challenges (Kwon et al. 2022; Mulyanto et al. 2019). Increasing funding for PHC facilities and implementing systemic reforms to streamline the administrative process could improve overall efficiency and patient safety (Zhang et al. 2018). Additionally, robust EHR systems can address issues related to record accuracy and availability, while optimised workforce allocation and workload distribution policies can reduce provider fatigue and improve consultation quality (Alanazi et al. 2020). Policies play a big role in optimising workforce allocation and workload distribution, subsequently reducing healthcare provider fatigue and improving consultation quality (Huei et al. 2020). By addressing these interconnected themes, healthcare systems can implement targeted interventions to improve patient safety in PHC, fostering a more patient-centered and efficient care environment.

Strength, Limitation and Future Directions

This scoping review provides a comprehensive analysis of patient and family perspectives on safety within PHC synthesising evidence across 17 studies into five key themes: patient involvement, communication, continuity of care and coordination, safety incidents and reporting and systemic issues. A significant strength of this review lies in its holistic approach, which bridges patient-centered and systemic perspectives to offer a nuanced understanding of safety practices in PHC. The emphasis on practical tools and frameworks, such as P-MEDS, PREOS-PC and PC PMOS, demonstrates its relevance to contemporary healthcare challenges by highlighting actionable strategies to improve safety outcomes.

Despite these strengths, the review has several limitations. While the thematic approach provides valuable insights, some themes, such as systemic issues and continuity of care, exhibit overlaps,

which may hinder clarity in distinguishing their unique contributions. The geographic distribution of included studies also poses a limitation, as it primarily reflects high-income country contexts, potentially reducing the generalisability of findings to low- and middle-income countries. Moreover, the review briefly introduces tools and frameworks but lacks an in-depth evaluation of their feasibility, implementation challenges and effectiveness across diverse healthcare systems.

Future research should address these limitations by expanding the geographic scope to include underrepresented regions, particularly low- and middle-income countries, to enhance the global applicability of findings. Additionally, investigating whether patient safety concerns differ between urban and rural PHC settings is crucial, as disparities in infrastructure, healthcare workforce availability, and access to resources may influence patient safety outcomes. Distinguishing these differences may provide insights into context-specific strategies for improving patient safety, especially in resource-limited environments. Understanding these variations could inform tailored interventions that account for unique challenges faced in rural PHC settings, such as provider shortages and limited healthcare access while addressing urban-specific risks related to high patient loads and fragmented care coordination.

Investigating emerging technologies, such as artificial intelligence, digital health tools and telehealth could provide valuable insights into innovative approaches to improve patient safety in PHC from patients' and families' perspectives. Digital health tools, including EHRs, remote patient monitoring (RPM) and mobile health applications have demonstrated the potential to enhance medication safety, improve diagnostic accuracy and facilitate better communication between patients and healthcare providers. Additionally, telehealth services, particularly in rural PHC settings, have been associated with improved care continuity and timely intervention for high-risk patients. However, challenges such as data security, interoperability issues and digital literacy must be addressed to maximise their impact on safety outcomes. Furthermore, studies should focus on the real-world implementation of safety tools and frameworks, emphasising their scalability, cost-effectiveness and adaptability to diverse PHC settings. This includes tailoring tools for use in resource-limited rural clinics as well as urban centers with advanced digital infrastructure. A deeper exploration of the facilitators and barriers to digital health adoption in PHC will provide actionable recommendations for optimising these tools in both high-resource and resource-constrained environments. Strengthening this evidence base will ensure the effective integration of patient and family perspectives into comprehensive safety strategies for PHC.

CONCLUSION

Acknowledging the themes identified in this study requires a comprehensive approach that combines systemic reforms, healthcare provider training, patient empowerment and enhanced coordination mechanisms.

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data. Therefore, ethical approval and informed consent were not required.

