



## REVISIONS

### Strategies for involving patient and family in enhancing hospital patient safety goals: A scoping review

Estrategias para involucrar al paciente y a la familia en la mejora de los objetivos de Seguridad del Paciente en el hospital: una revisión del alcance

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<https://doi.org/10.6018/eglobal.636521>

eLocation-id: e636521

Recibido: 5/11/2024

Aceptado: 14/01/2025

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#### ABSTRACT:

**Objective:** This scoping review aims to explore and map strategies for engaging patient and family in improving hospital patient safety goals and to identify supporting and inhibiting factors that influence the selected strategies.

**Data Source:** The scoping review of research and grey literature (2014-2024) was performed using Scoping Review Frameworks by Arkey and O'Malley. Research literature was gathered from nine databases and by manually searching relevant research topics. Inclusion criteria involved qualitative and quantitative primary data studies that focused on the efforts being carried out to improve patient and family involvement and overcome the barriers and challenges being encountered. The study protocol was registered with the Open Science Framework (<https://osf.io/stpfy/>).

**Result:** Findings indicate that efforts that engaging patient and family in enhancing hospital patient safety goals including include using tools such as checklists, staff training, structured communication programs, and patient perspective surveys. Supporting factors are education and training, while inhibiting factors are low health literacy and financial constraints.

**Conclusion:** Efforts in improving patient and family involvement for patient safety in hospitals show progressive steps taken. Escalating patient and family engagement may require a multidimensional approach involving education, staff training, system policies, collaboration with communities - that has been rarely conducted-, and a hospital management system with adequate financial support and

facilities. Further research is necessary to understand more in depth factors that influence patient and family involvement and the ways to overcome existing challenges.

**Keywords:** Clinical Practice; Family Caregivers; Patient Engagement; Patient Involvement; Patient Safety.

## RESUMEN:

**Objetivo:** Esta revisión de alcance tiene como objetivo explorar y mapear estrategias para involucrar al paciente y a la familia en la mejora de los objetivos de Seguridad del Paciente del hospital e identificar los factores de apoyo e inhibición que influyen en las estrategias seleccionadas.

**Fuente de datos:** La revisión de alcance de la investigación y la literatura gris (2014-2024) se realizó utilizando los marcos de revisión de alcance de Arkey y O'Malley. La literatura de investigación se recopiló de nueve bases de datos y mediante la búsqueda manual de temas de investigación relevantes. Los criterios de inclusión implicaron estudios de datos primarios cualitativos y cuantitativos que se centraron en los esfuerzos que se están llevando a cabo para mejorar la participación de los pacientes y la familia y superar las barreras y los desafíos que se están encontrando. El protocolo del estudio se registró en el Open Science Framework (<https://osf.io/stpfy/>).

**Resultado:** Los hallazgos indican que las iniciativas que buscan involucrar a los pacientes y a la familia en la mejora de los objetivos de seguridad de los pacientes en el hospital incluyen el uso de herramientas como listas de verificación, capacitación del personal, programas de comunicación estructurados y encuestas sobre la perspectiva de los pacientes. Los factores de apoyo son la educación y la capacitación, mientras que los factores inhibidores son el bajo nivel de alfabetización en salud y las limitaciones financieras.

**Conclusión:** Los esfuerzos por mejorar la participación de los pacientes y sus familias en la seguridad de los pacientes en los hospitales muestran que se han dado pasos progresivos. Aumentar la participación de los pacientes y sus familias puede requerir un enfoque multidimensional que incluya educación, capacitación del personal, políticas del sistema, colaboración con las comunidades (que rara vez se ha llevado a cabo) y un sistema de gestión hospitalaria con apoyo financiero e instalaciones adecuadas. Es necesario realizar más investigaciones para comprender más a fondo los factores que influyen en la participación de los pacientes y sus familias y las formas de superar los desafíos existentes.

**Palabras clave:** Práctica Clínica; Cuidadores familiares; Participación del paciente; Seguridad del Paciente.

## INTRODUCTION

Patient safety is an effort to minimize risks of mistakes or errors and incidents that may occur in health services. Currently, the number of patient safety incidents worldwide is very high and has experienced an increase from 2.6 million to > 3 million (between 2019 and 2023) or up to 134 million per year, resulting in 1 of 10 patients experiencing treatment errors,<sup>(1,2)</sup> Globally, it is estimated that 4 out of 10 patients tend to experience injury, and 4 out of 100 patients from low-income and middle-income countries die.<sup>(2-4)</sup> Patient safety incidents can hinder the patient's healing process and even result in death, disability, financial loss, psychological problems and distrust in the quality of health services.<sup>(2)</sup> In spite of a number of global efforts taken over the past 15 years, substantial change has not been achieved.<sup>(3)</sup> This situation poses serious threats to the global healthcare system and has become a critical issue worldwide.

To reduce patient safety incidents, WHO recommends the Global Patient Safety Action Plan 2030 program that consists of seven strategic plans to eliminate risks in health services. Of the seven strategic plans, the fourth plan, involving and empowering patient and family, is the most powerful and the most significant program of WHO's patients for patient safety (PFPS).<sup>(3,4)</sup> Involving patient and family in a medical care process has a tremendous impact, that is reducing financial losses by

15% as of billions of dollars every year and thus saving many lives.<sup>(3,5)</sup> Meta-analysis studies over the last 30 years have shown that the patient and family involvement interventions significantly minimize patient safety incidents and length of stay and increase patient and family satisfaction.<sup>(6)</sup> Multicenter cohort studies have also shown a significant decrease in the incidence of medical errors, minimizing adverse events and improving family experience and communication.<sup>(7)</sup> The strategy of involving patients and their families is an obligation in achieving patient safety.<sup>(8)</sup> Several studies worldwide that have explored patient and family involvement indicate effective improvement in the patient safety.<sup>(9-11)</sup>

There have been numbers of reviews of interventions that encourage patient and family involvement for patient safety.<sup>(12,13)</sup> While it is important to discuss the patient and family involvement interventions, this study does not discuss the efforts which have been made. Research on factors that support and hinder the practices of patient and family involvement is small in number. The problem is that initiatives to educate and improve active patient and family engagement are very low, globally.<sup>(14)</sup> In addition, developing countries with middle or low incomes indicate a much higher prevalence of patient safety incidents than developed countries.<sup>(2-4)</sup> The difference in patient satisfaction based on hospital ward class indicates service inequality that can hinder their involvement in patient safety.<sup>(15)</sup> It requires efforts to overcome the obstacles,<sup>(16)</sup> and solutions related to financial problems, the main cause to the incapability of participating optimally in the WHO global action program.<sup>(5)</sup> Therefore, efforts to provide maximum results have to be accessible and doable especially by countries with low and middle income. A previous review by, focuses on the results of interventions and patient involvement strategies without discussing either the efforts which have been made or the supporting and inhibitory factors in involving patient and family<sup>(13)</sup>. Therefore, we conduct a scoping review to explore and map the current state of efforts being performed to improve patient and family involvement in preventing patient safety incidents in hospitals. Also, we review the articles we have obtained to determine the supporting and inhibitory factors in the significance of improving patient and family involvement. This information will be useful in recommending efforts to improve patient and family involvement and designing future research.

## METHOD

The extension of preferred reporting items for systematic reviews and meta-analyses (PRISMA-SCR) was applied to improve reporting quality and enhance accuracy. This review followed the Scoping Review Framework guidelines. In addition, PRISMA-SCR was also used to optimize reporting and enhance accuracy. The study protocol has been registered with the *Open Science Framework* (<https://osf.io/stpfy/>). We followed five stages of Scoping Review Framework as outlined below.

### Stage 1: Research Question

The research questions in this review are:

What efforts are currently being performed in the hospital to escalate patient and family involvement in improving patient safety? What are the supporting and inhibiting factors faced in attempts to improve patient and family involvement for patient safety?

