Iranian nurses' attitudes towards the disclosure of patient safety incidents: a qualitative study

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Research Article

Keywords: Disclosure, qualitative content analysis, patient Safety, Attitude

Posted Date: January 27th, 2023

DOI: https://doi.org/10.21203/rs.3.rs-2501935/v1

Abstract

Background: Patient safety is the first vital step in improving quality in all health organizations. Statistics suggest that patients and officials are unaware of a large number of patient safety incidents in healthcare centers. A correct attitude towards the disclosure of patient safety incidents is effective in reporting them in hospitals. Reporting errors is fundamental to error prevention. The present study aimed to explain the concept of disclosure of patient safety incidents from the perspectives of Iranian nurses.

Materials: This qualitative content analysis study was done in 2021-2022 in Hormozgan, Iran. The aim was to explain the experiences of Iranian nurses (n = 17) using purposive sampling and semi-structured, in-depth interviews. Maximum variation sampling was considered to obtain rich information. Guba and Lincoln criteria were used to increase the study trustworthiness and rigor.Graneheim and Lundman method were used to analyze data.

Results: We extracted 443 codes, one theme, four categories, nine Subcategories. The main theme was the mental schemas of disclosure of patient safety incidents with four categories: 1- misconception of harm to the organization or a person, 2- opinions about the disclosure process and outcome, 3- opinions about behaviors, and 4- inner conflict between feelings.

Conclusion: Since an attitude towards the disclosure of patient safety incidents determines the behavior of disclosure, health officials should create a positive attitude towards disclosure in nurses and take an effective step to prevent incidents. This will improve patient safety and satisfaction, and hospital quality.

Background

Patient safety incidence are known as an inevitable event in the health care system [1]. Patient safety incidence increase the cost of hospitalization and medical expenses in both developed and developing countries which lead to decrease the quality of healthcare systems and patient safety [1,2]. In Iran, some documents demonstrate the possibility of high patient safety incidents rate in the healthcare system of Iran. Based on the reports, one of 150 patients dies due to outcomes of patient safety incidence in hospitals [1,3].

The World Health Organization (WHO) defines the disclosure of patient safety incidents as an event that can lead to unnecessary harm to the patient [4], but there is no detailed information about disclosure patient safety incidents in developing countries, such as Iran because healthcare workers avoid reporting them [5,6]. According to some Iranian studies, the reporting rate of patient safety incidents varies from one hospital to another in Iran, but 60% of the physicians and 55% of the nurses avoided reporting the incidents to the patients and authorities [7, 8].

A quantitative study on 20 hospitals in northern Iran showed that only 186 out of 317,966 admitted patients (0.06%) received incident reports; the most reasons were no attitude towards the disclosure of safety incidents and discloser's punishment [9]. Several studies indicated that the attitude of healthcare

workers, especially nurses, is one of the factors influencing the disclosure of patient safety incidents [10, 11].

Attitude is one's positive or negative orientation towards a social or personal thing based on mental schemas, and individual's knowledge, experiences, perception, personal culture, social culture, organizational culture and religion can have an effect on these schemas [12]. Hashemi et al. studied the perception of nursing error reports among 115 nurses working in hospitals affiliated to Tehran University of Medical Sciences. They found that Iranian nurses avoided disclosing patient safety incidents due to lack of knowledge and proper attitude towards the disclosure of incidents, and lack of support from the managers [13]. Bifftu et al. (2015) studied management of nursing errors in the United States and considered the lack of attitude towards the disclosure of patient safety incidents as one of the most important reasons why nurses avoided reporting incidents [14]. The review of literature shows that lack of attitude towards the disclosure of patient safety incidents has an effective role in not reporting incidents and Disclosure errors is fundamental to error prevention [1,13,14]

Attitude is an abstract phenomenon; therefore, qualitative research can provide in-depth and detailed information about phenomena and behaviors. We decided to conduct a qualitative research to explain nurses' attitudes towards the disclosure of patient safety incidents to better manage safety incidents.

Methods

Study design and setting

This descriptive-explorative study was conducted using conventional content analysis, which purpose is to search in documents and information collected through interviews or field observations [15]. Limitations available in quantitative analysis can be settled by qualitative content analysis; therefore, qualitative content analysis categorizes or codes words and themes and focuses on interpreting and understanding texts [16]. We tried to discover the latent and manifest content. The study population was nurses working in hospitals affiliated to Hormozgan University of Medical Sciences (HUMS), military hospitals and private hospitals in Bandar Abbas.

