

# Pediatric nurses' perception of factors associated with caring self-efficacy: A qualitative content analysis

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## ABSTRACT

**Background:** Nurses, who are considered to form the largest group of professional healthcare providers, face the challenge of maintaining, promoting, and providing quality nursing care and to prepare themselves to function confidently and to care effectively. Among the factors affecting nursing performance, self-efficacy has been expected to have the greatest influence. However, the concept of caring self-efficacy was not considered and no research has been done in this field in Iran. This study was conducted to explore and identify the factors described by pediatric nurses as related to caring self-efficacy.

**Materials and Methods:** This is a qualitative study conducted through content analysis in 2013 in Iran. Twenty-four participants were selected through purposive sampling method from pediatric nurses and educators. Data were collected through semi-structured interviews. Data were analyzed using conventional content analysis method.

**Results:** The analysis of the interviews in this study led to the development of four main themes: (1) Professional knowledge of children caring, (2) experience, (3) caring motivation, and (4) efficient educational system as the factors influencing caring self-efficacy perception of pediatric nurses.

**Conclusions:** This article presents the factors associated with the perception of caring self-efficacy in pediatric nurses' perspective. This finding can be used by nursing administrators and instructors, especially in the area of pediatric caring, to enhance nursing professional practice and the quality of pediatric caring.

**Key words:** Caring, Iran, pediatric nursing, qualitative research, self-efficacy

## INTRODUCTION

The appropriate use of human resources is one of the major problems of organizations and one of the most serious challenges facing the current management of medical centers. Nurses, as the largest human resource of healthcare and medical organizations, are of special importance, as these organizations cannot be successful without an efficient nursing staff.<sup>[1]</sup>

One main role of nurses is to provide high-quality health care to patients. Nurses have an essential role in the

assurance of the quality of care. In recent years, the focus on the improvement of the clinical performance and caring patients has increased due to society's increased expectations of health services.<sup>[2,3]</sup> The range of nursing duties, including those of pediatric nurses, gets wider by the day. Obviously, pediatric nursing should have its own method due to the multiple differences between children and adults. The United Nations suggested principles for children's rights, and based on those principles, every child should receive suitable care.<sup>[4]</sup> The major goal of pediatric nursing is to improve the quality of care and provide care to children and their family directly. Children need holistic, constant, organized, and family-focused care along with empathy.<sup>[5]</sup> Caring is considered as the basis of nursing ontology and epistemology. It is the essence and major exclusive focus of nursing, and is referred to as the core concept of nursing, essence of identity, and nursing performance in care textbooks.<sup>[6,7]</sup>

Moreover, among the factors effective in nursing performance, self-efficacy is expected to have the highest effect. High self-efficacy increases the quality of care and, consequently, improves the individual and organizational performance.<sup>[7]</sup> Currently, interest is growing in the use of self-efficacy theory in professional behaviors. Self-efficacy is one of the practical implications of Bandura's social

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cognitive learning theories relevant to professional behavior. According to Bandura's theory, self-efficacy plays an important role in predicting the ability to perform activities and in improving performance.<sup>[8]</sup>

The term *self-efficacy* reflects an individual's beliefs about his/her ability to perform behaviors resulting in specific outcomes. Bandura revealed a perspective of the human behavior in which the beliefs people have about themselves are key elements in self-control and self-efficacy. Therefore, people are taken as producers of their own environment and social systems in Bandura's theory.<sup>[9]</sup>

Self-efficacy is an important factor in human competence. In this respect, the sense of self-efficacy enables people to do extraordinary tasks through use of their skills against limitations.<sup>[10]</sup> The perception of self-efficacy has a significant effect on the behavior of people who do not trust their abilities and are skeptical about their competence.<sup>[11]</sup> Compared to people with low self-efficacy, people with highly perceived self-efficacy struggle and succeed more, show more diligence, and experience less fear. As these people have higher control on the events, they experience less uncertainty while working.<sup>[12]</sup>

