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Research Article

Nurses' Perceptions Regarding Disclosure of Patient Safety Incidents in Korea: A Qualitative Study

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SUMMARY

Purpose: The purpose of this study was to determine nurses' perceptions of the disclosure of patient safety incidents (DPSI), which is known to be effective in reducing medical litigation and improving the credibility of medical professionals.
Methods: Three focus group discussions were conducted with 20 nurses using semistructured guidelines. Transcribed content including a record of the progress of the focus group discussions and researchers' notes were analyzed using directed content analysis.
Results: Most participants thought that DPSI is necessary because of its effectiveness and for ethical justification. However, participants held varied opinions regarding the primary responsibility of DPSI. Participants agreed on the necessity of explaining the incident and expressing sympathy, apologizing, and promising appropriate compensation that are chief components of DPSI. However, they were concerned that it implies a definitive medical error. A closed organizational culture, fear of deteriorating relationships with patients, and concerns about additional work burdens were suggested as barriers to DPSI. However, the establishment of DPSI guidelines and improving the hospital organization culture were raised as facilitators of DPSI.
Conclusion: Most nurse participants acknowledged the need for DPSI. To promote DPSI, it is necessary to develop guidelines for DPSI and provide the appropriate training. Improving the hospital organization culture is also critical to facilitate DPSI.

Introduction

Communication between a patient or his/her caregiver and medical professional is an important issue to prevent medical disputes after patient safety incidents [1–3]. Disclosure of patient safety incidents (DPSI) is a practical yet systematic policy that addresses methods of communication when a patient safety incident occurs [4–6]. Specifically, DPSI refers to the following process: when a patient safety incident occurs, first, the medical professional voluntarily explains the situation to the patient and the caregiver, expresses sympathy and regret, and promises to investigate the cause of the incident. Second, if the cause of incident is confirmed as a medical error, an apology is formally given. Third, appropriate reimbursement is provided according to the harm incurred because of the incident. Finally, a promise is made to prevent the recurrence of similar types of incidents [3].

The effects of DPSI are known in various aspects. DPSI is known to reduce the number of medical claims and costs and to reduce the likelihood of a medical professional being punished [7]. It is also known that DPSI can improve the relationships between physicians and patients, increase the willingness of patients to visit again, and increase patients' overall rating for quality of care [7]. In addition, DPSI is known to reduce the medical professional's guilt associated with patient safety incidents [7]. However, DPSI is important not only because of its effectiveness in this regard but also because of ethical justification in terms of autonomy, transparency, trust, and professionalism [3,8].

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Consequently, to promote DPSI, several countries and organizations have included communication guidelines of patient safety incidents in their accreditation standards [9,10], and they have produced these guidelines for distribution [11,12]. In addition, various studies were conducted on residents, medical students, patients, and the general public to communicate patient safety incidents to patients of various nationalities [7]. However, there are relatively fewer studies about DPSI for nurses compared with the number of the studies for physicians. Nurses are often the last point of contact (at the "sharp end" of patient care), so they are more likely to be exposed to situations in which DPSI is needed [13]. In other words, nurses are often exposed to patient safety incidents, and they frequently witness other medical professional's medical errors [14]. In addition, nurses face difficult situations in which they continue to provide medical care for patients who have experienced patient safety incidents.

Some preliminary studies on DPSI for nurses were conducted using quantitative [15–17] and qualitative [18–20] research methods. However, previous studies using quantitative research faced the limitation that participating nurses were from specific medical fields such as emergency rooms [15] or nursing homes [16,17]. In addition, previous studies using qualitative research failed to address the comprehensive perceptions of DPSI because the studies focused on medication errors [18], and the studies conducted in Western countries [19,20] have the possibility of perceptional differences because of cultural background differences. Furthermore, because previous studies focused only on errors in communication, nurses' perceptions of overall communication for patient safety incidents need to be assessed.

Therefore, this qualitative study was conducted to understand how Korean nurses perceive various situations that require DPSI including necessity, components, methods, obstacles, and facilitators.

Methods

Focus group discussions (FGDs) were conducted with nurses to understand nurses' perceptions of DPSI from various perspectives. The details are described according to the consolidated criteria for reporting qualitative research [21].

Research team

The research team consisted of four members. All have continuously been conducted, published qualitative research, and participated in academic seminars related to qualitative research methodology. In addition, the research team had research experience in the field of patient safety and attended patient safety–related conferences to gain a general understanding of and experience in patient safety problems. The research team consisted of two physicians with doctoral degrees, one nurse with a master's degree, and one researcher with a master's degree.

