

**2020 Abstract of Doctoral Dissertation**  
**Graduate School of Nursing, Sapporo City University**

Development of Direct Care Competency Assessment Measures  
for Critical care Certified Nurse Specialist

Graduate School of Nursing, Sapporo City University (Doctoral Course)

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**I. Introduction**

The objective of this study is to develop direct care competency assessment measures for Critical care Certified Nurse Specialist (CCNS) focusing on direct clinical practice. CCNS in Japan is expected to perform 6 roles as an Advanced Practice Nurse (APN): outstanding practice, education, consultation, coordination, research, and ethical coordination. Direct clinical practice is a core competency for APN and acquisition of the direct care competency leads to outstanding practice for patients and their families. However, there are few studies on APN's practice or competency in Japan. Development of direct care competency assessment measures for CCNS will visualize CCNS's complex and obscured advanced practice and contribute to competency-based education and assessment.

**II. Study Methods**

The study design was an exploratory sequential design with a qualitative-quantitative approach.

The first study was performed to extract direct care competency items for CCNS. We searched Japanese literature describing CCNS's practice on the Ichushi-Web database. Content analysis by Berelson (1952/1957) was used as the analysis method.

The second study was a focus group discussion (FGD) with CCNSs to create a draft of direct care competency assessment measures for CCNS. We examined the content and the appropriateness of expression of the direct care competency items extracted from the first study and created a draft and a questionnaire for the third study. The appropriateness and the difficulty of each assessment measure of the draft were asked in the questionnaire. The Likert scale was used for evaluation.

The third study aimed to finalize the direct care competency assessment measures for CCNS using the modified Delphi method. The panel members were CCNSs including the FGD participants and faculty members of the critical care nursing course. Delphi Round 1 (1st web survey), a panel meeting, and Delphi Round 2 (2nd web survey) were conducted. Descriptive statistics were used to analyze the appropriateness and the difficulty of the direct care competency assessment measures for CCNS.

Consensus was defined as agreement among 75% or more of the participants.

**III. Results**

In the first study, descriptive contents from 10 Japanese articles were analyzed in

terms of CCNS's thoughts, practices, attitudes, and motivations. As a result, 61 subcategories of direct care competency items were extracted from 226 record units. In addition, 16 categories were generated for the roles of CNS in direct care. In the second study, 7 CCNSs participated in FGD and confirmed the validity of the 61 items extracted from the first study. Through the discussion, 1 item was added, and 24 items were corrected in expression. As a result, a draft of the 62-item direct care competency assessment measures for CCNS was prepared.

The panel members who participated in the third study were 8 CCNSs including the FGD participants and 5 faculty members.

In Delphi Round 1, answers were obtained from all panel members. For the appropriateness (9-point Likert scale), more than 75% of the respondents answered "essential" (7-9) in 56 out of 62 items. For the difficulty (4-point Likert scale), answers varied among the items.

A panel meeting was held with 8 members. The 6 items that did not reach consensus in the first survey were discussed and other items were reviewed for correction. The panel members reached agreement for inclusion of the 6 items after the researchers' explanations. These 6 items and other 14 items were revised in expression. The second survey was created with the 62 items including the revised 20 items.

In Delphi Round 2, answers were also obtained from all panel members. For the appropriateness, more than 90% of the respondents answered "essential" in all 62 items. Similar to the first survey, answers varied among the items for the difficulty. Through the two surveys and the panel meeting, the appropriateness of this 62-item direct care competency assessment measures for CCNS was confirmed with consensus.

#### **IV. Discussion**

CCNS's direct care competencies cannot be acquired only through postgraduate education. They can be acquired by accumulating clinical direct care experience for emergency/critically ill patients and their families as well as developing the ability to comprehensively assess the situations in which patients and their families are placed and the ability to lead patients and their families to the best possible outcomes in postgraduate education. It was suggested that these competencies are useful for CNS in other specialized fields since they provide outstanding direct care to any patient with complex and difficult problems. Future tasks are to verify the effectiveness of direct care competency assessment measures by utilizing it for CCNSs and CNSs in other specialized fields and to examine the difficulty level and the time guideline for competency acquisition.

#### **V. Conclusion**

We have developed direct care competency assessment measures for CCNS based on the consensus of critical care nursing professionals. This tool is useful for examination and evaluation of educational methods to promote essential competencies for CCNS as well as improvement and development of CCNS's practical ability.