The Korean version of the Lasater Clinical Judgment Rubric: A validation study ☆,☆☆

Hyunsook Shin [a,*,1], Chang Gi Park [b,2], Kaka Shim [a,1]

[a] Kyung Hee University College of Nursing Science, 100 Kyungheedaero, Hoegidong, Dongdaemungu, Seoul, South Korea
[b] Department of Biobehavioral Health Science, University of Illinois at Chicago College of Nursing, 845 S. Damen Ave., Room 1160, Chicago, IL 60612-7350, Unites States

ARTICLE INFO

SUMMARY

Background: The scarcity of reliable and valid evaluation tools targeting nursing students' learning outcomes including clinical judgment was identified as one of the barriers in advancing nursing knowledge and skills. However, few studies have assessed the validity and reliability of these tools.
Objectives: Therefore, this study aimed to validate the Korean language version of the Lasater Clinical Judgment Rubric (LCJR), a clinical judgment tool currently used in nursing simulation research and English speaking nursing societies.
Design, settings, participants: This was an observational study in which a cross-sectional designed survey was used to validate the Korean version of the LCJR (K-LCJR) in three universities in Seoul, South Korea with one hundred fifty two senior nursing students.
Methods: All participants completed the established simulation coursework as well as the regular clinical rotation on pediatric nursing along with their assigned team. Students evaluated their clinical judgment from their simulation performance using the K-LCJR after completing a simulation session using high-fidelity simulators and standardized patients (SP). Audio–video enhancing equipment for the student's individual and group reflection was used.
Results: Item analysis of K-LCJR results showed a Cronbach's alpha coefficient of between .897 and .909 and the overall internal consistency reliability coefficient was .910. In the confirmatory factor analysis, the four-factor K-LCJR composed by noticing, interpreting, responding, and reflecting was confirmed with a very good model fit to data, which demonstrated good construct validity.
Conclusions: The K-LCJR is a reliable and valid instrument for measuring clinical judgment in nursing students in Korea.

Introduction

Clinical judgment plays a key role when nurses care for their patients so it is considered one of the critical components of a competent nurse (Tanner, 2006). It is defined as "The art of making a series of decisions in situations in a way that allows the individual to recognize salient aspects of or changes in a clinical situation, interpret their meaning, respond appropriately, and reflect on the effectiveness of the intervention." (International Nursing Association for Clinical Simulation and Learning [INACSL], 2011). Clinical judgment has been often used interchangeably with critical thinking and clinical reasoning, but Victor-Chmil (2013) pointed out that the difference of clinical judgment from other similar concepts was its presentation on action and behaviors, which were observable.

In order to evaluate clinical judgment in nursing students, several strategies have been considered. Case studies are a common strategy in clinical practice but they are limited as performance is not directly observed. However, evaluating students' clinical judgment is hard to perform by clinical faculty with the traditional measuring tools due to limited training in a hospital setting (Cato et al., 2009). Simulation has become popular as a supplemental strategy for nursing students to improve their clinical competency and clinical judgment skills (McCaughey and Traynor, 2010). With the increasing use of simulation in nursing education, the limitation of reliable and valid evaluation tools targeting students' learning outcomes, including clinical judgment, was

identified as one of the barriers in advancing nursing knowledge and skills (Kardong-Edgren et al., 2010). Lee and Choi (2012) reported that most simulation studies and practices in Korean nursing education had used limited evaluation indicators, primarily focused on students' satisfaction and confidence due to the deficit of theory-driven valid tools. At the same time, several measurement tools have been developed to measure clinical competencies but few for clinical judgment (Kardong-Edgren et al., 2010).

The Lasater Clinical Judgment Rubric ([LCJR], Lasater, 2007) was identified as one of tools that had the ability to provide evaluation in Bloom's three cognitive, psychomotor, and affective learning domains (Kardong-Edgren et al., 2010). It was also recognized as one of the only two available instruments to be able to measure and assess six of the eight American Association of Colleges of Nursing (AACN) Baccalaureate Essentials (Davis and Kimble, 2011) which were also nursing core competencies for baccalaureate nurses in Korea (Korean Accreditation Board of Nursing, 2012). Through an intensive review of currently available LCJR studies, Victor-Chmil and Larew (2013) reported an urgent need to examine the validity of the LCJR in larger and different groups as well as the need for continued reliability testing since the entire validity of the LCJR was not established yet.

Therefore, this study aims to validate the LCJR when used in Korean nursing students in their simulation practice.

Methods

Study Design

This was a multicenter study with an observational design using cross-sectional surveys with the goal of validating the LCJR.