Participants

Twenty nurses who were currently working in the hospital at the time of the study participated in the FGDs. To recruit participants, an announcement that included the research purpose and process was posted on the intranet of several hospitals, online job sites for nurses, such as "Nurscape," and social network services. Thirty-one nurses applied for FGD participation. Among them, the research team divided them into groups with seven participants in each group, considering their hospital, department, and working period. However, in the third group, one participant did not participate in the discussion for personal reasons.

Regarding the possibility of participants responding according to the researchers' intentions (reflexivity), self-evaluation was conducted. The researchers' acquaintances may have responded to fit the intention of the researchers. However, the likelihood for this to occur is minimal because only one respondent was acquainted with any of the researchers. None of the recruited participants refused to participate in the study.

Ethical considerations

This study was approved by the institutional review board of Asan Medical Center (Approval no. S2016-0708-0001). Before enrollment, we explained the purpose and process of this study to the participants and obtained written, informed consent.

FGD process

The FGDs took place three times in July 2016. The participants received 100,000 Korean won for their participation (approximately US $90). The purpose of the study and the FGD process were explained once again before the FGDs proceeded. The FGDs were conducted using the semistructured progress guidelines developed based on prior studies [7,22,23] and researchers' repeated discussions. The FGD progress guideline is attached in a Supporting Information File (S1 File).

The FGDs were conducted in a one-way mirror room at Gallup Korea. Two researchers conducted the FGDs, which lasted about 2–2.5 hours. To transcribe the FGD content, the discussions were recorded. Transcribed documents were based on recorded files, and the content of the transcription was not reviewed by the participants.

Hypothetical scenarios

To enrich the quality of the discussion, this study used five hypothetical scenarios in the FGD process. To develop the case, authors referred to prior studies [7,22,23]. In the first scenario, a patient experienced anastomosis site leakage, and the medical error was not clearly identified. In the second scenario, the patient was aware of the nurse's medication error and was not harmed. In the third scenario, an operation error with an infusion pump had occurred without the patient being aware of it, and the patient was not harmed. In the fourth scenario, the physician's prescription error and the nurse's medication error occurred concurrently and caused minor harm. In the fifth scenario, two nurses' medication errors caused major harm. The full description of these scenarios is attached in a Supporting Information File (S2 File).

Data analysis

Directed content analysis was used to analyze the content. With this approach, researchers can efficiently support or extend existing

Table 1 *Characteristics of the Study Participants in Each Group.*

Characteristics	First group	Second group	Third group
Division	Inpatient: 5 Outpatient: 1	Inpatient: 3 Intensive care unit: 3	Inpatient: 4 Laboratory: 1
	Intensive care unit: 1	Emergency room: 1	Emergency room: 1
Gender	Men: 0 Women: 7	Men: 0 Women: 7	Men: 0 Women: 6
Age-group	20s: 2 30s: 5	20s: 4 30s: 2 40s: 1	20s: 4 30s: 2

Table 2 *Main Categories, Generic Categories, and the Subcategories of the DPSI.*

