Nurses' Perceptions of Joint Commission International Accreditation on Patient Safety in Tertiary Care in South Korea: A Pilot Study

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/Abstract/

Objectives: To explore nurses' attitudes toward Joint Commission International (JCI) accreditation and its perceived impact on patient safety, as well as the perceived degree of implementation of the International Patient Safety Goals (IPSG), in tertiary care in South Korea. **Methods**: A cross-sectional observational study was conducted consisting of an online questionnaire (N = 76) and a semi-structured Skype interview (N = 5). Sampling focused on nurses working in South Korean tertiary hospitals with an aim to include representation from the all ranges of experience. Descriptive statistics and descriptive correlation (Spearman's ρ) analysis was performed to interpret the viewpoints and highlight potential correlations. **Results:** An overarching positive attitude toward accreditation was found. Association between experience and attitude toward certification (ρ = .345, p = .002) and perceived positive impact of safety (ρ = .338, p = .003) were identified. Participants agreed that the IPSG have been implemented. **Conclusions:** Achieving JCI accreditation is seen positively in South Korean tertiary care. Nurses revealed positive satisfaction with JCI accreditation. The IPSG have been implemented; however, there is room for improvement.

Keywords: JCI, safety culture, IPSG, certification, nursing

/H1/Introduction

Healthcare organizations can seek accreditation as a self-regulated step for upholding high standards in healthcare delivery as well as gaining recognition for care excellence (Abolfotouh, Alkelya, Abukhalid, Salam, & Alamry, 2014; Nicklin, 2013; Oh et al., 2013; Saut & Berssaneti, 2017). Accreditation programs can improve the structure and process of healthcare services delivered and clinical outcomes (Alkhenizan & Shaw, 2011) and often stimulate positive and long-term changes in organizational and clinical practice, thereby ensuring compliance and improvement (Braithwaite et al., 2010).

In South Korea, governmental evaluation of medical institutions for quality and safety has been carried out since 2004. There are 61 different hospital accreditation organizations that provide external assessment based on the established accreditation standards (Shaw et al.,

2013). These include the International Society for Quality in Health Care, the National Committee for Quality Assurance, the European Society for Quality in Healthcare, Accreditation Canada International, Australian Council on Healthcare Standards International, and the UK Accreditation Service and QHA Trent Accreditation (Yildiz & Kaya, 2014).

After the revision of the Medical Service Act in 2009, many organizations in South Korea focused their attention on acquiring international certification and attracting foreign patients (Yang & Choi, 2014), particularly through Joint Commission International (JCI) accreditation. International certification can be useful for improving the international recognition of healthcare institutions and proving excellence of medical quality (Oh et al., 2013). JCI accreditation was introduced in South Korea in July 2007 by Yonsei University Shinchon Severance Hospital. In August 2009, the Korea University Anam Hospital received the second JCI accreditation. In 2017, there were eight tertiary hospitals with JCI accreditation (to which this study reached out), following a already continuously increasing trend in terms of interest (Han et al., 2013).

Like other accrediting bodies, the JCI provides accreditation to hospitals to improve quality and patient safety, among other aspects of care (Alkhenizan & Shaw, 2011). However, accreditation through the JCI, which is the largest international accreditation organization (Lee & Chun, 2012), offers an extensive accreditation framework. As such, JCI accreditation ranked high on a wide range of attributes including management integration, public reporting and confidence building, quality and safety, and international profile (Tabrizi, Gharibi, & Wilson, 2011). In addition, the International Patient Safety Goals (IPSG) were introduced by the JCI to support evidence-based solutions to challenging areas in healthcare safety.

According to Han et al. (2013), many hospitals in South Korea pursue JCI accreditation because they tend to distrust the previously existing medical institution evaluation system. These healthcare organizations also seek to establish international certification standards for participation in the global healthcare industry. These changes raise the question of whether introduction of JCI accreditation has affected staff perceptions of processes and general safety culture.

