Journal of
Kerman University of Medical Sciences

https://jkmu.kmu.ac.ir
10.34172/jkmu.3925
JKMU. 2026;33:3925

Original Article

Open Access
Publish Free

Policy Analysis of the Patient Safety Culture Program in Iran Using the Policy Analysis Triangle Framework

Mahdieh Sarhadi[1*]

[1]Department of Nursing, School of Nursing and Midwifery, Health Promotion Research Center, Zahedan University of Medical Sciences, Zahedan, Iran

*Corresponding Author: Mahdieh Sarhadi, Email: sarhadi.nurssing@gmail.com

Abstract

Background: Healthcare is one of the most complex human activities that is inherently associated with a high potential to create risk. To this end, the present study aimed to perform a policy analysis of the patient safety culture program in Iran and present some recommendations for necessary reforms.

Methods: The present study was conducted using a policy analysis approach and a retrospective design following Walt and Gilson's (1994) policy analysis triangle framework. Various methods were used to analyze the patient safety culture program, including reviewing the literature and related documents. Furthermore, to validate the research findings, a qualitative study was conducted using guided content analysis, and semi-structured interviews were conducted with nine subject-matter experts.

Results: The policy analysis of the patient safety culture program found that most of the actors who played a role in establishing and implementing the program did not perform well in promoting patient safety culture in Iranian hospitals, and the infrastructures necessary for its implementation are not available in many hospitals in Iran. Thus, factors that require prompt intervention, including non-punitive response to errors, management support, staff shortages, and interdisciplinary teamwork, need to be considered as action priorities.

Conclusion: Patient safety in hospitals should be classified as a strategic priority based on the existing infrastructure and organizational culture of Iranian hospitals and be implemented in the form of detailed plans of action. Thus, adapting the required training in the undergraduate nursing program and considering the interests of all stakeholders can contribute to the full establishment of this program across hospitals.

Keywords: Policy analysis, Patient safety, Safety culture, Iran, Health, Politics

Citation: Sarhadi M. Policy analysis of the patient safety culture program in Iran using the policy analysis triangle framework. *Journal of Kerman University of Medical Sciences*. 2026;33:3925. doi:10.34172/jkmu.3925

Received: May 1, 2025, **Accepted**: October 6, 2025, **ePublished**: January 11, 2026

Introduction

Care organizations are constantly making efforts to improve, recognize, and appreciate safety culture (1). The World Health Organization (WHO) considers patient safety a serious public health issue worldwide and a significant concern in the healthcare delivery system (2, 3). This type of culture reflects staff attitudes, management strategies, and values related to health risk and safety management (2). Thus, safety culture can be broadly defined as "a global phenomenon, which includes the norms, values and basic assumptions of the whole organization" (4, 5), which is presented as an essential strategy to correct the numerous shortcomings related to patient safety (2).

It can also be used at different levels of the healthcare system and as a subset of organizational culture to support individuals' safe activities in health organizations (2, 6). In addition, evaluating the existing safety culture policies in a healthcare institute or organization can help identify problem areas, increase managers' awareness of employees' views and behaviors about patient safety (7).

Policy analysis studies are widely used in the health system today. Policy analysis takes a holistic and systematic approach to policies, including their relationship with the political system, economic conditions, actors, and stakeholders, to decide, implement, and evaluate the policies (8).

A review of the literature indicated that several studies have been published on the challenges, strengths, weaknesses, and other issues related to safety culture in Iran. However, no study has used a single framework to address these issues from the perspective of policy science and using health policy analysis models. Thus, to raise the awareness of the factors affecting the formation, development, and implementation of the patient safety culture program, the present study aimed to identify

the factors effective in policymaking in this program. This study also evaluated the available evidence on how challenging the development and implementation of this policy have been and how successful it has been in achieving its initial goals. The findings of this study can help policymakers identify barriers to this policy in the past and also specify the factors affecting the implementation of the policy. Accordingly, this study conducts a policy analysis of the ongoing patient safety culture program in Iranian hospitals.

Methods

This policy analysis study was conducted using a retrospective approach. Different models and frameworks can be used to conduct policy analysis. In this study, Walt and Gilson's (1994) policy analysis triangle framework was used to analyze the patient safety culture program. This framework is widely used in the field of policy analysis (9). The same framework was used to analyze the findings of this study. The policy analysis triangle has three elements: process, content, and context, and the actors are at the center of this framework. This framework shows how these four elements interact with each other in shaping and implementing a policy. Actors are a set of individuals, groups, and organizations that are involved in or influenced by the implementation process. Content refers to a set of planned goals and actions that bring policy to fruition. Context refers to a set of national and international political, economic, and social systemic factors that may affect health policy. Finally, process refers to all the actions carried out during the implementation of the policy (10). This framework has been mainly recommended for use in developing countries and is used to analyze problems and find solutions to cope with them, and it can be used to analyze how a set of different factors are involved in an issue or problem or make it persist (11).

