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Research Article

Experience of Pediatric Nurses in Nursing Dying Children: A Qualitative Study

Wei Na Bian[1], Jun Xiang Cheng[2], Yue Dong[3], Ying Xue[1], Qian Zhang[1], Qing Hua Zheng[1], Yue Song[4], Hong-Wei Yang[5*]

[1]School of Nursing, Changzhou University, Changzhou, China; [2]Department of Nursing Teaching and Research, Changzhou No.2 People's Hospital, Changzhou, China; [3]Department of Psychiatry, the First Hospital of Shanxi Medical University, Shanxi,030000,China; [4]Department of ICU, the Affiliated Lianyungang Hospital of Xuzhou Medical University, Jiangsu,222000,China; [5]Department of Statistics, Hanzhong Central Hospital, Shaanxi,723000, China

ABSTRACT

Purpose: To explore the challenges and effective coping strategies of pediatric nurses in caring for dying children.

Methods: A descriptive qualitative study was adopted. Data were collected using semi-structured interview with 10 nurses from the pediatrics, pediatric emergency department and neonatology department.

Results: Three themes were generated: stressors, stress consequences, coping strategies. Ten sub-themes were generalized: negative stress; helpless; question rescue behavior; fear of communication; lack of workforce for night rescue; compassion fatigue; burnout; changes in life attitudes; self-regulation; leadership approval and no accountability.

Conclusion: Through qualitative research, the challenges and effective coping strategies faced by nurses in caring for dying children were found, which provides information for nurses' career development and related policy formulation in China.

Clinical relevance: While there are many articles in China on hospice care, there is little research on the nurses' experience of caring for dying children. In foreign countries, many studies have mentioned the adverse consequences of caring for dying children, and even led to post-traumatic stress disorder (PTSD). However, the domestic discussion of such problems is rare and there are no corresponding coping strategies. This study aims to explore the challenges and effective coping strategies of pediatric nurses in caring for dying children.

Keywords: Nursing; Dying children; Experience; Qualitative research

INTRODUCTION

Discussion of death is a taboo in some countries. Parents control their emotions as much as possible when they learn that their child could die [1].There are few studies about what role does the nurse play and their experience in this case in China. Searching for this theme in Wanfang Med Online in the past five years, one study was found about the effect of comprehensive nursing mode on children's pain and Psychological State in an Intensive Care Unit (PICU) [2]. However, many studies have explored the experience of nurses in other countries in caring for dying children. According to the study of [3], pediatric nurses faced significant challenges in caring for children on the verge of death. The feeling of sadness and pain resulting from a child's death is different from an adult. According to a study published by Hagen, Ter-Viola, and Graves, pediatric nurses are prone to negative symptoms at work, such as compassion fatigue, burnout, sadness, and Post-Traumatic Stress Disorder (PTSD), especially care for dying children [4]. To look up literature related to the care of children at the near-death stage, the authors used synonyms and keywords in the Academic Search Complete ", " Cinahl Complete ", " Health Source: Nursing/ Academic Edition ", " Medline ", " Medline Complete" and other databases carried out a comprehensive search. The challenges and coping strategies of nurses in caring for dying children were extracted. Search procedures include tracking critical databases using predefined terms relevant to the topic (Table 1). Though

Correspondence to: Hong-Wei Yang, Department of Statistics, Hanzhong Central Hospital, Shaanxi, 723000, China, E-mail: 124999312@qq.com

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filtering titles and abstracts through EBSCO host software, 164 articles were extracted from 794 documents, excluding peer review, literature review, book chapters, meeting minutes, and other grey literature. All published in English between 2010 and 2020 with the complete text. Finally, 20 articles were selected as references in this paper (Figure 1). Most of them (n=19) focuses on the challenges and pressures nurses face in caring for such children, with more than half of the articles (n=11) from the United States and the rest from Finland, Ireland, Colombia, Iran, Australia, Indonesia, Sudan, Canada, and South Korea.

Table 1: Search strategies in caring for dying children in China.