Administrators and policy makers can gain valuable information by analyzing medical staff's perceptions of patient safety (Khater, Akhu-Zaheya, Al-Mahasneh, & Khater, 2015). In general, the perception of healthcare professionals is that accreditation helps patient safety (Abolfotouh et al., 2014; Alkhenizan & Shaw, 2011; Ehlers, Jensen, Simonsen, Rasmussen, & Braithwaite et al., 2017; Saut & Berssaneti, 2017). Nurses play a crucial role in patient safety because they participate in almost every aspect of healthcare delivery, they perceive patient safety as primarily their responsibility (Khater et al., 2015), they influence quality of service and patient safety (Aboshaiqah & Baker, 2013), and they follow the policies and processes of an organization. Thus, understanding nurses' viewpoints on the aspects that influence patient safety is essential. It is likewise important to understand the nursing environment, including communication, inappropriate policies, fatigue, stress, workload, high-tech equipment, and arrangement of nursing units. For example, an exploratory study conducted in a Korean hospital (Kim, An, Kim, & Yoon, 2007) discovered that a number of nurses felt uncomfortable reporting errors and concerns about patient safety.

The aim of this study was to explore nurses' attitudes toward JCI accreditation and its perceived impact on patient safety. Additionally, the study sought to determine the perceived degree of implementation of the International Patient Safety Goals (IPSG). This study was focused on tertiary care centers in South Korea.

/H1/ Methods

This cross-sectional observational study of nurses working in JCI accredited hospitals in South Korea, used a predominantly qualitative approach consisting of a 10-minute online anonymous questionnaire and a semi-structured online interview. The data were collected between July and September 2017. The goal of the survey was to explore (a) whether nurses perceived JCI standards as beneficial to safety, (b) potential association of attitude toward JCI accreditation and nurse training qualification and experience, and (c) whether the nurses believed their organization implemented IPSG**.**

The questionnaire was divided into three parts. Part A contained closed questions relating to the participant's demographics such as age, clinical nurse experience, current position, department, hospital, and highest education qualification. Part B focused on the opinion of the participants toward JCI accreditation, such as whether JCI accreditation helps the hospital improve patient safety and their attitude toward obtaining and maintaining accreditation. Part

C asked for the nurses' opinions on IPSG achievement by their organizations. The questionnaire used a five-point Likert scale to convey agreement (strongly disagree, disagree, neither agree nor disagree, or strongly agree). Questionnaire participants were also invited for a semi-structured Skype interview. The interviews were used to support the interpretation of the result and explore unknown attitudes toward JCI accreditation.

The sample population included nurses working in tertiary hospitals with JCI accreditation in South Korea who were familiar with JCI accreditation. For the purpose of this study, convenience sampling, with the trade-off of limiting generalizability, was adopted for easier recruitment across multiple organizations to establish an initial understanding of the overall attitude toward JCI accreditation. In total, 77 questionnaires were collected (Table 1) from nurses in 8 hospitals (5 did not indicate which of the 8 they worked at). One response was excluded from the sample because the nurse was not familiar with JCI accreditation. Five volunteer nurses from the original sample were recruited for the semi-structured interviews (Table 2). Participating nurses responded to the questionnaire email indicating their willingness to be interviewees. Despite the small number, the interviews were considered useful to help interpret the questionnaire results and lay the foundation for further study.

Association analysis was performed on the following variables: (a) attitude toward obtaining and maintaining JCI accreditation (ordinal), (b) perceived impact of JCI accreditation to safety (ordinal), (c) years of clinical experience (ordinal), (d) years in the organization (ordinal), and (e) education level (cardinal).

The Korean and English versions of the questionnaire and topics for discussion in the interviews were piloted for content validation by two Korean postgraduate researchers, a Korean nurse in tertiary care, and two United Kingdom postgraduate researchers. English translations were done by the authors with sample checks using Google translate. Finally, a Cronbach-alpha internal reliability test of the Likert scale was performed, indicating a good consistency ($\alpha = .856$). The data were analyzed using descriptive statistics and association analysis. This included Spearman's ρ for correlation and p for statistical significance. The statistics tool used was SPSS version 24.