Sampling, participants, and data collection

We reached data saturation using purposive sampling from January 2021 to September 2021. Eleven female and six male nurses aged 27-59 years with a work experience of 3-34 years (Table 1) were included based on the inclusion criteria. Semi-structured, in-depth face-to-face interviews were conducted. The first sample was chosen because of her good ability in speaking and ten years of work experience. The first researcher (a PhD candidate) conducted the interviews; she conducted four interviews again to remind the participants and one additional interview to eliminate her misconception, so she conducted 21 interviews. The inclusion criteria were participants with a diploma or bachelor's/higher degrees in nursing, at least six months of clinical experience and direct or indirect involvement in patient care. Data saturation was achieved after 21 interviews with 17 participants. To maintain the maximum variation

sampling, all nurses with different ages, education levels, work experiences and job positions were used (committed nurse, experienced nurse, head nurse, matron, supervisor). We required interviewing with nurses working in patient safety unit as well as in military and private hospitals. All interviews were conducted in the hospitals affiliated to Hormozgan University of Medical Sciences in Bandar Abbas.

We conducted interviews using the guidelines of Charmaz 2014: opening questions, intermediate questions, and ending questions [17,18]. An example of opening questions was as follows: would you please express your experience of patient safety incidents? Intermediate questions were: how did you feel about disclosing the incident? What was your reaction after finding the patient safety incident? Why did you avoid disclosing the incident? What was your feeling for not disclosing the incident? "What were your concerns about disclosure or non-disclosure of the incident? The ending question was: If you feel like you missed a key word or phrase during the interview, please express it. Each interview lasted 45-90 minutes.

Data analysis

We performed the following steps based on the five steps proposed by Graneheim and Lundman (2004):

1) Transcribe interviews immediately; 2) Read the entire text of the interview to get a general understanding of the content; 3) Determine meaning units and primary codes; 4) Categorize similar primary codes into more comprehensive categories and subcategories based on similarities and differences; and 5) Determine the latent content [19].

First, all interviews were transcribed verbatim and then were read several times. Meaning unites were determined using words, phrases or paragraphs that contained important points about nurses' attitudes towards the disclosure of patient safety incidents; condensed meaning units were labeled and coded. The codes were compared in terms of similarities and differences, and then the similar codes were merged. Subcategories were developed based on appropriateness and similarity. Then, categories, the main characteristic of qualitative content analysis, were developed. Backward-forward comparison was used to ensure the strength of the codes; categories and subcategories were compared several times and then the main theme was obtained. MAXQ2020 was used for data analysis. Qualitative data analysis lasted from January 2021 to October 2021 (10 months). Table 2 illustrate summarizes the analytical procedure used for each text, subcategories, categories, and theme. Table 3 present all theme, categories and subcategories

Trustworthiness

Guba and Lincoln criteria were used in the present study: credibility, dependability, confirmability, transferability, and authenticity [20]. Triangulation, unstructured interview, prolonged engagement, member checking, peer debriefing, and maximum variation sampling were used for data credibility [21]. In order to ensure the researcher’s credibility, the research team members experienced in conducting qualitative research were used. Credibility in the present study was determined through the triangulation

(semi-structured, in-depth interview, memoing, and filed notes) and audit trail (correct interview technique, careful copying and analysis of the authors). The data confirmability was extracted from the participants' conversations and the authors set aside their views and motivations. Transferability was determined through description of the research method, the characteristics of the participants, the data collection and analysis, and examples of the participants' statements [22]. The researcher observed the principle of authenticity by obtaining participants' informed consent, respecting their statements, discovering interpersonal relationships, and explaining the research method to the participants [23].

Results

We extracted 443 codes from the data analysis. After reviewing, removing and merging duplicate or similar codes, we determined one theme, four categories and, nine sub categories. The theme was schemas of the disclosure of patient safety incidents with four categories: 1- misconception of harm to the organization or a person 2- opinions about the disclosure process and outcome, 3- opinions about behaviors 4- inner conflict between feelings. Each of the categories consisted of a number of Subcategories.