Participants

One hundred fifty two baccalaureate nursing students were recruited from three universities in Seoul, South Korea. Students who have a clinical rotation on pediatric nursing between Feb. and Dec. 2013 were included. According to a power analysis for confirmatory factor analysis (CFA), a sample size of 152 participants in this study was recommended. During their clinical rotation, the simulation experience was a required class activity but the self-evaluation on their clinical judgment was done on a voluntary basis.

Data Collection

Students from three schools were introduced to the study and asked to evaluate their clinical judgment from their simulation performance using the K-LCJR immediately after completing a simulation session using high-fidelity simulators and SP. After the informed consent process, all students were divided into several groups having 15–20 students in each group. Each group was further divided into six to seven sub-groups for the simulation activity. Debriefing was done in each sub-group of 15–20 students. Every group followed the established coursework schedule as well as the regular clinical rotation schedule on pediatric nursing. We used the developed simulation coursework on pediatric nursing care developed with the intention of developing students' clinical judgment (Shin et al., 2013). Debriefing was enhanced by the audio–video for the student's individual and group reflection. This process was designed to develop students' clinical judgment according to Tanner's clinical judgment model (2006). "Simulation coursework" for all participants at three schools included the pediatric nursing clinical rotation at their school and any accompanying simulation session with pediatric nursing scenarios within the clinical rotation period. Simulation coursework had three major scenarios, including rapport-building (interaction among nurse–parent–child), febrile infant care simulation, and emergency measures for high-risk newborn with apnea. Clinical judgment using K-LCJR was measured with every

simulation scenario but the measurement with the febrile infant care scenario was used in this analysis. Each simulation takes 1 h including operation, self-analysis, and debriefing. The simulation course proceeded with the order of pre-learning activity, orientation, simulation operation, writing with SBAR (situation, background, assessment, and recommendation) format, watching the video-clip of their performance for self-evaluation, and debriefing. An audio–video recording of the students' simulation experience was given to every student for self-evaluation with the K-LCJR after they completed each simulation session and then the reflective writing on that simulation session using SBAR. Guidance on how to score with the rubric was provided during the simulation orientation session. K-LCJR was scored by each student as they reflected on their simulation session.

Instruments

Clinical Judgment

Clinical judgment was measured using the LCJR by Lasater (2007). The origins of clinical judgment in nursing are traced to 2006 when Tanner suggested a clinical judgment model. Lasater used Tanner's model (2006) for the framework of the rubric. The rubric is composed of four phases of clinical judgment: noticing, interpreting, responding, and reflecting. These four phases encompass the major components of clinical judgment found in complex patient situations that nursing students will encounter (Lasater, 2007). Furthermore, there were 11 total dimensions of each four phases of clinical judgment that were scored as exemplary, accomplished, developing, or beginning. The noticing dimension is focused on observation, recognition of deviation, and information seeking by students. The interpreting dimension includes prioritizing data and interpreting data. The responding dimension focused on mannerisms, communication skills, interventions/flexibility, and use of nursing skills. The reflecting dimension included evaluation and plan for improvement. The assigned scores ranged from 5 to 33, with a maximum of 44 indicating exemplary performance. Lasater (2011) reported that the LCJR had been used for research purposes in several studies and the reported reliability from previous studies ranged from a score of .80 to .97 (Adamson et al., 2012; Mariani et al., 2013). All of reliability reporting was calculated using Cronbach's α coefficient.

Adaptation Process of LCJR

The translation and adaptation of the LCJR followed the major process of the World Health Organization guidelines ([WHO], WHO, 2014). The original English LCJR was translated to Korean by researchers after getting permission from the author in a pilot study (Shim, 2012). The first draft of translated LCJR in Korean was revised by the expert panel having the educational simulation experience. In addition, it was introduced to nursing faculties as well as nursing students to identify its understanding and acceptability. Through this process, the final draft of the LCJR in Korean was translated back to English for comparison to the original by a bilingual interpreter. After having a few minor modifications for the discrepancies, the final version of the LCJR in Korean was used in this study.

Data Analysis

Descriptive statistics were calculated using SPSS 18.0 and first order Confirmatory Factorial Analyses (CFAs) were estimated using Structural Equation Model (SEM) in STATA 13.0 (Acock, 2013). Because the original LCJR was a theory-driven instrument, the CFA was employed for testing its construct validity. To evaluate the overall model fit, the following statistics were used: Chi-square (x^2) statistic and the associated probability (p), the Root Mean Square Error of Approximation Index (RMSEA), Standardized Root Mean Squared Residual (SRMR), Comparative Fit Index (CFI), Akaike's Information Criterion (AIC), and the Bayesian Information Criterion (BIC). AIC and BIC are recommended