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Perception Gaps of Disclosure of Patient Safety Incidents Between Nurses and the General Public in Korea

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Objectives: This study aimed to explore nurses' perceptions regarding disclosure of patient safety incidents.

Methods: An anonymous online survey was conducted, and results were compared with those of the general public using the same questionnaire in a previous study.

Results: Among 689 nurses, 96.8% of nurses felt major errors should be disclosed to patients or their caregivers, but only 67.5% felt disclosure of medical errors should be mandatory. In addition, 58.5% of nurses were concerned that disclose will increase the incidence of medical lawsuits. More than two-thirds of nurses felt such discloses will reduce feelings of guilt associated with a patient safety incident. Only 51.1% of nurses, but 93.3% of the public, felt near misses should be disclosed to patients.

Conclusions: Nurses generally had a positive attitude toward disclosure of patient safety incidents, but they preferred it less than the general public. To reduce this gap, legal and nonlegal measures will need to be implemented. Furthermore, it is necessary to continue monitoring the gap by regularly assessing perceptions of disclosure of patient safety incidents among health care professionals and the general public.

Key Words: nurses, disclosure, patient safety, disclosure of patient safety incidents, error disclosure

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Disclosure of patient safety incidents (DPSI) to patients or their caregivers is an ethical and professional obligation to health care professionals.[1,2] In general, the DPSI process includes an explanation of the facts of the event, the expression of sympathy and regret, delivery of apology and compensation if needed, and a promise to prevent recurrence.[3] The DPSI has positive effects on increasing patients' willingness to forgive, their satisfaction, and trust in health care professionals.[4–7] It also reduces legal action by patients or caregivers,[5,8–10] and lessens the guilt in health care professionals involved in patient safety incidents.[11–13] Many countries are encouraging the DPSI in various ways, such as development of guidelines for DPSI and enactment of apology law.[14–16]

In the Republic of Korea (Korea), the Patient Safety Act was enforced in July 2016 to systematically manage patient safety issues at the national level.[17] Thus, various practices have been implemented, such as the establishment of the national patient safety committee, operation of the patient safety reporting and learning system, and allocation of patient safety manager in hospitals.[17] However, regarding DPSI, there have only been discussions about its necessity, and there is still a lack of activity for the formalization of DPSI.

In addition, it is well known that there is a large gap between health care professionals and the general public in terms of their understanding and expectations of DPSI.[18,19] Recent studies suggest that this is also the case in Korea.[7] To implement and formalize DPSI in a way that protects and satisfies both health care professionals and patients, it will first be necessary to identify and reduce the gap in the perception of DPSI between health care professionals and the general public.

Among the different health care professionals, nurses have the most frequent and closest contact with patients and often experience or witness various patient safety incidents. Recently, there have been many studies of DPSI focusing on nurses,[20] but there has been very limited research using a multifaceted approach to investigate perceptions of DPSI and compare them with those of the general public. In Korea, there have only been qualitative studies[21,22] or preliminary studies on the effects of education regarding DPSI.[23] Therefore, this study explored Korean nurses' perceptions of DPSI and compared the results with those of the general public in a previous study.[24]

METHODS

This study focused on the results of a survey of nurses as part of a project to identify perceptions of DPSI among health care professionals and trainees. This study was approved by the institutional review board of Ulsan University Hospital (institutional review board number: 2018-07-003).

Questionnaire Development and Content

The questionnaire was developed by modifying a survey questionnaire used for the general public.[24,25] The main items of the questionnaire were divided into the following 3 domains: (1) general attitudes to DPSI, (2) opinions about DPSI in hypothetical cases, and (3) opinions about measures to promote DPSI. Responses have a 4-point Likert scale ranging from "strongly agree" to "strongly

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TABLE 1. Sociodemographic Characteristics of Survey Participants

Variable	n	%
Age group, y		
19–29	251	36.4
30–39	357	51.8
40–49	67	9.7
≥50	14	2.1
Sex		
Male	49	7.1
Female	640	92.9
Experience (time since obtaining nurse license), y		
0–4	167	24.2
5–9	246	35.7
10–19	241	35.0
≥20	35	5.1
Total	689	100.0

disagree." The survey included questions about knowledge of terminology related to patient safety and sociodemographic characteristics.

In the questionnaire for nurses, the subject of DPSI was changed from "physicians" to "health care professionals," and the hypothetical cases were adapted to the nursing situation referenced in the previous study.[21] The survey draft was evaluated in a cognitive debriefing interview with 4 nurses, and they provided feedback that the questionnaire was understood clearly. We also conducted a preliminary study with 10 nurses to evaluate the effectiveness of DPSI education using this questionnaire.[23] In the survey for this study, Cronbach α scores on all domains were greater than 0.80.