## Stage 2: Relevant Studies and Search Terms

A literature searching was conducted using nine databases to identify studies that discussed efforts performed in hospitals to escalate patient and family involvement in improving patient safety. Keywords were used to identify relevant studies with a specific focus on current hospital practices and strategies (Table 1). The initial process involved analyzing titles, abstracts and contents to identify additional relevant terms and keywords. Emphasis was placed on practices and strategies that had been implemented and on challenges in achieving effective engagement. We also utilized Google Scholar to search for additional relevant references to ensure that no sources were missed in the previous database searches.

**Table 1:** Keywords for Databases.

No	Databased	Keywords	Articles	Access date
1	Pubmed	"Patient"[Title/Abstract] OR "client"[Title/Abstract] AND "Family"[Title/Abstract] OR "family members"[Title/Abstract] OR "family member"[Title/Abstract] OR "relatives"[Title/Abstract] AND "intervention"[Title/Abstract] OR "method"[Title/Abstract] OR "procedure"[Title/Abstract] OR "techniques"[Title/Abstract] AND "Strategy"[Title/Abstract] AND "engage*"[Title/Abstract] OR "Involve*"[Title/Abstract] OR "participat"[Title/Abstract] AND "patient safety"[Title/Abstract] OR "medical safety"[Title/Abstract] AND "hospital".[Title/Abstract]	1.582	09/07/2024
2	Clinical Key	"Patient" OR "client" AND "Family" OR "family members" OR "family member" OR "relatives" AND "intervention" OR "method" OR "procedure" OR "techniques" AND "Strategy" AND "engage*" OR "Involve*" OR "participat" AND "patient safety" OR "patient safeties" OR "medical safety" AND "hospital".	151	08/07/2024
3	Global index medikus	(tw:(Patient)) AND (tw:(Family)) AND (tw:(Strategy)) AND (tw:(engagement)) OR (tw:(Involvement)) AND (tw:(patient safety)) AND (tw:(hospital))	2	08/07/2024
4	Garuda	Keterlibatan Pasien Dan Keluarga Dalam Upaya Pasien Safety	3	09/07/2024
5	Google Scholar	"Patient" AND "Family" AND "intervention" OR "method" OR "procedure" OR "techniques" AND "Strategy" AND "engage*" OR "Involve*" OR "participat" AND "patient safety" AND "hospital"	46.900	09/07/2024
6	Science Direct	"Patient" AND "Family" AND "Strategy" AND "engagement" OR "Involvement" AND "patient safety" AND "hospital"	21.688	09/07/2024
7	Cochrane	"Patient" AND "family" AND "Strategy" AND "Involvement" AND "patient safety" AND "hospital"	2	10/07/2024
8	Scopus	"Patient" AND "Family" AND "Strategy" AND "engagement" OR "Involvement" AND "patient safety" AND "hospital".	10	10/07/2024
9	ProQuest	"Patient" AND "Family" AND "Strategy" AND "engagement" OR "Involvement" AND "patient safety" AND "hospital"	2	10/07/2024

Inclusion and exclusion criteria follow the Population, Concept, Context (PCC) model and are detailed in Table 2. The search focused on entire articles in English and Indonesian, published between 2014 and 2024.

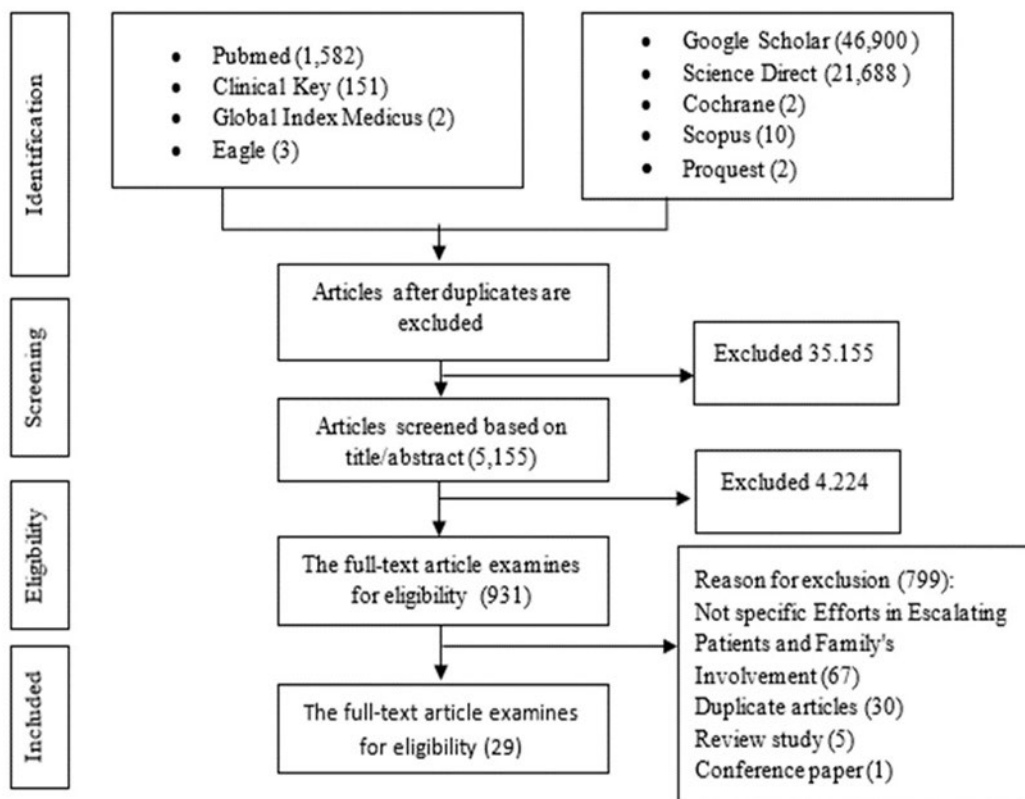
**Table 2.** Eligibility Criteria for Articles.

Criteria	Inclusion	Exclusion
Population	Patients and families	Focus other than on patients and families themselves
Concept	Patient safety involvement	Studies that discuss technical aspects or interventions not directly related to patient and family involvement in patient safety
Context	Hospital	Focus on care settings outside of hospitals, such as home care or other care facilities

### Stage 3: Study Selection

Figure 1 interprets the process and criteria extraction based on inclusion and exclusion criteria. There were 70,340 articles generated from 9 databases, including additional identification through Google Scholar. Filtering the article titles to the relevant research question resulted in 70,310 articles. After removing duplicates; 5,155 articles were selected and then sorted out by reading the abstracts and the whole articles. The reference list of selected articles was also filtered to 931 articles. This study applied additional filters to ensure the quality and relevance of the selected articles. Only original research articles published in English or Indonesian since 2014 were included, while articles in other languages, research protocols, literature reviews, or those published before 2014 were excluded. These filters ensure the analysis focuses on current and pertinent publications. The final selection resulted in 29 primary studies selected for analysis.

**Figure 1:** Prisma Diagram.



Note: adapted from Tricco AC, Lillie E, Zarin W et al. PRISMA extension for scoping review (Prisma-Scr): Checklist and Explanation

## Reliability of Study Extraction

All collected abstracts of articles were imported into Mendeley and, after duplicates were removed, exported to the Rayyan application. To ensure consistent assessments, two authors randomly and blindly screened the English articles based on title, abstract, and whole text using the JBI manual method. Selection decisions were then evaluated by additional authors. Disagreements occurred in 5% of the articles, but were resolved through discussions among reviewers. The selection results were discussed until a final agreement was achieved.

### Stage 4: The Data

We extracted data covering the year of study, country, study objectives, sample, efforts and outcome findings (Tables 3 and 4).