REFERENCES

Ahmad Almeshari, M., Hammad, K.F.A., Aljarboua, Y.S., Alsubaie, H.F., Fehaid Alsubaie, H., Alsubaie, A.H., Alajmi, M.S., Alhanaya, N.S., Abdullah Al Mutairi, S., Alosbany, A.O., Alharbi, S.S., Alonazi, H.A., Alqahtani, A.T. 2023. Health care electronic system implications toward decreasing delays. **8**(5): 155-64. https://doi.org/10.33564/IJEAST.2023.v08i05.021.

Alanazi, B., Butler-Henderson, K., Alanazi, M. R. 2020. Perceptions of Healthcare Professionals About the Adoption and Use of EHR in Gulf Cooperation Council Countries: A Systematic Review. *BMJ Health Care Inform* **27**(1): e100099. https://doi.org/10.1136/bmjhci-2019-100099.

Aljeezan, M.K., Altaher, Y.Y., Boushal, T. A., Alsultan, A.M., Khan, A.S. 2022. Patients' awareness of their rights and responsibilities: A cross-sectional study from Al-Ahsa. *Cureus* 14(12): e32854. https://doi.org/10.7759/cureus.32854.

Auraaen, A., Slawomirski, L., Klazinga 2018. *The economics of patient safety in primary and ambulatory care: Flying blind*. OECD Health Working Papers (No. 106). Paris, France: OECD Publishing. https://doi.org/10.1787/baf425ad-en

Cai, Y., Liu, Y., Wang, C., Liu, S., Zhang, M., Jiang, Y. 2024. Patient and family engagement Interventions for hospitalized patient safety: A Scoping Review. *J Clin Nurs* **33**(6): 2099-111. https://doi.org/10.1111/jocn.17022

Campbell, S.M., Bell, B.G., Marsden, K., Spencer, R., Kadam, U., Perryman, K., Rodgers, S., Litchfield, I., Reeves, D., Chuter, A., Doos, L., Ricci-Cabello, I., Gill, P., Esmail, A., Greenfield, S., Slight, S., Middleton, K., Barnett, J., Moore, M., Avery, A.J. 2020. A patient safety toolkit for family practices. *J Patient Saf* **16**(3): e182-6. https://doi.org/10.1097/PTS.0000000000000471

Charanthimath, U., Katageri, G., Kinshella, M.L.W., Mallapur, A., Goudar, S.S., Ramadurg, U.Y., Vidler, M., Sharma, S., Derman, R.J., Magee, L. A., Dadelszen, P.V., Bellad, M., Payne, B. A. 2021. Community health worker evaluation of implementing an mHealth application to support maternal health care in rural India. *Front Glob Womens Health* 2: 645690. https://doi.org/10.3389/fgwh.2021.645690.

Chiejina, E.N. 2017. Relationships of providers' accountability of nursing documentations in the clinical setting. *Int J Environ Agric Biotechnol* **2**(3): 1362-8. https://doi.org/10.22161/ijeab/2.3.44.

Correia, T., Martins, M., Barroso, F. 2020. The family and safety of the hospitalized patient: An integrative literature review. *Port J Public Health* **38**(2): 129-40. https://doi.org/10.1159/000511855.

Daker-White, G., Hays, R., Mcsharry, J., Giles, S., Cheraghi-Sohi, S., Rhodes, P., Sanders, C. 2015. Blame the patient, blame the doctor or blame the system? A meta-synthesis of qualitative studies of patient safety in primary care. *Plos One* **10**(8): e0128329. https://doi.org/10.1371/journal.pone.0128329.

De Brún, A., Heavey, E., Waring, J., Dawson, P., Scott, J. 2016. PeSaFe: A model of barriers and facilitators to patients providing feedback on experiences of safety. *Health Expect* **20**(4): 771-8. https://doi.org/10.1111/hex.12516

Desmedt, M., Petrovic, M., Bergs, J., Vandijck, D., Vrijhoef, H., Hellings, J., Vermeir, P., Cool, L., Dessers, E. 2017. Seen through the patients' eyes: safety of chronic illness care. *Int J Qual Health Care* **29**(7): 916-21. https://doi.org/10.1093/intqhc/mzx137

Feldman, S.S., Buchalter, S.E., Zink, D., Slovensky, D.J., Hayes, L.W. 2019. Training leaders for a culture of quality and safety. *Leadersh Health Serv* **32**(2): 251-63. https://doi.org/10.1108/LHS-09-2018-0041.

