




# Qualitative Comparison of Perceptions Regarding Patient Engagement for Patient Safety by Physicians, Nurses, and Patients

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**Purpose:** Patient engagement in ensuring patient safety is widely acknowledged, there is still a need to explore how perceptions of patient engagement vary among different stakeholders within the healthcare system. We aimed to compare the perceptions regarding patient engagement for patient safety among physicians, nurses, and patients by exploring the perspectives.

**Patients and Methods:** A qualitative study, comprising three focus group discussions (six to eight people each), was conducted in South Korea. Physicians and nurses who worked at the general hospital level or higher, and patients who had been hospitalized for more than 24 hours, were included. Researchers analyzed the transcripts, and a content analysis was performed to describe influencing elements of patient engagement for patient safety. A word cloud was created through keyword analysis of the transcripts.

**Results:** Based on 479 coded data, three categories and eight sub-categories were derived. The first moment of patient engagement was viewed as the choice of medical institutions. Reputation occupied a large part in the hospital selection for all participants, but they did not know about or use the national hospital evaluation data. Participants said that continuous patient engagement, such as the patient's active questioning attitude, guardian's cooperation, sufficient medical personnel, and patient safety education was required during treatment. However, it was said that patient engagement was ignored after patient safety incidents occurred. They mentioned that they were emotional and busy arguing for their own positions, and that it was difficult to use a medical dispute resolution method in practice. In the word cloud by group, fall, explanation, hospital, and patient were common words.

**Conclusion:** All three groups agreed on the importance of patient engagement for patient safety but differed in its influencing factors. Efforts should be made to reduce the difference between the three groups on how to involve patients for patient safety.

**Plain Language Summary:** To what extent can patient engagement for patient safety be expanded?

In this study, we confirmed the diverse perceptions of patients and medical personnel regarding patient engagement for patient safety. Physicians, nurses, and patients all answered that they did not generally know about the objective medical institutions evaluation data provided by the national, and said that when choosing a medical institution, patients depended on information from their reputation, social media, and web site search. During treatment, both patients and medical personnel expressed their hopes for active and independent engagement from patients, but also expressed the difficulty of requesting cooperation in engagement and difficulties in education. After the patient safety incident, both patients and medical personnel were emotional and occupied in asserting their respective positions, and they complained about difficulties in resolving medical disputes that are difficult to use in practice.

**Keywords:** patient participation, patient safety, focus groups, health personnel

## Introduction

The paradigm of healthcare delivery has shifted towards patient-centered care, where the preferences, values, and needs of patients are given paramount importance.<sup>1</sup> This approach recognizes the unique expertise that patients bring to their own care and emphasizes the importance of involving them actively in decision-making processes.<sup>2,3</sup> Central to this patient-centered approach is the concept of patient engagement, which entails the active participation of patients in their own healthcare management.

Patient engagement (PE) for patient safety has been increasingly recognized as a critical factor in improving healthcare outcomes, including patient safety. The involvement of patients in their care not only enhances their understanding of medical conditions and treatment options but also promotes shared decision-making and adherence to treatment plans.<sup>4,5</sup> Consequently, patient engagement has the potential to reduce medical errors, enhance medication adherence, and ultimately improve patient satisfaction and health outcomes.<sup>6,7</sup> With the enactment of the Patient Safety Act in 2016,<sup>8</sup> South Korea has proposed policies to contribute to improving the quality of medical care, such as creating a patient-centered safety culture. However, compared to Anglophone countries, there is insufficient development and application of interventions to encourage PE in Asian countries, including South Korea, including a scarcity of discussion on PE.