Construct	Main category	Generic category	Subcategory
Why?	Why should DPSI be performed?	Necessary requirement	• Necessary requirement • Should be done for the conscience of the medical professional
		Need it for its effectiveness	• Improve confidence in the medical professional • Need it to protect the medical professional • Reduce guilty feeling of the medical professional • Conflicting views on medical litigation
When?	When (in what situation) should DPSI be conducted?	Contrasting perspectives regarding near miss errors	• Explaining near misses can increase confidence in the medical professional. • Near misses are rarely discussed. • If the patient does not know, it is not performed; however, if the patient is aware of the incident, it is performed.
		Contrasting perspectives regarding medical error resulting in minor medical harm	• If an error has occurred, it should be performed. • Depends on the severity of the harm • When additional action is taken, an explanation is needed. • Depending on patients' awareness, a decision is made.
		Contrasting perspectives regarding medical error resulting in severe medical harm	• Must be conducted • Even if the patients and caregiver did not know, it must be conducted. • When the medical professional is involved, it must be conducted. • May not be performed according to the hospital's expected response regulation
		Contrasting perspectives regarding medical errors that were not clearly identified	• Because it can be mistaken as a medical error, it is not performed. • After the investigation reveals a medical error, the patient might be willing to listen. • It is necessary to explain the patient's condition. • It is helpful to empathize with the patient about the incident.
	When should the process start?	When to start depends on the circumstance	• At the moment the medical professional becomes aware, it should be conducted immediately. • If the patient becomes aware, it should be performed immediately. • If there is an injury to the patient, the patient should be treated before conducting it.
Who?	Who should conduct DPSI?	Mixed opinion regarding primary responsibility	• Even if it is not the nurse's error, the nurse conducts it because he or she is in a position to initially respond • The medical professional responsible for the incident should perform it. • When several medical personnel are involved, there are contradictory views on who should perform it. • If cause of medical error is not clear, it should be done by the department.
		Contrasting perspective regarding being accompanied by a superior or a physician	• Being accompanied by a supervisor is helpful. • In a busy medical situation, the nurse tries to resolve the problem. • The nurse initially performs it; however, if the caregiver complains or protests, a supervisor or physician is notified. • If a supervisor attends, he or she can clarify the incident for the patient. • The greater the harm, the more want to be accompanied by a supervisor. • Patients trust the physicians' words more than the nurses'.
		In case of severe medical harm, the supervisor, medical professional, and hospital should conduct it together.	• Being aware of the medical professional's burden, there is a need to resolve the problem as a team. • Without clear instructions, the responsible professional tries to solve the problem internally. • Consequentially, if DPSI is used, the patient may gain confidence.
	Who should the information be given to?	Regarding subject, relatively clear	• Basically, patients should be informed of the error. • If the medical error is related to the medical history of the patient, the caregiver should also be informed.
Where?	Where should DPSI be conducted?	Should be conducted in an independent space	• When performing in a public space, other patients can be influenced.
		If the incident happened in front of the patient, it should be performed right away even in a multibed hospital room.	• If the patient knows, it has to be done right away. • The reaction varies depending on the mood of the multibed hospital room.
What?	What information should be given?	Explain the incident and sympathize with patients	• Talk about the reason for the incident happened • For an unspecified cause of medical error, only the facts about the patient's condition are explained. • Admittance and empathy are critical.
		Apologize	• If there is an error, it is moral to apologize first. • Explanation of the patient's current status is more important than an apology.
		Promise an appropriate compensation	• To maintain rapport with a patient, appropriate reimbursement is required. • Monetary compensation may be more effective than a simple apology if a patient experienced severe harm. • Clear criteria for compensation are needed. • Because talking about the compensation can be perceived as admitting a mistake, the medical professional wants to avoid it. • Rewards can be exploited by some patients.
		Promise preventative measures	• Promising preventative measures that help both patients and nurses
How?	How should DPSI be conducted?	Importance of attitude and mindset	• It is important to sympathize and to listen. • Admit the mistake and explain the situation in detail • Even if it is not sincere, it is better to speak. • Nonverbal communication is also important.

Table 2 (*continued*)

Construct	Main category	Generic category	Subcategory
	How should DPSI be facilitated?	Overcoming obstacles	• Difficulties in terms of hospital organization culture • Fear of worsening relationship with the patient • Not having the courage to conduct it • Providing additional explanations creates a work-related burden
		Provide facilitating measures	• Need to improve hospital organization culture • Guidelines and training are needed; however, individual personalities need to be considered.

Note. DPSI = disclosure of patient safety incidents.

theory [24]. Existing theory or research can help focus the research questions and determine the initial coding categories [24]. In this study, authors developed the FGD progress guideline and initial coding categories by using the principle of the "five W's and one H" method (who, what, where, when, why, and how), which was used as a framework in prior research that was conducted for physicians and the general public [23].

Specifically, one researcher repeatedly reviewed the transcribed content to extrapolate codes, and another researcher checked the results. Afterward, the two researches derived codes to generate, edit, and repeat the process to develop the categories and constructs based on their criteria. The other two researchers additionally reviewed codes and categories. When the primary researcher was not able to generate more codes, they assessed the data saturation.

Research validity assessment

The research team assessed the validity of the qualitative research by applying the criteria of Guba and Lincoln [25]. To increase the truth value, the results were evaluated by one of the participants. In addition, two nurses, who did not participate in the FGD, confirmed the results for applicability. Furthermore, to increase consistency and ensure neutrality, all researchers reviewed and confirmed the contents of data coding and tried to prevent their own biases related to the research topic from affecting analysis.

Results

The characteristics of the 20 participants are shown in Table 1. In the first and second FGD, seven participants were present, and in the third FGD, six participants were present. All of the participants were women who had received a university degree. Ten participants were in their 20s, nine participants were in their 30s, and one participant was in her 40s.