The data needed to perform policy analysis of the patient safety culture in Iran were collected from various sources and informants through the following steps:

1. To find all documents and articles on the patient safety culture program, national and international databases, including SID, Iran Medex, Elsevier, CINAHL, MEDLINE, and

PubMed were searched using the keywords including "Policy Analysis," "Patient Safety," "Safety Culture," "Policy," "Program," "Health," and "Iran" during the period 2010–2025. A total of 250 articles were identified by searching the mentioned keywords. After reviewing the titles and abstracts and excluding irrelevant articles, the full texts of the remaining articles were reviewed. Finally, following the objectives of the study, 56 articles were selected for analysis. To ensure complete coverage of relevant information, several related Persian journals and documents related to hospital-level patient safety culture were also manually searched. Then, the identified articles were reviewed, and the related materials were scanned and extracted using a goal-directed method. Thus, only data that could be included in the policy analysis triangle framework were extracted and recorded.

2. The documents related to patient safety culture programs, instructions of the Ministry of Health and Medical Education, internal instructions and communiqués at universities, related guidelines, and management visit reports across universities and hospitals were also examined. The sources and documents were selected by surveying subject-matter experts, including nursing managers, hospital safety managers, and patient safety committees. A total of 77 documents were reviewed (Table 1).

3. All the materials extracted using the mentioned procedures were reviewed, and the data were extracted and analyzed according to the policy analysis triangle framework. The findings obtained under the triangle framework were further evaluated by conducting semi-structured interviews with nine key informants, including nurses, head nurses, hospital managers, and patients and their families (Table 2). The semi-structured interviews were conducted with the respondents who were selected through purposeful sampling focused on all aspects of the policy triangle, including content, context, actors, and implementation process, and previous findings were reviewed or supplemented. The interviews were conducted to confirm and supplement the findings from the previous steps, and the respondents were asked to talk about any issues that were missing and needed to be added to the findings of the study. Guided content analysis was performed to extract data from the articles, documents, and interviews. To this end, all sources and texts of the interviews were coded in the form of categories representing the elements of the policy triangle framework. Moreover, the letter "D" was used for the documents, and the letter "I" was used for the interviews.

Results

The findings of this study were presented and analyzed based on the four elements of the policy analysis triangle framework, including actors, content, context, and process.

Actors

According to the findings of this study, the most important individuals or institutions playing a role in establishing a patient safety culture in the health system were the World Health Organization, the British Department of Health and Social Care, the American Medical Association (AMA), the Ministry of Health and Medical Education, medical universities, senior hospital managers, patients and their families, medical staff including nurses, physicians, and paramedics, and insurance organizations. Table 3 details the influential actors in establishing a

Table 1. A description of the reviewed documents related to the policies of the patient safety culture program

Row	Type of document	Issuing authority	Frequency
1	Instructions of the Ministry of Health and Medical Education	Ministry of Health and Medical Education	10
2	Internal instructions and circular letters of universities	Universities of medical sciences	9
3	Related guidelines	Teaching hospitals affiliated with medical universities	10
4	Managerial visits	Teaching hospitals affiliated with medical universities	3
5	Documentation of the availability of the patient safety strategy (in the hospital strategic plan)	Teaching hospitals affiliated with medical universities	4
6	Hospital safety plans of action	Teaching hospitals affiliated with medical universities	8
7	Appointment of a patient safety expert	Teaching hospitals affiliated with medical universities	1
8	Job description for the patient safety expert	Universities of Medical Sciences	1
9	Description of the duties and missions of the patient safety coordinator	Universities of medical sciences	1
10	Appointment letter of the patient safety coordinator	Teaching hospitals affiliated with medical universities	1
11	Minutes of the Committee on Mortality and Disabilities	Teaching hospitals affiliated with medical universities	6
12	Lists of essential equipment	Teaching hospitals affiliated with medical universities	4
13	Policies and procedures for disinfection and sterilization of all reusable medical devices	Teaching hospitals affiliated with medical universities	2
14	Lists of equipment and tools necessary for immediate sterilization	Teaching hospitals affiliated with medical universities	6
15	Staff qualifications and educational certificates	Teaching hospitals affiliated with medical universities	2
16	Reviews of medical records	Teaching hospitals affiliated with medical universities	3
17	Patient identification policy	Teaching hospitals affiliated with medical universities	1
18	Instructions for identifying patients without wristbands or patients with similar names	Teaching hospitals affiliated with medical universities	1
19	Procedures for immediate reporting of critical allied medicine test results	Universities of medical sciences	1
20	Methods to ensure that patients are informed of the main results of allied medical tests	Universities of medical sciences	2
21	Organizational structure and description of duties and missions of the infection prevention and control committee	Universities of medical sciences	2
22	Infection prevention and control policies and procedures	Universities of medical sciences	2
23	Procedures for disinfection and sterilization of equipment with special emphasis on high-risk wards and units	Teaching hospitals affiliated with medical universities	1
24	Blood and blood product guidelines	Teaching hospitals affiliated with medical universities	1
25	Pre-blood transfusion policies and procedures	Teaching hospitals affiliated with medical universities	1
26	Access to vital medicines	Teaching hospitals affiliated with medical universities	1
27	Health Waste Disposal Management Guide	Teaching hospitals affiliated with medical universities	1
28	Waste disposal management procedures	Teaching hospitals affiliated with medical universities	2
29	Sharps disposal guidelines	Teaching hospitals affiliated with medical universities	2
30	Other documents	Teaching hospitals affiliated with medical universities	3