Studies have shown that nurses with higher self-efficacy perform better and provide more qualified health care than nurses with low self-efficacy. Moreover, these nurses are more committed to their work and are more persistent against difficulties. Therefore, based on Bandura's social cognitive theory, high-quality health care needs nurses believing in their abilities.<sup>[13]</sup> Results of Lee's study revealed that an important factor in nurses' performance was the perceived self-efficacy that correlated positively with their performance.<sup>[14]</sup> Furthermore, Shakerinia's study showed a significant correlation of nurses' self-efficacy and patients' satisfaction with the course of treatment.<sup>[15]</sup>

Regarding the foregoing, nurses' professional self-efficacy plays an important role in accomplishing the mission of the health system. Thus, nurses' level of healthcare professional self-efficacy is one the concerns of health authorities in different countries. It is necessary to identify and determine factors affecting hospital resources in caring for children, including nurses who are one of the most important resources and play various roles in caring for children.<sup>[16]</sup> However, no attention has been paid to the viewpoints of nurses, especially those nurses working in specialized wards, such as the pediatric ward, that necessitate specific healthcare skills and higher perceived self-efficacy, about healthcare self-efficacy and the relevant factors in Iran. Therefore, this study was conducted to deeply examine the perception of nurses working in pediatric wards and pediatric nursing

instructors about factors related to caring self-efficacy, in order to design an appropriate plan for promotion of self-efficacy in pediatric nurses and the quality of pediatric nursing in Iran.

## MATERIALS AND METHODS

This study is a part of a nursing thesis (PhD), conducted with a sequential mixed method and with the aim of designing an inventory for assessment of pediatric nurses' self-efficacy. To define the meaning of caring self-efficacy, the first section of this study was performed using qualitative content analysis in Iran in 2013. Due to the importance of a deep assessment of the samples' experiences in this qualitative study, 24 people were selected from nurses and nursing managers in pediatric wards of Isfahan's hospitals and nursing instructors of pediatric department of Isfahan School of Nursing and Midwifery, using purposive sampling method. The sampling continued up to data saturation when no new information was obtained from interviews and no new category or subcategory was added to the data.<sup>[17]</sup> The data were collected using the individual semi-structured interview. All the interviews took 28–60 min, and were performed in a quiet place chosen by the participants. The manual of the interview contained questions such as how the feeling of self-efficacy is when caring for children. At the beginning of each interview, participants were asked to describe one of their working days and then answer the questions related to self-efficacy and its associated factors.

The data were analyzed simultaneously with data collection. At first, the researcher listened to the recorded interviews several times and got a general idea of them. Then, the text of interviews was read word by word and line by line in order to highlight words implying key concepts. In this manner, 525 initial codes were extracted. The codes were reviewed through a continuous process from the extraction of codes to naming them, and similar codes were integrated and categorized. The categories were named based on their underlying idea. Eight subcategories were obtained and compared together, and similar subcategories were integrated. Finally, four major themes were achieved.<sup>[18]</sup>

The researcher improved trustworthiness of the data and validity of the study by dedicating enough time to provide information to participants, communicating with the participants and attracting their trust, examining the data continuously, using integrated methods for collecting data, making parts of the reviewing some of the findings with some of participants (member check), using peer reviews and applying corrective comments, and selecting participants with maximum diversity (in terms of age, working experience, positions, and economic and social diversity). Dependability of the results was achieved through

transcribing the interviews immediately, interviewing various participants, and providing examples as direct quotes.

This study was approved by the Ethics Committee of Isfahan University of Medical Sciences. To respect the participants' rights, the objective of the study, confidentiality of their information, and their right to withdraw from the interview were explained to them before the interview, and their informed consent was obtained. The interviews were recorded upon participants' permission.