### Stage 5: Thematic Summary and Key Findings

Literature findings are employed to identify results based on relevant keywords. The analysis process included evaluation of the title, abstract and whole text of the articles, followed by verification of discrepancies and duplications. Each article analyzed presented information related to the efforts in improving patient and family involvement.

### Ethical Considerations

This study does not require review from the Human Subjects Research Ethics Committee because the data used in the reviewed article do not contain any personal information that identifies individuals.

## RESULT

### Study Characteristics

Of the 29 studies included, almost half (ten studies) were conducted in the UK,<sup>16–25</sup> five in America,<sup>(7,26–29)</sup> four in Canada,<sup>(30–33)</sup> three in Norway,<sup>(34–36)</sup> two in Australia,<sup>(37,38)</sup> and one each in Italy,<sup>(39)</sup> Saudi Arabia,<sup>(40)</sup> Korea,<sup>(41)</sup> Iran,<sup>(15)</sup> and the Netherlands.<sup>(42)</sup>

Thirteen studies were quantitative and mixed-method<sup>(17–20,27,31,32,40–42,44–46)</sup> Sixteen studies were qualitative.<sup>(16,21–26,29,30,33,36–39,43,47)</sup> The findings of the quantitative and mixed-method studies are presented in Table 3, and the qualitative studies are in Table 4. Sample sizes ranged from 20 to 3,106 participants in the quantitative and mixed-method studies. The largest sample (3,106) was in a study by,<sup>(45)</sup> while the sample size of qualitative studies ranged from 16 to 242.

### Efforts in Improving Patient and Family Involvement for Patients Safety in Hospital

In the 13 quantitative and mixed-method studies, 6 studies attempt to improve patient and family involvement using tools. Among the tools are the checklist of FCR (Family-

Centered Rounds), checklists, codesign as reminders, modality Fall TIPS (Tailoring Interventions for Patient Safety), PRASE (Patient Reporting and Action for a Safe Environment), harm reporting tools.<sup>(16–19,26,31)</sup> Findings of first 2 studies conduct a structured communication program, patient and family-centered i-pass, SCORE (Safer Communication on Rounds Every Time) and health worker training.<sup>(44,45)</sup> While the other 2 studies conduct surveys from the patients' perspectives and the influences of sociodemographic factors.<sup>(30,40)</sup> Each study conducts video-based education,<sup>(41)</sup> consensus development guidelines,<sup>(43)</sup> a construction of the Health Belief Model (HBM) theory,<sup>(30)</sup> and the implementation of the charter of rights and obligations for patient empowerment.<sup>(39)</sup>

Meanwhile, 16 qualitative studies explore patient and family perspectives, with perspectives on knowledge, views, comfort levels, behavior, family roles and contributions, experiences, awareness, ability to identify adverse events, discussions, opportunities to speak up, perceptions of the applications used and descriptions of actions taken being the most frequently reported 9 studies.<sup>(21–23,29,32,34,37,42,46)</sup> In addition, several studies describe efforts to identify areas of family involvement as well as challenges and barriers to the involvement,<sup>(16,36)</sup> attempts through game strategies,<sup>(29)</sup> the development of conceptual models,<sup>(29)</sup> the identification of risk factors,<sup>(35)</sup> evaluation of the tool PRASE use,<sup>(20)</sup> strategies involving young patient and family,<sup>(38)</sup> and the use of patient safety guide for primary care (PSG-PC).<sup>(23)</sup>

In quantitative and mixed-method studies, research has shown that efforts through use of checklist as tool, health staff training, communication programs, patient perspective and sociodemographic factor surveys, education, the HBM theory and implementation of the charter of rights and obligations for patient empowerment mostly have succeeded in improving patient involvement. Each study describes the impact of patient and family involvement on patient safety.

The qualitative studies explore the patient and family perspectives. Helping to understand patient and family perspectives and experiences in depth can enhance awareness of patient safety involvement. The effect of exploring patient and family perspectives can contribute to other valuable findings, such as the identification of 9 areas of family involvement, challenges,<sup>(34)</sup> level of involvement and negative consequences that need minimizing in the significance of family contribution appreciation,<sup>(37)</sup> obstacles,<sup>(47)</sup> drafts,<sup>(29,46)</sup> and various strategies involving patient and family.<sup>(22,28,38)</sup> Non-formal strategies involving patient and family help identify areas and challenges in family involvement, encourage in-depth understanding of caregivers' perspective and experiences and highlight the need for experienced health workers and for clear guidance on methods and areas of involvement. They also help mitigate negative experiences that can increase awareness of patient and family involvement.

**Table 3.** Articles on Efforts in Improving Patients and Family Involvement for Patient Safety in Hospital (Quantitative and Mixed-Method Studies).

No	Author, Year/ Country	Objective	Sample	Findings	Efforts to Increase Patient & Family Engagement
1	Bergerod et al (2021) Norway	To design a family involvement guide	20 stakeholder participants at 2 university hospitals in Norway.	Participants agree on the five most important priorities for cancer care services in hospitals when involving families.	Efforts to design a Guide to involve patients and families.

No	Author, Year/ Country	Objective	Sample	Findings	Efforts to Increase Patient & Family Engagement
2	Cox et al (2017) United States of America	To assess the FCR (Family-Centered Rounds) checklist intervention on the elements of FCR performance, family involvement and patient safety.	298 families, with an evaluation of 673 FCR videos before and after the intervention.	The intervention significantly increases the FCR checklist elements performed ( $\beta = 1.2$ , $P < .001$ ). Intervention rounds are more likely to ask questions of the family (OR = 2.43, $P < .05$ ) or the health care team (OR = 4.28, $P = .002$ ) and to reread instructions (OR = 12.43, $P < .001$ ). Improved performance of the FCR checklist elements is associated with improved family involvement and positive perceptions of safety.	Efforts: using the FCR checklist can improve the performance of FCR elements and impact the quality, perception and involvement of safety families.
3	Russ et al (2014) London, England	To assess patient perspectives on the WHO surgical safety checklist in measuring patient involvement.	141 postoperative patients	A total of 141 patients strongly agree that the checklist has a positive impact on their safety and the performance of the surgical team.	The WHO surgical safety checklist enhances patient engagement in safety.
4	Lewis et al (2022) America	To develop and implement the I-PASS Safer Communication on Rounds Every Time (SCORE) program to improve patient and family communication and involvement techniques.	246 resident doctors	88% of residents are able to activate and engage families and all members of the interprofessional team. 90% of the population are able to discuss the roles and responsibilities of various team members during PFCRs.	The I-PASS SCORE program efforts increase resident knowledge and confidence in communication in involving patients/families.
5	Bishop et al (2015) Canada	To learn if patient perceptions of safety play a role in patient involvement safety and how the Health Belief Model (HBM) theory construct explains this.	370 patients from four inpatient units at two tertiary hospitals in Atlantic Canada.	The relationships between patient perceptions of threat and self-efficacy and safety practice performance explain 46% and 42% of the variance, respectively.	Efforts to understand patient perceptions of patient safety affect their level of involvement in safety practices. The Health Belief Model (HBM) theory can help explain how patients view patient safety and the factors that influence those perceptions.
6	Knowles et al (2018) English	To design new interventions through the direct involvement of patients and health professionals in an experience-based Codesign process.	45 patients with multimorbidity, health service users, caregivers, and primary health professionals.	Patients and healthcare professionals jointly identify dual medication use as a major threat to safety. They recommend interventions such as easily accessible reminders to support compliance to treatment and regular medication reviews by pharmacists in primary care settings for vulnerable patients.	Effort: codesign method intervention