Theme: schemas of the disclosure of patient safety incidents

We concluded that attitudes were schemas that acted as a hidden mechanism in a person when disclosing incidents. Schemas are based on reality or experience and shape individuals' responses and behaviors. According to the participants, the schema of disclosure of patient safety incidents consisted of Four categories: misconception of harm to the organization or a person, opinions about the disclosure process and outcome, opinions about behaviors and the inner conflict between feelings.

1- Misconception of harm to the organization or a person

Participants believed that disclosure of incidents affected the hospital prestige and threatened their personal positions in the hospital and the hospital's position in society, so they had no positive attitude towards the disclosure of the incidents. According to Table 3, This category consisted of two Subcategories included misconception of harm to the individual's position and misconception of harm to the organization's position.

A- Misconception of harm to the individual's position

The participants argued that disclosure of patient safety incidents compromised the offender's position in the organization and the job position of the discloser. The offender's reduced acceptability, reduced job promotion, occupational incompetency, and ruined prestige in front of the patient prevented the disclosure of patient safety incidents.

"If we disclosed the incident, the head nurse and nurse would be fired." (Participant No. 3, a 34-year-old female nurse with 12 years of work experience in the ICU)

“I avoided disclosing the incident because I would lose the trust of others.” (Participant No. 17, a 29-year-old female nurse with 7 years of work experience in the internal medicine department)

B- Misconception of harm to the organization's position

The participants thought that the disclosure of patient safety incidents damaged the hospital reputation and dignity, and healthcare workers working in the hospital would lose their social acceptability. Participants also mentioned reduced social acceptability of the hospital, damaged professional dignity of the nurses, and damaged hospital accreditation.

“If the patient becomes aware of the incident immediately, he or she will lose his/her trust in the healthcare team.” (Participant No. 7, a 36-year-old male nurse with 17 years of work experience in the emergency ward)

“Too much disclosure of patient safety incidents will drop the department's performance indicators, so, we avoid reporting many incidents.” (Participant No. 3, a 34-year-old female nurse, with 12 years of work experience in the ICU)

A competitive atmosphere in Iranian private hospitals for attracting patients was one of the most important factors influencing the disclosure of patient safety incidents.

“We avoid disclosing the incidents in private hospitals because patients lose their trust in the hospital.” (Participant No. 9, a 28-year-old male nurse with six years of work experience in the burn emergency department)

2- Opinions about the disclosure process and outcome

The participants mentioned the process and outcome of the disclosure of patient safety incidents. This category consisted of two Subcategories: beliefs in the disclosure process and beliefs in the disclosure outcome.

A- Beliefs in the disclosure process

Non-disclosure of non-harmful incidents, disclosure of harmful incidents, non-disclosure of compensated incidents, offender’s disclosure, non-disclosure of frequent incidents were factors that determined participants’ attitudes and behaviors towards the disclosure of patient safety incidents.

“We reported the incident because it was serious and we could not ignore it.”(Participant No.1, a 33-year-old female nurse with a 10-year work experience in the emergency ward)

“We did not report the incident because the patient was fine and had no problem.” (Participant No. 10, a 35-year-old female nurse with 10 years of work experience in the surgery ward)

“I quickly reported the incident and the anesthetist intubated the patient again. I reported it because I had no idea how to compensate for it, but I did not report previous incidents because I could solve them.” (Participant No. 11, a 38-year-old female nurse with 13 years of work experience in the CCU & Cath lab)

B-Beliefs in the disclosure outcome

Disclosure to prevent further harm, learning from the incident, respect for the patient's right to know about the incident, and ineffective disclosure outcome were some of the factors considered by the participants.

Nurses participated in the study believed that they should disclose incidents that have positive outcomes for the patient, so they had a positive attitude towards the positive outcome of the disclosure of patient safety incidents but a negative attitude towards the negative outcome of the disclosure.

“I reported the incident because I did not want to cause more harm to the patient.” (Participant No. 17, a 29-year-old female nurse with seven years of work experience in the internal ward)

“We reported the incident to learn and prevent it from happening again.” (Participant No. 2, a 32-year-old male nurse with 14 years of work experience in the military hospital)

3- Opinions about behaviors

The study participants mentioned three factors: negative beliefs in punitive behaviors, beliefs in supportive behaviors of the organization, and negative beliefs in patients’ behaviors.