Gaal, S., van den Hombergh, P., Verstappen, W., Wensing, M. 2010. Patient safety features are more present in larger primary care practices. *Health Policy* 97(1): 87-91. https://doi.org/10.1016/j.healthpol.2010.03.007

Giles, S.J., Lewis, P.J., Phipps, D.L., Mann, F., Avery, A.J., Ashcroft, D.M. 2020. Capturing patients' perspectives on medication safety: The development of a patient-centered medication safety framework. *J Patient Saf* **16**(4): e324-39. https://doi.org/10.1097/PTS.0000000000000583

Godycki-Ćwirko, M., Esmail, A., Dovey, S., Wensing, M., Parker, D., Kowalczyk, A., Błaszczyk, H., Kosiek, K. 2015. Patient safety initiatives in Central and Eastern Europe: A mixed methods approach by the LINNEAUS Collaboration on patient safety in primary care. *Eur J Gen Pract* **21**(sup1): 62-8. https://doi.org/10.3109/13814788.2015.1043727.

Hannawa, A.F. 2018. "SACCIA Safe Communication": Five core competencies for safe and high-quality care. *J Patient Saf Risk Manag* **23**(3): 99-107. https://doi.org/10.1177/2516043518774445.

Hatoun, J., Chan, J.A., Yaksic, E., Greenan, M.A., Borzecki, A.M., Shwartz, M., Rosen, A.K. 2016. A systematic review of patient safety measures in adult primary care. *Am J Med Qual* **32**(3): 237-45. https://doi.org/10.1177/1062860616644328.

Hernan, A.L., Giles, S.J., Carson-Stevens, A., Morgan, M., Lewis, P., Hind, J., Versace, V. 2021. Nature and type of patient-reported safety incidents in primary care: Cross-sectional survey of

patients from Australia and England. *BMJ Open* **11**(4): e042551. https://doi.org/10.1136/bmjopen-2020-042551.

Hernan, A.L., Giles, S.J., O'Hara, J.K., Fuller, J., Johnson, J.K., Dunbar, J.A. 2016. Developing a primary care patient measure of safety (PC PMOS): A modified Delphi process and face validity testing. *BMJ Qual Saf* **25**(4): 273-80. https://doi.org/10.1136/bmjqs-2015-004268

Holmes, B.J., Bryan, S., Ho, K., Mcgavin, C. 2018. Engaging patients as partners in health research: Lessons from BC, Canada. *Healthc Manage Forum* **31**(2): 41-4. https://doi.org/10.1177/0840470417741712.

Huei, L.C., Lin, Y., Ming, Y., Chen, H.L., Wang, J.Y., Hung, L.M. 2020. Occupational health and safety hazards faced by healthcare professionals in Taiwan: A systematic review of risk factors and control strategies. *Sage Open Med* **8**: 2050312120918999. https://doi.org/10.1177/2050312120918999.

Ifrim, R.A., Klugarová, J., Măguriță, D., Zazu, M., Mazilu, D., Klugar, M. 2022. Communication, an important link between healthcare providers: A best practice implementation project. *JBI Evid Implement* **20**(S1): S41-8. https://doi.org/10.1097/XEB.0000000000000319.

Kable, A., Chenoweth, L., Pond, D., Hullick, C. 2015. Health professional perspectives on systems failures in transitional care for patients with dementia and their carers: A qualitative descriptive study. *BMC Health Serv Res* **15**(1): 567. https://doi.org/10.1186/s12913-015-1227-z.