While the importance of patient engagement in ensuring patient safety is widely acknowledged, there is still a need to explore how perceptions of patient engagement vary among different stakeholders within the healthcare system.<sup>9,10</sup> Physicians, nurses, and patients may hold different perspectives on the role of patient engagement in ensuring patient safety, influenced by their respective roles, experiences, and priorities.<sup>11</sup> Among various stakeholders, the role of patients most directly affected by patient safety issues has recently been emphasized.<sup>12</sup> Previous studies showed that patients tended to underestimate the number of preventable deaths due to medical errors compared to healthcare workers, perceive hospitals as safer spaces, and have low awareness of patient safety-related systems, such as healthcare accreditation and medical dispute mediation systems.<sup>13</sup> It is necessary to investigate physicians and nurses who mainly face patients to explore PE strategies for improving patient safety. Understanding these differences in perceptions is crucial for developing tailored strategies to enhance patient engagement and improve patient safety outcomes.

This qualitative study aims to compare the perceptions regarding patient engagement for patient safety among physicians, nurses, and patients. To help participants understand PE for patient safety, our study needed to examine the definition of PE with a focus on activities. By exploring the perspectives of these key stakeholders, we seek to gain insights into the barriers and facilitators of patient engagement in healthcare settings.

## Material and Methods

### Study Design

A qualitative study, with three focus group discussions (FGD), was conducted, and a conventional content analysis<sup>14,15</sup> was performed according to the Consolidated Criteria for Reporting Qualitative Research.<sup>16</sup>

### Participants

Purposive and snowball sampling was used to recruit participants.<sup>17</sup> Participants were also recruited by posting research notices on the research web, where a panel of physicians and nurses gathered. The inclusion criteria for participants were: 1) physicians and nurses who are currently working in a tertiary hospital or higher medical institution; 2) patients who have been hospitalized for more than 24 hours in a tertiary hospital or higher medical institution. As for the age range of patients, individuals in their 20s to those in their 50s were recruited so that experience was not limited by age. Physicians and nurses who did not face patients, even if they worked in hospitals, were excluded. In addition, among the patients who stayed in the hospital for more than 24 hours, those who were receiving outpatient care were excluded. As patients could be less familiar with the subject, the patient group consisted of eight participants to take advantage of the focus group. Each of the nurse and

physician groups consisted of six participants. A total of 19 people participated in this study, with one nurse absent for personal reasons on the day of the interview.

## Data Collection

Data were collected through the FGD from May to June 2018 at one-way mirror room from Gallup Korea. The physician (MD, PhD) and nurse (RN, PhD) with experience in conducting qualitative research several times moderated the FGD progression for 100–120 minutes per group. The contents of the discussion were recorded and transcribed with the consent of the participants. During the discussions, the researchers observed the facial expressions and reactions of the participants and recorded them through field notes. Topics affecting PE were derived through literature review,<sup>7,13</sup> and prompts that led to topics were organized by the researchers through discussion. Using semi-structured guidelines, the discussion was conducted regarding topics in the order of PE experiences, obstacles to PE, and factors promoting PE ([Supplementary Tables 1 and 2](#)).

## Data Analysis

Conventional content analysis generally follows the reductive and inductive approach of open coding, creating categories, and abstractions to derive concepts or categories that show phenomena.<sup>18</sup> The specific process is as follows: 1) reading the text repeatedly, 2) deriving keywords and coding them, 3) categorizing them according to the linkage method of the codes, and 4) understanding the hierarchical structure of categories. Categories are extracted and named through inductive methods. Without being limited to pre-made categorical theory perspectives, information can be obtained directly from participants.

Lincoln and Guba's truth value, applicability, consistency, and neutrality were applied to evaluate the validity of the qualitative study.<sup>19</sup> The analysis results were shown to a patient, nurse, and physician among the participants, followed by the process of asking and confirming whether the factors influencing PE described by the participants were well expressed (truth). The research results were also presented to a patient, nurse, and physician, who did not study participants, followed by asking and confirming whether such results were consistent with their experiences (applicability). For consistency, the research process was described in as much detail as possible in the text. While conducting the research, advice was sought from the one (MD, PhD) of authors experienced in many qualitative studies. For neutrality, the researchers ensured that their personal experiences, thoughts, and emotions related to the research topic did not affect the data analysis or research results. The researchers made each other aware of their prejudices by expressing them in writing or verbally and shared them with each other. Additionally, a qualitative researcher, not a medical professional, performed data review to eliminate potential bias.