A- Negative beliefs in punitive behaviors

The study participants had a negative attitude towards the disclosure of patient safety incidents because they were afraid of being punished by the organizational authorities. This Subcategory consisted of: belief in the inability to predict the reaction of authorities, belief in the existence of authoritarian and harsh management, and belief in the organizational punishment.

“I think disclosure is the right thing to do, but I regretted reporting the incident when I saw that the management mechanism was tyrannical.” (Participant No. 8, a 27-year-old male nurse, with four years of work experience in the CCU ward)

“My colleague administered the wrong medication for which she was reprimanded and severely punished. Based on this experience, I have chosen not to report the incident.” (Participant No. 12, a 30-year-old female nurse with 6 years of work experience in the postpartum & pediatric ward)

B- Beliefs in the supportive behaviors of the organization

Belief in the organizational incentive, belief in organizational non-punishment, and belief in the impact of organizational support on the disclosure were among factors mentioned by the participants.

“I reported an incident because the hospital gave incentives and increased the monthly salary of those who reported incidents.” (Participant No. 10, a 35-year-old female nurse with 10 years of work experience in the nursing management office)

“We always report errors because we are sure that the authorities will support us and there will be no problems for us.” (Participant No. 4, a 37-year-old female nurse with 15 years of work experience in the surgery ward)

C- Negative beliefs in the patients’ behaviors

Study participants reported the following negative beliefs: disclosure led the patient to file a legal complaint, disclosure led the patient's companion to physically assault, disclosure led the patient to misinterpret the incident, and disclosure made the patient anxious.

“I was replaced by someone who had been fired for a patient safety incident and heavily fined by the court, so I was afraid to report my mistakes and tried not to report them.” (Participant No. 7, a 36-year-old male nurse with 17 years of work experience in the emergency ward)

"Unfortunately, in all experiences I have had or witnessed, when an incident occurs, patient companions do not behave appropriately, and this inappropriate behavior by physicians and patients led us not to report the incidents.” (Participant No. 6, a 27-year-old male nurse with three years of work experience in the ICU & internal ward)

4- Inner conflict between feelings

A person experiences inner conflict that is the result of the confrontation of desires, the battle of moral beliefs, mental conflicts, feelings of insecurity and confusion, experience, doubts. The study results showed that the inner conflict between emotions was effective in nurses’ attitudes towards the disclosure of patient safety incidents. This category contained two Subcategories: shame and embarrassment that prevented disclosure, and internal conditions that caused disclosure.

A- Shame and embarrassment that prevented disclosure

The study participants admitted that shame and embarrassment affected their attitudes towards the disclosure of patient safety incidents. This subcategory consisted of: feeling ashamed of being blamed by patients, feeling ashamed of being blamed by colleagues, feeling ashamed of being mocked by colleagues, feeling ashamed of being blamed by doctors.

“We avoid reporting incidents because patients blame us, which makes us feel guilty.” (Participant No. 1, a 33-year-old female nurse, with 10 years of work experience)

“I was a new nurse, so I was afraid that my colleagues would make fun of me; I did not want my colleagues to point their fingers at me.” (Participant No. 5, a 49-year-old female nurse with 22 years of work experience in the general surgical & psychiatric)

B- Internal conditions that caused disclosure

Some internal factors rooted in religion, beliefs and personality characteristics of people and affected nurses' attitudes towards the disclosure of patient safety incidents. This subcategory included: feeling guilty, feeling responsible, seeing God as an observer, having an obligatory sense to disclose oneself.

"I will report incidents in order not to feel guilty; if I had caused a patient death, I would not have had a comfortable life." (Participant No. 15, a 32-year-old female nurse with nine years of work experience in the postpartum)

"I reported an incident because my religion and the moral principles are more preferable to me. Nothing is hidden from Almighty God." (Participant No. 3, a 34-year-old female nurse with 12 years of work experience in the ICU)

Discussion

We conducted this qualitative study to gain a deeper perception of Iranian nurses' attitudes towards the disclosure of patient safety incidents. The present study showed that nurses experienced many negative opinions, feelings and outcomes when disclosing safety incidents. According to the review of literature, although some Iranian studies have examined surgeons, interns, and nursing students' attitudes towards the disclosure of patient safety incidents [24, 25], this was the first qualitative study that examined Iranian nurses' attitudes towards the disclosure of patient safety incidents.