Based on the analysis, a total of 222 codes were derived and categorized according to the "five W's and one H" method. The results are summarized in Table 2. The following results are based on the core concepts of constructs and categories.

Why should DPSI be performed?

When asked whether to conduct DPSI, all participants acknowledged its need. The advantages of conducting DPSI included enhancing patients' trust in medical professionals, protecting the medical professionals involved, and reducing medical professionals' guilt associated with patient safety incidents or medical errors. However, regarding the chance of reducing the medical litigation, the participants had contradictory opinions. Specifically, if the patient died from medical error, the participants noted that medical litigation may or may not proceed despite the DPSI.

Contradictory views on the dismissal of medical litigation

Moderator: If the nurse or the hospital had apologized, would the patient have sued?
Participant 3-4: I think it would have led to medical litigation. The patient was a healthy young person, anyone can see that it wasn't an accident that was unavoidable, and an obvious mistake resulted in death…
(…)
Participant 3-3: I have a different opinion, since the patient's sister was a nurse who has a better understanding of the hospital than anyone else. Anyway, a dead patient cannot return and the family may decide to sue because they are angry, but the patient's sister knows, the patient cannot come back to life. The nurse kept lying, and that is what was upsetting. That was why the incident was made public; if the nurse had admitted [to the mistake] and the hospital had apologized, and appropriate amount of settlement would have been awarded, and it would have ended quietly. That is her work place. I think the sister would have received the settlement and quietly resolved the situation, but the patient's nurse kept lying, and hospital was on the side of the nurse, so the family was upset and publicized the incident even though they could have ended things quietly with a settlement.

When (in what situation) should DPSI be conducted?

Depending on the nature of the patient safety incident, mixed views regarding the need for DPSI were expressed. First, in the case of a near miss, some believed that DPSI can increase patients' trust in medical professionals; on the other hand, in actuality, most believed a near miss does not require DPSI. In the case of a near miss, the awareness of the patient was often linked to the need for DPSI. If the patient was not aware of the error, the DPSI would not be performed because of the fear of losing patients' trust in medical professionals. However, participants would inevitably perform DPSI if a patient noticed a near miss.

Opinions about conducting DPSI when a near miss occurs

Moderator: In this case (hypothetical scenario 2), do you think DPSI is needed?
Participant 3-4: While maintaining rapport with the patient, immediately.
Participants 3-5: As quickly as possible.
(…)
Moderator: How would the patient feel about DPSI?
Participant 3-1: "Why are you so careless?" Since this type of thinking causes confidence to slowly diminish, if the patient doesn't know, there is no need to tell him or her.

If the patient safety incident caused severe harm to the patient, more participants believed that DPSI should be performed. Furthermore, because harm requires treatment, DPSI cannot be avoided. Particularly, more participants believed that the greater the harm to the patient, the greater the need for DPSI to be conducted regardless of patients' and caregivers' awareness of the incident. When medical errors result in severe harm, several medical professionals are often involved in the treatment. In such cases, the medical professional should explain the case to the patient and the caregiver. However, DPSI may not be performed—it depends on the response instructions given by the hospital.

Opinions on explaining the case when additional treatments are required

Moderator: If a test was conducted, but it didn't have any relevance. Should DPSI not be conducted in this case?
Participant 2-1: A blood test was ordered. It wasn't necessary but rather was an additional test. Even if no abnormality was detected, I think we need to say what happened.
Participant 2-6: Why the test was ordered?
Participant 2-1: If all of a sudden a blood test was ordered, the patient will think it is strange. The patient will be curious and ask, "Why are they doing this test?"

For cases in which medical errors are unclear, conflicting opinions on the need to conduct DPSI emerged. It was suggested that, when DPSI is performed in these cases, the incident can be perceived as an admittance of medical error; therefore, DPSI might not be performed. However, an explanation of the patient's condition is required, and it would be helpful to empathize with the patient's safety incident. In addition, when DPSI was performed, it is expected that, if the investigation reveals a medical error, the patient might be more understanding.

Conflicting views on the need for DPSI in patient safety incidents with unclear errors

Participant 3-4: Until it is confirmed that a medical problem has occurred, I think I would not conduct DPSI in advance because there is a possibility of a medical dispute.
(…)
Participant 3-2: Whether or not the medical staff is responsible, if the patient has a fever and experiences pain, expressing kind words can be helpful. "You must be experiencing discomfort. This is a difficult time for you."
(…)
Participant 3-5: From the beginning, it is not about admitting the fault. "I do not know what happened in the surgery, but you have an abscess, and I'm sorry to see you suffer." It is unlikely that the caregivers will have a problem with that. If you said that to me, I think I would trust the staff in future situations.