## Ethical Approval

The research was approved by the Institutional Review Board (No: UUH 2018–03-029-002) of the Ulsan university hospital at Ulsan. Prior to enrollment, we explained the objectives and procedures of this study to the participants and obtained written informed consent from them. Furthermore, it was confirmed in advance that their anonymized quotes would be published.

## Results

Nineteen participants took part in three focus groups. The patients were 20–65 years old, with one college student, one unemployed, and six office workers. The nurses were in their mid-20s to early 30s, and their departments included neurosurgery, cardiology, operating room, orthopedic surgery, and anesthesia. The physicians were all in their mid-30s, and they were all specialists. Their fields included otolaryngology, pediatric hematology, internal medicine, surgical intensive care, psychiatry, and pediatrics, respectively. ([Table 1](#)).

**Table 1** General Characteristics of Participants

Characteristic	Number (%)		
	Patients(n=8)	Nurses(n=5)	Physicians(n=6)
Gender			
Male	4 (50.0)	1 (20.0)	3 (50.0)
Female	4 (50.0)	4 (80.0)	3 (50.0)
Age			
20–29	2 (25.0)	2 (40.0)	6 (100.0)
30–39	2 (25.0)	3 (60.0)	
40–49	2 (25.0)		
50-	2 (25.0)		
Occupation			
Employee	6 (75.0)		
Student	1 (12.5)		
Unemployed	1 (12.5)		
Department			
Surgery		2 (40.0)	1 (16.7)
Internal medicine		1 (20.0)	3 (50.0)
The others		2 (40.0)	2 (33.3)

## Categories Arising from Focus Group Discussions

As a result of the FGD, a total of 479 data were coded. Based on the coders, three categories and eight sub-categories were derived (Table 2). The time points when PE was possible were divided into three parts: the choice of the medical institution, the treatment process, and after patient safety incidents.

### Category 1. The Choice of Medical Institutions as the First Step in Independent Patient Engagement

Selection based on subjective reputation after active search through acquaintances and social networking sites

Patients making the choice of hospitals was viewed as the first moment of PE. Patients answered that they obtained information about hospitals and diseases by searching for symptoms on social media or portal sites. When selecting

**Table 2** Categories and Quotes Related to Patient Engagement for Patient Safety

Category	Sub-category	Quotation [participant ID]
I. The choice of medical institutions as the first step in independent patient engagement	I.1. Selection based on subjective reputation after active search through acquaintances and social networking sites	<ul style="list-style-type: none"> <li>• "I think there is a tendency to research things, like reputation, in advance and choose a medical institution" [Patient 5]</li> <li>• "Before going to the hospital, I do a lot of research and check through social networking sites or portal sites" [Patient 3]</li> <li>• "I do not think it is appropriate for patients to have unconditional trust in the hospital. We need to look at objective reviews, not just institutional brand names". [Nurse 4]</li> <li>• "They (patients) consider themselves as experts! If they see a doctor two or three times, they think of themselves as experts, they evaluate the medical institution, and tells others not to go to this institution". [Physician 1]</li> </ul>
	I.2. National data on accreditation and evaluation of medical institutions unused for both patients and medical personnel	<ul style="list-style-type: none"> <li>• "I do not think there is much difference (with or without accreditation)". [Patient 2]</li> <li>• "(about healthcare quality assessment) uhm. Is it grade 1? There is always something, attached in hospital, our hospital was awarded something like this grade. But I do not know the meaning, and how to get. when did it get. who gave this award". [Nurse 3]</li> <li>• "I think the medical institutional name (brand) contains the value of that (national hospital evaluation data)". [Nurse 2]</li> <li>• "I have experience being evaluated for accreditation, but I do not know if it is a reliable data because it is just the result of paperwork" [Physician 5]</li> </ul>

(Continued)

Table 2 (Continued).