No	Author, Year/ Country	Objective	Sample	Findings	Efforts to Increase Patient & Family Engagement
7	Duckworth et al (2019) Canada	To test if modality Fall TIPS (Tailoring Interventions for Patient Safety) has an effect on patient involvement.	This study is conducted in three different hospitals.	All units in the three hospitals achieve an 80% compliance rate for patient involvement.	Efforts: intervention modality Fall TIPS (Tailoring Interventions for Patient Safety)
8	Khan et al (2018) North America	To determine if a medical error, family experience and communication processes become better after implementation of the I-PASS intervention to standardize the communication structures of family-health service providers in a family-centered round.	All patients treated in the study unit totaling 3,106 with 13,171 patient days. Family: 2,148 parents or caregivers. Health Care Workforce: 435 nurses, 203 medical students, and 586 residents in pediatric care units at seven hospitals in North America.	Harmful errors decline (37.9%), unpreventable adverse effects decrease (12.6%), family-centered rounds occur more frequently (72.2%), and family involvement and family experiences increase by 55.6%.	Efforts: The I-PASS intervention was successful in reducing harmful medical errors, reducing adverse events, improving family experiences, and improving communication processes.
9	Mengozzi et al (2019) Italy	To develop and implement a "Charter of Rights and Obligations for Patient Empowerment" to enhance the empowerment of patients and health professionals.	All professionals at the Hematology and Bone Marrow Transplantation Unit Type: Doctors and non-medical staff	Results: All professionals participate in the study. The level of empowerment in the unit to both physicians and non-medical staff is very high. As a result, the charter and other communication tools are now recognized and shared by everyone.	Efforts: "Charter of Rights and Obligations for Patient Empowerment" stimulates professional and patient involvement that can improve patient safety.
10	Lachman et al (2015) English	To develop and test harm reporting tools for patients and families in the safe care.	Patients and families at Great Ormond Street Hospital	Use of the developed reporting tools demonstrate improvements in situational awareness and culture of safety. Results include increases in reporting of 'near-misses' and 'critical incidents' as well as positive changes in culture and staff reporting.	Efforts to use self-reporting tools increase active patient and family involvement and increase awareness of safety situations.
11	Lawton et al (2017) English	To evaluate the effectiveness of the "Patient Reporting and Action for a Safe Environment" (PRASE) intervention in improving patient safety.	33 wards from 5 hospitals in the UK; all patients who are able to provide informed consent.	The patient participation level is high (86%) and acceptance and unit retention are excellent (100%). Compliance $\geq 75\%$ shows a non-significant increase in new harms.	Efforts: PRASE intervention

No	Author, Year/ Country	Objective	Sample	Findings	Efforts to Increase Patient & Family Engagement
12	Zahrani et al (2023) Saudi Arabia	To evaluate patient safety from the perspective of inpatients and identify the influence of sociodemographic factors on their assessments.	1,569 adult inpatients (18 years old or more) from 17 hospitals in various regions of Saudi Arabia.	This study highlights the need to focus on better communication processes for patients with low levels of education to improve their engagement in medical care.	Efforts: identify better communication and feedback processes for patients with low levels of education to improve their engagement in medical care.
13	Shin et al (2021) Korea	To evaluate patient safety education programs	69 patients	The experimental group has significantly higher patient safety scores ( $t = 2.52$ , $p = 0.014$ ) and patient safety perceptions ( $t = 2.09$ , $p = 0.040$ ) than the control group. However, there is no significant difference between the two groups regarding willingness to participate in patient safety.	Efforts: a patient safety education program developed using mobile tablet PCs can be an effective tool to improve patient involvement in preventing events that threaten patient safety.

**Table 4.** Articles of Efforts to Improve Patient and Family Involvement (Qualitative Studies).

No	Author, Year/ Country	Objective	Sample	Findings	Efforts to Improve Patient & Family Involvement
1	Bergerod et al (2018) Norway	To explore the roles of the family in medical care and the strategies used to improve family involvement.	Managers (13) and health professionals (19) at two hospitals in Norway.	Non-formal strategies of family involving can identify 9 areas of family involvement and the challenges.	Efforts: Non-formal strategies involving patients & families, identifying areas of involvement and challenges in family involvement.
2	Merner et al (2019) Australia	To have caregivers (family/friends) of patients understand and perceive their contribution to patient safety in hospitals.	32 caregivers at the Australian hospitals.	Caregiver involvement is categorized into 3 levels: low (not concerned), medium (proactive) and high (controlling). Findings show that caregivers' experiences of negative consequences need to be reduced in order to value their contributions.	Efforts: Helping to understand the caregivers' perspectives and experiences in depth. This facilitates caregivers by listening to the perspective, increasing awareness of their involvement and mitigating negative experiences.
3	Cheginia et al (2020) Iran	To investigate barriers to patient involvement in the delivery of safe hospital care.	35 Iranian health professionals	Patient-related barriers: health literacy, education, patient reluctance and culture. Staff-related barriers: negative attitudes, ineffective communication, heavy workload and reluctance of doctors to engage with patients. Limited resources and	Efforts: identifying barriers to patient involvement to increase awareness among health professionals and policy makers to address barriers and thereby improve patient involvement.

No	Author, Year/ Country	Objective	Sample	Findings	Efforts to Improve Patient & Family Involvement
				inadequate training provided by universities and workplaces. Community-related barriers: poor information dissemination via social media and lack of community-based services.	
4	Duhn et al (2018) Canada	To explore patient perspectives: knowledge, comfort levels and behaviors to improve patient safety.	30 patients & 4 family members	Five conceptual themes emerge from their narratives: personal capacity, experiential knowledge, personal character, relationships, and meaning of safety.	Effort A 5-facet framework is a way to conceptualize the components that should be considered to engage patients in patient safety.
5	Goncalves et al (2020) Brazil Qualitative	To evaluate ludic strategies to encourage parent and caregiver involvement in pediatric patient safety measures.	17 parents and caregivers in a pediatric unit of a general hospital in Belo Horizonte, Minas Gerais, Brazil.	Three thematic categories emerge: learning about patient safety through games; game evaluation as a fascinating strategy to improve patient safety, and change of perceptions and behaviors of parents and caregivers in safety promotion actions.	Efforts: innovative ludic game strategies improve parent and caregiver knowledge and involvement in patient safety
6	Haldar et al (2020) United States of America	To understand patient experiences with undesirable events (UEs) and develop a conceptual model based on survey results.	242 participants from one pediatric hospital and one general hospital in an urban area of the United States.	The 4-stage conceptual model describes the inpatient experiences such as when they first encounter (UEs), when they are able to intervene, when adverse impacts occur, what types of adverse impact they experience and what they do in response to those adverse impacts.	The conceptual model requires informatics solutions to support patients at all stages of their experience by increasing UE awareness and improving patient participation and involvement.
7	Harris et al (2020) Norway	To identify risk elements that should be included in a patient-driven checklist of surgical patient safety.	25 postoperative patients and 27 healthcare workers in one tertiary teaching hospital and one tertiary hospital community in Norway.	Safety risk factors found for the checklist: preoperative information and preparation, postoperative information, planning and follow-up.	<i>Developing a surgical safety checklist.</i> Improving patient involvement and being more active in preventing surgical complications.
8	Louch et al (2017) English	To conduct a formative evaluation exploring the feasibility and acceptability of the PRASE (Patient Reporting and Action for a Safe Environment)	Five groups focus on hospital volunteers (n=15) Volunteer service staff and patient experience	All stakeholders support the PRASE intervention as a means to support service improvement including patient feedback and benefits of volunteer involvement.	The PRASE intervention conducted in collaboration with hospital volunteers is a promising approach to collecting patient feedback for service improvement.

