

# Analysis on Continuous Nursing Care of Children with Enterostomy

Yong Xiao\*

Hubei Jingyuan Medical Technology Co., Ltd. E-mail: xiaoyong@qq.com

**Abstract:** This article summarizes the research progress of childrens continuous nursing care of enterostomy from the general situation of children's enterostomy, and reviews and analyzes the development mode and main forms of children's continuous nursing care of enterostomy at home and abroad, in order to provide reference for the development of children's continuous nursing care of enterostomy in the future.

**Keywords:** Stoma; Children; Continuous Care; Intervention Mode

With the improvement of medical level, the curative effect and prognosis of children with enterostomy have been improved continuously, but the difficult nursing task and high incidence of complications still bring a lot of nursing problems to the ostomy families. Professional knowledge and skills of ostomy nursing are a great challenge to caregivers, and also affect the prognosis and quality of life of children. It is found that continuous nursing intervention is an effective strategy to prevent stoma-related complications and improve the prognosis of children. In recent years, the research and application of continuous nursing for adult ostomy patients have gradually increased in China. At present, the establishment and implementation of continuous nursing mode has become the development trend of medical care services at home and abroad, which is of great significance for promoting the rehabilitation of children with enterostomy and improving their quality of life.

## 1. General situation of children's enterostomy

Children's enterostomy originated in France in the 18th century. In 1710, Alexis, a French doctor and

anatomist, first tried colostomy on the abdomen of a baby who died of congenital anal atresia. Durette performed the first successful colostomy on a baby with anal atresia three days after birth in 1793. Children's enterostomy is the first choice for intestinal surgical diseases such as anorectal malformation, necrotizing enterocolitis, Hirschsprung's disease and meconium intestinal obstruction. These diseases are sudden onset without warning, rapid progress and poor prognosis, which are catastrophic diseases threatening children's lives. Because of children's pathophysiological characteristics, their tolerance to anesthesia and surgery is inferior to that of adults. In order to save children's lives and prevent some serious long-term complications, enterostomy should be performed in principle to quickly relieve abdominal distension, eliminate a large number of bacterial toxins in the intestine, prevent intestinal wall necrosis and create opportunities for further treatment.

## 2. Continuous nursing forms of children's enterostomy

### 2.1 Traditional forms

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Telephone follow-up is one of the most economical, efficient and convenient continuous nursing methods, which has been widely used at home and abroad. Family visit is one of all continuous nursing methods that can improve patients' satisfaction. Professional nursing teams use face-to-face communication to give targeted guidance to children's homes, which can effectively help caregivers improve the quality of care and help to improve their negative emotions. However, at present, family visits are still not the main aspect of continuous nursing. The main reasons are limited by China's national conditions, lack of medical human resources, limited visiting time for medical workers and so on. Hu Xifen adopted nursing intervention in stages for children with colostomy, and made a continuous, personalized and refined health education plan before operation on the day after operation, on the first day after operation, on the second change of ostomy bag, on the day of discharge and after discharge, guiding family members to gradually master stoma-related knowledge and nursing skills, and after discharge, they made a telephone call back to the children with stoma complications, use time of ostomy bag, body weight, feeding, activities and existing main problems. According to different situations, Yang Hui, *et al.*, gave guidance on children's ostomy and life care and provided psychological support to caregivers of 60 children with enterostomy by combining home visits and telephone follow-up for local children and telephone follow-up for children from other places. After 3 months of intervention, the awareness of nursing knowledge of children in observation group was significantly higher than that in control group, and their anxiety and depression levels were significantly reduced. Zhang Nan *et al.*, applied the whole nursing intervention based on preventive theory to the observation group, and the nursing intervention team conducted face-to-face health education and six follow-up interventions to provide effective nursing programs in time to prevent the occurrence of complications. The results showed that the incidence of complications and the care burden of caregivers in the observation group were significantly reduced.

## 2.2 Network form

With the development of mobile Internet technology and specialized nursing in China, more and more stoma network platforms are established to meet the

nursing needs of stoma patients more conveniently and quickly. Dabas *et al.*, developed a 9-minute video teaching program for children's enterostomy (VTP), which included the basic anatomical structure of children's intestines, indications of enterostomy, signs of healthy enterostomy, cleaning and dressing of enterostomy, complications related to enterostomy, etc., and used it to guide nurses' nursing on enterostomy. The results showed that VTP greatly improved the knowledge and skills of children's caregivers in 2 weeks. At present, WeChat and QQ have been widely used in the continuous nursing care of children with enterostomy in China. Li *et al.*, set up WeChat group for children with colostomy to send colostomy nursing videos and basic teaching materials, requiring parents to upload videos and pictures of colostomy nursing every week, timely follow up the situation of colostomy and correct the problems in the nursing process, and invite experienced parents to share their experiences. When the children are unable to be hospitalized in time due to emergencies at home, the parents can ask for help from the team in time. The results show that the parents of children with colostomy have greatly improved their mastery of knowledge and skills of colostomy nursing, while their anxiety level is reduced. Chen Wei founded the WeChat official account of Pediatric Surgery, and pushed the knowledge about children's enterostomy every week (including the observation and nursing of the skin around the enterostomy; video, operation skills and precautions of changing enterostomy bag; manifestations and coping methods of enterostomy complications: infant feeding knowledge, etc.). At the same time, the message questions of WeChat interactive group are sort out and answered one by one. For the difficult problems, group members should be organized to discuss and guide the implementation, the results show that the anxiety level and sleep quality of children's families are improved, and the stoma care knowledge and nursing service satisfaction rate are improved.