patient safety culture and presents the role of each and the challenges associated with each in the policy process. As can be seen, most of the actors who play a role in establishing and implementing patient safety policy have not contributed to improving performance.

Content

One of the most important health-related issues, especially in medical centers, is the quality of care. Quality of care is itself composed of different parts, and patient safety is one of the most important, but research in the field of health indicates the inadequacy of safety conditions in patient care and thus highlights the need for improving therapeutic processes and procedures (16).

Estimates in various studies indicate that in developed countries, one in 10 patients is injured while receiving care (17). In Iran, there are no reliable statistics on the rate of medical errors, but the Ministry of Health and Medical Education has announced that every year, billions of tomans are spent on the maintenance and care of patients in hospitals due to medical errors (2). There are many types of medical errors. The content of this policy was criticized for the following reasons:

The failure to create change in healthcare organizations

Changing and overcoming these barriers requires moving from a critical culture to a safety culture, reducing medical errors, and improving patient safety. The results of a study showed that changing an organization to improve the patient safety culture requires significant development,

Table 2. The participants' information in the interview

Row	Position	Sampling place	Number
1	Hospital managers	Teaching hospitals affiliated with medical universities	1
2	Head nurses and nurses	Teaching hospitals affiliated with medical universities	9
3	Patients and their caregivers	Teaching hospitals affiliated with medical universities	10
4	The university clinical governance office	Teaching hospitals affiliated with medical universities	3

Table 3. The status of actors contributing to the policymaking process and establishing the patient safety culture in Iranian hospitals

Actors	Roles	Challenges
World Health Organization	Developing a safety and risk mitigation culture, encouraging research into patient safety, developing evidence-based policies, and institutionalizing the plans for patient safety-friendly hospitals (12)	The World Health Organization has identified two significant challenges to patient safety: Acquired infections from health services and threats from unsafe surgeries (13)
Ministry of Health and Medical Education	Executor	Weak leadership due to the failure to prepare the necessary infrastructure Lack of transparency of information in the Ministry of Health and Medical Education
National universities of medical sciences	Executor	The absence of effective leadership and lack of adequate infrastructure at all levels (14, 15)
Senior hospital managers and physicians	Executor	Failure to create changes in executive organizations
Nurses	Due to their proximity to patients, nurses are in a unique position to improve patient safety. This position provides nurses with the insight needed to identify problems in health care systems as part of a patient safety solution.	Fear of punishment and lack of hospital support
Patients and their families	Service recipients	Lack of adequate awareness
Insurance organizations	Facilitators	Not participating in the program

as the support of senior executives and changes in values, beliefs, and behaviors of employees are necessary (18). The results of a study in California, USA, showed that cultural changes are long-lasting and may not be associated with specific process improvements (19).

Fear of reporting errors

In the systematic method, which is an accepted approach, 80% of the errors are caused by the system, and unless the system is corrected, the possibility of error will not be reduced, and people will continue making mistakes. Thus, the possibility of errors and the associated risks can be reduced by systematically evaluating the events and then looking for ways to prevent their recurrence. The key to achieving safety is error management with a systematic approach (20). Unfortunately, studies and interviews with nurses showed that some healthcare systems in Iran still use the individual method of addressing errors, and the hospital management does not provide sufficient support to staff when they make mistakes. According to one of the nurses working in the teaching hospitals affiliated with the University of Medical Sciences:

"*The possibility of errors goes up when you have a tough shift and a seriously ill patient. However, instead of management support, your overtime and performance-based allowances are deducted if an error occurs. For this reason, in the case of a minor error, I will try not to report it.*" (Participant #1)

Therefore, the biggest challenge on the road to a safer health system is to change the culture from blaming people for their errors to a culture in which errors are seen not as individual failures but as opportunities to improve the system and prevent harm. Some studies have shown that one of the most important issues that needs serious attention is reporting adverse events and errors. Various studies have found that negligence or resistance to reporting errors is due to fear of the culture of criticism (2). Managers have failed to create a patient safety culture that reduces errors, and failure to report errors indicates fear of job loss, punishment, or loss of credibility.