Category	Sub-category	Quotation [participant ID]
2. Treatment process requiring continuous patient engagement	2.1. Patient's active and independent questioning attitude	<ul style="list-style-type: none"> <li>● "When I knew exactly what to ask, the physicians and nurses treated me differently". [Patient 6]</li> <li>● "Patients seem to be reluctant to ask questions because they fear the medical personnel will be offended. (omitted) There is no system where we (patient and medical personnel) can freely talk to each other". [Nurse 2]</li> <li>● "I have already explained it before procedure. Is there any need to ask another question to me even during the procedure? (It disturbs me)" [Physician 5]</li> <li>● "The patient brought me the medicine received from another hospital and asked me to inject it. 'Other hospitals had administered it like another way, why is it different here?' They looked me up and down critically". [Physician 6]</li> </ul>
	2.2 Cooperation of patients and guardians in the treatment process	<ul style="list-style-type: none"> <li>● "I think it is burdensome to put a lot of responsibility on caregivers or patients". [Patient 2]</li> <li>● "Because it is not uncommon for caregivers to secretly feed patients" [Nurse 5]</li> <li>● "These days, the name of the patient is written on the medicine, and the pharmacist also explains the administration, so if the medicine is taken incorrectly, would the patient not be responsible?" [Physician 3]</li> </ul>
	2.3 Insufficient medical personnel and overburdened work	<ul style="list-style-type: none"> <li>● "I cannot ask the nurses and physicians because they are always too busy and unkind. I wish there were more medical personnel so I could ask questions at any time". [Patient 2]</li> <li>● "I do not think nurses have the physical and psychological space to worry about patient safety because the number of patients in charge per nurse is high and the workload is too heavy". [Nurse 3]</li> <li>● "Improving the quality of life of residents can allow better care of their patients. However, the policy that did not increase the number of residents and only shortened the working hours was established inconsistent with the reality. As a result, the handover does not work properly, and there is a possibility that problems may arise during the night shift". [Physician 2]</li> </ul>
	2.4. Insufficient patient safety education for patients	<ul style="list-style-type: none"> <li>● "I think we are giving more caution to the caregiver than the patient". [Patient 3]</li> <li>● "If education is delivered to patients accurately, patients will not hesitate to ask us questions" [Nurse 4]</li> <li>● "It is difficult to ask the patient, so I double check it with a nurse". [Physician 5]</li> </ul>
3. Ignored patient engagement after patient safety incidents	3.1. Emotional and impetuous attitude to assert only one's own position	<ul style="list-style-type: none"> <li>● "(In case of a patient safety incident) I will call the broadcasting station or inform the outside of the hospital about my injustice". [Patient 7]</li> <li>● "If there are no major problems with the patient, it can be kept secret from the patient and guardian". [Nurse 2]</li> <li>● "(Patients) can make small things big these days through social media...(omitted) When an accident occurs, rather than apologizing to patients and caregivers, we tend to find out who made the mistake at first". [Nurse 4]</li> <li>● "The patient believed that the physician would solve everything, but when an incident occurs contrary to their expectations, they seem to feel a great sense of betrayal!". [Physician 4]</li> </ul>
	3.2. Difficult medical dispute solution to utilize realistically	<ul style="list-style-type: none"> <li>● "When a medical incident occurs, it is like rocking with an egg". [Patient 8]</li> <li>● "It is hard to say anything because I do not know much about medical disputes either". [Nurse 1]</li> <li>● "(about the medical dispute mediation committee) I do not think physicians need to respond" [Physician 1]</li> </ul>

medical institutions, they referred to the experiences of acquaintances who had visited the hospitals, and they also shared their previous experiences with others. Physicians, however, were concerned about the online criticism of physicians toward their prescriptions and the kindness of patients claiming to be experts on the subjects because online sharing of experiences by non-professional patients can threaten patient safety. Both healthcare workers and patients were mainly concerned about the reputation of the hospital in the stage of the choice of medical institutions. During the reputation check, the participants were concerned about the size or facility of the medical institution, the friendliness of the staff, and the gender of the physician for departments like obstetrics and gynecology or pediatrics. Nurses and physicians believed that the evaluation of the hospital's name itself included its brand name, size, facilities, friendliness of

employees, and expertise of healthcare workers. Patients believed that selecting a medical institution based on its name would ensure other associated hospital evaluation indicators.