The analysis of nurses' experiences revealed four main issues affecting their attitudes towards the disclosure of patient safety incidents: 1) misconception of harm to the organization or a person, 2) opinions about the disclosure process and outcome, 3) opinions about behaviors, and 4) inner conflict between feelings

Misconception Of Harm To The Organization Or A Person

The study results showed that the disclosure of patient safety incidents could damage the acceptability of the hospital, the professional position of nurses, and hospital accreditation, which affected nurses' attitudes towards the disclosure of patient safety incidents. Safarpour supported our results and indicated that the disclosure of patient safety incidents threatened patients' trust in doctors [25]. KIM (2020) showed that some patients or colleagues lost their trust in nurses due to the disclosure of patient safety incidents, which affected their attitudes towards the disclosure of patient safety incidents [4].

Choi Eun Young (2019) suggested that nurses were afraid of losing patients' trust, which affected their attitudes towards the disclosure of patient safety incidents [33]. Hashemi (2012) indicated that the disclosure of patient safety incidents caused job insecurity and changed the job position, which were effective in creating a negative attitude and preventing disclosure behavior [26]. Although other studies and our study showed that the disclosure of patient safety incidents reduced social trust and

acceptability of the hospital [4, 27], some studies showed that the disclosure of patient safety incidents could increase social acceptability and trust in the health organization [28, 29].

We noticed the effect of the disclosure of patient safety incidents on the hospital accreditation, but no study directly indicated the effect of the disclosure of patient safety incidents on the hospital accreditation. ITO (2005) found that accreditation was effective in social acceptability of the health organization [30]. Various countries, such as Iran, have included standards related to the disclosure of patient safety incidents in their accreditation guidelines [31, 32]. The different process of accreditation in Iran might have caused this finding in our study.

We recognized that the effect of the disclosure of patient safety incidents on the relationship between patients, nurses, and the health organization was effective in creating negative attitudes towards the disclosure of patient safety incidents and preventing the disclosure behavior because the disclosure of patient safety incidents could threaten the relationship between nurses, patients, and the health organization. Therefore, health organizations must not treat a discloser as a criminal and support the professional and occupational position of nurses to improve their attitudes towards the disclosure of patient safety incidents [33].

Beliefs In The Disclosure Process And Outcome

The study results indicated that the beliefs in the disclosure process and outcome had an effect on the nurses' attitudes. The severity of the harm, nurse's reaction to the incident, the recovered incident, the frequent incidents and the ineffectiveness of the disclosure affected nurses' attitudes towards the disclosure of patient safety incidents and different disclosure behaviors. Positive outcomes after the disclosure of patient safety incidents (including respecting for the patient's rights, learning from the incident, and preventing further harm) led to a positive disclosure attitude. Laura (2012) agreed with us and believed that the disclosure of patient safety incidents was necessary where the patient was seriously harmed (34). Ock (2020) found that the severity of the injury made doctors have different attitudes towards the disclosure of patient safety incidents [35]. Young (2019) revealed that a medical expert would soon be aware of an incident if necessary and the healthcare team had to compensate for the incident [33].

The present study showed that the positive outcomes of disclosure were effective in nurses' attitudes towards the disclosure of patient safety incidents because they improved patient safety and respected patients' rights. One of the outcomes of disclosure of patient safety incidents is that the disloser learns from the incident, which can reduce the recurrence of that incident. Mahajan (2010) showed that the disclosure of patient safety incidents could improve the knowledge of the discloser or prevent reoccurrence and played an effective role in improving patient safety [36]. Canadian patient safety institute reported a direct correlation between the disclosure of patient safety incidents and the patient rights [37]. The overall review of the findings showed that the nature of the incidents and the positive outcome after the disclosure were effective in nurses' different behaviors and attitudes towards the

disclosure of patient safety incidents. Therefore, detailed instructions and standards help to carry out the correct process of disclosure of patient safety incidents [35].