This study used the first and third domains. In the first domain, we investigated attitudes to DPSI according to the severity of medical error and related situations, and perceptions about the effects of and barriers to DPSI. In the third domain, we assessed perceptions about improving ethical awareness, DPSI training and guidelines, and apology law. Among sociodemographic characteristics, we collected data on participants' sex, age group, and professional experience (time since acquiring nursing license).

Administration of Survey and Participants

The questionnaire was completed anonymously online. To recruit participating nurses, we made an advertisement including the purpose and information about the study and a survey link. The advertisements were posted on online nursing communities such as blogs, websites, and hospital intranets. Nurses voluntarily participated in the survey through a survey link, and then they were encouraged to tell other nurses about the survey. As a token of gratitude, each participant was given a coffee coupon worth approximately 9000 KRW. Participants could only take the survey once, and the survey could not be taken twice from the same Internet protocol address. In addition, to ensure that the participants properly understood the concept of DPSI, the definition of DPSI was displayed on the online questionnaire screen.

Statistical Analysis

Descriptive statistics were used to examine participants' sociodemographic characteristics and the distribution of responses to each question. The χ^2 test was used to compare nurses' perceptions of DPSI with those of the general population.[25] Stata/SE13.1 (StataCorp, College Station, Texas) was used for all statistical analyses. Results with a P value <0.05 were considered to be statistically significant.

RESULTS

Sociodemographic Characteristics

A total of 689 nurses participated in this questionnaire survey. Most participants were female (n = 640; 92.9%), and the most frequent age group was 30 to 39 years (n = 357; 51.8%). The length of professional experience was most commonly 5 to 9 years (n = 246; 35.7%) and 10 to 19 years (n = 241; 35.0%). The full sociodemographic characteristics of the participants are shown in Table 1.

DPSI According to the Severity of Medical Error

Most nurses and the general public felt major errors should be disclosed to patients or their caregivers. However, opinion for near misses differed. Nurses and the public felt they should be disclosed to patients at the rates of 51.1% and 93.3%, respectively ($P < 0.001$; Table 2).

DPSI According to Related Situations

Nurses generally agreed that DPSI was necessary in various situations. However, the general public was more likely to prefer DPSI (Table 3).

Perceptions About the Effects of DPSI

Most nurses agreed on 5 of the 6 effects of DPSI presented in the questionnaire. Meanwhile, more than two-thirds of the nurses and 85.1% of the general public felt such DPSI would lessen feelings of guilt in association with a patient safety incident for health care professionals ($P < 0.001$; Table 4).

Perceptions of Barriers to DPSI

Of the 6 items presented as barriers to DPSI, only 2 were thought of as important by at least half the nurses. One was that "DPSI will increase the incidence of medical lawsuits." (58.5%) and the other was that "It is unreasonable to demand DPSI in the only medical field, because disclosure is not actively conducted in other fields." (65.9%; Table 5). At least half of the general public considered the increase in medical lawsuits due to DPSI as an important barrier (57.0%).

TABLE 2. Perceptions of DPSI According to Severity of Medical Error

	Nurse (n = 689)		General Public (n = 700)		
	Agree, n (%)	Disagree, n (%)	Agree, n (%)	Disagree, n (%)	*P*
Major errors should be disclosed to patients or their caregivers	666 (96.7)	23 (3.3)	699 (99.9)	1 (0.1)	<0.001
Minor errors should be disclosed to patients or their caregivers	619 (89.8)	70 (10.2)	685 (97.9)	15 (2.1)	<0.001
Near misses should be disclosed to patients or their caregivers	352 (51.1)	337 (48.9)	652 (93.3)	47 (6.7)	<0.001

TABLE 3. Attitudes Toward DPSI According to Various Situations

	Nurses (n = 689)		General Public (n = 700)		
	Agree, n (%)	Disagree, n (%)	Agree, n (%)	Disagree, n (%)	*P*
DPSI should be performed even if health care professionals thought that patients and their caregivers would not be able to understand what the health care professionals said.	620 (90.0)	69 (10.0)	694 (99.3)	5 (0.7)	<0.001
DPSI should be performed even if health care professionals thought that patients and their caregivers would not be able to know about the patient safety incident.	566 (82.2)	123 (17.8)	658 (94.0)	42 (6.0)	<0.001
DPSI should be performed even if health care professionals thought that patients and their caregivers could not know whether the patient safety incident occurred.	573 (83.2)	116 (16.8)	670 (95.7)	30 (4.3)	<0.001
DPSI should be performed even if health care professionals thought that patients and their caregivers have nothing to gain by acknowledging the patient safety incident.	527 (76.5)	162 (23.5)	623 (89.1)	76 (10.9)	<0.001
The better the previous health care professionals–patient relationship, the more DPSI will be performed.	627 (91.0)	62 (9.0)	649 (92.7)	51 (7.3)	0.243

Opinions of Measures to Promote DPSI

Most nurses and the general public agreed that 4 proposed nonlegal measures were necessary (Table 6). However, there were differences in the opinions of the 2 groups on legal measures. A total of 84.6% of nurses and 95.4% of the general public supported the introduction of an apology law ($P < 0.001$), and 67.5% of nurses and 90.6% of the general public supported the introduction of the mandatory DPSI by law ($P < 0.001$).