### **National data on accreditation and evaluation of medical institutions unused for both patients and medical personnel**

The government of South Korea implements accreditation and healthcare quality assessment for public disclosure to ensure healthcare quality. Nevertheless, patients, nurses, and physicians were generally unaware of the objective healthcare quality assessment data provided by the nation. Patients did not trust the national assessment data, commenting that the data did not affect their choice of hospital. As an absolute evaluation, and not a relative one, both nurses and physicians regarded healthcare quality assessment as just a result of paperwork rather than reflecting the actual environment, which was insignificant. Both patients and healthcare workers had a low awareness of nationally provided assessment data. However, they were still willing to check such evaluation data.

## **Category 2. Treatment Process Requiring Continuous Patient Engagement**

### **Patient's Active and Independent Questioning Attitude**

Patients wished to be able to check the medication information on their own or actively engage in the treatment process while not invading the boundary of the physician. Patients also stated that the way they were treated by healthcare workers differed depending on their level of active participation in the treatment process, such as the level of questions they asked. However, the patients mentioned that it was not clear to what extent they could be involved, and it was difficult to ask questions as they walked on eggshells around the physicians and nurses. Patients also complained that they were under pressure due to the asymmetry of medical knowledge and that they often lost their opportunity for engagement due to the short treatment time. Nurses also sympathized with the difficulties of patients in communicating with healthcare workers, pointing out that there was no system to encourage their active engagement. On the other hand, physicians got the impression that some patients visited the hospital as if they were shopping for healthcare rather than receiving treatment, and they judged that there was a large difference in the patients' attitudes depending on the size of the hospital. Furthermore, it was pointed out that excessive intervention, such as active expression of opinions by patients and caregivers during the treatment process, may sometimes interfere with the treatment process.

### **Cooperation of Patients and Guardians in the Treatment Process**

Nurses argued that some patients or caregivers were unaware of the need to participate in the treatment process and that they had experienced patient safety incidents due to non-cooperation by caregivers. Nurses expressed difficulties in seeking the cooperation of caregivers and expressed frustration when a patient safety incident occurred. Physicians believed that patients also had a responsibility to take part in all the treatment processes for their safety. However, unlike the healthcare providers, patients also expressed the opinion that it would be unreasonable to put too much burden on the caregiver.

### **Insufficient Medical Personnel and Overburdened Work**

Patients saw nurses working busily, even at night, and they were often afraid to bother them by asking a question. Patients also experienced unkindness accordingly. They often lost their engagement opportunities, such as asking questions, due to the short treatment time. Some nurses argued that patient safety management activities put more strain on the already overburdened nurses. Physician 2 was concerned that patient safety might be threatened by an improvement in the working environment. For example, while the number of medical residents had not increased, the working hours of residents were reduced, raising concerns about inadequate handovers for patients in critical conditions or problems during duty hours. Although these efforts were positive, it was said that several aspects should be considered together.

### **Insufficient Patient Safety Education for Patients**

It was mentioned that nurses and physicians were educating patients to participate in the treatment process and that patient representatives were involved in safety management activities. However, some nurses recognized fall incidents with patients due to their non-cooperation, despite several fall prevention educations. Patients did not feel much of the



educational experience. Although patients were aware of patient identification using open-ended questions, they seemed to explain other information to caregivers rather than patients. Physicians said that it was difficult to ask the patient, so they excluded the patient from the treatment process and replaced the same with a double check with a nurse.