The fourth aspect of examining the patient safety culture is related to embarrassment and the consequences of errors. Thus, it is important to facilitate reporting errors and talking about a dangerous accident for the medical staff. All types of errors, unintended accidents, and adverse events should be considered information to improve the system, leading to more learning and experience in patient safety (5). In an organization where the employees are blamed for their mistakes, the mistakes are not revealed, and as a result, no one learns anything, and processes do not improve. An organization that promotes reporting errors encourages organizational learning and improves patient safety (21). However, some studies have suggested that a positive safety culture may be associated with an increase in medication errors. However, this may be because healthcare staff are more likely to report unfavorable events, and as a result, the error rate appears to be higher (5).

This approach gives nurses the insight needed to identify problems in healthcare systems and offer patient safety solutions. As mentioned earlier, non-disciplinary response to errors has received the lowest score in various studies, which requires more attention from the officials of medical centers. Ebadi et al examined the safety culture of patients in selected hospitals of Tehran University of Medical Sciences. Interdisciplinary teamwork within the hospital units had the highest score, and the non-punitive response to errors had the lowest score (7). Furthermore, Baghaei et al studied the patient safety culture in educational and treatment centers affiliated with Urmia University of Medical Sciences and reported that intradisciplinary teamwork was the strength, and non-punitive response to errors, work issues related to healthcare staff, frequency of incident reporting, open communication channels, and management support for patient safety were areas in need of improvement in the safety culture of the hospitals under study (22). Although the Ministry of Health and Medical Education has developed a comprehensive manual of national accreditation standards for Iranian hospitals and made it available to all Iranian hospitals, the following are required for greater accountability of hospitals and for monitoring and evaluating them:

1. Motivating health workers
2. Focusing on the health care system and preventing individualism in the workplace
3. Reducing individual blame, establishing effective international laws, and employing sufficient staff
4. Promoting management support and considering patient safety as a collective responsibility
5. Revising the current patient safety policy
6. Establishing an appropriate mechanism for monitoring patient safety in hospitals (2, 23)

Disregard for interdisciplinary teamwork

As the fifth dimension, safety learning behaviors address the extent of communication among staff and the use of several educational methods to learn safe behavior and involve patients and their families in the process of accident analysis. Vinagre and Marques (2018) showed that the dimensions of communication, teamwork, and continuous improvement of safety culture were valued by the participants (24). The results of a study also showed that after staff training, awareness of teamwork and joint decision-making improved (2).

Lack of management support for patient safety culture

Managers are the only people who can create the culture and commitment needed to address the causes of medical errors and injury to patients. When leadership and management are committed to a safety culture, the whole organization follows them, so exposing undesirable incidents and finding their root causes will be an organizational process. By increasing hospital management support for patient safety, the frequency of accident reporting, and overall staff understanding of safety increases (2, 25).

The first dimension of safety culture highlights organizational leadership and the value of safety from the perspective of senior managers (supervisors and metrons) and employees, and gives priority to safety culture in the organization. The concept of leadership also focuses on the role of supervisors in promoting a safety culture through rewards and support for staff. In addition, the management of the organization committed to providing safe care is recognized as one of the underlying factors for improving patient safety (26). For example, researchers in the United States confirmed that improving patient safety at the highest organizational level begins with a change in leadership style and ultimately improves outcomes using data from 200 hospitals (2). The results showed that safety culture needs to be improved (27-28). A qualitative study by Farokhzadian et al. (2015) showed that poor quality of supervision and control, poor resource management, management incompatibility, ineffective management, and incompetent managers and leaders were challenges that were reported by the participants(15).

Furthermore, Moghery (2010) showed that managers should focus on the needs of their staff, be aware of their expectations, and take steps to improve the quality of services provided to patients by raising standards (29). In addition, by applying quality management in hospitals and holding practical training courses for medical staff, the latest functional standards and treatment methods can be taught. Thus, holding courses to introduce the dimensions of clinical governance and accreditation standards can be a big step to reduce medical errors through training and raising staff awareness in the field of patient safety (D3).

Staff's unawareness of patient safety culture

The staff's perception of safety affects their reporting of unsafe events and their understanding of the importance of financial and human resources, safety equipment, staff shortage, fatigue, and personal problems (30). Some studies have found a positive association between safety culture and employee safety behaviors. For example, one organization in the United States showed that strengthening the safety culture reduced the healthcare workers' use of high-risk medications (31). A study in Taiwan also showed how organizational culture may affect patient safety behavior in the hospital (32). A study in the United States also found that implementing a patient safety program over five years had an impact on employee safety culture and made significant improvements in employee teamwork, safety culture, job satisfaction, and management (33).