Kuipers, S.J., Cramm, J.M., Nieboer, A.P. 2019. The importance of patient-centered care and co-creation of care for satisfaction with care and physical and social well-being of patients with multi-morbidity in the primary care setting. *BMC Health Serv Res* **19**(1): 13. https://doi.org/10.1186/s12913-018-3818-y.

Kwon, H.H., Kim, H.I., Kwon, K.T., Hwang, S., Kim, S.W., Kim, Y., Kim, H.A., Hyun, M., Hong, H.L., Kim, M.J., Hur, J.A., Hong, K.S. 2022. Healthcare workforce response to the coronavirus disease outbreak in Daegu, Korea: A multi-center, cross-sectional survey. *Infect Chemother* **54**(2): 298-307. https://doi.org/10.3947/ic.2022.0031.

Lai, A.Y., Yuan, C.T., Marsteller, J.A., Hannum, S.M., Lasser, E.C., Heughan, J.A., Oberlander, T., Berger, Z.D., Gurses, A.P., Kharrazi, H. 2020. Patient safety in primary care: Conceptual meanings to the health care team and patients. *J Am Board of Fam Med* **33**(5): 754-64. https://doi.org/10.3122/jabfm.2020.05.200042

Lasser, E.C., Heughan, J.A., Lai, A.Y., Yuan, C.T., Dy, S.M., Bittle, M., Oberlander, T., Pitts, S.I., Marsteller, J., Hannum, S.M. 2021. Patient perceptions of safety in primary care: A qualitative study to inform care. *Curr Med Res Opin* **37**(11): 19919. https://doi.org/10.1080/03007995.2021.1976736

Levac, D., Colquhoun, H., O'brien, K.K. 2010. Scoping studies: Advancing the methodology. *Implement Sci* **5**(1): 69. https://doi.org/10.1186/1748-5908-5-69.

Morris, R., Gallacher, K., Hann, M., Rolfe, C., Small, N., Giles, S., Sanders, C., Campbell, S. 2021. Protocol for a non-randomised feasibility study evaluating a codesigned patient safety guide in primary care. *BMJ Open* **11**(1): e039752. https://doi.org/10.1136/bmjopen-2020-039752.

Morris, R.L., Giles, S., Campbell, S. 2023. Involving patients and carers in patient safety in primary care: A qualitative study of a co-designed patient safety guide. *Health Expect* **26**(2): 630-9. https://doi.org/10.1111/hex.13673

Mulyanto, J., Kringos, D., Kunst, A.E. 2019. Socioeconomic inequalities in healthcare utilisation in Indonesia: A comprehensive survey-based overview. *BMJ Open* **9**(7): e026164. https://doi.org/10.1136/bmjopen-2018-026164.

Nursal, D.G A., Machmud, R., Darwin, E., Mulyana, N. 2018. Multiple regressions of a malcolm baldrige's patient safety models. *Indian J Public Health Rese Dev* **9**(3): 50. https://doi.org/10.5958/0976-5506.2018.00181.X

Nursyafitri, E., Wantiyah, W., Sutawardana, J.H. 2021. Self empowerment in patient with chronic disease: A literature review. *Nurseline J* **6**(2): 145. https://doi.org/10.19184/nlj.v6i2.25992

Park, E.S., Cho, I.Y. 2017. Shared Decision-making in the paediatric field: A literature review and concept analysis. *Scand J Caring Sci* **32**(2): 478-89. https://doi.org/10.1111/scs.12496.

Rast, J.E., Shattuck, P., Roux, A.M., Anderson, K. A., Kuo, A. 2018. The medical home and health care transition for youth with autism. *Pediatrics* **141**(Suppl 4): S328-S334. https://doi.org/10.1542/peds.2016-4300J.

Reddy, A., Pollack, C.E., Asch, D.A., Canamucio, A., Werner, R.M. 2015. The effect of primary care provider turnover on patient experience of care and ambulatory quality of care. *Jama Intern Med* **175**(7): 1157-62. https://doi.org/10.1001/jamainternmed.2015.1853.