Date	Research topic	Search strategy		Limits and type of material required	Database searched
		Keywords/concepts	Synonyms/alternative terminology		
26th January 2020	Nurses' challenges and coping strategy in caring for dying children in China	Challenge	Challenges or barriers or difficulties or issues or problems or limitations or obstacles	2010-2020	Academic search complete
		Coping strategy	Coping strategies or coping skills or coping or cope	English language	Cinahl complete
		Dying children	Death of a child or pediatric palliative care or dying infant or dying child	Full text	Health source: nursing/ academic edition
					Medline
					Medline complete

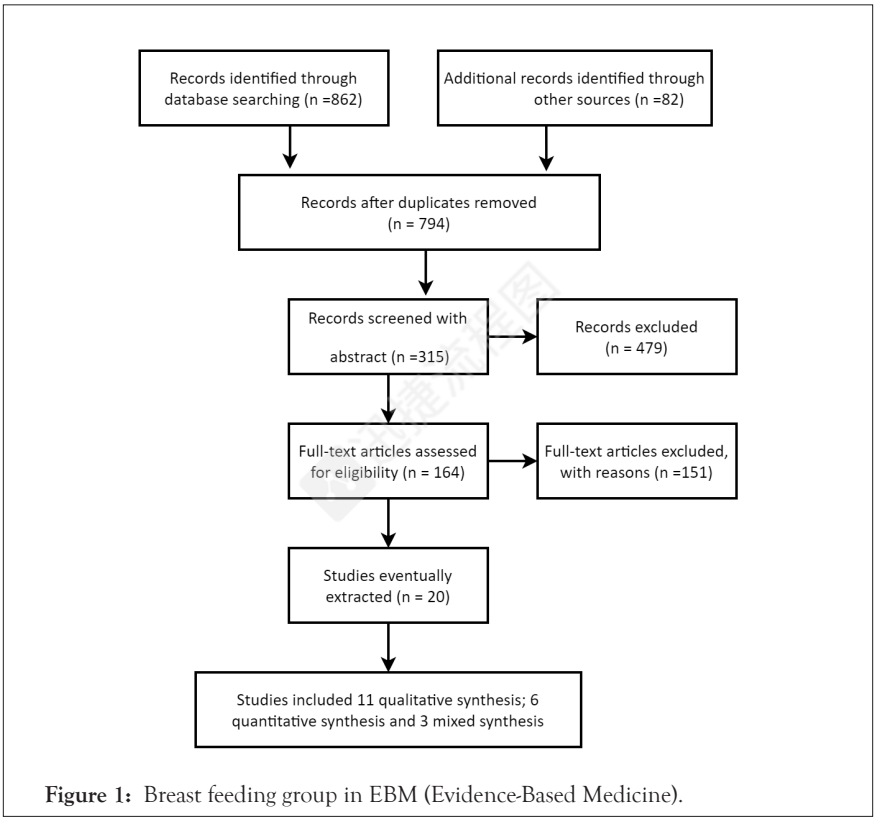

Figure 1: Breast feeding group in EBM (Evidence-Based Medicine).

First of all, with the development of society, people pay more and more attention to children's health. Pediatric nurses are faced with tremendous pressure, such as the rapid change of children's condition and the highly demanding nursing skills, especially at the critical moment of children death [5]. In a qualitative study of seven nurses at a specialist hospital for children in Iran, it was found that nurses feel helpless and depressed in the face of the death of children they take care of, which may be related to the mutual attachment between nurses and children [6]. The second stressor is communication challenge, which affects nurses,

children, and families. Non-effective communication result in a decline in family satisfaction [7-11]. In these studies parents does not allow nurses to tell their children the truth. For example, in Hopia and Hino-Toronin's study, one participant said she could not do what she thought was correct due to family demands [12]. Palliative care is best used for the rest of the child's life to minimize the harm caused to the child by over treatment, but the parents of the child hold different views that if given enough treatment, the child could gradually recover [13]. The largest communication challenge derived from children death. According to Kenan and Mike, after the child's death, the contact between the nurse and the family was cut off, and the family did not want to have any contact with the nurse [14]. The third stressor is the insufficient staff and heavy workload [5].