When should the process start?

Although opinions regarding when to start DPSI varied depending on different circumstances, most agreed DPSI should be implemented quickly. If the patient became aware of the patient safety incident, the participants felt DPSI should be conducted immediately. Furthermore, if injuries occurred, the participants felt that the treatment of the harm should be a priority.

If the patient is harmed, treatment of the patient is a priority.

Participant 1-4: When I imagine the situation, "I was wrong. I apologize for the wrong doing." I do not think saying that is best. When a patient passed away, "The patient must have died because of medication error." I think they would find out when they go to the intensive care unit afterward. When I imagine the circumstances, the patient was suffering so was put in intensive care, and the situation is dire, so to apologize in that situation would be impossible.

Who should conduct it?

Generally, it was believed that the medical professional who caused the medical errors should conduct DPSI; however, various opinions were proposed regarding the primary responsibility for DPSI. Because of the nature of nurses' work places them closest to patients, nurses should conduct DPSI even if the error is not caused by them. In this case, however, the nurse performs DPSI within the limited role and authority as a nurse. There were also varied opinions about who should perform DPSI when an entire medical team is involved in a patient safety incident.

Instance in which a nurse conducts DPSI even if the error was not caused by the nurse

Moderator: What happened in this instance?
Participant 2-2: We have to tell the truth. I would call the patient and say, "Your doctor has made a prescription mistake. Do not take the medication according to the directions. Follow the previous prescription dosage." Fortunately, the patient had a trusting relationship with his doctor, so he replied, "I will do that." The outpatient case was not a big incident. A small dosage of ml was wrong, or the wrong drug was prescribed. It's not big, but small incidents have occurred.
Moderator: But shouldn't the doctor have called the patient or …
Participant 2-2: That doesn't happen. I think of that responsibility as my job. At the hospital, outpatient-related responsibility is the work of the outpatient nurse. If I can't manage the task, it would be managed by my supervisor, but I don't ever remember not being able to manage.

The participants were aware that being accompanied by a supervisor or physician in the DPSI process is helpful. Furthermore, the more severe the harm caused by patient safety incidents, the more they wanted to be accompanied by their supervisor. However, considering the busy hospital atmosphere, nurses tended to solve problems by themselves. If a DPSI is required, the nurse will conduct the DPSI; if the patient's guardian complains or protests, a supervisor will be informed of the incident. In contrast, some participants were worried that if a supervisor accompanied the DPSI process, the patient might perceive the incident to be a bigger problem than it is. Particularly, the more severe the patient's harm, the more the staff wants to resolve the problem as a team because the responsible medical professional is aware of the burden of the situation. In addition, with unclear guidelines, relevant managers try to resolve the issue through internal discussions.

Nurses attempt to resolve the problems themselves because everyone is busy.

Participant 2-4: It gets so busy. Too busy, too busy to imagine, everyone is busy. You are busy, but you come apologize, explain! We feel this way. If possible, I want to resolve the problem myself and avoid worsening the situation, I dislike the patients yelling, so just quietly, I want to resolve it. If patient gets louder, doctors will come and inquire about the situation, and then I will explain and the doctor will help me explain. In that situation, don't know if that will happen.

Even if the risk is high, the problem is solved with internal discussions among relevant managers without clear guidance.

Moderator: When the error is big the nurse may not be able to address the issue first.
Participant 2-4: Because I do not know what will happen once a medical dispute occurs the caregiver should be met in an isolated space with a professor, the unit manager in-charge and the nurse. Before meeting the caregiver the team needs to come to a consensus.

Who should the information be given to?

Most participants thought that they should perform DPSI to patients and, if necessary, also conduct DPSI to the patients' caregivers.

Fundamentally, conduct DPSI to the patient

Moderator: Who should you conduct it to?
Participants 1-2: The patient.
(…)
Participant 1-1: It depends on the patient's level of cognitive awareness.

Where should DPSI be conducted?

Most participants thought that DPSI should be conducted in an isolated space. However, if a patient safety incident occurred in a multibed hospital room, and the patient becomes aware of it, there are situations in which DPSI must be performed right away. In this case, the influence it has on other patients needs to be considered.