No	Author, Year/ Country	Objective	Sample	Findings	Efforts to Improve Patient & Family Involvement
		intervention.	(n=3) Semi-structured interviews with ward staff (n=5)		
9	Etchegaray et al (2016) Great Britain	To evaluate the ability of patients and family to identify at least one factor that contributes to the adverse event they experience. The second objective is to understand the ways patients and family perceive adverse events, the causative factors and the recommendations for solving.	72 patients and family members who have experienced adverse events	All patients identify at least one factor and mostly 2 to 4 factors that contribute to adverse events. 9 factors that contribute to adverse events are environment, staff qualifications/knowledge, safety policies/procedures, communication, documentation, people, staffing, supervision/support, and equipment.	Efforts: involve patients or families to identify factors that contribute to adverse events and provide an understanding on the causes of the occurrence so that patient safety solutions can be recommended.
10	Hons et al (2021) English	To involve patients with vitamin B12 deficiency in discussions and provide opportunities to speak up, contributing to safety priorities.	12 patients with different demographics	The PPIE (Patient and Public Involvement and Engagement) workshop results in quality and safety priorities. One of the main issues with visual arts is feeling ignored, silenced, or not heard enough by health workers.	Efforts: Visual arts increase patient engagement by providing an opportunity to speak up and express concerns about the quality and safety of health services.
11	Newman et al (2022) Australia	To determine the suitability of strategies to increase the involvement of young patients.	19 people (14-25 years old)	Four key principles for involving young people in patient safety: Empowerment, transparency, participatory culture and flexibility.	Efforts: strategies tailored to the core principles of young patients and families increase young patient and family involvement.
12	Morris et al (2023) English	To examine patient and caregiver's views regarding their involvement in patient safety in primary care and the potential use of the patient safety guide for primary care (PSG-PC) to support patient and family involvement.	18 patients and/or caregivers	PSG-PC supports patient and caregiver involvement in patient safety. The level of involvement that patients routinely desire and the components of PSG-PC are useful in more complex and long-term caregiving responsibilities for family members.	An attempt to explore patient and caregiver's views on involvement and use of PSG-PC.
13	Russ et al (2021) London England	To evaluate the perceptions of MySurgery app users and analyze how the purposes of using the app may differ for different patients.	22 individuals with previous surgical experience, including 50% from minority ethnic backgrounds,	The majority agree that the app is acceptable and appropriate in terms of content and usability and helps educate patients about involvement in improving safety.	Efforts: The MySurgery app is trusted as a powerful tool to enhance patient empowerment and facilitate direct engagement with patients and their

No	Author, Year/ Country	Objective	Sample	Findings	Efforts to Improve Patient & Family Involvement
			59% with disabilities, and 36% from the LGBT+ community		caregivers in maintaining patient safety.
14	Louch et al (2019) English	To explore the implementation of the PRASE (Patient Reporting and Action for a Safe Environment) intervention conducted in collaboration with hospital volunteers from the perspective of key stakeholders.	<i>Three acute</i> NHS trusts in the United Kingdom	Positive views of volunteers: Hospital volunteers are positive about their involvement, and in some wards, they work with staff to come up with actions to improve services.	Effort: involving hospital volunteers as a provider for patient feedback on safety is a feasible way to implement the PRASE intervention.
15	New et al (2019) Canada	To explore patient safety from the perspective and experiences of patients with chronic kidney disease (CKD) and to describe the willingness to report incidents using existing safety reporting systems.	30 participants, the majority of whom are 50 years old or older.	Patient reluctance, lack of awareness and knowledge and the biggest barrier is fear of retaliation in reporting incidents.	Efforts: the barriers in exploring patient perspectives and willingness to report patient safety incidents need to be solved so that a psychologically safe environment can be created to facilitate patient and family involvement.
16	Voorden et al (2024) Dutch	To generate an overview of actions that can be taken to reduce the negative effects of patient participation on patient safety in the obstetrics department.	16 professionals (N=8) and patients (N=8) in the Department of Obstetrics of a tertiary academic center.	Eighteen identified actions are proven mitigated the negative impact of patient participation in patient safety. These actions are categorized into five themes: structure, culture, education, emotion, and physique and technology.	These five categories identify actions that focus on changing behaviors to be more patient-centered and improving patient involvement in patient safety.

## Supporting and Inhibiting Factors

In this review, we identify factors that support and inhibit patient and family involvement in efforts on safety. Supporting and inhibitory factors cover 4 major sections concerning patients and families, health workers and staff, systems and communities (Table 5; Figure 2).

**Table 5:** Supporting and Inhibitory Factors of Patient and Family Involvement.

Factors	Theme	Sub Theme	Sources	Quotation
<b>Supporting</b>	<b>Related to patients</b>	Knowledge/ Perception	Duhn et al (2018)	"To some extent, but adding, I wonder how some people understand it."
		Experience, Conditions & Consequences	Merner et al (2019)	"I remember one incident... when they were doing a lung extraction, which was very painful. And I remember trying to make sure that the staff knew what happened last time [the fluid was removed] so that this time they

Factors	Theme	Sub Theme	Sources	Quotation
			Duhn et al (2018)	<p>could give prophylactic pain relief so it wasn't so excruciating."</p> <p>"When we went to the hospital and [my daughter] had an adrenal crisis that needed immediate treatment, with a protocol that said, "Please treat me immediately, or I die," three out of our last four visits to the hospital, we had to fight with them about it, even though she had the letter. We had to fight and fight to get help."</p> <p>"So I try to come at dawn or whenever they let you in and then leave when they're ready to kick you out. I try to stop the situation before it happens because I'm scared."</p> <p>"I was amazed at the things I learned [in my daughter's prenatal class], and it wasn't just about what was happening to me, but also about things around me... from then on, I became much more aware of how important it is to know exactly what's going on."</p>
	Empowerment, Transparency, Participatory Culture, Flexibility		Newman et al (2022)	<p>"Yeah, and I'm thinking about people who maybe don't have—they don't have the level of confidence in communicating to be able to say to a doctor or a nurse, 'Hey, did you wash your hands?' Or, 'Why did you do that? You should have done this.' It feels like—it's a great idea, but to me, it doesn't—it doesn't make some people feel empowered and useful."</p> <p>"[Transparency] kind of takes away the smoke and mirrors where if you don't know the process, what's going on behind closed doors, that transparency can really help balance power and give that power back—in a way where if you have concerns about safety, you know a little bit more about the process."</p> <p>"My hospital has something similar where there's a nurse whom I got her work number... Yeah, so I'd text her if I was having a bad day or bad symptoms, and sometimes she'd tell me to go. She'd tell me to go to a rapid assessment or do whatever [unclear]. Oh, in the hospital, she'll come and check on me every day."</p> <p>"Everyone is ready at different times. Like me, I was really keen to see whatever it was, but I didn't really know how to ask. So, I think it's important to make people aware—to make people feel confident that there are things [information and support] that are accessible. Come at your own pace."</p>