## RESULTS

In total, 24 nurses participated in the study. The participants comprised 16 pediatric nurses, 4 pediatric head nurses, 1 supervisor, and 3 pediatric nursing instructors, with a working experience of 3–23 years and in the age range of 27–49 years. Of these nurses, 2 nurses had associate degree, 16 nurses had bachelor's degree, 5 nurses had master's degree, and 1 nurse had doctorate degree. The categories formed out of the interviews revealed four major themes, including professional knowledge of children caring, experience, caring motivation, and efficient educational system, which were especially important as the factors related to the perception of caring self-efficacy in pediatric nurses.

### Professional knowledge of children caring

Having professional knowledge was one of the themes and divided into two subthemes: Theoretical knowledge (know that) and practical knowledge (know how).

The participants had found the theoretical knowledge important in their perception of self-efficacy due to the stress and sensitivities specific to child care. Participant no. 22 stated:

*"... The self-efficient nurse's knowledge should be high. The knowledge about care, type of disease, medications and side effects, we should be careful about medications because we deal with patients' life. I mean nurses really should know side effects of medications. Apart from their desire to know or not, they must know and pay attention to this for their conscience ..."*

In this regard, participant no. 1 explained:

*"... Besides that, a self-efficient nurse should seek learning, I mean his work isn't just experiencing. When he doesn't know something, he looks up in the books in the ward, reads it, and learns it. I mean his task is not just experiences, but he adds a scientific basis to his work. That's why I think he is reliable. One can rely on his sayings and experiences and learns from him. This helps him to become self-efficient and powerful in caring."*

According to the participants, the scientific knowledge was the basis for nurses' self-efficacy, as participant no. 7 pointed out:

*"If a nurse can use the information learnt in the university, I mean if he can change his knowledge into the practice, this largely affects his feeling of self-efficacy."*

### Experience

Gaining experience was one of the major themes introduced as a factor related to the perceived caring self-efficacy in pediatric nurses by the participants. This theme consisted of two subthemes, including direct experiences and vicarious experiences (modeling).

The participants believed that gaining direct experiences was a valuable factor in the level of nurses' perceived self-efficacy. Participant no. 6 (an instructor) stated:

*"... Having experience is very important and we can't say a nurse can become self-efficient with only one year of working in the pediatric ward. He should certainly have experience to reach self-efficacy."*

The participants found the repetition of a care practice an effective way to feel self-efficient in that field. In this regard, participant no. 9 explained:

*"Feeling of self-efficacy is having enough experiences for improving duties. If you have experience, you can act more efficiently ... Venipuncture and drawing blood in pediatric wards is really a difficulty we always face with because these two care practices are really hard and need practice and experience."*

The participants referred to the point that using others' experiences and modeling them has a significant effect on the development of perceived self-efficacy in them. Having agreed with the above result, participant no. 1 stated:

*"... I myself use experiences of people with many years of service. For example, I'd ask those people who had worked in that ward about the tasks they did. I'd watch them and model them."*

Participant no. 18 explained:

*"... For example, one characteristic of many of my colleagues is that they easily give their experiences to other workers. I myself give my experiences to them when I have nothing to do. Surely, you've heard about master craftsman's trick meaning to keep some secrets for yourself, I disagree with it. It's very good to use experiences of each other."*

### Caring motivation

Another theme frequently discussed by the pediatric nurses was the necessary motivation to care. This theme was divided into the subthemes of individual motivation and extrinsic motivation.

According to the participants, motivation for care played an important role in accepting the role of pediatric nurses and their self-efficacy in caring for children. They stated that the main stimulation of perceiving self-efficacy was the interest in the profession as an individual motivation. The participants explained that the professional interest, especially in children, made nurses attempt to become self-efficient in the area of child care. In this regard, participant no. 4 pointed out:

*"The first barrier is the nurse's lack of interest that spoils everything the nurse does and makes the nurse not progress in his work. So, the first thing is the lack of interest, he doesn't like to become experienced, to progress, and this is also because of the lack of interest. I think the interest tops the list."*

In this regard, participant no. 17 stated:

*"Nurses who love children and are interested in caring for children, I think, have more self-confidence. Because the tasks related to children are more special, it's more stressful than other wards. The care given in pediatric wards is more special than that in other more general wards. Because the mother stands with her child and always worries and has much more expectations of nurses than in other wards."*

Participant no. 15 also explained:

*"... Some of my colleagues say we hate the pediatric ward, children's cries and screams, and this causes the feeling of inefficacy in caring for children."*

Nurses said statements about the extrinsic motivation showing that the system's respect for the care practice and valuing nurses' care practice was one of the major problems impacting nurses' motivation for self-efficacy. Participant no. 22 said:

*"... When nurses are taken as the efficient members of the treatment team, if any, they feel satisfied, their self-esteem increases, feel happy, and don't feel like a failure or absurd. I say our nurses should be paid attention to and respected. Their work should be appreciated; a simple example, we write nursing report, but who has read it up to now?..."*

To prove the foregoing, participant no. 16 stated:

*"The experience I had during my internship helped me a lot because we had a patient who had just returned from a surgery and had an acute pulmonary edema. The supervisor of the ward and I were in the ward, and other nurses had taken other patients out. That patient was very restless. I immediately took the CPR trolley and did emergency measures. The supervisor thanked me a lot. I wanted to leave that ward before, but her thanks remained in my mind when she told me I shone well for her, that she wouldn't let me leave that ward at all, and this remained always in my mind that I should be self-confident and control myself..."*

Participant no. 11 also explained:

*"I think encouragement is very effective. Encouraging needn't always be as financial. It can be done at least verbally, differentiating the efficient nurses from inefficient nurses in action. This in turn would be a power to continue the efficacy and even make them better..."*

### **Efficient educational system**

Having an efficient educational system was another major theme that consisted of subthemes including formal education and on-the-job training.

According to the nurses, the basis of self-efficacy started from university. However, the participants stated that the nursing performance and students' experiences during clinical education and internship program were of little efficacy due to the special conditions and sensitivities of pediatric wards, and the gap between theory and practice in the pediatric ward was wider than in other wards. This, in turn, damaged the nurses' perception of self-efficacy when they began working in pediatric wards. In this regard, participant no. 4 said:

*"Because of the sensitivity of the pediatric ward, drug doses and venipuncture are important. They can't provide good instructions to nursing students, especially students who are in special wards. Students can do their duties better in adult wards, but pediatric wards have their own sensitivity, and as the personnel know this sensitivity, especially the sensitivity of patients' family, they can't assign all tasks to nursing students in these wards. The students in pediatric wards work less than in other wards and have fewer experiences. When those students begin working, they say that they didn't pass their pediatric courses well because no task was assigned to them before ..."*

Participant no. 20 also explained:

*"... The first day I started working and entered the ward, I was like an intern. I think there is much difference between what we study and what we should do at work. The theoretical courses should be useful in practice. They should give more responsibilities to students. It's true these responsibilities are very heavy, but when an intern nurse comes to the pediatric ward, he is really stressful. The internships are very weak. Nursing diagnoses should be practiced more in universities and internship courses. To understand patient the patients' problem, nursing diagnoses are very important..."*

Participant no. 1 stated:

*"... For example, if an intern nurse is sent to the pediatric ward, patients' rights may be violated. I think it would be very helpful if we provide facilities for nurses to be more skillful during education, become really more self-efficient, and experience different conditions. If the education system*

*provides more facilities and at least simulates rare cases, students become familiar with different cases closely not just through books ..."*

Participant no. 24 said:

*"There shouldn't be much time between clinical training and university education, I mean, retraining should be ongoing. I attend classes and try to promote my skills and knowledge in specialized pediatric continued education and work in the pediatric ward in a way that no baby is hurt ..."*