Staff shortage and workload

Staff shortage and inexperience can weaken the institution's ability to provide safe patient care. Thus, nurses' higher workload leads to lower quality of patient care and safety. The invisible workload generated by the increasing safety programs can have dire consequences for nursing staff and, consequently, patients and the organization. Papastavrou et al reviewed 17 quantitative studies and reported that workload was a potential factor in nursing outcomes, including job satisfaction, and an important organizational variable related to patient safety and quality of care (34).

According to Sanderson and Cook (2007), major crises have occurred in organizations with insufficient staff (35). Of course, this type of behavior is determined by what is considered acceptable in the workplace by the nursing staff and its effective implementation after formal workforce programs providing efficient training, improving nurses' experience to care for patients, and promoting patient recovery and nursing outcomes. In addition, the results indicated that patient characteristics affect nursing care.

Context

Based on the available evidence, the contextual factors effective in the patient safety program can be classified into four categories: situational, structural, cultural, national, and transnational.

Situational factors

It is noteworthy that during these vast changes, the nursing profession faced challenges that affected their response to this reform (2, 3, 36).

However, since healthcare policies in any country are influenced by the prevailing ideology, a wide range of issues must be considered. These include promoting effective health maintenance, supporting self-management in chronic disease, ensuring a uniform care structure across medical centers, prioritizing healthcare quality and patient safety, developing guidelines for specialists (especially nurses), enhancing care quality and safety, preventing declines in service delivery, clarifying shared responsibilities of nurses and other caregivers, balancing healthcare supply and demand, fostering role models for caregivers, assessing the need for additional nursing specialties, addressing emerging ethical challenges, designing effective incentive systems, and advancing evidence-based decision-making. Together, these factors can shape the future prospects of healthcare services (2, 3, 21, 25, 37).

Structural factors

In the Iranian health system, physicians play a prominent role in policymaking and administration. Their simultaneous presence in the decision-making hierarchy, such as the Ministry of Health, Parliamentary Health Commission, insurance organizations, and the private sector, can cause conflicts of interest. Nursing managers need to understand the policies that affect the organization to be able to persuade policymakers to make decisions that benefit their organizations (21, 25). Nurses must understand how the policy is constructed and implemented so that they can influence the policymaking process and make decisions. Without understanding policy development, no nurse will be engaged in the process.

Cultural factors

The first step in implementing a plan is to create the correct culture between the provider and the recipient. It is understood that there is a cultural gap in healthcare services. The results of studies on the characteristics mentioned for a strong and active safety culture include the management's commitment to discussing mistakes and learning from them, understanding the criteria of patient safety and improving them, encouraging and practicing teamwork, considering potential risks, useing reporting systems, performing secondary analysis of events, and praising and appreciating staff who improve safety (4, 30). The salient features of such a culture include the non-concealment of errors and incidents and their detection, staff training in patient safety, the existence of a reporting system for various types of errors, the use of reporting system data to improve processes, reduction of individual blame, teamwork, transparent communication between units and wards for the benefit of the patient, and the manager's attention to security. According to Kaiser (as cited in Ford & Savage), the characteristics of the safety culture are (1) warning employees and those responsible for reducing the risk, (2) observing and detecting errors as an opportunity to improve system safety, (3) creating a safe and non-punitive environment for people to report mistakes in peace, (4) communicating honestly and openly and the ability to keep information reliably, (5) reporting errors and learning from them through specific mechanisms, (6) paying compensation to people harmed due to errors, and (7) being committed to values and having a sense of responsibility (2, 20).

National and transnational factors

Policy-making not only deals with national strategy documents, but also focuses on how they are implemented by managers and ultimately how they are used by healthcare professionals, patients, and more broadly, by the community that is the target of policy change.

However, the Iranian health system has always faced the challenge of poor implementation of approved policies and executive programs. One of the most important reasons is the complexity, the existence of conflict between the different sectors of the health system, political interventions, and social and cultural contexts

and the interaction between them, which complicates the policymaking and policy implementation process. If the policies of governments and the health system are not formed for the effective establishment of a patient safety culture, no progress will be made in this area.

Process

To better implement the patient safety culture policy, the Ministry of Health, Treatment, and Medical Education has introduced accreditation measures that are among the mandatory patient safety standards, some of which are detailed below. The evaluation checklists of 20 mandatory standards for patient safety-friendly hospitals state that senior management is committed to patient safety.

Standard No. A.1.1.1 states that patient safety in the hospital is a strategic priority and is being implemented in the form of a detailed plan of action (D 5, 6):

Providing instructions on the formulation of a plan of action for 19 patient safety standards and nine patient safety solutions to head nurses and managers of clinical departments (D1)

Standard No. A.1.1.2 specifies that one of the staff members with the necessary authority should be appointed as the manager of the patient safety program in the hospital (D7). Accordingly, the job description of the patient safety expert in the hospital and the appointments of patient safety experts were examined.