Secondly is the impact of this care experience on nurses. In 20 studies, it was mainly reflected in three aspects: first is job burnout [15,16]. In the study of 107 nurses in Indonesia, the author found that the long-term tense environment made nurses feel emotionally tired, thus lacking energy in their work. Unfriendly to patients and colleagues led nurses to give up their central [15]. The second is compassion fatigue, reported in six studies, which refers to emotional stress due to seeing much harm [17]. Negative situations can affect individual psychological changes, resulting in a cold emotion. In the study of Berger et al., 239 American nurses were investigated and found that day-to-day care of critically ill children induced nurses to develop sympathetic fatigue, which led to anxiety, depression, and other diseases of nurses. Because of lack of enthusiasm for work, nurses were 18% more likely to make mistakes [18]. These findings are consistent with Nieran et al. [4,19]. The third is a post-traumatic stress disorder [5,13,15,18-20]. These consequences seriously affect the work and life of nurses, leading to care. The efficiency of taxi work decreased, the turnover rate increased, and the quality of life decreased.

In coping strategies, there are two main ways of problem-centered coping and emotion-centered coping [3]. However, most nurses tend to be emotion-centered coping, consistent with Kellogg et al. [20]. Some studies have shown that nurses have great emotional stress in caring for high-risk patients. A survey of 334 nurses in the United States found that emotional support reduced their risk of secondary traumatic stress. The study suggests that managers should pay attention to the emotional needs of nurses [7,10,17,12]. Besides, in the study of Hopia and Heino-Tolonen the study, a communication tool for families and caregivers is mentioned. This tool's application ensures that nurses communicate confidently with the child's family during or after the child's death while providing a profound and meaningful experience for the family [12]. Therefore, some studies suggest that nursing managers focus on developing nurses' coping skills in caring for dying children and provide necessary communication skills and professional knowledge training [21-23].

There are many articles on professional stress and coping strategies of nurses in China, such as mindfulness decompression therapy [24], employee assistance program service [25], group psychological counseling based on focus solution technology [26]. However, there are few references to care for dying children. The author also experienced critical children's death in 15 years of pediatric nursing and even caused severe traumatic stress, leading to insomnia, anxiety, and despair. Therefore, the author hopes to explore the main challenges Chinese nurses face in caring for dying children and determine whether there are effective coping strategies to help them overcome these challenges.

MATERIALS AND METHODS

Design

A descriptive qualitative study was adopted. Data were collected using semi-structured interview with 10 nurses from the pediatrics, pediatric emergency department and neonatology department. The content analysis method is used to analyze the obtained data, and then encode sentence by sentence, condense the subject.

Recruitment and sample

In this study, the participants were recruited by a poster in August 2021. In the recruitment poster, the author clarified the purpose of the study, the research method, and the inclusion and withdrawal criteria of the subjects. This poster is posted on the bulletin board of a Grade 3A hospital in Hanzhong City, Shaanxi Province, for two weeks and is also published in the WeChat group of nurses. Nurses who want to participate in the registration by email will receive an information questionnaire.

Inclusion criteria: (1)pediatric nurses are working in hospitals for more than one year; (2) being able to express their views clearly in Mandarin; (3) obtaining informed consent; (4) having the experience of caring for dying children in the past five years. The exclusion criteria were: (1) nurses who withdrew during the interview; (2) nurses who did not want to mention their experience in caring for dying children.

There were 10 subjects in this study, all of whom were female, aged 25-49 with an average age of 35.5, all of whom were married, including 6 college students and 4 college students, all of whom were married and 1 divorced (Table 2).

Data collection and analysis

Interested nursing staff requested to return to the questionnaire in October 2021, where the investigator contacted them, coded and negotiated the interview time, and signed informed consent before the interview. In November 2021, investigators used semi-structured interviews to collect data. The interview site is located in a hospital's family home dormitory for 20-40 minutes. The investigator will record the participant's views and record them with the consent of the other party. The results will be returned to each participant in December to verify the interview details, thus ensuring the accuracy and credibility of the analysis. Before this interview, investigators were trained in interview and communication skills, including effective listening and giving positive feedback, establishing good relationships with interviewees, maintaining eye contact, not interrupting interviewees, not judging their views, etc. Besides, Kavanaugh and Ayers pointed out that in the course of the study, especially for sensitive topics, it is essential to assess participants' feelings. Researchers must try to minimize the discomfort of participants. It is unethical if researchers cannot deal with pain [10]. Therefore, in this study, psychological counseling was prepared for participants to release their uneasy and uncomfortable feelings during or after the interview.

