論 文 内 容 要 約

Development of a Clinical Judgment Scale for Japanese Nurses

（日本人看護師のための臨床判断力尺度の開発）

主指導教員：宮下美香教授
（大学院医系科学研究科　保健学）
副指導教員：川崎裕美教授
（大学院医系科学研究科　保健学）
副指導教員：梯正之教授
（大学院医系科学研究科　保健学）

川瀬淑子

（医歯薬保健学研究科　保健学専攻）

Summary

Introduction

Sophisticated medical care, a declining birthrate, and an increasingly aging population in Japan have highlighted the need for nurses in clinical practice to have advanced nursing practice abilities. Among these abilities, clinical judgment is one of the cores of nursing practice. It is important for clinical nurses who handle multiple patients and deal with various tasks to improve their clinical judgment. When a nurse makes a clinical decision about a patient, she follows several thinking processes. The Clinical Judgment Model (Tanner, 2006) shows the thinking processes underlying the clinical judgment of a skilled nurse; it includes the processes of background, noticing (expectations and initial grasp), interpreting, responding (action and outcome), and reflecting. It is important for nurses to clarify what kind of judgment to exert at each stage of this process in order to develop their clinical judgment. In particular, we believe that it can contribute to the development and evaluation of clinical judgment among new nurses and nursing students and the development of educational methods. Therefore, this study aimed to develop a Clinical Judgment Scale based on this clinical judgment process and verify its reliability and validity.

Methods

1. Developing the Initial Items

Based on the definition of clinical judgment (Corcoran, 1992), the background, noticing (expectations, initial grasp), and interpreting aspects of the Clinical Judgment Model (Tanner, 2006)

were considered as clinical judgment. In order to extract the elements of clinical judgment at each of these stages, we conducted an interview survey with eight specialist nurses and certified nurses in A prefecture, and analyzed the resulting data qualitatively and descriptively. As a result, 18 subcategories and 8 categories were extracted for background, 7 subcategories and 4 categories for forecast, 8 subcategories and 9 categories for initial grasp, and 10 subcategories and 2 categories for interpretation. Forty-four question items were created based on the 43 extracted subcategories and the literature review.

2. Expert meetings and pilot studies

Content validity of the Clinical Judgment Scale was measured through expert review; an expert meeting with two clinical nurses and two researchers was organized to investigate the items. Next, a pilot study was conducted for the eight specialist nurses and certified nurses who participated in the interview, through which we confirmed the appropriateness and ease of answering the question items and revised the expression of a few question items.

3. Main survey

Of the 300 hospitals listed on the website of the Labour Bureau of the Ministry of Health, Labour and Welfare by prefecture in Japan, 28 hospitals with the permission of the nursing manager, general wards and psychiatric wards. A total of 1444 nurses working in CCU and ICU completed the anonymous self-administered questionnaire survey, which included the 44 items of the Clinical

Judgment Scale. A simple tabulation was performed for personal attributes. After item analysis, the question items were selected using exploratory factor analysis to verify factor validity. Additionally, confirmatory factor analysis was performed to determine the goodness of fit the model. Cronbach's α coefficient of the Clinical Judgment Scale was calculated to verify its reliability. SPSS Statistics 24 and Amos 23 were used for the statistical analyses.

Ethical considerations

First, the person in charge of nursing management was explained the purpose of the study, the outline, significance of the research, measures for protecting personal information, data destruction methods, and presentation of the results at academic conferences. The contact information of researchers was provided and informed consent was obtained. Carried out. The nursing manager requested the nurses who were research participants to distribute the research participant request form, survey forms, and reply envelope. The researchers explained, in writing, the purpose of the study, the outline, significance of the research, measures for protecting personal information, data destruction methods, and presentation of results at academic conferences to the participating nurses, The participants agreed to return the completed survey by mail. This study was conducted with the approval of the Hiroshima University Epidemiological Research Ethics Review Board (approval number: E-1432).

Results

Of the participants, 526 were women (86.2%) and 84 were men (13.8%), with an average age of 38.3 ± 9.9 years and average years of nursing experience of 15 ± 9.6.

As a result of the item analysis, 10 items that exhibited a ceiling effect were deleted from the 44 question items. Based on the correlation between items, one question item was deleted while considering the content that seems appropriate for the question item for the 19 sets that showed 0.70 or more. As a result, 23 question items remained. For these 23 items, the maximum likelihood rotation method was performed and two factors were extracted. The first factor shows the nurses' theoretical and practical reasoning when examining a patient's condition; it was named "Theoretical and practical reasoning." The second factor shows the ability to notice and grasp the patient's condition by observing the patient; it was named "Grasping the condition by observation." The results of confirmatory factor analysis to confirm the goodness of fit of the scale revealed that GFI = 0.874, AGFI = 0.849, CFI = 0.933, RMSEA = 0.07. Cronbach's α coefficient was 0.943 for the first factor, 0.924 for the second factor, and 0.965 for the scale as a whole.

Discussion

The 23 items of the Clinical Judgment Scale consisted of two factors extracted as a result of the statistical analyses, based on the background of the Clinical Judgment Model (Tanner, 2006), noticing (expectations and initial grasp), and elements of clinical judgment. The confirmatory factor analysis confirmed that the goodness of fit of the model met certain criteria, supporting the validity

of the constructs of the Clinical Judgment Scale. To confirm content validity, the question items were examined by an expert panel meeting and a pilot study, a modified scale was prepared, the survey conducted, and item analysis performed to select the question items. Thus, it can be said that the 23 items of the Clinical Judgment Scale have content validity.

Study Limitations

This study has some limitations. First, criteria-based validity was not evaluated. In addition, we have not conducted a survey using the 23 items of the developed Clinical Judgment Scale. Further research is required to verify the practicality of the scale.

Implications for Nursing Practice

The Clinical Judgment Scale developed in this study can contribute to the evaluation and training of clinical judgment in new nurses who are inexperienced and have difficulty grasping clinical situations and determining priorities.

Conclusion

The reliability and validity of the Clinical Judgment Scale consisting of 23 items of 2 factors were confirmed. This scale is effective for assessing a nurse's clinical judgment.

Reference

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