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Title	看護師のメタ認知による不安調整思考の構成的学習に関 する研究
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## **Abstract**

The aim of this study was to develop a model-based learning program that enables nurses to construct their own understanding of metacognitive thinking skills for anxiety adjustment and to qualitatively analyze its effectiveness. Focusing on cancer nursing, where anxiety is particularly prevalent, the study explored how nurses recognize and regulate their anxiety. Previous anxiety adjustment programs have primarily relied on methods to address anxiety after it occurs, and there has been insufficient educational programming to teach nurses how to regulate anxiety in real time. To address this gap, a new educational approach grounded in metacognitive theory was developed.

The study first reviewed the research on nurses' anxiety, cognitive skills related to anxiety adjustment, and relevant educational approaches. It identified common triggers of anxiety in cancer nursing, such as difficulties in communication with patients, the unpredictability of patient responses, and time constraints. These were categorized as "ill-structured problems," which significantly contribute to the onset of anxiety. Furthermore, the study recognized metacognitive skills used by experienced nurses to manage anxiety and identified the need for a constructive learning approach to design an educational program.

Next, a learning program was designed to help nurses become aware of metacognitive skills and learn how to apply them in a constructive manner to adjust anxiety. This program was centered around two main educational tools: the "scaffold model" and "anxiety scenarios." The scaffold model visualized the implicit metacognitive processes employed by expert nurses, helping learners explore their own thinking processes. The anxiety scenarios, developed from real clinical situations, provided practical examples for learners to analyze their thought processes and develop anxiety adjustment skills.

The program was then implemented with nine nurses from a university hospital, and its effectiveness was qualitatively analyzed. Initially, the participants had limited knowledge of metacognition, but by the end of the program, all participants had reached the learning goal of recognizing their own anxiety through metacognitive skills. Additionally, they reported increased confidence in applying these skills in real clinical situations.

These results suggest that this learning program is effective in helping nurses acquire the cognitive skills needed for anxiety adjustment. By focusing on real-time anxiety adjustment, it potentially addresses the gap in traditional anxiety management programs. Through a metacognitive approach, nurses became aware of their thought processes and developed the ability to respond appropriately when anxiety arises. This outcome demonstrates the potential of this educational method as a new perspective for supporting nurses in high-stress clinical environments.

This study qualitatively demonstrated that metacognitive thinking is an effective way to regulate anxiety in specific contexts, particularly in cancer nursing. Future research should explore its applicability in other nursing fields and healthcare professions. Furthermore, long-term effects of metacognitive skill acquisition and how nurses apply these skills in practice need further investigation.

The insights from this study's educational design could be applied to the development of practical, self-constructed understanding in various cognitive skills beyond anxiety adjustment in nursing, and could extend to other fields outside of healthcare. The proposed approach has the potential to stimulate research on constructive learning of cognitive skills, contributing to the enhancement of educational practices across diverse disciplines.

Key Words: Constructive Learning Program, Anxiety Adjustment, Metacognition, Nurse, Qualitative Study