### Category 3. Ignored Patient Engagement After Patient Safety Incidents

#### Emotional and Impetuous Attitude to Assert Only One's Own Position

When patient safety incidents occur, everyone faces an awkward situation. Healthcare workers say patients become very emotionally affected. Patients said that they were convinced by a sufficient explanation from healthcare workers about an incident. If not, they held a grudge against the physician who did not apologize for the incident, wishing to take revenge on the medical institution later. On the other hand, nurses pointed out that patients often shouted and asked for financial compensation after the event of an incident. Nurses were afraid of not only medical lawsuits but also unpredictable patient responses from using the media or press, as this could make a small incident go viral, growing into a big issue on social media.

Healthcare workers said that while all incidents were reported internally in the hospital, there were cases where incidents causing no major problems for the patients were kept secret from the patients and caregivers. Healthcare workers were concerned that unilaterally admitting fault and apologizing to patients or caregivers when explaining the circumstances of an incident could harm the hospital organization. Therefore, it was stated that apologies to patients would not be made without sufficient agreement within the organization.

Physicians said that they did not have enough opportunities to meet patients or caregivers even in the event of patient safety incidents, due to insufficient physical time. Physicians complained of cases in which a third party that had not been present during the treatment came into the scene to make the situation more dramatic, or the patients and caregivers were too enraged to understand the explanations provided by physicians. Physicians said that such emotional reactions of patients could be due to a sense of betrayal regarding trusting their physicians too much.

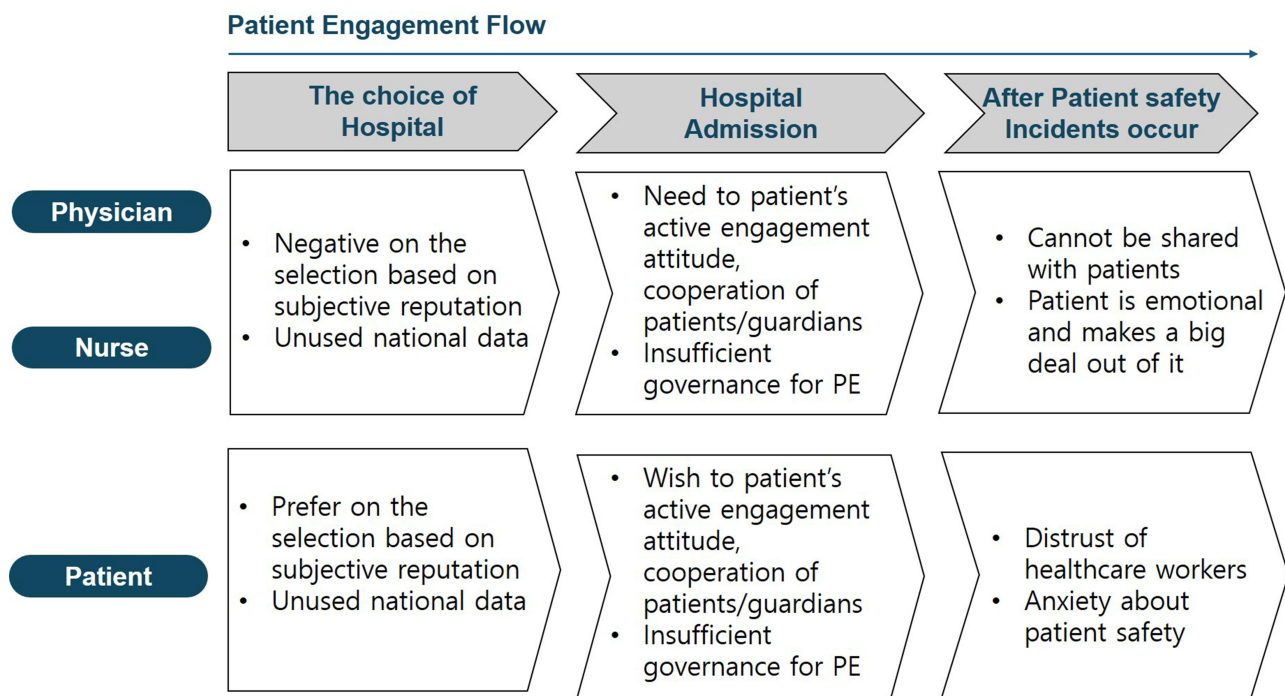
#### Difficult Medical Dispute Solution to Utilize Realistically