Table 2: The characteristic of participants for experience of pediatric nurses in nursing dying children-a qualitative study.

Participants	Gender	Age	Working years	Original department	Marital status	Qualification	Children
N1	Female	41	21	Pediatric	Married	Junior college	2
N2	Female	38	12	Pediatric	Married	Junior college	1
N3	Female	30	8	Pediatric	Married	Undergraduate	2
N4	Female	28	7	Pediatric	Married	Undergraduate	1
N5	Female	49	31	Neonatology	Married	Junior college	1
N6	Female	38	20	Neonatology	Married	Junior college	1
N7	Female	27	6	Neonatology	Married	Undergraduate	1
N8	Female	25	3	Neonatology	Married	Undergraduate	0
N9	Female	42	22	Emergency	Married	Junior college	1
N10	Female	37	25	Emergency	Divorced	Junior college	1

RESULTS AND DISCUSSION

Content analysis by Krippendorff was used to analyze the experience of Chinese nurses caring for dying children. NVivo 12 (QSR International) computer software is often used in qualitative research and can help fast coding, deep exploration, and strict management. Firstly, raw data is entered verbatim into the computer and then uploaded to the NVIVO. Secondly, the content is verbatim coded. A concept label is then created for the nodes in the NVIVO, and the words under the concept are dragged to the nodes they support. Finally, the content and topic are classified by application software. This survey extracted three topics, namely, stress sources, stress consequences, and coping strategies (Table 3).

Table 3: Themes and sub-themes extracted from the analysis of the findings.

Theme	Sub-themes
Stressors	i) Negative emotions
	ii) Helpless
	iii) Question the rescue behavior
	iv) Fear of communication
	V) Lack of workforce for night rescue
Stress consequences	i) Compassion fatigue
	ii) Burnout
	iii) Changes in life attitudes
Coping strategies	ii) Self-regulation of coping strategies
	ii) Leadership approval and no accountability

Stressors

Participants described the stress involved in dying children's care, including negative emotions, feelings of helplessness, questioning their rescue behavior, communicating fear, and lack of workforce at night.

Negative emotions: Most participants mentioned their negative emotions such as sadness, dismay and anxiety, especially in caring for children with long nursing hours.

"Seeing my nursing child lying there with many tubes in her body, I felt so sad that I could not control my tears and wanted to cry."

"I even want him to die peacefully. But I feel very guilty because of this kind of thought... How can I have this kind of thought, even if I cannot save him, I should also try my best?"

"I feel anxiety because I do not want to do anything to increase his pain, I just want to let him quietly walk the final course of life, but my responsibilities force me to continue injecting medicine and intubation."

Helpless: "I was afraid of hurting her, watching her looked at me, watching her react got worse and worse. I felt so bad I could not do anything."

"I have done everything I can, but the kids are getting worse and worse, I feel useless."

Questioned the rescue behavior: Especially when the child's condition suddenly changed, we rescued him together, but after the rescue, I was constantly recalling the whole rescued process, was I wrong? Where I operated slowly, what I ignored?

Fear of communication: "I dare not communicate with the child's family. I'm afraid of telling them the information which may different with what the doctor said. I'm afraid of family emotional control which will produce extreme behavior."

"I want the mother to stop crying, but I do not know how to communicate with her because if I were her, I might cry worse than she did."

Lack of workforce for night rescue: "I am most afraid of the night rescue because of the shortage of staff. Other children need care. It is easy to make nursing errors."

"If I had a child who would get worse at any time during the night shift, I would have been restless all night. I remember one time, one child was being rescued, the other child was getting worse, and the other children's families were calling me, and I cried as I rescued, wishing I had three heads and six arms."

Stress consequences

This experience's consequences include compassion fatigue, burnout and changes in life attitudes.

Compassion fatigue: "I now feel that care for dying children is part of the job, without any feeling, just routine care and rescue."

"I have saved too many children, no feeling. This is the life."

"When I was at work, I thought these kids were pathetic, but now, I do not feel that way at all."

Burnout: "I have had many thoughts about leaving, especially every time I save a child, and I have had enough of this experience, which has seriously affected my mood. I do not want to be a pediatric nurse anymore. I have applied for a change of with the leader, but I have not been approved."