As part of the protocol approved by the University of Warwick Biomedical and Scientific Research Ethics Committee (REGO-2017-WMG-0747), an electronic participant information

leaflet was sent with the recruiting email explaining the purpose and privacy aspects of the study (e.g., the study was anonymous, ranges were collected when possible to increase anonymity). All the Skype interview participants were given a brief overview of the study and provided consent before the interview began. Additional personal details were not recorded.

/H1 Results

Table 3 shows the frequency of responses on attitude toward JCI accreditation and opinion on impact of this accreditation on patient safety. Almost half of the survey participants (43.4%, n = 33) had a positive attitude toward obtaining and maintaining JCI accreditation at their hospital with three nurses (3.9%) indicating a very positive attitude. Only a quarter of nurses (25%, n = 19) had a negative attitude, with three nurses (3.9%) indicating a very negative attitude. In terms of perceived impact of JCI accreditation on patient safety, the results were more positive. Forty-eight responses (63.2%) were positive and very positive, and only three responses (3.9%) were negative and very negative.

There was a positive association between years of clinical experience and years in the organization with a positive attitude toward obtaining and maintaining JCI accreditation (ρ = .345, p = .002 and ρ = .383, p = .001, respectively) and with a positive perceived impact of JCI accreditation on safety (ρ = .338, p = .003 and ρ = .321, p = .005, respectively). No significant association was seen between education level and either attitude toward obtaining and maintaining JCI (ρ = .261, p = .023) or with perceived impact of JCI accreditation to safety (ρ = .198, p = .086).

Table 4 presents the descriptive statistics analysis for the questions on IPSG. For all questions, the majority of responses were in the agree and strongly agree categories. Questions regarding hospitals implementing a time-out in the operating theater (question h), evidence-based hand hygiene guidelines (question i), and processes to reduce risk from falls (question j) received a high percentage of strongly agree responses (23.7%, 30.3%, and 14.5%, respectively) and more than 90% of combined responses in the agree and strongly agree categories. The question about hospitals implementing a process to improve effectiveness of communication received the lowest number of responses in the agree (55.3%) and strongly agree (7.9%) categories and the highest percentage in the disagree category (6.6%).

The interviews further corroborated the quantitative results. The perception that nurses could perform their patient-related activities more safely after implementation of IPSG was shared by all interviewees. Application of JCI accrediting standards helped to focus organizational culture on safety. One nurse stated, “Prior to achieving JCI accreditation, the concept of patient safety did not exist among medical staff, and there were no rules or guidelines regarding patient safety.” Another nurse said, “We have been more advanced in patient safety and environment because we have managed more detailed regulations and specific indicators on patient safety after JCI accreditation.” Yet, another nurse conveyed a positive attitude toward accreditation but not toward the specific framework, stating, “In addition to JCI, there are many ways to evaluate and improve hospital quality. For example, there are in-hospital and national accreditation options. Therefore, I believe it does not have to be JCI accreditation.” Regarding IPSG, the nurses’ comments indicated a general agreement that the goals are implemented. Some nurses identified IPSG that lacked satisfactory implementation; however, they indicated the framework has highlighted the issue and their efforts to address it.

/H1/ Discussion

Overall, the results of the study suggest that accreditation is seen in South Korea as a positive achievement and is perceived to positively affect patient safety. As noted by Hirose, Imanaka, Ishizaki, & Evans (2003), accreditation is a vital tool to support efforts to protect patient safety. George, Gupta, & Sibal (2005; p. 50) claimed that “an accredited hospital assures the best practices in a safe environment and that the patient is in ‘safe’ hands.” Furthermore, according to Tabrizi et al. (2011), JCI accreditation appears to have a significant effect on patient and staff safety improvement, which may be reflected on the perception of staff.

