



# Recent Research Progress and Effectiveness Assessment of Evidence-based Nursing in Pediatric Clinical Practice

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DOI: 10.32629/aj.n.v5i3.2821

**Abstract:** Evidence-based care emphasizes the development of individualized care plans based on scientific evidence, taking into account the patient's specific situation and clinical practice experience, with the aim of achieving the best therapeutic outcome. The purpose of this article is to expand in detail the evaluation of the effectiveness of evidence-based care in pediatric clinical practice in order to further understand its role in improving the quality and satisfaction of children's recovery.

**Keywords:** evidence-based nursing; pediatric clinical hospital; research progress; effect assessment

## 1. Current status of domestic and international research on evidence-based nursing in paediatric clinical practice

In the development of care plans, evidence-based care emphasizes the development of individualized care plans based on the actual situation of the child and the best scientific evidence. This includes consideration of the child's age, gender, physical and psychological characteristics, as well as factors such as disease type, severity and treatment needs. In this way, caregivers are able to provide more precise and effective care for the child and promote the child's health recovery. In addition, with the continuous development of telemedicine technology, the application of evidence-based care in pediatric clinical practice has been expanded. Healthcare professionals can use remote monitoring and diagnostic technology to obtain children's physiological and psychological data in real time, and make personalized adjustments to the care plan based on these data. This not only improves the timeliness and accuracy of care, but also reduces the cost of medical treatment and time costs for children and parents. Evidence-based care also plays an important role in the assessment and continuous improvement of care outcomes. Healthcare professionals regularly assess the effectiveness of the care plan, collect feedback from children and parents, and adjust and optimize the care plan based on this information. In this way, they are able to continuously improve and enhance the quality and level of pediatric care and provide better medical services to children.

The medical process often requires intervention in the patient's body, and most medical care operations may cause a series of physical reactions, and in extreme cases, may even cause disability or death of the patient. Especially in paediatric nursing, many small patients are not strong in psychological quality and have poor cooperation, which may result in accidents such as dislocation and dislodgement of needles, obstruction of breathing tubes, and extraction of drainage tubes due to the personal reasons of small patients. Therefore, in the process of nursing operations, we need to assess the overall risk of nursing work and step risk, for high-risk operations should be avoided as much as possible, for can reduce the risk of operation cooperation should be mandatory.

Domestic scholars are more likely to propose relevant studies on curriculum design.

It has been proved that paediatric nursing has its special characteristics compared with nursing in other departments. Therefore, more and more hospitals have started to provide enhanced training and vocational training for paediatric nurses. Because before the enhanced training and vocational training, the paediatric nurses already have the nursing qualification and have mastered a certain nursing technology and business knowledge, so the content of the enhanced training and vocational training is mainly to improve the psychological quality of the nursing staff. Cai Xiaoyan (2011) analysed the factors affecting nursing risk. Xi Lirong (2011) conducted a study on the analysis methods and intervention methods of risk management of paediatric nursing behaviours, and formulated a multidimensional model of paediatric nursing in order to constrain and control the risk of paediatric nursing in terms of quantitative management. Wu Liping (2011) also studied the risk elements of paediatric nursing, but his research is more inclined to a managerial perspective, and his findings can be fully integrated with the computer-assisted management approach in hospitals.

Zou Hua (2012) designed a specific curriculum for the joint training method in teaching paediatric nursing and provided us with a detailed description of the specific effects of enhanced training in paediatric nursing in the form of a report on teaching practice. Nursing staff who had undergone enhanced training in paediatric nursing had a significantly lower

complaint rate in actual work, 21.3% lower than that of nursing staff who had not undergone enhanced training in paediatric nursing. Ma Jie (2011) discussed the curriculum design of paediatric nursing teaching work, through the upgrading of the paediatric nursing teaching curriculum, so that paediatric nursing trainees can be more quickly adapted to paediatric nursing work in the unit.

Foreign scholars pay more attention to the mode of treatment and the use of medication.

Hartman et al in conjunction with experts from Israel, the United Kingdom, Hungary, China, and other countries published the ESPGHAN/ESPEN/ESPR Guidelines for Pediatric Parenteral Nutrition: complications in 2018. The guideline emphasizes that CRT and thrombotic catheter occlusion occur and need to be thoroughly investigated and treated; that the recommended treatment for acute and symptomatic CRT depends on the child's need for CVAD use, and that anticoagulant medication is usually required for both; and that fibrinolytic solvents are preferred for the pharmacological treatment of thrombotic catheter occlusion, and that tissue-type activators of fibrinolytic plasminogen (e.g., t-PA, alteplase) are also recommended.

## **2. Evaluation of the effectiveness of evidence-based nursing in pediatric clinical practice**

In the field of medicine, nursing practice has always been committed to providing the best possible outcomes for patients. In recent years, with the deepening of medical research and the updating of nursing concepts, evidence-based nursing has gradually become an important part of pediatric clinical practice. First of all, the application of evidence-based nursing in pediatric clinical practice involves many aspects. For example, in the care of preterm infants, healthcare professionals understand the characteristics of growth and development and common complications of preterm infants by reviewing relevant literature and clinical guidelines, and formulate targeted care plans. These plans include measures for temperature management, nutritional support, prevention of infection, etc., aiming to improve the survival rate and quality of survival of preterm infants. Meanwhile, for children with specific diseases, evidence-based care also emphasizes the development of individualized care plans based on the characteristics of the disease and treatment needs. For example, in the care of children with asthma, healthcare professionals will develop appropriate medication and respiratory management programs based on the child's condition and allergens to reduce symptoms and prevent complications.