"If I had found a better job, I would have resigned, the pressure on the first-line pediatric nurse was too great, and I did not even want to go to work."

Changes in life attitudes: "This experience has changed me a lot, and life is so fragile. I should love life more. I try to care about my children, spend more time with my parents because of empathy. The parents of those children rushed to the hospital from their workplace and saw their children dying. The collapse of the look and the atonement deeply hurt me."

"I have always felt that I have much time to accompany my children, but accidents always happen. I do not care that until I lost my child. So I could feel the feelings of the family very much, I went to study psychology, took a counselor, I hope I can give the same experience as my parents a little help."

Coping strategies

Most nurses in this survey mentioned self-regulation, and individual nurses thought that if the head nurse or department director affirmed their behavior initially, not holding them accountable would significantly help them cope with stress.

Self-regulation: "I am under much stress, and I want to be quiet after the rescue."

"It takes a long time to adjust your negative emotions slowly each time."

"It is all self-regulating, finding a quiet corner, not wanting to ask for help from others, who do not necessarily understand because they have not experienced it."

Leadership approval, no accountability: "Once I cried after rescuing the child, and I was agitated because the child was about the age of my daughter, and the head nurse came and hugged me, and she whispered to me," You are doing well."

"What I fear most is leadership accountability, and I do not think I will be under pressure if the director of the department makes it clear that the child's death is not my responsibility."

CONCLUSION

In terms of stressors, the results of this study are different from those of foreign countries, mainly in the case of nurses questioning their rescue behavior. Because the investigation took place in a third-class hospital in Hanzhong City, there was no situation of foreigners seeking medical treatment, so there is no language barrier.Nurses questioning their rescue behavior mostly occurred when a child died unexpectedly. Because it happened so suddenly, the nurse repeatedly recalled what was wrong or missed in the whole process, and whether it was a certain behavior that caused the child's condition to change. Studies have found that once a child dies suddenly, regardless of whether there is direct responsibility for the nurse, it will bring psychological pressure to the nurse.

In terms of stress consequences, job burnout and compassion fatigue are consistent with foreign research results, but nurses in this study do not mention post-traumatic stress disorder. It is worth noting that individual nurses mentioned that this experience had played a positive role in promoting the change of their life attitude, making them feel that life is so fragile that they should cherish life and love life more.

Different manifestations of coping strategies are that most nurses in China tend to relieve stress through self-regulation, while in foreign studies; emotional support between teams is the mainstay. Foreign results of coping with stress pay more attention to the mental health of nurses and the use of coping tools, such as the development and application of communication tools. But domestic nurses rarely mention the impact of external circumstances and characters on themselves. Only one nurse mentioned that the approval of the leader had a clear effect on the pressure. Moreover, in this interview, nurses did not realize that external forces could be used to combat pressure, and nursing managers did not pay much attention to this emotional need of nurses.

In China, people rarely talk about the feelings of death, which is different from other contentious. For example, in Ireland, nurses were invited to attend the children's funerals. Because Chinese nurses have almost no intersection with their families after the children death, so there is still a certain lack of research in digging deep into the psychological level of nurses. Through qualitative research, this paper explores this experience of nurses and their impact on them, finding differences with some foreign studies. The study provides some guidance for nurses, especially nursing managers, to pay attention to the feelings of nurses who take care of dying children. Moreover, it also provides some information for the development of nurses and the formulation of relevant policies.

LIMITATIONS

Although this paper's sample size is saturated, Chinese nurses do not talk much about the feelings of children dying, especially young nurses. The nurses who have worked over ten years provide much information. Further research recommends grading studies based on nurses' working years, such as nurses who have been on the job for less than three years or more than ten years.

ETHICAL CONSIDERATIONS

In this study, the report will replace each participant with a code, and the interviewee's identity, residence, and contact information will not be disclosed to others. Video Sound content is also used only in this study. After the study, the audio data will be destroyed. The hospital ethics committee approved this study.

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ETHICS APPROVAL

This study was approved by the Hospital Ethics Committee and the ethical code is 20210301. The transcripts were coded without the participants' names, and numbers were used in all publications and dissemination of findings.

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