The interview results further confirm the literature considering one of the main drivers for the positive attitude was the organizational changes triggered by the accreditation process. For example, one nurse stated, “I became aware of the concept of patient safety, and as the internal regulations were determined, guidelines for the safety of patients were prepared.” A number of comments were along the same lines, mentioning placement of clear procedures where there was ambiguity and clarity on nurses’ responsibilities when incidents occur. One nurse indicated, “In the past, policies and procedures were ambiguous. However, JCI accreditation has helped to improve patient safety with specific indicators.” This viewpoint

corresponds to the finding that implementation of accreditation may result in the introduction and use of indicators (Chuang, Howley, & Hancock, 2013). Another nurse said, “When a needle stick injury occurred in the past, the staff had the choice to request a blood test. However, after JCI accreditation, the needle stick injury process was developed. Now when it occurs, it is compulsory for staff to report it and request a blood test.” In addition, accreditation also disclosed other safety aspects such as goals not explicitly considered, education and training of staff, and improving patient and family communication and education. These comments appear to support that accreditation may provide stakeholders with a guideline about how quality and safety need to be managed within an organization (Casey & Klingner, 2000; Pomey, Contandriopoulos, François, & Bertrand, 2004).

Obtaining accreditation was more than a paper exercise for the organizations, and awareness of patient safety processes impacted service. One nurse asserted, “It seems that behavioral change has occurred among medical staff to protect patient safety in clinical practice.” Another nurse mentioned, “We have managed more detailed regulations and specific indicators on patient safety after JCI accreditation.” Furthermore, the study discovered several nurses believed that JCI accreditation could help develop a reputable brand image in media.

Nevertheless, there is a perceived downside to accreditation. One nurse indicated that accreditation requires cost, time, and effort. The literature (Saleh, Bou Sleiman, Dagher, Sbeit, & Natafgi, 2013; Emer, Cowling, Mowlds, & O’Connor, 2014) confirms that accreditation efforts require substantial time and resources, which need to be considered when deciding to seek accreditation. Yet, accreditation can have a longer-term positive impact on expenditures reduction (Merkow, Chung, Paruch, Bentrem, & Bilimoria, 2014). For example, expenditures were reduced when a 1-year intervention program for outpatient antibacterial use was introduced during the JCI accreditation process in a hospital in the Second Affiliated Hospital of Zhejiang University, in China (Song, Li, & Zhou, 2014). The effort of obtaining accreditation may be behind the difference between the responses for obtaining and maintaining JCI accreditation and the impact of JCI accreditation on safety. Both the questionnaires and the interviews confirm a consensus on the positive perception of impact of JCI accreditation on patient safety. The survey revealed that 63.2% of responses were in the agree and strongly agree categories and only 3.9% in the disagree and strongly disagree categories. However, for the attitude toward obtaining and maintaining JCI

accreditation, the frequency of responses was 43.4% and 25%, respectively, which shows a considerable difference. One nurse noted that accreditation did not have to come from JCI, indicating a positive attitude toward accreditation and its perceived benefits but questioning the necessity for the specific framework. Although this aspect was outside the scope of this study, it would be an interesting question to address in the future.

The survey showed that, in general, the majority of nurses appear to believe that IPSG are maintained at their hospital. Similar findings were revealed in a study conducted in Iran (Mousavi et al, 2016). The goal regarding evidence-based hand-hygiene guidelines to reduce the risk of healthcare-associated infections showed the most strongly positive responses (30.3% strongly agree and 91.8% in the agree and strongly agree categories), whereas effectiveness of verbal and/or telephone communication among caregivers showed the most negative responses (7.9%) and the least in the agree and strongly agree categories (63.2%). The evidence demonstrated that a majority of nurses are satisfied with the status of IPSG in their hospital. This finding could be because patient safety culture has been well established for all medical staff through the series of JCI accreditation. In addition, the hospital seems to constantly research and monitor processes to meet IPSG. As one nurse reported, "IPSG committee members are checking … each month. They also … monitor how well each department is performing and provide feedback." Interviews revealed nurses' concerns about the sufficiency of processes regarding reporting critical results of diagnostic tests, reliability of patient identification, and handover communication (IPSG c, a, and d, respectively). Additionally, it was pointed out that processes are tested when "nurses have too much work" because it is common for staff to balance process compliance with care delivery actions when under pressure.