## 3. Suggestions and prospects

### 3.1 Vigorously cultivation of children's stoma nursing specialist nurses

Since 2001, the World Association of Stomatologists has helped to train ET systematically in mainland

China through the twinning project, and the training of ET has developed rapidly, but it is still in a state of lack. A survey shows that 70.7% of ETs are concentrated in the third-class first-class general hospitals, while only a handful of ETs are engaged in children's ostomy nursing. There are great differences between children's stoma and adults' stoma in primary diseases, location, incidence of complications, etc. Moreover, children with stoma are still in a critical period of growth and development, and nursing care such as diet and life is specialized. Therefore, the nursing care of children's stoma is quite different from that of adults'. Compared with developed countries, there is still a big gap in nursing care of children with enterostomy in China. At present, the nursing care of children with enterostomy in China is still in its infancy, and there is a serious shortage of nursing staff specializing in children's enterostomy. China also needs to train specialized nurses engaged in children's stoma care, and stoma therapists should also master the nursing technology of children's stoma, so as to provide efficient, high-quality and comprehensive nursing services for caregivers of children.

### **3.2 Development of professional children's stoma continuity care service content**

The research shows that the continuous nursing of children's stoma at present mainly includes daily life guidance, guidance of knowledge and skills of stoma nursing, guidance of identification, prevention and treatment of stoma and skin complications around stoma, guidance of choice of nursing products for children's stoma, guidance of nursing after anus expansion and stoma acceptance, and psychological guidance of young children with stoma and their caregivers. However, there is no uniform standard and relevant guidance for the content and operation process of continuous nursing care of enterostomy, which lacks the effect evaluation of health service utilization, thus ignoring the feedback of nursing service quality. It is particularly important to set up continuous nursing posts, gather the strength of multidisciplinary teams, and formulate standardized continuous nursing service contents and programs.

### **3.3 Establishment of a specialist outpatient clinic for children's ostomy**

With the diversified development of people's health needs, the demand for specialized nursing care of ostomy

patients is constantly updated, and the specialist outpatient department of ostomy in many hospitals in China came into being and gradually matured. The ostomy specialist outpatient service gives professional guidance to patients at any time, including the replacement of ostomy bags, evaluation of ostomy, daily life and psychological guidance, which effectively improves the quality of life of children and reduces the occurrence of complications of ostomy. At present, many domestic ostomy clinics do not involve children's ostomy, and there is a lack of leaders and talents in children's ostomy. Children's stoma continuous nursing service urgently needs multidisciplinary cooperation, and it should emulate adult stoma outpatient service, set up children's stoma specialized outpatient service, carry out joint medical consultation, construct multidisciplinary standardized cooperation system, and create and implementing effective and feasible children's stoma continuous nursing scheme.

### **3.4 Realizing the continuous nursing of stoma specialty in "Internet plus Nursing Service"**

In February 2019, the National Health and Wellness Committee issued the "Pilot Work Plan of Nursing Service in Internet plus", which made it clear that "Internet plus Nursing Service" refers to the nursing service provided by medical institutions with nurses registered in their own institutions, relying on information technology such as the Internet and focusing on the mode of "online application and offline service" for discharged patients or special people suffering from diseases and having difficulty in moving. At present, "Internet plus Nursing Service" has been piloted in Beijing, Shanghai, Guangzhou and other six places. The characteristics of colostomy care, such as difficulty, professionalism and high incidence of complications, make ostomy workers one of the key groups. "Internet + Nursing Service" not only retains the main characteristics of specialized nursing work, but also enriches the related knowledge and application of nursing in home environment. Among them, "Internet plus Nursing" on-site service can provide a good home care platform for caregivers of children with stoma, which can effectively reduce the home care problems of caregivers of children with stoma, reduce the inconvenience of medical treatment and the care burden of care-

givers. In recent years, door-to-door service platforms such as “medical care comes home”, “U-care” and “network nurses” have also emerged and achieved certain results. However, due to the fact that nurses’ multi-point practice has not been fully opened, the policy of home nursing lacks support, and there are certain risks in the home nursing service, the development of home nursing service is slow. How to learn from foreign nurses’ on-site nursing service on the Internet and explore the management system, service mode, service standard and operation mechanism of “Internet plus Nursing Service” which is suitable for the development of ostomy specialty nursing in China will become the next work focus.

In the aspect of specialist nursing of stoma, if telemedicine technology can be used to monitor the stoma of children, make diagnosis and consultation, and if necessary, make use of door-to-door service platform for nursing stoma of children, it may become a new working mode of specialist nursing of children’s stoma. Foreign scholars have designed a remote monitoring system led by a professional ET team. The monitoring results will be automatically uploaded to the database every time. If the results are abnormal, the patients will be contacted with the general practitioner to make further management plans. The remote monitoring system saves 63% of the follow-up expenses of conventional clinics and reduces the appointment time of clinics by 75%. Domestic scholars have developed a remote ostomy nursing system, which includes eight modules: remote registration, online payment, ostomy photography, voice message, voice or video conversation, doctor’s advice

check, questionnaire survey and health knowledge browsing. At present, telemedicine technology has been applied to the continuous nursing of adult stoma, but seldom applied to children’s stoma, which can provide reference for the construction and application of children’s stoma remote technology in the future.

## 4. Summary

With the development of society, the improvement of living standards and the improvement of people’s health needs, the demand for continuing care for children with enterostomy is also increasing. At present, the main focus of continuous nursing service for stoma in China is on adult stoma, while the continuous nursing service for children’s enterostomy is still in the exploratory stage. How to train excellent pediatric ostomy nurses, how to build a complete continuous nursing program for pediatric ostomy, and how to use modern advanced communication technology to implement effective continuous nursing programs need to be further explored.

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