Opinions About Behaviors

The study results indicated that the discloser's beliefs in the behaviors of patients and the organization were effective in their attitudes towards disclosure. Supporting the discloser, not punishing him/her, and providing incentives for the disclosure of patient safety incidents were effective in the discloser's behavior and attitude towards the disclosure. We showed that nurses had different attitudes towards the disclosure of patient safety incidents because of physical harm to the discloser, the management style and reaction of the organization. We found that nurses were hesitant to disclose incidents when they faced with anxious patients following the disclosure of patient safety incidents. The disclosure of patient safety incidents was difficult for nurses when patients were unaware of a medical malpractice or did not perceive the disclosure of patient safety incidents well.

Kim (2020) confirmed our results and showed that the organization's support for the discloser caused disclosure behavior [4]. Hashemi (2012) indicated that nurses were afraid of being punished by the organization and making patients anxious following the disclosure of patient safety incidents, which affected their attitudes towards disclosure and prevented disclosure behavior [26]. Allen (2013) showed that encouraging healthcare workers to disclose patient safety incidents strengthened disclosure behavior [39]. Iperepolu (2017) also demonstrated that patients' anxiety and concern following the disclosure of patient safety incidents was an obstacle to the disclosure of patient safety incidents [40]. Rashed (2017) found that concern about litigation was one of the important issues that prevented doctors and nurses to disclose patient safety incidents [41].

Inner Feelings

The study results showed that the psychological and emotional changes that occur in the discloser following disclosure of patient safety incidents affected his/her attitude. These emotional reactions were feeling ashamed of the occurrence of incidents, feeling ashamed of colleagues and the doctor, feeling ashamed of being mocked by colleagues, feeling guilty, sense of responsibility, seeing God as the watcher, and having an obligatory sense to disclose, which affected the attitude of disclosure. Kim (2017) reported that nurses felt guilty immediately after the disclosure of patient safety incidents [42]. Young Choi (2019) indicated that nurses should show their regret and apologize after the disclosure of patient safety incidents, and the effort to reduce the discloser's sense of guilt was effective in his/her behavior [33]. We also indicated that nurses considered themselves responsible for the incident due to their holistic and close relationship with the patient, which affected their attitudes towards the disclosure of patient safety incidents [43]. Bayazidi (2012) confirmed our results and conducted a study on 733 nurses in Urmia, Iran and showed that feeling ashamed of being punished was an important obstacle to the disclosure behavior [44]

Limitations

One of the limitations of this study was the spread of the COVID-19 and less access to samples, which increased the duration of sampling. We conducted this study in southeastern Iran, but there are many cultural and ethnic differences in Iran, so future studies should take into account these differences.

Conclusion

Our results provided important and practical insight into nurses' attitudes towards the disclosure of patient safety incidents in the workplace. This study showed that nurses had different attitudes towards the disclosure of patient safety incidents due to its outcome in the workplace. Nurses in the present study had many opinions, such as harm to the organization and a person, opinions about the disclosure outcome, beliefs in the behavior of the patient and officials, and feelings ashamed and guilty, which had an effect on their attitudes towards the disclosure of patient safety incidents. To overcome the obstacles to creating a positive attitude towards the disclosure of patient safety incidents, they need effective strategies, comprehensive support, effective laws and policies and organizational measures to promote disclosure culture. The study results can help health organizations to identify some of the obstacles to disclosure of patient safety incidents and take necessary measures to resolve them. It is obvious that efforts to reduce the occurrence of safety incidents will increase the patient safety, patient satisfaction with healthcare services, improve the quality of health care services and the culture of patient safety.

Declarations

Ethics approval and consent to participate

The studies involving human participants were reviewed and approved by IR.KMU.REC.1399.574. The ethics committee of Kerman University of Medical Sciences (KUMS) approved all procedures used in the. This study was conducted following the ethical guidelines outlined in the Declaration of Helsinki. The study objectives, data collection and recording, the roles of the researcher and participants, data privacy and confidentiality were explained orally. Participants were assured that they could withdraw from the study at any time. The researcher received informed written consent from all the study participants

Consent for Publication

Not applicable

Availability of data and materials

The datasets used for the current study are available from the corresponding author upon request.

Competing interests

The authors declare no competing interests.