Positive results on implementation of IPSG indicate awareness of IPSG and that their related rules have been passed into practice. Nevertheless, variation in the agreement frequencies for each IPSG may indicate potential inefficiencies in the way that each IPSG has been implemented. Furthermore, the number of neutral responses needs to be examined for qualitative characteristics. For example, do nurses not believe the accreditation is an effective means for patient safety? Where evidence on the effectiveness of the IPSG is present, would more awareness and feedback to nurses would be appropriate?

There are certain limitations to the study. Although the sample size is satisfactory, it does not necessarily reflect individual organizations because it represented a general view in tertiary healthcare. The convenience sampling used limits generalizability of the conclusions; however, the sample did span multiple organizations, which helps offer a cross-sectional view in South Korea. Furthermore, a larger interview sample may help identify downsides and challenges of accreditation. There is a risk of self-selection bias because individuals with strong views might be more likely to participate in the survey and express their standpoints. This potential bias can be overcome by organizations conducting similar studies with broader participation using probability sampling with this study as their basis.

/H1/ Conclusions

The findings of this study demonstrate that nurses had an overall positive attitude toward obtaining JCI accreditation, which was strengthened when considering its impact on patient safety. This finding is mainly due to appreciation of changing organizational processes based on the accreditation process, as well as emboldening safety awareness and culture of staff. There was overwhelming appreciation that the framework helped to develop safety culture, raising awareness and critical evaluation of all aspects of day-to-day processes from procedures to interaction with patients. Associations between experience of staff and attitude were found, but not on attitude and education or position in the organization. The effort to obtain accreditation was identified as one downside. A majority of nurses in this study believe all IPSG are well maintained at their hospital. Finally, meeting IPSG as part of JCI accreditation has provided clear processes on a number of common patient safety issues, which the nurses thought was not present previously. It was recognized that IPSG provide a framework highlighting areas for continuous assessment and improvement, such as communication among staff.

The study has contributed to our knowledge of nursing staff's viewpoints toward JCI accreditation and its impact on patient safety in the context of tertiary healthcare in South Korea. The findings contribute to our understanding of safety culture within a hospital, how accreditation helps engage nurses, as well as perceptions regarding specific safety goals that may need to be further researched. The findings of this research can be considered a stepping stone to various studies in the field of hospital accreditation and patient safety in South Korea. As underlined in the limitations, it would be valuable if the perceived impact on patient safety could be supported by evidence-based outcomes to compare results with other

similar empirical research carried out in different contexts. In addition, this study can be expanded to examine a wider range of nurses' viewpoints on JCI accreditation. Future research could investigate nurses' viewpoints on other accreditation programs in South Korea and their impact on patient safety to make comparisons with the findings of this study. Furthermore, this study can be expanded to study a wider range of healthcare professionals' viewpoints on JCI accreditation and its impact on patient safety. These study results are relevant to healthcare providers, especially healthcare managers in hospitals in the process of becoming accredited, as well as healthcare policy makers and clinical safety officers.

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Tables

Table 1

Joint Commission International Accreditation and Patient Safety in South Korea: Questionnaire Participants' Demographics (*N* = 76)

Demographic	***n* (%)**
Gender	
Female	74 (97.4%)
Male	2 (2.6%)
Age	
20–25 years	4 (5.3%)
26–35 years	60 (78.9%)
36–45 years	10 (13.2%)
46–55 years	2 (2.6%)
> 55 years	0 (0%)
Clinical Experience	
< 1 year	0 (0%)
1–3 years	9 (11.8%)
4–6 years	21 (27.6%)
7–10 years	30 (39.5%)
11–15 years	11 (14.5%)
> 15 years	5 (6.6%)
Positions	
Staff nurse	50 (65.8%)
Charge nurse	26 (34.2%)
Head nurse	0 (0%)
Degrees	
College degree	8 (10.5%)
Bachelor's	54 (71.1%)
Master's	14 (18.4%)
Departments	
General ward	34 (44.7%)
Intensive care unit	12 (15.8%)
Outpatient	7 (9.2%)
Operating room	7 (9.2%)