## DISCUSSION

This study was the first qualitative study conducted in Iran on healthcare self-efficacy in nursing, and aimed to achieve a deep perception of self-efficacy in healthcare providers (pediatric nurses). The results showed that healthcare knowledge, either theoretical or practical, was effective in accelerating the acquisition of self-efficacy, and having professional knowledge in child care acted as a shortcut to reach self-efficacy more rapidly. Knowledge is considered as a fixed element and the basis for nursing practice. Having that knowledge increases the ability to function and, thus, results in a qualified functioning with its indirect effect on the feeling of self-efficacy.<sup>[19]</sup> Results of Robb *et al.*'s study indicated a positive correlation between the ability to use the knowledge in the clinical setting and the perceived self-efficacy.<sup>[20]</sup> According to the participants in the present study, the theoretical knowledge should be accompanied by an appropriate practice.

The results also showed that gaining experience plays a significant role in nurses' perception of self-efficacy in pediatric ward. In nursing profession as an applied discipline, experience has always received attention as a key to become clinically competent, and the presence of this category in the data showed its importance for self-efficacy from the nurses' perspective. In this study, nurses believed that two types of experience are involved in their feeling of self-efficacy: Experiences resulting from direct performance and experiences obtained from other nurses' performance. Based on Bandura's theory, the most influential and reliable source of self-efficacy is experience, that is, the previous performance, and generally, previous successful experiences enhance the feeling of self-efficacy.<sup>[21]</sup> Benner, a theoretician of nursing, emphasizes that nurses can become self-efficient through learning practical situations and following others' practices. However, in Benner's view, experience does not mean only the passage of time but is also a process of refining and modifying previous theories, thoughts, and ideas when facing with real situations. If nurses do not think about it and do not take action toward learning, the passage of

time cannot result in efficacy alone.<sup>[22]</sup> Pike also examined the correlation between beliefs about self-efficacy and the successful performance in clinical training of nursing students and showed that the successful consequences of performance increased the beliefs about self-efficacy.<sup>[23]</sup> Growing personal experiences correlates with personnel's self-efficacy. Bandura (1997) found that the most important strategy a manager can adopt to make his personnel efficient is to help them experience their own mastery. Individuals grow an internal feeling of mastery through doing a duty successfully. To do so, individuals should start with simple tasks and gradually continue with more difficult tasks up to the point that they experience feeling of competence in all complicated problems. People do not rely only on their experiences when evaluating their self-efficacy, but are affected by alternative experiences through modeling. Therefore, effective models are important in influencing the feeling of competence. Paying attention to others' successful performance can enhance the feeling of self-efficacy. Such models may represent effective strategies and techniques for overcoming difficult situations.<sup>[13]</sup>

Modeling through successful attempts provides a touchstone for social comparison and judgment of people's abilities and enhances the observers' belief that they can do their duties successfully with much effort despite the limitations. Modeling depends on the replication and the similarity between model and observer, and social comparisons are considered as the first factor for self-assessment of abilities.<sup>[24]</sup> In a classification, Arbon mentioned two types of experience, primary and alternative, facing nurses. In the primary experience, nurses face with challenges directly and play the main role in performance in question. On the contrary, in the alternative experience, nurses reach the desired perception from others' experiences, mainly through observing, hearing, and sometimes, watching films.<sup>[25]</sup> Exposing people to suitable models successful in practice along with alternative experiences of successful people is a strategy to reach high self-efficacy and competence in practice. This type of experience was mostly achieved in this study through listening to more experienced nurses or observing them while working.

The results of this study revealed that the healthcare motivation resulting from individual and extrinsic motivations played an important role in accepting the role of pediatric nurses and their self-efficacy in caring for children. As nursing is a profession for serving people, it needs motivated nurses.