Ricci-Cabello, I., Pons-Vigués, M., Berenguera, A., Pujol-Ribera, E., Slight, S.P., Valderas, J.M. 2016. Patients' perceptions and experiences of patient safety in primary care in England. *Fam Pract* **33**(5): 535-42. https://doi.org/10.1093/fampra/cmw046

Ricci-Cabello, I., Reeves, D., Bell, B.G., Valderas, J.M. 2017a. Identifying patient and practice characteristics associated with patient-reported experiences of safety problems and harm: A cross-sectional study using a multilevel modelling approach. *BMJ Qual Safety* **26**(11): 899-907. https://doi.org/10.1136/

bmjqs-2016-006411

Ricci-Cabello, I., Saletti-Cuesta, L., Slight, S.P., Valderas, J.M. 2017b. Identifying patient-centred recommendations for improving patient safety in general practices in England: A qualitative content analysis of free-text responses using the patient reported experiences and outcomes of safety in primary care (PREOS-PC) questionnaire. *Health Expect* **20**(5): 961-72. https://doi.org/10.1111/hex.12537

Rishipathak, P., Bhandari, M., Hinduja, A., Kulkarni, M. 2021. Assessment of interpersonal communication skills among emergency medical professionals in Pune, India. *Indian J Forensic Med Toxicol* **15**(2): 4672-7. https://doi.org/10.37506/ijfmt.v15i3.15439.

Sabblah, G., Darko, D.M., Mogtari, H., Härmark, L., Puijenbroek, E.V. 2017. Patients' perspectives on adverse drug reaction reporting in a developing country: A case study from Ghana. *Drug Saf* **40**(10): 911-21. https://doi.org/10.1007/s40264-017-0563-9.

Sabety, A., Jena, A.B., Barnett, M.L. 2021. Changes in health care use and outcomes after turnover in primary care. *JAMA Intern Med* **181**(2): 186. https://doi.org/10.1001/jamainternmed.2020.6288.

Scholl, I., Kriston, L., Dirmaier, J., Härter, M. 2012. Comparing the nine-item shared decision-making questionnaire to the OPTION scale – An attempt to establish convergent validity. *Health Expect* **18**(1): 137-50. https://doi.org/10.1111/hex.12022

Sow, M., Ntamon, A., Osuoha, R. 2016. Relationship between transformational leadership and employee retention among healthcare professionals in the United States. *Bus Econ Res* **6**(2): 235. https://doi.org/10.5296/ber.v6i2.9831

Vaismoradi, M., Logan, P., Jordan, S., Sletvold, H. 2019. Adverse drug reactions in norway: A systematic review. *Pharmacy* **7**(3): 102. https://doi.org/10.3390/pharmacy7030102.

Xiao, Y., Fulda, K.G., Young, R.A., Hendrix, Z.N., Daniel, K.M., Chen, K.Y., Zhou, Y., Roye, J.L., Kosmari, L., Wilson, J. 2024. Patient partnership tools to support medication safety in community-dwelling older adults: Protocol for a nonrandomized stepped wedge clinical trial. *JMIR Res Protoc* **13**(1): e57878. https://doi.org/10.2196/57878

Yashina, N., Kashina, O., Yashin, K., Pronchatova-Rubtsova, N., Vileyshikova, A. 2023. Development of state digital platforms: A methodological toolkit for analysing the attainment of regional health care systems' target indicators. *Int J Technol* **14**(8): 1728. https://doi.org/10.14716/ijtech.v14i8.6844.

Zhang, Y., Wang, Q., Jiang, T. & Wang, J. 2018. Equity and efficiency of primary health care resource allocation in mainland China. *Int J Equity Health* **17**(1): https://doi.org/10.1186/s12939-018-0851-8.

Zhou, L., He, L., Kong, Y., Lai, Y., Dong, J. & Ma, C. 2023. Effectiveness of mhealth interventions for improving hypertension control in uncontrolled hypertensive patients: A meta-analysis of randomized controlled trials. *J Clin Hypertens* **25**(7): 591-600. https://doi.org/10.1111/jch.14690.