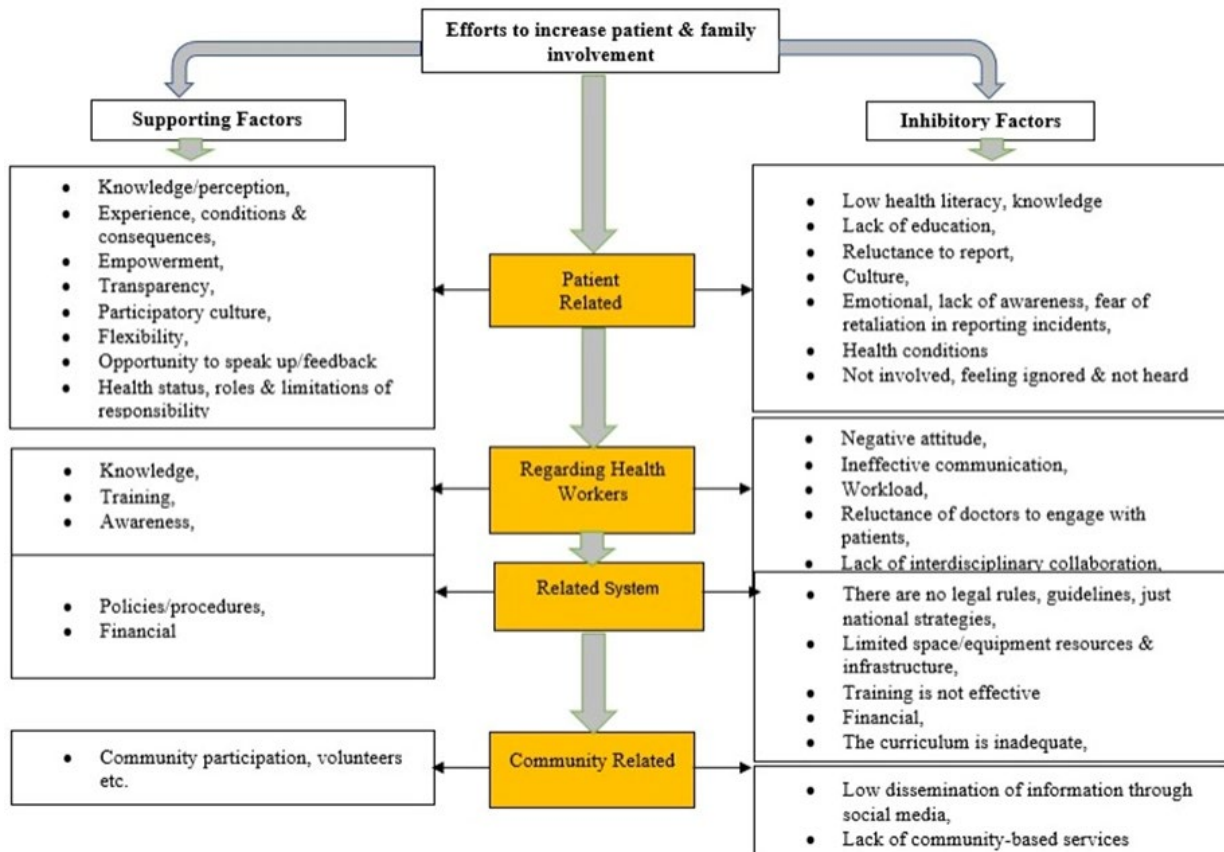
Factors	Theme	Sub Theme	Sources	Quotation
		Opportunity to Speak/Speak up/Feedback	Hons et al (2021) Morris et al (2022)	"I left this place today feeling like the door has been opened to finding ways for healthcare professionals to hear the voices of patients. From a patient perspective, it's interesting to me how similar our experiences are. It suggests that the issues raised are likely systemic."  "This [feedback] never occurred to me when I first got sick, and I think I could have prevented a lot of things from going wrong... you know, my disease management is much better."
		Health Status, Roles & Limitations of Responsibility	Morris et al (2022)	"I think it's good for people to have control over their medical issues and work, sort of, almost in partnership with their GP to figure out, you know, how to move forward."
	<b>Regarding health workers</b>	Knowledge		"You also see young doctors wanting to do things differently, but you also see that they are being taught new skills in their training as doctors. These are skills that we didn't get in the past and that we have to get if we want to keep up. With us, it's our habit and our culture to decide what's good for the patient. The whole transition to the patient as a partner that we're going to decide together is going to be very difficult. But if we're going to make it, it's going to take teaching the patient skills as well."
		Training	Voorden et al (2024)	Not found
		Awareness	Chegini et al (2020)	Not Found
	<b>System-related</b>	Policy/ Procedure	Chegini et al (2020)	Not Found
		Financial	Chegini et al (2020)	Not Found
	<b>Community-Related</b>	Community or Volunteer Participation	Morris et al (2022)	"I think it's important for people to have an understanding and responsibility for their own health issues and work, sort of, in partnership with their GP to figure out how to move forward."
<b>Inhibitory</b>	<b>Related to patients</b>	Low Health Literacy	Chegini et al (2020)	Not Found
		Knowledge	Duhn et al (2018)  New et al (2019)	"I can't tell you because there are too many difficult words."  "I don't know what the doctor is doing, whether it's right or not; I just have to follow it."
		Low Education	Bergerod et al (2018) Chegini et al (2020) Voorden et al (2024)	Not found
		Patient Reluctance, i.e. Reporting	Chegini et al (2020)	Not Found

Factors	Theme	Sub Theme	Sources	Quotation
		Incidents		
		Cultural Barriers, Emotional, Lack of Awareness & Fear Reporting	Bergerod et al (2018) Chegini et al (2020) New et al (2019)	Not Found "Patients are usually too sick and too scared."
		Health Conditions	New et al (2019)	"...it depends on the patient's health. When you are weak and can't think clearly, it is very difficult for you to do it."
		Not Involved, Feeling Ignored, Not Heard	Hons et al (2021) New et al (2019) Etchegaray et al (2016)	
	<b>Regarding health workers</b>	Negative Attitudes Towards Patient Involvement	Chegini et al (2020)	Not Found
		Lack of Effective Communication	Chegini et al (2020)	Not Found
		Limited Time	Morris et al (2022) Chegini et al (2020)	"I think [consultation] takes longer... about ten minutes. So you have to get to the point. It's not a social conversation... more focus on the point, and that's it."
		Heavy Workload	Chegini et al (2020)	Not Found
		Doctors' Reluctance to Engage with Patients	Chegini et al (2020)	Not Found
		Lack of Interdisciplinary Collaboration	Bergerod et al (2018)	"We had a patient who was dying in a lot of pain, and we felt that we had failed in some way or that we hadn't been able to provide the help that we wanted to, even though we had spent a lot of time with the consultants in the palliative team. Then, the nurses had an evaluation session, and we were invited to sit down and talk about it. We didn't have time to do that in the consultant group; I think that was the idea at the time..."
	<b>System-related</b>	No legal obligation, just a national strategy	Bergerod et al (2018)	Not Found
		Limited resources, infrastructure: space & equipment, location	Chegini et al (2020) Bergerod et al (2018)	Not Found "The room is too small. This can affect patient safety. (...). Too many patients and family members in one room. The equipment available is not enough. You need a lot of time to look for equipment and find a place. We have to use what we find because there is not enough space for everyone."
		Training is not effective.	Chegini et al (2020)	Not Found



Factors	Theme	Sub Theme	Sources	Quotation
		Financial	Chegini et al (2020)	Not Found
		Inadequate curriculum	Chegini et al (2020)	Not Found
		Structural barriers: no systematic approach	Bergerod et al (2018)	"We have had letters from patients and family members complaining that it is tiring to have to deal with new faces every time they come into the clinic. They come in every 14 days and haven't seen the same consultant in the last 16 weeks. It's really bad!"
		Areas where families are involved	Bergerod et al (2018)	Not Found
	<b>Community-Related</b>	Low spread intensity of information through social media	Chegini et al (2020)	Not Found
		Lack of community-based services	Chegini et al (2020)	Not Found

**Figure 2:** Framework of effort supporting and inhibitory factors.



## DISCUSSION

The main objective of this review is to examine the efforts being performed in hospitals to improve patient and family involvement. The main findings show that efforts to improve involvement are quite varied, so we must classify them in order to facilitate identification and understanding. This classification refers to the findings of,<sup>(16)</sup> which divide barriers to patient and family involvement into such four main categories as patients or families, officers and staff, systems, and communities. This classification is in line with the results of the review which also find that efforts to improve patient and family involvement can be grouped into these four categories. **Category 1:** Efforts through patient and family: providing education,<sup>(41)</sup> holding a perspective survey,<sup>(33)</sup> conducting interviews, collecting feedback, determining areas of patient and family involvement,<sup>(34)</sup> empowering patient, creating effective communications, exploring negative consequences,<sup>(37)</sup> and risk factors for health conditions and environment, and constructing game strategies and other strategies that involve patient and family.<sup>(22,28,38)</sup> **Category 2:** Efforts through health staff and officers: training and workshops and developing communication tools.<sup>(44,45)</sup> **Category 3:** Efforts through the system: implementation of the charter of rights and obligations of patients,<sup>(39)</sup> use of tools, technology and applications,<sup>(16-19,26,31)</sup> and development of guidelines,<sup>(43)</sup> identifying challenges and obstacles,<sup>(15)</sup> and analysis of theories, conceptual models and sociodemographic factors.<sup>(30,40)</sup> **Category 4:** Community efforts; collaborative strategies involving the community and volunteer.<sup>(25)</sup>