Standard No. A.1.1.3 states that senior hospital management should conduct a regular patient safety management visit program to improve patient safety culture, identify hazards in the system, and intervene to improve opportunities. In addition, the hospital guarantees the correct identification of patients and their confirmation in all stages of treatment (D4).

Standard No. C.1.1.1 specifies that the hospital should have an effective clinical system that ensures patient safety (D2).

The hospital has a system to reduce the risk of acquired infections from health services. Under sub-standard C.21.1, the hospital has an infection prevention and control program, including an organizational chart, plan of action, manual, and guidebook (D2).

The hospital has a safe waste disposal management system. Under sub-standard No. D.2.1.1, waste should be separated and identified by color-coding at production.

Under sub-standard No. D2.1.2, the hospital follows the sharps disposal guidelines provided by the World Health Organization (D 27, 28, 29). One metron stated;

"*It seems that this plan has progressed somewhat well. One of the useful measures in this regard is the website of the Ministry of Health and Medical Education, where all the instructions are available. There are also some instructions related to patient safety.*" (Participant #2)

The clinical governance officer of the hospital stated:

"*One of the effective actions that has been taken is the formulation of the accreditation measures, almost 90% of which consider the issue of patient safety and often mark it with an asterisk.*" (Participant #6)

One of the managers stated:

"*We have prepared special forms to monitor the incidence of accidents, adverse events, and actions. These include forms related to events such as falling from the bed, which must be submitted to the Office of Clinical Governance in less than 6 hours. Then, we visit the ward, interview the patient and the caregiver, and try to solve the problems related to the bed or the ward.*" (Participant #9)

One of the patient safety experts stated:

"*We have installed some boxes inside the ward and read the medication errors reported by nurses anonymously. If the number of errors exceeds the standard limits, we will try to investigate and eliminate the underlying causes*" (Participant #3).

Accordingly, the British Department of Health and Social Care and the American Medical Association (AMA) have also recommend that healthcare organizations adopt safe care techniques by taking into account 1) organizational factors, such as work ethic and sense of security, 2) environmental factors, such as staff at different organizational positions and management support, 3) group work-related factors, such as teamwork and leadership, and 4) personal factors, such as self-confidence while doing a task (2, 21, 25).

Specific components of the safety culture, such as information and awareness, may also affect employee outcomes and behavior. Researchers in the United States have shown that educating medical students about patient safety makes them more likely to intervene clinically to prevent medical errors.

Discussion

This study conducted a policy analysis of patient safety culture in Iran. Various factors have been and are involved in this policy process, and they have been categorized into four categories of actors, content, context, and process according to the policy analysis triangle framework. According to the body of evidence obtained during this study, and following the findings of various studies, patient safety is a vital component of the quality of healthcare (38). Although it is easy to enumerate the characteristics of a safety-based culture, significant transformation is necessary to become an organization in which patient safety becomes a value (39).

The present study examined the current state of patient safety culture by reviewing the available evidence and interviewing several experts in this field. Overall, hospitals in Iran are ranked at a relatively average level in terms of patient culture and safety climate. Issues such as the type of response of organizations to errors and mistakes made, issues that occur during transfers and shifts in hospitals,

coordination and cooperation among different hospital units, and the lack of error reporting systems or the existence of inefficient systems are among the weaknesses of Iranian hospitals in the field of patient safety. Hospitals can take steps to improve patient safety by building on their strengths and weaknesses (11).

As one of its contributions, the present study presented a comprehensive review of the available evidence and related documents on patient safety culture in the Iranian health system and validated the results by surveying subject-matter experts. Using one of the most widely used and well-known conceptual policy analysis frameworks, the policy analysis triangle, which has been developed for use in middle- and low-income countries, this study tried to explore all important factors influencing the success or failure of this policy from the drafting stage to its formulation and implementation. There is little research in health policy in Iran, and the findings of this study can be used by researchers and students in various fields of health, especially health policy students.

However, this study was conducted with some limitations. First, the initial analysis was performed by the researcher, and the researcher's personal opinions might have affected the results. Second, the number of qualitative interviews conducted in this study was relatively limited. Thus, subsequent studies can interview more people at different positions to arrive at more reliable evidence. Furthermore, it is essential to design a comprehensive study to collect quantitative and qualitative data to conduct a pathological analysis of this policy from the implementation to the time of the study and, finally, to make the necessary reforms along the path.

Conclusion

The findings of this study also showed that the use of frameworks and models fitting the country's indigenous conditions, including the policy analysis triangle framework used in this study, can help analyze health policies, as the constituent elements of these frameworks interact with each other in shaping and implementing these policies. Therefore, it is suggested that health policymakers and decision-makers base their policies on a suitable scientific model to make it easier to examine the successes and failures, as well as the strengths and weaknesses of health policies.