In terms of effect assessment, several studies have shown that evidence-based nursing has achieved significant results in pediatric clinical practice. First, in terms of improving children's conditions, evidence-based nursing effectively relieves children's symptoms and reduces complications through the development of personalized care plans. Second, in improving the quality of life of children, evidence-based nursing focuses on children's psychological care and health education to help children establish confidence in overcoming the disease and improve their quality of life.

## **3. Problems faced by pediatric nursing**

### **3.1 The complexity and variability of pediatric diseases, high nursing difficulty**

The physiological and psychological characteristics of pediatric patients determine the complexity and variability of their diseases. Children's body functions are not yet fully developed and their resistance is weak, making them prone to infections and allergies. At the same time, children's psychological development is also immature, and they are easily affected by diseases and have fear, anxiety and other emotions. These characteristics make pediatric nursing more difficult, requiring nurses to have rich professional knowledge and practical experience.

### **3.2 Difficulties in communication between children and their families, and high pressure on emotional management**

The vast majority of pediatric patients are minors, and due to their age and developmental characteristics, their ability to communicate, express and explain their symptoms and feelings is relatively limited. This often results in children being unable to accurately communicate their discomfort and needs in a detailed manner, which makes diagnosis and treatment difficult.

Therefore, nurses working in pediatrics need to possess not only solid professional knowledge and skills, but also excellent communication skills and emotional management abilities. They need to learn how to accurately understand children's expressions and calm them and their families within a limited time to provide them with all-round nursing care. This is undoubtedly a difficult task that requires nurses to put in more effort and patience.

### 3.3 Insufficient nursing resources and high work pressure

Pediatric nursing resources are relatively insufficient, and the number of nurses is relatively small, while the number of children is increasing. This makes the nurses' workload heavier and their work pressure increases. In addition, pediatric nursing also needs to invest a lot of time and energy in the life care and emotional appeasement of children, which makes the nurses' work even more burdensome.

Evidence-based nursing faces many challenges in pediatric clinical practice, but through the implementation of countermeasures such as strengthening professional training, improving communication skills, and rationally allocating nursing resources, these challenges can be effectively dealt with and the quality and level of pediatric nursing care can be improved.

## 4. Improvement strategies

### 4.1 Strengthen professional training and establish nursing norms

In view of the complexity and variability of pediatric diseases, medical institutions should strengthen professional training for pediatric nurses to improve their business level and coping ability. The training content can include the knowledge of diagnosis, treatment and nursing of pediatric diseases, as well as the skills and methods of children's psychological care. Formulate and improve the norms and standards of pediatric nursing to ensure that nurses have rules to follow in practice and reduce the occurrence of nursing errors. At the same time, establish the evaluation system of nursing quality, regularly assess and feedback on nursing quality, and promote the continuous improvement of nursing quality.

### 4.2 Improve communication skills, strengthen psychological guidance

Nurses should learn and master the skills and methods of effective communication with children and their families, including listening, explaining, comforting and so on. In the communication process, nurses should be patient and meticulous, try to use simple and easy-to-understand language, and avoid the use of overly specialized terminology.

For emotionally anxious children and their families, nurses should provide appropriate psychological guidance to help them relieve tension and establish confidence in overcoming the disease. At the same time, nurses should also learn to self-regulate their emotions and maintain a positive and optimistic attitude to better cope with work pressure.

### 4.3 Reasonable allocation of nursing resources and establishment of support system

Medical institutions should rationally allocate nursing resources according to the actual situation of pediatric patients, increase the number of pediatric nurses, and reduce the workload of nurses. At the same time, intelligent nursing equipment and technology can also be introduced to improve nursing efficiency and quality. Medical institutions can establish support systems for pediatric nursing, such as setting up psychological counseling rooms and carrying out nurse team building activities to provide nurses with psychological support and emotional care. In addition, cooperation and communication with other departments can be strengthened to jointly address the challenges and problems in pediatric nursing.

## 5. Summary

This article mainly introduces the latest progress, effect assessment, and challenges and improvement strategies of evidence-based nursing in pediatric clinical practice. Evidence-based care emphasizes the development of individualized care plans based on the actual situation of the child and the best scientific evidence to improve the timeliness and accuracy of care and to reduce the cost of attendance and time for children and parents. In terms of outcome assessment, evidence-based care has achieved significant results in pediatric clinical practice, including improvement of children's conditions, improvement of children's quality of life, and improvement of children's parents' satisfaction and trust. However, evidence-based care in pediatric clinical practice still faces multiple challenges, such as healthcare professionals' lack of understanding of or agreement with the concepts and methods of evidence-based care, communication difficulties for children and their families, emotional management stress, and insufficient nursing resources. These challenges can be addressed by strengthening professional training, improving communication skills, and rationally allocating nursing resources.

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Published online March 4, 2024.

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