Research shows that patient and family involvement can be improved through efforts to enhance knowledge, coordination, communication and environment of medical care.<sup>(50)</sup> Education and training for staff as well as patient and family is proven improving knowledge and increasing awareness, confidence and collaboration,<sup>(12)</sup> Patient perspective is needed in the design and implementation of efforts in patient and family involvement.<sup>(13)</sup> Besides that, patient and family who have experienced safety incidents must be appointed as part of the hospital and community board in formulating improvement strategies, policies and patient safety programs.<sup>(5)</sup> Research shows that socio-status such as employment and environment influences patient perspectives; for example, employment rates determine access to health services, well-being and self-confidence, while unemployment can be the lowest positive rate.<sup>(40)</sup> The findings of this review also indicate limited collaborative efforts through the community which are still very rarely done. Therefore, hospitals need to develop holistic, evidence-based policies or strategies, and increasing collaborative efforts with the community is clear implications of our findings.

Another finding from our review is that patient and family involvement in pediatric and adolescent-adult patients requires a different approach. As conveyed by,<sup>(29)</sup> interactive games are effective for children's engagement in health care, while adolescents and adults are more responsive to engagement principles such as empowerment, transparency, participatory culture and flexibility.<sup>(38)</sup> The recommended solution is to develop intervention programs tailored to the age and specific needs of the patient group. The implication is that by tailoring engagement strategies to patient characteristics, hospitals can increase active patient and family participation that contributes to improved overall safety and quality of care.

We report that there are several supporting and inhibitory factors that influence patient and family involvement. These secondary findings require further research on the scope and complexity of factors that influence patient and family involvement in the hospital. The inhibitory factors are related to patients and family, health staff, systems and communities.<sup>(16)</sup> In line with the WHO report, initiatives to educate and improve active patient and family involvement globally are still very low.<sup>(14)</sup> There is a need for increased education for patients and family for their active involvement in the care process. Therefore, to enhance active engagement of patients and their families, a more massive educational innovation is necessary. Therefore, an educational program with more effective media and better access to health information is clearly needed to enhance patient and family engagement in hospitals.

Viewed from the system, there are obstacles such as financial limitations, facilities, minimal university curriculum standards, staff re-training in the practice area,<sup>(15)</sup> absence of legal obligations and systematic approach,<sup>(34)</sup> and the need for an organizational culture that supports transparency and values feedback from health service users.<sup>(9)</sup> To overcome barriers to patient and family involvement at the system level, financial support is necessary, increased patient education, staff training and organizational culture change. Legal regulations and systematic policies are essential to ensure effective and sustainable patient engagement. This implies a current need for legal, financial, and strategic policy support to implement patient and family engagement in hospitals and to involve the community as advisory boards—an approach that remains relatively uncommon.

The limitation of this scoping review is the potential exclusion of recent articles during the search process. Consequently, some newly published and relevant studies may not have been included in this analysis, potentially impacting the comprehensiveness and currency of the findings and conclusions.

## CONCLUSIONS

Efforts in improving patient and family involvement for patient safety in hospitals show progressive steps taken by patients and families, health workers, systems and communities. Various forms of efforts including education, training, use of technology, perspective surveys, collaborative and other policy-related strategies and feedback or the patient speak-up have provided a strong foundation to encourage active participation. However, there are major obstacles such as low health literacy, limited information, pain or physical weakness and facilitating the patient's speak-up. We find synchronization between the efforts being performed related to patient and family education and the main barrier from the patient and family side: low health literacy. It aligns with the 2023 WHO report. Therefore, it can be concluded that the efforts made so far have not contributed such significant impacts. At the system level, holistic and evidence-based policies have to be developed to ensure sustainable engagement as limitations such as financial support, lack of standardized educational curriculum and management support slow the progress. Meanwhile, at the community level, collaboration involving the community as an advisory board according to WHO's instructions and socialization is still rare. Further research is required to understand the factors that influence patient and family involvement in more depth and how to overcome existing barriers.

## FUNDING

This study was funded by scholarship funding from Indonesia Endowment Fund for Education Agency.

## DISCLOSURE

There are no conflicts of interest related to this review.

## REFERENCES

1. Slawomirski L, Aaraaen A KN. The economics of patient safety in primary and ambulatory care: flying blind. OECD Health Working Papers No. 106. Paris: Organisation for Economic Co-operation and Development. 2018;
2. Slawomirski L, Aaraaen A KN. The economics of patient safety: strengthening a value-based approach to reducing patient harm at national level. 2023;accessed 6.
3. WHO. Patient safety [Internet]. 2023. Available from: <https://www.who.int/news-room/fact-sheets/detail/patient-safety>
4. WHO. Global Patient Safety Action Plan 2021–2030. World Heal Organ. 2021;53(9):1689–99.
5. WHO. 10 facts on patient safety. 2019;
6. Giap T thanh tinh, Park M. Implementing Patient and Family Involvement Interventions for Promoting Patient Safety : A Systematic Review. 2021;17(2):131–40.
7. Khan A, Spector ND, Baird JD, Ashland M, Starmer AJ, Rosenbluth G, et al. Patient safety after implementation of a coproduced family centered communication programme: Multicenter before and after intervention study. BMJ. 2018;363.
8. Haslinda H, Rachmawaty R, Saleh A. Strategies to improve patients' involvement in achieving patient safety goals: A literature review. Enfermería Clínica. 2021;31:S609–13.
9. Newman B, Joseph K, Chauhan A, Seale H, Li J, Manias E, et al. Do patient engagement interventions work for all patients? A systematic review and realist synthesis of interventions to enhance patient safety. Heal Expect. 2021 Dec;24(6):1905–23.
10. Lee M, Lee NJ, Seo HJ, Jang H, Kim SM. Interventions to Engage Patients and Families in Patient Safety: A Systematic Review. West J Nurs Res. 2021 Dec 22;43(10):972–83.
11. Sharma BAE, Rivadeneira NA, Barr-walker J, Stern RJ, Johnson AK. Patient Engagement In Health Care Safety: An Overview Of Mixed-Quality Evidence. 2018;(November):1813–20.
12. Mackintosh NJ, Davis RE, Easter A, Rayment-Jones H, Sevdalis N, Wilson S, et al. Interventions to increase patient and family involvement in escalation of care for acute life-threatening illness in community health and hospital settings. Cochrane database Syst Rev. 2020 Dec;12(12):CD012829.
13. Cai Y, Bs YL, Student G, Zhang M, Jiang RY. Patient and family engagement interventions for hospitalized patient safety: A scoping review. 2024;(August 2023):2099–111.
14. WHO Member States. Implementation of the Global Patient Safety INTERIM