Acknowledgments

The author would like to appreciate all those who participated in the interviews and contributed to conducting this research project, especially the officials and staff at Khatam al-Anbia Hospital in Zahedan.

Competing Interests

The authors declare that they have no competing interests.

Data Availability Statement

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation, upon reasonable request to the corresponding author.

Ethical Approval

The project was approved by the institutional review board of Zahedan University of Medical Sciences (IR.ZUMS.REC.1402 097) from the Ethics Committee of Zahedan University of Medical Sciences.

Funding

This research received no financial support from any funding agency in the public, commercial, or not-for-profit sectors.

References

1. Izadi AR, Drikvand J, Ebrazeh A. The patient safety culture in Fatemeh Zahra hospital of Najafabad, Iran. Health Information Management. 2013;9(6):895-907. https://him.mui.ac.ir/article_12179.html?lang=en
2. Sarhadi M, Soltani Nejad S, Arbozia M, Moein H. The challenges in patient safety culture and its solutions. J Iran Med Council. 2023;41(2):134-42.
3. Sok May C, Sivanandy P, Ingle PV, Manirajan P. Assessment of patient safety culture among healthcare providers in tertiary hospitals in Malaysia-a cross-sectional study. Health Sci Rep. 2024;7(10):e70035. doi: 10.1002/hsr2.70035
4. Aboul Fotouh AM, Ismail NA, Ez Elarab HS, Wassif GO. Assessment of patient safety culture among health-care providers at a teaching hospital in Cairo, Egypt. East Mediterr Health J. 2012;18(4):372-7.
5. The Health Foundation. Does Improving Safety Culture Affect Patient Outcomes? 2011. Available from: https://twitter.com/healthfdn.
6. Salavati S, Fanoosi T, Dehghan D, Tabesh H. Nurses' perspectives on patient safety culture. Iran Journal of Nursing. 2013;26(84):24-33.
7. Ebadi Fard Azar F, Rezapoor A, Tanoomand Khoushehmehr A, Bayat R, Arabloo J, Rezapoor z. Study of patients' safety culture in selected training hospitals affiliated with Tehran University of Medical Sciences. Journal of Hospital. 2012;11(2):55-64.
8. Gholipoor R, Mafi Moradi S, Rahnavard F, Abooyee Ardakan M. Analysis of policy process, a neglected approach to health policy studies in developing countries: an inquiry into the causes and implications for researchers. Payesh. 2019;18(4):415-7.
9. Walt G, Gilson L. Can frameworks inform knowledge about health policy processes? Reviewing health policy papers on agenda setting and testing them against a specific priority-setting framework. Health Policy Plan. 2014;29 Suppl 3:iii6-22. doi: 10.1093/heapol/czu081
10. Buse K, Mays N, Walt G. Making Health Policy. 2nd ed. McGraw-Hill Education (UK); 2012.
11. Doshmangir L, Ravaghi H. Theories and models of policymaking for doing health policy analysis. Hakim Res J. 2015;18(1):68-82.
12. Bahadori M, Soltanzadeh P, Salimi M, Raadabadi M, Moghri J, Ravangard R. Application of WHO model for evaluating Patient Safety Friendly Hospital Initiatives (PSFHI) in an Eye hospital in Tehran, Iran. Electron Physician. 2013;5(2):631–6. doi:10.14661/2013.631-636
13. Alidadi a, Amerioun A, Sepandi M, Hosseini Shokouh SM, Abedi-Firouzjah R, Zibadel L, et al. The Opportunities and Challenges of the Ministry of Health and Medical Education for Improvement of Healthcare System. Health Research Journal. 2016;1:179–91. doi:10.18869/acadpub.hrjbaq.1.3.179
14. Allen S, Chiarella M, Homer CS. Lessons learned from measuring safety culture: an Australian case study. Midwifery.