When conducting DPSI in a multibed hospital room

Moderator: Was it a multi-bed hospital room?
Participant 3-3: Yes. It was a five-person room. The tension was palpable, but I tried to maintain a good atmosphere while saying it won't happen again.
Moderator: When you apologized, did you feel uncomfortable with other patients in the room?
Participant 3-3: I have seen a few cases. Each multi-bed hospital room atmosphere is different. If patients are friendly with the nurses and a rapport has been formed, "That can happen. We should check next time. We are the ones taking it." This can happen, but on the other hand, in a case in which the interaction is minimal, they won't say something directly, but they will become dubious. Then the nurse feels awkward entering the room.

What needs to be done in DPSI?

Most participants expressed that it was important to provide an explanation regarding the DPSI and to sympathize with patients' pain. However, many focused on explaining the facts. In cases when medical errors were unclear, the patient's current condition should be a priority, and even in cases in which an apology was necessary, the explanation of the patient's current condition was considered more important by some participants.

Explanation of the patient's current condition is more important than an apology.

Participant 2-1: If I were the caregiver of the patient who was injured, I would want the doctor to honestly explain the situation and facts. Rather than the nurse apologizing, I would want the doctor to explain the patient's current condition and tell me the truth. Honestly, I don't want an apology. To me, knowing the patient's condition is the priority. I would have initially received an apology. After that, I would want the doctor or the professor to explain the patient's condition and tell me how the patient will be treated. "Don't worry." I would want to hear that.

Promising to provide adequate compensation is necessary. However, specific qualifications or criteria for the scope of the compensation need to be clarified. In addition, some participants were worried that it would be a mistake for a medical professional to talk about the compensation first, and they were worried that some patients could exploit the compensation. On the other hand, promising to prevent a recurrence was believed to be beneficial to both patients and nurses to avoid the occurrence of future errors.

Clear criteria for compensation coverage are required.

Moderator: When is compensation rewarded?
Participant 1-5: I do not think it's for psychological damage. When the harm occurred or treatment period is prolonged, the hospital expenses and additional testing such as CT scan might be covered by the hospital.
Participant 1-4: If there is a problem, and the caregiver decides to place a complaint, the case is submitted to the committee. Depending on the caregiver's demand such as a deduction on the hospital bill, additional testing, or something more, I think the process is different.

How should DPSI be conducted?

Several participants stated that empathetic and active listening is important when conducting DPSI. It is especially important to explain the situation as specifically as possible. In addition, paying attention to not only verbal expressions but also nonverbal expressions is necessary.

Importance of nonverbal expression

Participant 1-1: When you have a conversation, you can feel a sympathetic connection to the other person. For instance in some conversations, you know what you are trying to convey is going in a different direction, gets blocked, or goes in one ear and out the other ear. Language is important, but nonverbal expression is also important. Eye contact. This might have an effect.

How should DPSI be facilitated?

To promote DPSI in clinical settings, many participants thought that it was necessary to establish an organizational culture to reduce punishment and criticism in hospitals and to foster a cooperative relationship between physicians and nurses. Many participants commented that concern about damaging the relationship with the patient needs to be set aside. Specifically, DPSI guidelines and education are needed. However, it is also necessary to consider nurses' personalities. Several participants were worried that DPSI could lead to additional workloads such as having to be the one to explain the situation to the patient.

A supportive hospitality atmosphere is needed.

Participant 3-3: The nurse tells the truth, but if the doctor tells the patient he does not know why the nurse made the mistake, the problem gets bigger. The nurse told the truth because it was the right thing to do. When the doctor also cooperates, the hospital supports the outcome of DPSI, and proper compensation is given. Then DPSI is effective. Just the nurse doing the right thing won't make it work.

Concern about additional responsibility due to DPSI

Participant 3-3: Since DPSI can lead to more work, I might opt not to do it because of the burden of more responsibility.
(…)
Participant 3-2: After conducting DPSI, there is overtime, reports, and special care for that patient, so I'd like to avoid it if real harm did not occur. However, I think, conscientiously, it should be conducted.

The results of the analysis are summarized as the obstacles to and facilitators of nurses to performing DPSI (Figure 1). Most of these factors—such as lack of knowledge concerning how to perform DPSI, workload burden, and negative organizational culture—keep nurses from conducting DPSI.