- REPORT Based on the first survey of patient safety in WHO Member States. 2023;
15. Wulandari ARC, Rachmawaty R, Ilkafah I, Erfina E. Patient satisfaction towards healthcare quality in Indonesian Public Hospital. *Enfermería Clínica*. 2021;31:S745–50.
  16. Chegini Z, Janati A, Babaie J, Pouraghaei M. Exploring the barriers to patient engagement in the delivery of safe care in Iranian hospitals: A qualitative study. *Nurs Open*. 2020;7(1):457–65.
  17. Russ SJ, Rout S, Caris J, Moorthy K, Mayer E, Darzi A, et al. The WHO surgical safety checklist: survey of patients' views. 2014;939–46.
  18. Knowles S, Hays R, Senra H, Bower P, Locock L, Protheroe J, et al. Empowering people to help speak up about safety in primary care: Using codesign to involve patients and professionals in developing new interventions for patients with multimorbidity. *Heal Expect*. 2018 Apr;21(2):539–48.
  19. Lachman P, Linkson L, Evans T, Clausen H. Developing person-centred analysis of harm in a paediatric hospital: a quality improvement report. 2015;337–44.
  20. Lawton R, Hara JKO, Sheard L, Armitage G, Cocks K, Buckley H, et al. Can patient involvement improve patient safety? A cluster randomised control trial of the Patient Reporting and Action for a Safe Environment ( PRASE ) intervention. 2017;622–31.
  21. Louch G, Hara JO, Mohammed MA. A qualitative formative evaluation of a patient-centred patient safety intervention delivered in collaboration with hospital volunteers. 2017;(March):1143–53.
  22. Etchegaray JM, Ottosen MJ, Aigbe A, Sedlock E, Sage WM, Bell SK, et al. Patients as Partners in Learning from Unexpected Events. *Health Serv Res*. 2016 Dec 2;51:2600–14.
  23. Hons NT, Giles S, Hons BA. ORIGINAL RESEARCH PAPER A patient and public involvement workshop using visual art and priority setting to provide patients with a voice to describe quality and safety concerns: Vitamin B12 deficiency and pernicious anaemia. 2021;(June 2020):87–94.
  24. Morris RL, Giles S, Campbell S. Involving patients and carers in patient safety in primary care: A qualitative study of a co-designed patient safety guide. *Heal Expect*. 2022 Apr;26(2):630–9.
  25. Russ S, Sevdalis N, Ocloo J, Russ S. A Smartphone App Designed to Empower Patients to Contribute Toward Safer Surgical Care: Qualitative Evaluation of Diverse Public and Patient Perceptions Using Focus Groups Corresponding Author: 2021;9.
  26. Louch G, Mohammed MA, Hughes L, O'Hara J. "Change is what can actually make the tough times better": A patient-centred patient safety intervention delivered in collaboration with hospital volunteers. *Heal Expect*. 2019 Feb;22(1):102–13.
  27. Cox ED, Jacobsohn GC, Rajamanickam VP, Carayon P, Wetterneck TB, Rathouz PJ, et al. A Family-Centered Rounds Checklist, Family Engagement, and Patient Safety: A Randomized Trial. 2017;139(5).
  28. Lewis KD, Destino L, Everhart J, Subramony A, Dreyer B, Allair B, et al. Patient and Family-Centered I-PASS SCORE Program: Resident and Advanced Care Provider Training Materials. *MedEdPORTAL J Teach Learn Resour*. 2022;18:11267.
  29. Goncalves KM de M, Costaa MTTCA, Silva DCB, Baggio ME, Corrêa A dos R, Manzo BF. Ludic strategy for promoting engagement of parents and caregivers in the safety of pediatric patients. 2020;1–8.
  30. Haldar S, Mishra SR, Pollack AH, Pratt W. Informatics opportunities to involve

- patients in hospital safety : a conceptual model. 2020;27(October 2019):202–11.
31. Bishop AC, Baker GR, Boyle TA, MacKinnon NJ. Using the Health Belief Model to explain patient involvement in patient safety. *Heal Expect.* 2015 Dec;18(6):3019–33.
  32. Duckworth M, Adelman J, Belategui K, Feliciano Z, Jackson E, Khasnabish S, et al. Assessing the Effectiveness of Engaging Patients and Their Families in the Three-Step Fall Prevention Process Across Modalities of an Evidence-Based Fall Prevention Toolkit: An Implementation Science Study. *J Med Internet Res.* 2019 Jan;21(1):e10008.
  33. New L, Goodridge D, Kappel J, Groot G, Dobson R. “ I just have to take it ” – patient safety in acute care : perspectives and experiences of patients with chronic kidney disease. 2019;1–11.
  34. Duhn L, Medves J. A 5-facet framework to describe patient engagement in patient safety. *Heal Expect.* 2018 Dec;21(6):1122–33.
  35. Bergerød IJ, Dalen I, Braut GS, Gilje B, Wiig S. Measuring next of kin satisfaction with hospital cancer care: Using a mixed-method approach as basis for improving quality and safety. *J Adv Nurs.* 2020;76(5):1232–46.
  36. Bergerød IJ, Gilje B, Braut GS, Wiig S. Next-of-kin involvement in improving hospital cancer care quality and safety - A qualitative cross-case study as basis for theory development. *BMC Health Serv Res.* 2018;18(1).
  37. Harris K, Søfteland E, Moi AL, Harthug S, Storesund A, Jesuthasan S, et al. Patients’ and healthcare workers’ recommendations for a surgical patient safety checklist - a qualitative study. *BMC Health Serv Res.* 2020 Jan 16;20(1):1–10.
  38. Merner B, Hill S, Taylor M. “ I ’ m Trying to Stop Things Before They Happen ”: Carers ’ Contributions to Patient Safety in Hospitals. 2019;
  39. Newman B, Joseph K, McDonald FEJ, Harrison R, Patterson P. Using consumer engagement strategies to improve healthcare safety for young people: An exploration of the relevance and suitability of current approaches. *Heal Expect.* 2022 Dec;25(6):3215–24.
  40. Mengozzi C, Campaniello G, Aversa F, Re F, Calatafimi B, Albertini R, et al. The “ Patient ’ s Empowerment rights-duty Charter ”: new communication tools targeted at patient and professionals in a Hematology and Bone marrow transplant center. 2019;90(1):233–40.
  41. Zahrani AK Al, Alaska YA, Alqahtani NM, Alotaibi F. The Impact of a Patient Participating in Evaluating Patient Safety by Using the Patient Measure of Safety in Saudi Arabia : A Cross-Sectional Study. 2023;19(6).
  42. Shin SH, Kim MJ, Moon HJ. Development and Effectiveness of a Patient Safety Education Program for Inpatients. 2021;
  43. Voorden M Van Der, Franx A, Ahaus K. Actions for mitigating the negative effects of patient participation in patient safety : a qualitative study. 2024;1:1–11.
  44. Lewis KD, Destino L, Everhart J, Subramony A, Dreyer B, Allair B, et al. Patient and Family-Centered I-PASS SCORE Program: Resident and Advanced Care Provider Training Materials. *MedEdPORTAL J Teach Learn Resour.* 2022;18:11267.
  45. Khan A, Spector ND, Baird JD, Ashland M, Starmer AJ, Rosenbluth G, et al. Patient safety after implementation of a coproduced family centered communication programme: multicenter before and after intervention study. *BMJ.* 2018 Dec;363:k4764.
  46. Bergerød IJ, Braut GS, Fagerdal B, Gilje B, Wiig S. Developing a Next-of-Kin Involvement Guide in Cancer Care — Results From a Consensus Process. 2021;44(6):447–57.

47. Duhn L, Medves J, Dean V. ORIGINAL RESEARCH PAPER A 5- - facet framework to describe patient engagement in patient safety. 2018;(January):1122–33.
48. Chegini Z, Arab-Zozani M, Shariful Islam SM, Tobiano G, Abbasgholizadeh Rahimi S. Barriers and facilitators to patient engagement in patient safety from patients and healthcare professionals' perspectives: A systematic review and meta-synthesis. Nurs Forum. 2021 Oct;56(4):938–49.
49. Bergerød IJ, Gilje B, Braut GS, Wiig S. Next-of-kin involvement in improving hospital cancer care quality and safety - a qualitative cross-case study as basis for theory development. BMC Health Serv Res. 2018 May;18(1):324.
50. Goodridge D, McDonald M, New L, Scharf M, Harrison E, Rotter T, et al. Building patient capacity to participate in care during hospitalisation: A scoping review. BMJ Open. 2019;9(7).

ISSN 1695-6141

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