2010;26(5):497-503. doi: 10.1016/j.midw.2010.07.002
15. Farokhzadian J, Nayeri ND, Borhani F. Rocky milieu: challenges of effective integration of clinical risk management into hospitals in Iran. Int J Qual Stud Health Well-being. 2015;10:27040. doi: 10.3402/qhw.v10.27040
16. Mahfoozpour S, Mojdehkar R. Attitudes of health caregivers on teamwork and safety climate in an educational medical center. Pak J Med Sci. 2010;26(2):450-3.
17. World Health Organization. Patient safety [Internet]. Geneva: World Health Organization; 2019 [cited 2024 May]. Available from: https://www.who.int/news-room/fact-sheets/detail/patient-safety
18. Shahrabadi R, Moeini B, Roshanai GH, Dashti S, Kafami V, Haghighi M. Assessing Hamedan's nurses perceptions of patient safety cultures dimensions. Journal of Hospital. 2014;12(4):83-90.
19. Nævestad TO, Hesjevoll IS, Phillips RO. How can we improve safety culture in transport organizations? A review of interventions, effects and influencing factors. Transp Res Part F Traffic Psychol Behav. 2018;54:28-46. doi: 10.1016/j.trf.2018.01.002
20. Kiridjievska LV, Popovska MB. Building a strong safety culture: reducing errors in healthcare organizations. KNOWLEDGE-International Journal. 2023;59(1):23-7.
21. Anjum F, Din BR, Ashraf S. Patient safety and quality improvement: reducing medical errors in healthcare. Multidisciplinary Journal of Healthcare (MJH). 2024;1(2):13-23.
22. Baghaei R, Nourani D, Khalkhali HR, Pirnejad H. Evaluating patient safety culture in personnel of academic hospitals in Urmia University of Medical Sciences in 2011. J Urmia Nurs Midwifery Fac. 2012;10(2):1-10.
23. Azami-Aghdash S, Ebadifard Azar F, Rezapour A, Azami A, Rasi V, Klvany K. Patient safety culture in hospitals of Iran: a systematic review and meta-analysis. Med J Islam Repub Iran. 2015;29:251.
24. Vinagre T, Marques R. Strategies for an effective safety culture and prevent errors in nursing: literature review. Int J Nurs. 2018;5(1):25-32. doi: 10.15640/ijn.v5n1a4
25. Levine KJ, Carmody M, Silk KJ. The influence of organizational culture, climate and commitment on speaking up about medical errors. J Nurs Manag. 2020;28(1):130-8. doi: 10.1111/jonm.12906
26. Wickramasinghe N, Geisler E. The Adoption and Implementation of Knowledge Management in Healthcare Operations. Managing Worldwide Operations & Communications with Information Technology; 2007. p. 91-5.
27. Mosadeghrad AM. Patient safety in Iran: challenges and opportunities. Int J Health Care Qual Assur. 2014;27(2):116-32
28. Lee CT, Doran DM. The role of interpersonal relations in healthcare team communication and patient safety: a proposed model of interpersonal process in teamwork. Can J Nurs Res. 2017;49(2):75-93. doi: 10.1177/0844562117699349
29. Moghery J. Accreditation of Questionnaire of Patient Safety Culture from Health Care Personnel Viewpoint [dissertation]. Tehran: Tehran University of Medical Sciences; 2010. [Persian].
30. Friesen MA, Farquhar MB, Hughes R. The Nurse's Role in Promoting a Culture of Patient Safety. Center for American Nurses; 2005.
31. McDiarmid MA, Condon M. Organizational safety culture/climate and worker compliance with hazardous drug guidelines: lessons from the blood-borne pathogen experience. J Occup Environ Med. 2005;47(7):740-9. doi: 10.1097/01.jom.0000165751.21088.46
32. Chen IC, Ng HF, Li HH. A multilevel model of patient safety culture: cross-level relationship between organizational culture and patient safety behavior in Taiwan's hospitals. Int J Health Plann Manage. 2012;27(1):e65-82. doi: 10.1002/hpm.1095
33. Pettker CM, Thung SF, Raab CA, Donohue KP, Copel JA, Lockwood CJ, et al. A comprehensive obstetrics patient safety program improves safety climate and culture. Am J Obstet Gynecol. 2011;204(3):216.e1-6. doi: 10.1016/j.ajog.2010.11.004
34. Papastavrou E, Andreou P, Efstathiou G. Rationing of nursing care and nurse-patient outcomes: a systematic review of quantitative studies. Int J Health Plann Manage. 2014;29(1):3-25. doi: 10.1002/hpm.2160
35. Sanderson J, Cook G. ABC of Patient Safety. Vol 2. United Kingdom: Blackwell; 2007.
36. Yazdani S, Nikravan Mofrad M, Ahmadi S, Zagheri Tafreshi M. An analysis of policies of the Iranian health care system in relation to the nursing profession. J Qual Res Health Sci. 2016;5(2):211-20.
37. Faridi S, Farsi Z, Rajaei N, Najafi Kalyani M. The effect of electronic training of patient safety principles on the level of patient safety culture in nurses working in a selected military hospital in Tehran. Mil Caring Sci. 2022;9(4):369-82. doi: 10.22034/9.4.369
38. Glendon AI, Clarke S. Human Safety and Risk Management: A Psychological Perspective. Boca Raton: CRC Press; 2015. doi: 10.1201/9781420004687
39. Abdi J, Maleki M, Khosravi A. Staff perceptions of patient safety culture in selected hospitals of Tehran University of Medical Sciences. Payesh. 2011;10(4):411-9.