Discussion

In this study, nurses' perceptions regarding the necessity, components, and methods of DPSI, as well as obstacles to and facilitators of their performing it, were examined. Most nurses admitted that DPSI is necessary in terms of ethics and effectiveness. Although the opinion that DPSI should be performed when a patient experienced harm was prevalent, the participants expressed mixed opinions regarding the necessity of performing DPSI depending on the characteristics of the patient safety incident. In addition, nurses conducted DPSI even when they were not responsible for the medical errors, and they also felt burdened

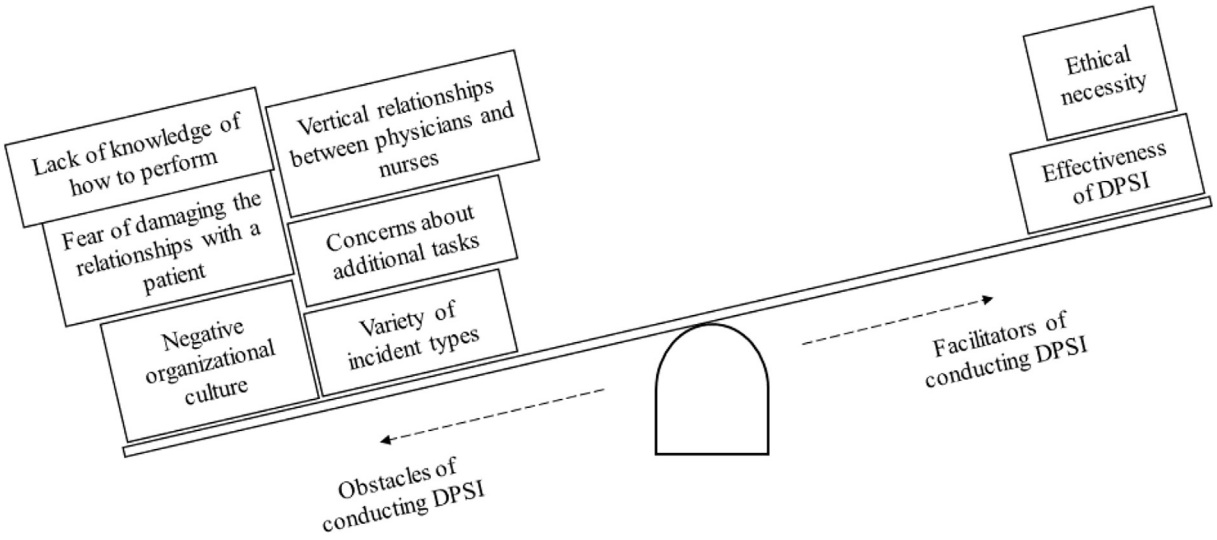

Figure 1. The obstacles and facilitators of disclosure of patient safety incidents for nurses.
Note. DPSI = disclosure of patient safety incidents.

when accompanied by a physician or a superior during the DPSI process. Many participants felt that to promote DPSI, punishment and criticism should be reduced in the hospital atmosphere, and the relationship between physicians and nurses need to be enhanced. Considering the obstacles to DPSI, including a burdensome workload due to inclusion of this task, a systematic approach is needed for activation of DPSI, such as the establishment of DPSI guidelines [2,7].

Similar to previous studies [23], although most participants acknowledged the need for DPSI, they had mixed opinions about when to conduct it. Consistent with earlier studies, the participants believed the more severe the patient's harm, the stronger the need for DPSI [16]. However, a noticeable number of participants stated that if the medical error was not clearly identified, DPSI would be difficult to conduct. Some were also concerned about disclosure of a near miss. They were worried that this could reduce the patient's trust in medical professionals by giving the patient a sense that the medical environment is not safe. Therefore, most believed that DPSI should be implemented only when a patient knows that a near miss has occurred.

It is also noteworthy that various opinions were presented regarding the primary responsibility of DPSI. Previous researchers noted that physicians are responsible for DPSI [23]; however, in this study, nurse participants felt responsible for DPSI. Because the nature of nurses' work involves close patient interaction, they felt the need to conduct DPSI even if they did not cause the medical error. In previous studies, nurses often did not participate in DPSI [19]. In other words, not only was there a chance of nurses being alienated from DPSI but also the DPSI responsibility was shifted to the nurses. It is expected that when DPSI is performed in a situation in which the nurses' role or authority has limitations, it will likely result in an incomplete process, and the patient may not fully understand the experience. Furthermore, nurses said it was difficult to ask for help from a senior supervisor or physician when communicating about a patient safety incident that caused severe harm to the patient. They were afraid the situation could potentially get worse. Consequently, nurses tended to solve the problem on their own as much as possible, which can be burdensome for them. In addition, in the absence of clear guidelines for DPSI, when individual nurses are held responsible for DPSI, the chance of a proper DPSI occurring is reduced.