DISCUSSION

This study comprehensively explored the perceptions of nurses regarding DPSI. In general, nurses showed a positive perception of DPSI, but they preferred it less than the general public. Starting with this study, if the changes in nurses' perceptions of DPSI were monitored regularly, this would help to draw up measures for more effective DPSI in clinical settings and formulate a DPSI.

Most (96.7%) nurses felt major errors should be disclosed to patients or their caregivers, but 65% supported DPSI becoming a mandatory law. This difference may be because it is difficult to actually conduct DPSI apart from acknowledging the need for it. Many studies reported a number of barriers of DPSI, such as fear of losing patients' trust,[26–28] fear of organizational negative reaction,[13,27] additional time and support,[29,30] and hierarchical interprofessional practice for disclosure.[30,31] Korean nurses also identified similar difficulties in qualitative studies.[21,22] To bridge this gap, however, further study should be investigated on a larger number of representative samples, and provision of support is important to overcome perceived barriers.

Meanwhile, nurses may have felt burdened with the question about disclosure law in Korea, where there is no formal support yet. This can be understood in the same context as the finding that 65.9% of nurses agreed that it was unreasonable to demand disclosure in the medical field when this was not actively performed in other fields. Recently, the Patient Safety Act has been amended to require mandatory reporting of incidents that result in serious harm to patients,[32] and a new item about disclosure of sentinel events to patients and families has been added to the standard for acute care hospitals of the Korea Institute for Healthcare Accreditation.[33] In this regard, further studies need to use more specific questions, for instance, "When patients have been harmed, DPSI should be mandatory by law."

For nurses in this study, more than half were concerned about the increase in medical litigation due to DPSI. This has already been identified in the literature among health care professionals.[7,11,28] However, the reasons why patients file medical lawsuits are more likely related to the failure of the health care professionals to provide explanations and unreliable communication.[4,6,34–36] Apology, one of the central components of DPSI, helps heal emotional suffering and restore self-esteem of patients.[37–39] Furthermore, apology can contribute to the smooth settlement of disputes by facilitating the patients' forgiveness.[40,41] In the United States, hospitals in Kentucky, Michigan, and California have found that apologies and effective disclosure programs reduce the number of claims,

TABLE 4. Opinions on the Effects of DPSI

	Nurses (n = 689)		General Public (n = 700)		
	Agree, n (%)	Disagree, n (%)	Agree, n (%)	Disagree, n (%)	*P*
DPSI will make patients and their caregivers trust the health care professionals more.	547 (79.4)	142 (20.6)	658 (94.1)	41 (5.9)	<0.001
I am more likely to recommend a health care provider who performs DPSI.	563 (81.7)	126 (18.3)	597 (85.4)	102 (14.6)	0.063
I will revisit a health care provider who performs DPSI.	572 (83.0)	117 (17.0)	615 (88.0)	84 (12.0)	0.009
A health care provider who performs DPSI will offer better medical services.	611 (88.7)	78 (11.3)	623 (89.3)	75 (10.7)	0.732
DPSI will lead health care professionals to pay more attention to patient safety in the future.	658 (95.5)	31 (4.5)	675 (96.6)	24 (3.4)	0.309
DPSI will lessen feelings of guilt for health care professionals.	462 (67.1)	227 (32.9)	594 (85.1)	104 (14.9)	<0.001

TABLE 5. Perceptions of Barriers to the DPSI

	Nurses (n = 689)		General Public (n = 700)		
	Agree, n (%)	Disagree, n (%)	Agree, n (%)	Disagree, n (%)	*P*
DPSI will increase the incidence of medical lawsuits.	403 (58.5)	286 (41.5)	399 (57.0)	301 (43.0)	0.574
If DPSI is performed, health care professionals will lose their honor.	276 (40.1)	413 (59.9)	239 (34.1)	461 (65.9)	0.022
If DPSI is performed, health care professionals will be punished by the hospital.	302 (43.8)	387 (56.2)	278 (39.8)	421 (60.2)	0.125
Health care professionals who perform DPSI are less competent.	78 (11.3)	611 (88.7)	124 (17.7)	575 (82.3)	0.001
If DPSI is performed, health care professionals will be criticized by their colleagues.	206 (29.9)	483 (70.1)	291 (41.6)	409 (58.4)	<0.001
It is unreasonable to demand DPSI in the medical field because disclosure is not actively performed in other fields.	454 (65.9)	235 (34.1)	281 (40.2)	418 (59.8)	<0.001

time interval to processing claims, defense costs, and average settlement amounts.[8–10]

