

# An Observational and Analytical Study of the Effect of Quality Nursing Services in Pediatric Emergency Pre-screening

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## Abstract

**Objective:** To analyze and observe the effects of high-quality nursing services in pediatric emergency pre-examination. **Methods:** 140 pediatric emergency patients were observed. After admission, the participants were randomly divided into a control group (n=70) and an observation group (n=70) using a computer randomization method. They were given routine nursing and high-quality nursing services, respectively, and the nursing effects were observed. **Results:** The nursing satisfaction of the observation group was higher than that of the control group. The overall nursing effect of the observation group was better than that of the control group. The incidence of doctor-patient disputes was lower in the observation group compared to the control group, and the accuracy of treatment was higher. The compliance of the observation group was higher than that of the control group. There were statistically significant differences in the above indexes ( $P < 0.05$ ). **Conclusion:** The implementation of high-quality nursing services in pediatric emergency pre-examination can enhance the efficiency of emergency work, guarantee prompt and accurate treatment for children, ensure the safety of newborns, decrease doctor-patient conflicts, and safeguard the physical and mental well-being of children. These outcomes make it highly recommended for clinical adoption.

## Keywords

Pediatric emergency pre-examination, Nursing effect, Quality nursing services, Nursing satisfaction, Accuracy rate of treatment

Pneumonia, laryngitis, asthma, viral diarrhea, hand, foot and mouth disease, infantile high fever convulsions, pneumonia combined with heart failure, and respiratory and cardiac arrest in children are all relatively common acute diseases in children. Emergency pediatrics is a major department that deals with these diseases and holds a prominent position in the care of children and their families. In the operation, choosing the right nursing method is the key factor that affects the operative effect [1]. In addition, when patients enter the hospital for medical treatment, the first step they encounter is pre-examination and triage. The effectiveness of nurses in triaging patients is directly linked to whether patients receive timely and effective medical treatment. This initial interaction also shapes the overall impression of the hospital and reflects the overall nursing competency to some extent. Quality nursing is a novel approach to patient care that encompasses the entire nursing process. It not only provides patients with high-quality nursing services, but also prioritizes patients' physical health as the foundation of nursing. This approach aims to safeguard the sustainable development of the nursing profession and enhance patients' satisfaction with their care. Adjust the workflow, analyze the problems, formulate appropriate countermeasures, enhance the quality of

emergency care services, and improve overall patient satisfaction with the hospital [2]. Therefore, this study analyzed and observed the effect of implementing high-quality nursing services in pediatric emergency pre-examination. The aim was to enhance the effectiveness of emergency pre-examination, significantly improve the accuracy rate of children's treatment, reduce treatment time, enhance the disease cure rate of children, and safeguard the physical and mental health as well as the life safety of children [3]. The following report has been made.

## 1. Data and methods

### 1.1 General Information

Observation subjects: 140 pediatric emergency patients were divided into a control group (n=70) and an observation group (n=70) by computer random method after admission. The observation period was from June 2022 to June 2023. In the control group, there were 35 males (50.00%) and 35 females (50.00%). Age: 1-7 years old, mean (4.08±3.01) years old; Types of diseases: 22 cases (33.43%) of convulsion, 23 cases (32.86%) of abdominal pain, 25 cases (35.71%) of fever. In the observation group, there were 36 males (51.43%) and 34 females (48.57%). Age: 1.5-7.5 years old, mean (4.52±3.04) years old; Type of disease: 22 cases (33.43%) convulsion, 22 cases (33.43%) abdominal pain, 26 cases (37.14%) fever. There was no statistical significance in the general data comparison (P>0.05).

Inclusion criteria: (1) Patients selected for pediatric emergency treatment; (2) Select children under the age of 10; (3) Select patients with complete clinical data and high compliance; (4) Patients who choose family members' consent, know the research content, and voluntarily sign informed consent.

Exclusion criteria: (1) Exclusion of patients with mental illness, communication disorders, and low compliance; (2) Excluded patients whose family members did not agree and withdrew from the study; (3) Exclude patients with major organ failure and lesions; (4) Exclude patients with infectious diseases; (5) Exclude patients with incomplete clinical data; (6) Patients who participated in other studies during the same period were excluded.

### 1.2 Methods

#### 1.2.1 Routine nursing methods

Patients in the control group primarily received routine nursing care, which involved maintaining a hygienic environment in the emergency department. This included regular disinfection, sanitary cleaning, and other related tasks. At the same time, in a prominent position, pasting the medical treatment process diagram will allow patients and their family members to queue up and register themselves before seeking treatment in the appropriate departments.