Patients pointed out that the medical dispute felt as if they were throwing straws against the wind, and there was practically no way for patients to be protected. Since settling was not the best method of ending a dispute, patients would look into the national system during an emergency, but they did not consider it the most reliable solution. Nurses said that they had experienced being criticized for notifying patients after reporting medical incidents to their supervisors. Even when medical disputes arose, they were not taught how to deal with them, with most of them answering that they did not know. Physicians distrusted the medical dispute mediation process, saying that there was no need to comply with it. In addition, both nurses and physicians regarded accident resolution as an institutional problem, not the problem of an individual employee. Since healthcare workers were employees of a medical institution, they could not make a decision against the position of the institution.

## Discussion

In this study, a qualitative study was conducted through FGD to identify factors affecting PE by patients, nurses, and physicians, for patient safety in hospitals. The factors affecting PE were categorized and classified into those at three time points: selecting medical institutions, during treatment, and after a patient safety incident. Regarding the factors affecting PE, patients, physicians, and nurses sympathized with each category but showed different positions, suggesting two-sided characteristics of obstacles and facilitation. Participants viewed the start of engagement as the moment of choosing a hospital and thought that if they experienced a patient safety incident, engagement should continue even after discharge (Figure 1).

This study found that patients, nurses, and physicians were generally unaware of the objective hospital evaluation data provided by the government, and patients relied on information from their reputations, social media, and portal site searches. It was also like the criteria for patients choosing emergency services due to views of family, friends, or healthcare professionals.<sup>20</sup> On the other hand, healthcare providers were concerned that patients' excessive reliance on online information sometimes had a malicious effect. Nevertheless, it is necessary to provide accurate health information



**Figure 1** Perspectives on patient engagement.

to patients. Measures such as shared decision-making, use of decision aids, consumer representatives, and application of electronic and Internet-based facilities have been proposed.<sup>21–24</sup> Successful PE, however, will depend on the approach taken and contextual factors, including barriers such as cost, organizational culture, and population-specific restrictions, as well as structural facilitators such as government support.<sup>25</sup> There is a need to help patients make the best choice of hospital beyond the geographical limits. It is necessary to start by sharing reliable evaluation data or certification status data with patients to promote PE in the pre-hospital stage.

During treatment, both patients and healthcare workers expressed their hopes for active and independent engagement from patients, but they also expressed the difficulty of requesting cooperation and education from patients. Contrary to the perception of healthcare workers in this study, the performance and morale of healthcare workers increased with an increase in PE.<sup>26</sup> Furthermore, as PE involves treatment decisions based on the values and preferences of patients rather than physicians, it often leads to the selection of treatments that are relatively inexpensive and less invasive.<sup>27</sup> Patients who have the opportunity to make decisions along with healthcare workers are more satisfied with their treatment.<sup>28</sup> It is thus necessary to reduce the gap between the known effects of PE and the negative perceptions of patients and healthcare workers toward PE.