The participants' opinions about where DPSI should take place were related to the medical reality in Korea. Although most participants thought that DPSI should be performed in an isolated space, some participants predicted that if a patient safety incident were to occur in a multibed hospital room, DPSI would need to be performed immediately in that location. Because multibed hospital rooms are common in Korea, this is a problem that needs to be addressed. Such a situation could cause other patients not involved in the incident to experience heightened insecurity. Conducting DPSI in an isolated space, such as the counseling room, might seem appropriate; however, if DPSI must be performed in a multibed hospital room, the effect it will have on the other patients must be considered.

Furthermore, the participants agreed on the necessity of explaining the case and expressing sympathy, apologizing, and promising appropriate compensation, which are the main components of DPSI. Specifically, they were aware of the importance of sympathy and listening. However, the process of conducting a proper DPSI has not been clearly established; therefore, relevant methods must be explained in detail.

Therefore, a systematic approach, such as establishment of DPSI guidelines, is most important to address these obstacles to performing DPSI [11,12]. These guidelines should include details on when and how to perform the DPSI. In particular, nurses participating in this study worried that DPSI would create additional responsibilities. In Korea, nurses manage a large workload, and there is a positive correlation between nurses' workload and the occurrence of patient safety incidents [26]. DPSI should not cause an increase in nurses' workload; therefore, DPSI should be approached as a team, which can reduce individual burden [2,20], that is, instead of individual nurses being responsible, it is necessary to approach DPSI as an institution-wide responsibility. If a dedicated team for DPSI is formed, it is expected that nurses can receive practical assistance.

Furthermore, education on conceptions and components of DPSI and systematic training about communicating with patients is also needed [27]. It is known that DPSI education and training can improve the overall perception of and confidence in performing DPSI [28,29]. Therefore, it is necessary to prepare programs to train DPSI in various situations. Simulation training using standardized patients is a good way to increase the self-efficacy of DPSI performance [29].

Prior studies have emphasized the need to create a lateral and transparent atmosphere in hospitals to promote DPSI [7,8,23]. In this study, nurse participants also noted the need to establish a hospital atmosphere in which punishment and criticism are reduced to promote DPSI. This study confirmed the need to improve the relationships between physicians and nurses to facilitate DPSI. As previously stated, situations where nurses cannot ask for help from physicians indicate that there is a need to improve their relationships. In health-care institutions, it is necessary to create a cooperative organizational culture among medical professionals. Furthermore, patient safety training needs to be provided to supervisors and managers to create a lateral and transparent atmosphere [30].

Finally, this study used qualitative research methodology to comprehensively identify nurses' perceptions of DPSI. Specifically, hypothetical cases were used to evaluate nurses' perceptions. Because of the ethical sensitivity of DPSI, medical professionals may have had difficulties expressing their opinions about DPSI; therefore, hypothetical cases may have helped to reduce this burden [23]. In addition, authors may have obtained more realistic answers than we would have by simply asking about nurses' intentions [7]. In previous studies on DPSI, hypothetical cases were used when conducting surveys for nurses in nursing home settings [17].

One of the limitations of this study is the potential influence of participants' social desirability bias. Although authors tried to address this problem by using hypothetical cases to reduce the psychological burden stemming from ethical issues and emphasizing anonymity to minimize the problem, the possibility of socially desirable bias was not completely removed. In addition to opinions and responses to hypothetical scenarios, studies that involve observing DPSI in actual health-care settings will be a helpful comparison. Another limitation is that the participants were interested in DPSI, but they may not be key informants regarding this process. This is because medical professionals are not yet fully familiar with DPSI. Therefore, it is necessary to continuously evaluate the perceptions of medical professionals, including nurses, for the DPSI.

Conclusion

In conclusion, this study determined that Korean nurses are sympathetic to the necessity of and have a sense of responsibility regarding DPSI. However, this study also discovered that they do not clearly know how to perform DPSI and are influenced by their rapport with patients, their relationships with physicians, the organizational culture, and their workload. To facilitate communication of patient safety incidents for nurses, relevant guidelines organized by patient safety incident types need to be developed and implemented. Education and training on DPSI should also be conducted in parallel. Furthermore, improving the hospital organization atmosphere is essential to facilitate useful communication of patient safety incidents. In addition, the improvements that occur after conducting DPSI require further study.

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Conflict of interest

The authors have declared that no competing interests exist.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.anr.2019.05.002.

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