#### 1.2.2 Quality nursing services

Based on routine nursing, the observation group started providing high-quality nursing services. The specific contents are as follows: (1) triage guidance: In the emergency department, the location of triage was foreseen, bright colored signs were set up to mark common disease departments, and to provide assistance for patients and their families to check at any time, and the appropriate mark was reasonably selected based on the actual situation of patients. When patients and their families ask the nurse for assistance, the nurse should communicate with the patient using clear and simple language. Additionally, the nurse should promptly identify any existing problems, assist the patient in locating the nearest department, and minimize the patient's waiting time. When it is determined that there is a need for patients to wait in line for treatment due to a large number of patients, it is essential to provide timely verbal reassurance and comfort. This helps to alleviate the anxious psychological state of patients and their families and ultimately reduces the likelihood of doctor-patient disputes. At the same time, training activities were conducted for nurses in pre-examination and triage. The main focus was on familiarizing nurses with common disease manifestations, enabling them to have a comprehensive understanding of the common diseases encountered in pre-examination and triage work and departments. (2) According to the needs of patients, fill in the corresponding template for patients according to their needs and post it in front of the service desk. When patients fill out questionnaires, nurses should respond in plain language and maintain a friendly demeanor when communicating with patients and their families. When encountering patients who are unable to fill in their information, the nurse should proactively communicate with the patient and record the medical information based on the patient's dictation and the nurse's writing. At the same time, the nurse should guide the patient to the appropriate department. In the pre-examination, if the patient is found to have negative psychological states such as tension and anxiety, the nurse should proactively communicate with the patient, adopting a gentle attitude, providing comfort, and minimizing the impact of unfamiliar surroundings on the patient. Finally, when patients need to undergo imaging, blood, and urine tests, they need to be

proactive and timely in communicating any instructions or precautions they need to follow. (3) Psychological care: Some patients may experience anxiety and depression due to unknown conditions, which can impact the subsequent diagnosis and diminish the effectiveness of patient treatment. Therefore, when receiving patients, nurses should observe the facial expressions of patients, provide emotional support and guidance, encourage patients to approach follow-up visits and treatment with an optimistic attitude and minimize the impact of negative emotions. In addition, when communicating with patients, we should pay attention to our tone, attitude, and other non-verbal cues. It is important to smile and make patients feel respected and valued. This can help reduce the negative impact of a bad mood and decrease the likelihood of conflicts between patients and medical staff due to emotional excitement. (4) Health education: It is necessary to provide disease knowledge to patients and their families during the waiting period and treatment. This includes educating them about the causes of the disease, proper diet and exercise, and improving their understanding of the condition. It is important to help patients and their families have a correct perspective on the patient's condition, divert their attention, and soothe their emotions by engaging them in activities that they are interested in. List successful treatment cases to enhance patient treatment information.

### 1.3 Indicator Observation

(1) A comparison of nursing satisfaction was made with the help of the satisfaction questionnaire made by the department. The total score was 30 points, among which 0-17 points were unsatisfactory, 18-24 points were satisfied, and more than 24 points were very satisfied.

$$\text{Satisfaction} = (\text{very satisfied} + \text{satisfied}) / \text{Total cases} \times 100\%$$

(2) Nursing effect indicators such as triage evaluation time, examination time, waiting time, and emergency treatment time were compared.

(3) Statistics on the incidence of doctor-patient disputes and the accuracy rate of medical treatment.

(4) Comparison of nursing compliance: Score and comparison were made with the help of the compliance questionnaire made by the department. The total score was 100 points, among which 0-59 points were non-compliance, 60-80 points were partial compliance, and more than 81 points were complete compliance.

$$\text{Compliance} = (\text{full compliance} + \text{partial compliance}) / \text{Total number of cases} \times 100\%$$

### 1.4 Statistical Analysis

The SPSS 22.0 software processed the data, the variable data was calculated as "t", and the qualitative data was verified by  $\chi^2$ , expressed as ( $\pm$ s) and (%), respectively.  $P < 0.05$  was considered statistically significant.

## 2. Results

### 2.1 Comparison of nursing satisfaction

The nursing satisfaction of the observation group was higher than that of the control group, and the comparison was statistically significant ( $P < 0.05$ ). See Table 1 for details:

Table 1. Comparison of nursing satisfaction [n (%)]

Group	Number of cases	Very satisfied	Satisfaction	Dissatisfy	Satisfaction
Control group	70	40 (57.15)	25 (35.71)	5 (7.14)	65 (92.86)
Observation group	70	44 (62.86)	26 (37.14)	0 (0.00)	70 (100.00)
$\chi^2$	-	-	-	-	5.185
$P$	-	-	-	-	0.023

### 2.2 Comparison of nursing effects

The nursing effect of the observation group was higher than that of the control group, with statistical significance ( $P < 0.05$ ). See Table 2 for details:

**Table 2. Comparison of nursing effects (±s)**

Group	Number of cases	Triage assessment time (min)	Inspection time (min)	Waiting time (min)	Emergency treatment time (min)
Control group	70	2.99±0.24	11.14±2.15	15.74±3.81	7.93±0.94
Observation group	70	0.66±0.17	5.86±1.41	8.26±2.11	3.62±0.74
<i>t</i>	-	66.282	17.182	14.369	30.142
<i>P</i>	-	0.000	0.000	0.000	0.000

### 2.3 Comparison of the incidence of doctor-patient disputes and the accuracy of medical treatment

The observation group had a lower incidence of doctor-patient disputes and higher accuracy of medical treatment than the control group., with statistical significance ( $P < 0.05$ ). See Table 3 for details:

**Table 3. Comparison of incidence of doctor-patient disputes and accuracy rate [n (%)]**

Group	Number of	Number of doctor-patient disputes	Incidence of doctor-patient disputes	Accurate number of medical visits	Accuracy rate of treatment
Control group	70	8	11.43	56	80.00
Observation group	70	2	2.86	69	98.57
$\chi^2$	-	-	3.877	-	12.619
<i>P</i>	-	-	0.049	-	0.000

### 2.4 Nursing sequence comparison

The nursing sequence of the observation group was higher than that of the control group, and the comparison was statistically significant ( $P < 0.05$ ). See Table 4 for details:

**Table 4. Sequential comparison of nursing care [n (%)]**

Group	Number of cases	Complete compliance	Partial compliance	Noncompliance	Overall compliance rate
Control group	70	34 (48.87)	30 (42.86)	6 (8.57)	64 (91.43)
Observation group	70	38 (54.29)	32 (45.71)	0 (0.00)	70 (100.00)
$\chi^2$	-	-	-	-	6.269
<i>P</i>	-	-	-	-	0.012

## 3. Discussion

To have access to better medical resources, parents of children want to find a doctor as soon as possible. Often, they will not go to the clinic but will instead go to the emergency room. In this scenario, non-emergency children will gather in the emergency pre-examination area, resulting in longer waiting times for children in need of immediate medical attention. This situation can cause parents to feel anxious and irritable, potentially leading to conflicts between doctors and patients. To efficiently prioritize patients and reduce waiting times, we have implemented a systematic triage system for emergency pre-examinations. According to the principle of five-level pre-examination triage, patients were quickly assessed and achieved positive outcomes [4]. By implementing the emergency diagnosis criteria on an ongoing basis, the communication with the families of the children was enhanced, and they were provided with guidance on seeking medical treatment in an organized manner based on severity levels. This initiative has led to improvements in the medical environment and increased patient satisfaction. At the same time, the systematic first-aid pre-detection triage mode is extremely helpful in early identification of critically ill children. This mode can reduce missed diagnoses, ensuring that children receive timely treatment, minimizing accidents, and facilitating the smooth progress of first-aid work [5-6]. The survey results indicate that overcrowding in the pediatric emergency department is a prevalent issue in most hospitals. This is primarily attributed to the severity of children's conditions

and the lack of awareness among their families regarding their condition. Consequently, overcrowding in the pediatric emergency department disrupts the orderly provision of medical treatment. In cases of children's emergencies, an early and accurate diagnosis is essential. It allows for more time to provide necessary rescue efforts, which is crucial in reducing child mortality rates and improving the prognosis for children. At present, an increasing number of studies have shown that simplifying the medical treatment process for pediatric emergency cases can effectively reduce the time spent on treatment. Additionally, it can also alleviate the workload of emergency nurses, thereby enhancing the efficiency of emergency treatment [7-8].

In recent years, with the rapid development of network technology in China, building a rapid pre-examination and triage system in pediatric emergencies using a network platform has become an important task. Quality nursing refers to the approach taken by nursing staff in providing care. It involves considering the perspective of patients, analyzing existing problems, and finding solutions to new problems. The goal is to provide patients with improved service and reduce conflicts between medical staff and patients and their families. In actual practice, flexibility should be applied based on the specific needs of patients, including younger patients, disabled patients, and emergency patients. This approach helps to enhance patients' and their families' perception of nursing services, which in turn contributes to the professional growth of nursing staff. High-quality nursing can help patients quickly find the appropriate medical departments, reduce waiting times for medical treatment, and effectively communicate with patients. It enables healthcare providers to promptly identify any adverse psychological and emotional fluctuations in patients, and provide timely support to alleviate their inner anxiety, tension, irritability, and other emotions caused by diseases and environmental factors. Medical guidance meetings should be held to determine the most effective approach in assisting patients to quickly locate the appropriate department, reduce the time spent seeking treatment, prevent conflicts, enhance the emergency department environment, ensure patient satisfaction throughout the treatment process, and provide patients with health education to enhance their understanding of diseases and promote awareness of their health and safety. In this study, we analyzed the impact of implementing a high-quality nursing service mode in pediatric emergency pre-examination. The results revealed that the observation group, which received the new nursing service mode, had higher nursing effectiveness, patient satisfaction, compliance, and treatment accuracy compared to the conventional nursing patients. Additionally, the incidence of doctor-patient disputes in the observation group was generally lower than that in the conventional nursing patients. These differences in various indicators were found to be statistically significant ( $P < 0.05$ ).

#### 4. Conclusion

To summarize, the pre-inspection of pediatric emergency can effectively enhance the quality of emergency care through the provision of high-quality nursing services. This approach also reduces the waiting time for patients to see a doctor, ensures timely and accurate treatment, maintains the safety of children, decreases the occurrence of doctor-patient disputes, and ultimately improves the overall satisfaction of patients and their families with the hospital. Therefore, this nursing method has value in clinical promotion and application [9-10].

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