Oshvandi *et al.* explained that nurses' motivation influenced their personal power and behavior, increased

readiness, interest in working, and individual activity, and facilitated obtaining goals. Other items, such as being supported, receiving rewards, and having a sense of being worth and in a suitable position are influential in nurses' motivation.<sup>[26]</sup> Obviously, there is a dynamic interaction between motivation to progress and self-efficacy. Having a high motivation to progress makes people use their maximum power for reaching the goal and ultimately a high level of self-efficacy.<sup>[27]</sup> According to Bandura, verbal encouragement and messages received from the social environment are the easiest and most common sources of developing self-efficacy. Verbal persuasion and encouragement, such as the statement, "you have the prerequisite abilities for what you desire to achieve and can perform successfully," can increase people's feeling of self-efficacy. Results of Atashzadeh's study also indicated that nurses' motivation for doing nursing care was of special importance in promoting the quality of nursing service.<sup>[28]</sup> Moreover, Manojlovich referred to the point that encouragement, even verbally, promoted nurses' self-efficacy and, consequently, their functional behaviors.<sup>[29]</sup> Another strategy that helps nurses to experience their capabilities is to provide them with social and emotional support. The support should be the acceptance on the part of managers and colleagues, including managers, colleagues, subordinates, and members of the working team. If the personnel are supposed to feel competent, managers should encourage and admire them, accept them, support them, and make them confident. Managers can use exaggerating words to provide feedback or describe the success (e.g. saying "excellent" instead of "good" and "wonderful" instead of "acceptable"). As the head of admirers, managers can contribute to personnel's self-efficacy through emotional stimulation.<sup>[24]</sup>

Furthermore, results of the present study showed that an appropriate and efficient education system (formal education and on-the-job education) was an effective factor in nurses' level of self-efficacy. The pediatric nurses emphasized on the point that the intern nurses and newly employed nurses were not ready to do healthcare tasks in the pediatric ward due to the inefficient education received in the university, and they began working in the pediatric ward with fear, anxiety, and feeling inefficient in caring for children. Unfortunately, the emphasis of nursing formal education is on adults, and nursing students' performance and experiences during education and internship are mostly related to adult patients. Furthermore, nursing students experience more stress in pediatric wards than in other wards because they face with weaker and more fragile patients and several family members of the patients.<sup>[30]</sup> This, in turn, largely affects their clinical training, and consequently, they do not receive efficient education.

Most of the participants, especially instructors, in this study emphasized on the use of simulation as an effective method in clinical training due to the existing limitations in the clinical training, especially in pediatric wards. Numerous studies, including studies with experimental approaches, showed that simulation programs had positive effects on self-efficacy of nursing students and nurses, as their level of self-efficacy increased after implementation of such programs.<sup>[23,31]</sup> Meanwhile, rapid developments and changes in the science and technology of nursing and medicine necessitate continuous on-the-job training. Various studies have highlighted the effectiveness of continuing education in improving the quality of health care. Results of Eghdami's study revealed that lack of retraining and on-the-job courses about nursing specialized duties was one of the most important barriers to execution of nursing specialized duties in children's hospitals.<sup>[4]</sup> Given that nurses as a part of human resources of the health system play an important role in promotion of people's health, they should be trained in coordination with changes in knowledge, new findings, and the society's need in order to show their efficacy completely. Having an efficient education system is the basis for normative practices in nursing and increased competency that, in turn, require self-efficacy. The subjective nature of data and the small sample size limited the generalization of the results. However, selecting samples from experienced people with different levels of education in nursing made the results largely applicable for similar population.

## CONCLUSION

The results of this study identified factors associated with nurses' perception of healthcare self-efficacy. The factors included gaining experience, professional knowledge, motivation to care for, and an efficient education system. In today's world, human and intellectual resources are very important. Upon identification of these factors, managers and instructors can rely on scientific findings and design and execute managerial and educational activities in a way to furnish students and nurses with necessary conditions to become self-efficient and, consequently, promote the quality of nursing care, patients' satisfaction, and social status of nursing. The results of this study can be the basis for further studies in the area of healthcare self-efficacy in pediatric wards. It is recommended to perform interventional studies examining the effects of factors, such as continuing education, on nurses' healthcare self-efficacy in pediatric wards.

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