From the patient's point of view, the most impeding factor in PE was the perception that the patient's role and condition were subordinated to those of the healthcare workers. Their distrust of healthcare institutions hindered PE in the process of choosing medical institutions and the treatment process. However, patients with more knowledge, skills, and confidence participated more positively in activities and had better outcomes.<sup>29,30</sup> Patient-centered care through PE in older patients with multimorbidity improved patient-reported outcomes such as higher quality-adjusted life-years, fewer hospital visits and disease specific symptoms.<sup>31</sup> Therefore, it is necessary to activate PE for patient safety, which requires individual patient safety activities. For example, a "Speak Up" campaign can be a starting point for patients and their families to participate in the treatment process.<sup>32</sup> The AHRQ suggested what patients and their caregivers can do to prevent medical errors related to adverse effects of drugs, hospitalization, and surgery, as well as medication errors.<sup>9</sup>

However, this study revealed that being given a role could be burdensome for patients and caregivers. Rather than placing the full responsibility on patients and caregivers, there must be a leader or hospital director who understands the importance of patient- and family-centered care, and their support should be given priority.<sup>33,34</sup> Physicians and nurses



said that trust between patients and healthcare workers was necessary, but patients' unconditional trust in healthcare workers should be avoided. Medication errors can be partially prevented by educating patients on medication safety.<sup>35</sup> However, they also expressed concern that the mistakes of medical personnel would create distrust among patients. Participants agreed that a shortage of healthcare workers and excessive workload due to patient activity were impediments to PE for the prevention of patient safety incidents. Increasing patient safety incident prevention activities without improving the healthcare workforce and the treatment of healthcare workers can further threaten patient safety.

Both patients and healthcare workers were emotional, busy asserting their respective positions after patient safety incidents, with difficulties arising from the impractical methods of resolving medical disputes. To allow PE after a patient safety incident, it is necessary to prepare a legal basis for disclosure of patient safety incidents. Disclosure of patient safety incidents may result in decreased medical litigation and punishment intent, increased trust in healthcare workers, increased physician recommendation and intention to return, increased medical quality evaluation scores, and a decreased sense of guilt for physicians.<sup>36</sup> As factors facilitating communication of patient safety incidents, it is necessary to form a patient safety culture, introduce policies, and provide education.<sup>37</sup> In South Korea, patient safety incidents are reported autonomously through the "Korea Patient Safety Reporting and Learning System". Healthcare providers complained of difficulties due to patients' distrust and negative perceptions of incident reports in the field of healthcare. Non-punitive response to error, staffing and communication and openness are items that receive low scores in patient safety culture, so cultural change is necessary.<sup>38</sup>

This study had several limitations. Patients in their 20s to 50s were recruited evenly, while physicians and nurses were mainly in their mid-20s to mid-30s. Although the participants in the physician and nurse groups shared similar experiences, there could be differences in experience with a wider age range. Furthermore, there may have been a difference in perceptions according to the size of the medical institution visited by the participants and the composition of the healthcare workforce. Despite such limitations, this study attempted to conduct FGD by grouping the participants by their occupation, in anticipation of various interactions among them regarding the unfamiliar topic of "PE", where it was difficult to derive experiences from the participants. The study was meaningful in that it explored the experiences of patient safety in patients, physicians, and nurses to identify the factors affecting PE. It is expected that the results will be used as a basis for encouraging various stakeholders to engage in the entire hospitalization process about patient safety, thereby also inducing society to pay more attention to patient safety issues.

## Conclusion

This study examined PE for patient safety experienced by patients, physicians, and nurses' step by step, from the choice of hospital to the treatment process, and when a patient safety incident occurred. Although physicians, nurses, and patients recognized that PE in the medical institutions was important, they had different perceptions about the factors affecting them. Patients felt a lack of PE from medical staff during the hospital selection process before hospitalization, during treatment, and after a patient safety incident occurred. On the other hand, although medical staff made efforts to involve patients in the treatment process, patients had a contrasting perception during the hospital selection stage or after a patient safety incident occurred. To practice patient centered care through effective PE, efforts will be needed to narrow the gap between the positions of the three most central groups.

## Data Sharing Statement

The datasets are not publicly available as no consent was sought from participants to allow sharing of data with third parties.

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## Disclosure

The authors report no conflicts of interest in this work.

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