Inspection room	4 (5.3%)
Other	12 (11%)
Years at Current Hospital	
< 1 year	0 (0%)
1–3 years	11 (14.5%)
4–6 years	23 (30.3%)
7–10 years	28 (36.8%)
11–15 years	9 (11.8%)
> 15 years	5 (6.6%)

Table 2

Joint Commission International Accreditation and Patient Safety in South Korea: Interviewees' Demographics

	Nurse 1	**Nurse 2**	**Nurse 3**	**Nurse 4**	**Nurse 5**
Gender	Female	Female	Male	Female	Female
Age (years)	26-35	26-35	26-35	46-66	46-55
Clinical Experience, (years)	4-6	11-15	4-6	>15	>15
Current Position	Staff nurse	Charge nurse	Staff nurse	Charge nurse	Charge nurse
Department	General ward	Outpatient	Operating room	Intensive care unit	Outpatient
Education Level	UG	PG	UG	PG	PG

Note. UG = undergraduate level; PG = post-graduate level.

Table 3

Attitudes Toward Obtaining and Maintaining JCI Accreditation and Opinion on Impact of JCI on Patient Safety

Response	**Attitude Toward JCI Accreditation, *n* (%)**		**Opinion on Impact of JCI on Patient Safety, *n* (%)**	
Very Positive	3 (3.9%)	33 (43.4%) *combined positive*	5 (6.6%)	48 (63.2%) *combined positive*
Positive	30 (39.5%)		43 (56.6%)	
Neutral	24 (31.6%)		25 (32.9%)	
Negative	16 (21.1%)	19 (25%) *combined negative*	2 (2.6%)	3 (3.9%) *combined negative*
Very Negative	3 (3.9%)		1 (1.3%)	

Note. JCI = Joint Commission International.

Table 4

Responses to the Questionnaire Regarding International Patient Safety Goals

International Patient Safety Goals	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
a. The hospital has developed and implemented a process to improve accuracy of patient identification.	0 (0%)	1 (1.3%)	14 (18.4%)	52 (68.4%)	9 (11.8%)
b. The hospital has developed and implemented a process to improve the effectiveness of verbal and/or telephone communication among caregivers.	1 (1.3%)	5 (6.6%)	22 (28.9%)	42 (55.3%)	6 (7.9%)
c. The hospital has developed and implemented a process for reporting critical results of diagnostic tests.	0 (0%)	4 (5.3%)	15 (19.7%)	45 (59.2%)	12 (15.8%)
d. The hospital has developed and implemented a process for handover communication.	0 (0%)	1 (1.3%)	17 (22.4%)	52 (68.4%)	6 (7.9%)
e. The hospital has developed and implemented a process to improve the safety of high-alert medications.	1 (1.3%)	1 (1.3%)	18 (23.7%)	45 (59.2%)	11 (14.5%)
f. The hospital has developed and implemented a process to manage the safe use of	0 (0%)	2 (2.6%)	15 (19.7%)	49 (64.5%)	10 (13.2%)

concentrated electrolytes.					
g. The hospital has developed and implemented a process for ensuring correct-site, correct-procedure, and correct-patient surgery.	0 (0%)	2 (2.6%)	14 (18.4%)	51 (67.1%)	9 (11.8%)
h. The hospital has developed and implemented a process for the time-out that is performed in the operating theater immediately prior to the start of surgery to ensure correct-site, correct-procedure, and correct-patient surgery.	0 (0%)	1 (1.3%)	11 (14.5%)	46 (60.5%)	18 (23.7%)
i. The hospital has adopted and implemented evidence-based hand-hygiene guidelines to reduce the risk of healthcare-associated infections.	0 (0%)	0 (0%)	6 (7.9%)	47 (61.8%)	23 (30.3%)
j. The hospital has developed and implemented a process to reduce the risk of patient harm resulting from falls.	0 (0%)	0 (0%)	10 (13.2%)	55 (72.4%)	11 (14.5%)