Funding

None

Authors' contributions

P.S, M.D. and R.M. designed the study and collected data. P.S., M.D. and R.M. contributed to the study design, they provided critical feedback on the study and qualitative analysis, and inputted to the draft of this manuscript. P.S. wrote the manuscript. All authors have read and approved the final manuscript.

Acknowledgments

The authors would like to thank all personnel in the hospitals affiliated to Hormozgan University of Medical Sciences, the officials of the safety patient unit, as well as all the officials and personnel of the military hospitals.

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Tables

Table 1. Participants’ characteristics (N=17)

Participants		
sex	Female	11
	Male	6
Age (yr)	Minimum	27
	Maximum	59
Marital status	Single	8
	Married	9
Work experience (Yr)	Minimum	3
	Maximum	34
Education level	Bachelor's degree	10
	Master's degree	4
	PhD	1
Employment	Committed [4]	3
	Contractual recruiter [5]	7
	Hired	7
Position	Nurse	10
	Head nurse	3
	Supervisor	2
	Matron	1
	In charge of safety and error	1
Hospital type	Educational-public	12
	Military	2
	Private	3
Ward type	Emmergency	10
	Internal medicine	5
	ICU	7
	CCU	5
	General surgical	7
	Nursing management office	4

	Psychiatric	2
	Postpartum	3
	Burn	1
	Cath lab	2
	Pediatrics	1

* Some of the participants had work experiences in different hospitals and wards

[4]- It is obligatory to work for government for two years at a lower rate of pay

[5]- Annually contracted with payment similar to hired nurses

Table 2. Example of qualitative content analysis process

Meaning unit	Condensation	Code	Sub categories	Categories	Theme
If I report the incident, it may affect my job promotion and management positions.	The nurse thinks that disclosure will prevent her from being promoted	Lack of job promotion	Misconceptions of harm	Misconception of harm to the organization or a person	Schema of the disclosure of patient safety incidents
If I disclosed an insignificant incident, the reputation of the hospital would be damaged.	The nurse thinks that disclosure damages the hospital's reputation.	Reduced social acceptability of the hospital	Misconceptions of harm		
I did not report the incident because I did not commit it. Reporting is the duty of the person who committed it.	The nurse believes that disclosure must be made by the offender	Disclosure only by the offender	Beliefs in disclosure process	Opinions about disclosure process and outcome	
I did not disclose the incident because the root cause of the incident will not be corrected.	The nurse believes that disclosure will not correct the incident.	Ineffective disclosure	Beliefs in disclosure outcome		
If I had reported the incident, the committee would have punished us.	Organizational punishment prevented the disclosure of the incident	Belief in the punitive treatment of the organization	Negative beliefs in punitive behaviors	Opinions about behaviors	
I will not disclose because there is no incentive for the discloser as well as no difference between the person who discloses and the person who hides the incident.	Organizational incentive induced disclosure behavior	Belief in the incentive approach of the organization	Beliefs in supportive behavior of the organization		
I do not report the incident because the	Prevention of patient anxiety was a cause	Disclosure makes the	Negative beliefs in		

patient gets anxious and worried, which is harmful for his/her heart.	of non-disclosure	patient anxious	patients' behaviors	
I felt ashamed of being blamed by the doctor.	Feeling ashamed of being blamed by the doctor.	Feeling ashamed of being blamed by the patient.	Shame and embarrassment that prevented disclosure	Inner conflict between feelings
Sometimes feeling religious makes you report the incident. We believe God sees everything and we cannot hide anything. It is harm to God's creation.	Religious beliefs caused the nurse to disclose the incident	Considering God as the observer of everything.	Internal conditions that caused disclosure	

Table 3: Themes, categories, and subcategories extracted from qualitative content analysis

Theme	Categories	Subcategories
schemas of the disclosure of patient safety incidents	Misconception of harm to the organization or a person	Misconception of harm to the individual's position
		Misconception of harm to the organization's position
	Opinions about the disclosure process and outcome	Beliefs in the disclosure process
		Beliefs in the disclosure outcome
	Opinions about behaviors	Negative beliefs in punitive behaviors
		Beliefs in the supportive behaviors of the organization
		Negative beliefs in the patients' behaviors
	Inner conflict between feelings	Shame and embarrassment that prevented disclosure
		Internal conditions that caused disclosure