Apology is also necessary to heal the health care professionals, including nurses who are involved in patient safety incidents.[37,38,42] They suffer emotionally as the "second victim,"[43] feeling shame and guilt.[44] Apologizing and expressing remorse to patients can lead to forgiveness and healing for themselves.[38,42] In this study, more than two-thirds of nurses felt that DPSI would lessen the guilt of patient safety incidents for health care professionals and other studies, and physicians[7,11,12] and nurses[13,21] identified similar effects.

However, to entirely enjoy these effects, it is essential to conduct a sincere apology and full disclosure to patients.[12] In Australia and Canada, DPSI guidelines have been published to encourage health care professionals to explain and resolve patient safety incidents avoiding misunderstandings with the patient.[14,15] In the United States, "disclosure law" requires hospitals to disclose information to patients or caregivers about serious preventable adverse incidents,[16] and "apology laws" protect health care professionals by ensuring that the expression of regret and apologies during DPSI cannot be acknowledged as legal evidence of fault.[16] As such, in South Korea, it is necessary to provide a training program and guidelines for DPSI and to consider the introduction of legal systems.

Finally, as expected, only half of nurses, but 93.3% of the public, felt near misses should be disclosed to patients. Nurses reported concerns that they would lose the trust of patients and caregivers if they disclosed near misses to patients.[13,21,28] In addition, nurses showed different response to DPSI on near misses depending on various circumstances, such as whether the patient was aware of the incident or whether the incident was prevented before it occurred to the patient.[21] Further study using hypothetical cases for various situations of near misses should be used to investigate nurses' perception of DPSI, and DPSI guidelines should reflect the clinical reality.

This study has some limitations. Nurses voluntarily participated in an online questionnaire survey. This may have led to more participation among younger-age groups and nurses interested in issues related to DPSI. In addition, although they were not allowed to participate with the same Internet protocol address, they may have participated more than once using multiple devices such as a mobile phone and a personal computer. However, in Korea, where discussions about DPSI are only just beginning, an online survey was considered more suitable than other research methods to collect nurses' honest opinions about the ethical issues of DPSI. Further studies need to be conducted with representative samples. Second, this study investigated nurses' overall perception of DPSI to compare the results with the general public. It was not possible to explore in depth the difficulties encountered by nurses when performing DPSI. In addition, it did not reflect the characteristics that could affect the response such as experience of the patient safety incident and/or DPSI, and organizational culture. In further studies, considering this, it will be necessary to conduct research on actual experiences for nurses in various groups and compare those results.

CONCLUSIONS

This study identified that nurses have a positive perception of DPSI, but it is still less positive than those of the general public. To reduce this gap, legal and nonlegal measures will need to be

TABLE 6. Opinions on Legal and Nonlegal Measures for Facilitating DPSI

	Nurses (n = 689)		General Public (n = 700)		
	Agree, n (%)	Disagree, n (%)	Agree, n (%)	Disagree, n (%)	*P*
It is necessary to strengthen the ethical awareness of health care professionals for DPSI.	670 (97.2)	19 (2.8)	697 (99.6)	3 (0.4)	0.001
A training course for DPSI is needed.	666 (96.7)	23 (3.3)	682 (97.4)	18 (2.6)	0.399
Manpower to support DPSI in hospitals is required.	666 (96.7)	23 (3.3)	666 (95.3)	33 (4.7)	0.190
A guideline for DPSI is needed.	676 (98.1)	13 (1.9)	681 (97.3)	19 (2.7)	0.304
If apology law is enacted, health care professionals will perform DPSI more.	620 (90.0)	69 (10.0)	660 (94.3)	40 (5.7)	0.003
Apology law will limit patients' ability to prove health care professionals' negligence.	384 (55.7)	305 (44.3)	558 (79.7)	142 (20.3)	<0.001
I support the introduction of apology law.	583 (84.6)	106 (15.4)	668 (95.4)	32 (4.6)	<0.001
I support the introduction of mandatory DPSI by law.	465 (67.5)	224 (32.5)	634 (90.6)	66 (9.4)	<0.001

implemented. In addition, it will be useful in the future to continue monitoring the gap by regularly assessing perceptions of DPSI among health care professionals and the general public.

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