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Relationships Between Clinical Decision-Making Patterns and Self-Efficacy and Nursing Professionalism in Korean Pediatric Nurses

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As pediatric nurses must make decisions on a regular basis when caring for hospitalized children, clinical decision-making abilities are necessary in this profession. In the present study, we explored clinical decision-making patterns and their association with self-efficacy and nursing professionalism in pediatric nurses. We surveyed 173 pediatric nurses and analyzed the relationships between their clinical decision-making patterns and self-efficacy and nursing professionalism. Factor analysis identified 5 clinical decision-making patterns: patient–family–nurse collaborative (PNC), individual patient-oriented (IP), nurse model-oriented (NM), pattern-oriented intuitive (PI), and nursing knowledge-oriented (NK). The most frequently observed clinical decision-making pattern was the PNC. The self-efficacy and nursing professionalism were found to be higher in pediatric nurses using the IP and NM, and were lower for those using the PNC. Thus, the present results suggest that pediatric nurses' clinical decision-making patterns are influenced by nursing professionalism and self-efficacy. Therefore, intervention programs focusing on these variables might improve clinical decision-making in pediatric nurses.
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IN PEDIATRIC NURSING, clinical decision-making refers to the correct identification of hospitalized children's problems and the selection of the most appropriate nursing-related behavior (Bakalis & Watson, 2005; Twycross & Powls, 2006). As pediatric nurses may be required to make decisions on a regular basis when providing care to hospitalized children, rapid and accurate judgment and clinical decision-making abilities are necessary in this profession (Lauri & Salanterä, 2002). For example, pediatric intensive care unit (PICU) nurses often face situations in which they are required to care for children in pain. When PICU nurses assess and manage children in pain, their

clinical decision-making is influenced by various factors. These factors include the child's medical diagnosis and characteristics (e.g., age, expressions, physical indicators, and uniqueness), information from parents, contextual factors (e.g., workload, pain management policies, culture, and internal and external communication), and nurses' characteristics (e.g., age, career, knowledge, attitude and so forth). In consideration of these factors, PICU nurses decide on the best pain-relieving intervention for the child. However, given that the above mentioned variables can vary (e.g., needs of children and parents; developmental age affects the choice of therapeutic method, prognosis, and setting; Colville et al., 2009), pediatric nurses' clinical decision-making is a difficult and complicated process that depends on a prior understanding of given situations and significantly impacts patients. Despite this, few studies have explored clinical decision-making patterns in pediatric

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nurses. Thus, the present study explored the establishment of clinical decision-making strategies in pediatric nurses.

Background

Many studies have addressed clinical decision-making in nurses using numerous methods and different theoretical perspectives. These studies suggest that clinical decision-making in this population is composed of three consecutive stages: observation of patient condition, assessment of observations, and taking action to achieve desired outcomes (Lauri & Salanterä, 2002). Because nurses are the first professionals to observe rapid deterioration in patients' physical conditions, they are in a position to use their knowledge to meet the needs of children and parents. However, nurses make different judgments and decisions in situations that should result in the same decisions (Thompson & Yang, 2009). Given that decision-making is a cognitive process involving the selection of the best of several alternatives to achieve a goal or solve a problem, it is undoubtedly influenced by personal knowledge and experience. Therefore, as nurses sometimes fail to make the correct decision in certain situations (Thompson, Aitken, Doran, & Dowding, 2013), efforts should be made to identify clinical decision-making patterns and related characteristics among pediatric nurses.

For nurses, clinical decision-making patterns are defined as the decisions that they make regarding patient care (Choi, 2001). The two dominant decision-making theories that have been applied in the nursing literature are analytical–systematic and intuitive–interpretive decision-making theories. The former concerns conscious and inferential decision making, whereas the latter concerns the role of intuitive judgment and understanding with a focus on the nurse's perspective and experience rather than analytical methods applied to uncertain decision-making situations. The analytical–systematic theory describes cognitive processing during clinical decision-making and assumes that individuals move through a number of phases in the decision-making process. This theory posits that nurses use a hypothetical–deductive approach in clinical decision-making. In contrast, intuitive–interpretive decision-making theories focus on the relationship between intuition and nursing knowledge. The main tenet of this approach is that intuitive judgment distinguishes expert nurses from novice nurses (Banning, 2008; Lauri et al., 2001).

The analytical systematic decision-making theory has been applied in the majority of previous studies, but recently, a combination of analytical–systematic and intuitive–interpretive decision-making approaches has been used (Banning, 2008). Lauri et al. (1997) developed an instrument to measure clinical decision-making patterns. This scale underpins the following theories: Hammond's cognitive continuum theory (Hammond, 1996) and the skill acquisition theory (Dreyfus & Dreyfus, 1986). These theories imply that the decision-making process is perceived on a continuum from analysis to intuition, based on analytical–systematic and intuitive–interpretive decision-making theories.

Although this scale (decision-making instrument for nursing) has been applied to nurses with different specialties, such as intensive care unit nurses, public health nurses, mental health nurses, and pediatric nurses, no consistent conclusion has been drawn about which clinical decision-making patterns are common to each area of specialization or which characteristics affect clinical decision-making (Choi, 2001).

Pediatric nurses needs to understand the developmental context of children and family-centered care for effective clinical decision making (Choi & Bang, 2010); however, little is known about pediatric nurses' clinical decision making (Twycross & Powls, 2006). In addition, clinical decision making is an important aspect of pediatric nursing care. Therefore, the clinical decision-making patterns used by pediatric nurses, and the relevant variables, need to be explored. Evidence suggests that clinical decision making in pediatric nurses is influenced by their personal competencies. Several studies showed that nurses applied different decision-making models in different nursing situations (Lauri & Salanterä, 2002; Lauri et al., 2001). However, there is a lack of research pertaining to the factors associated with clinical decision-making patterns. Self-efficacy refers to belief in one's ability to perform certain actions in specific situations (Bandura, 1997) and is one of the indicators that reflect the contextual characteristics of pediatric nurses. The goal of nurses' clinical decision making should be to not only provide children with suitable care but also meet professional criteria (Muir, 2004). Nursing professionalism refers to nurses' consciousness of nursing activities and involves a systematized view of nursing as a profession (Yeun, Kwon, & Ahn, 2005). Furthermore, professionalism is directly connected to self-efficacy, as this characteristic determines one's motives and plans (Cho & Bang, 2013). It is therefore necessary to investigate the relationships between clinical decision-making patterns and self-efficacy and nursing professionalism in pediatric nurses. However, while the importance of clinical decision making in nurses is becoming more apparent, few studies have explored the factors related to this process (Ramezani-Badr, Nasrabadi, Yekta, & Taleghani, 2009). Some researchers have focused on the decision-making process in nurses, but results have been inconsistent (Twycross & Powls, 2006). Studies on decision making in the pediatric nursing field have aimed to identify patterns in clinical decision making but have rarely sought to identify the characteristics that affect these patterns. Therefore, it is important to identify clinical decision-making patterns and the factors related to these patterns in pediatric nurses.

Aims

This study aimed to identify the clinical decision-making patterns of pediatric nurses, determine differences in self-efficacy and nursing professionalism in relation to these