

The Effect of Integrated Medical Care in Home Enterostomy Newborns

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Abstract: To explore the effect of medical integrated remote mode in home enterostomy newborns. **Methods** 48 newborns after enterostomy admitted to our department from January 2020 to November 2021 were selected as the children and their parents were evaluated for wound ostomy complications, parental care ability and parental satisfaction. **Results** The implementation of integrated remote medical care mode can effectively reduce the chance of wound and stoma complications, improve parents' care ability, and finally improve parents' satisfaction. **Conclusion** The implementation of telemedicine integrated model in children to receive professional guidance at home after discharge, improve the ability of enterostomy neonatal parents to home care for newborns and ostomy, reduce the incidence of neonatal stoma-related complications, and improve medical satisfaction.

Keywords: Neonatal, Enterostomy, Integrated Medical Care, Remote Clinic

Enterostomy surgery is a common surgical method in the neonatal treatment of congenital intestinal malformation, intestinal necrosis combined with shock and extensive abdominal infection[1]. Due to the critical primary disease of newborns and the high difficulty of care, stoma complications are higher than adults, and the highest incidence of neonatal enterostomy is more than 50%[2]. The remote mode of integrated medical care is a new type of management mode[3]Based on Internet information technology, the network-based electronic medical record system is applied, and the intervention form of online network can provide medical care services for children and caregivers after discharge, during which doctors and nurses communicate and cooperate with each other. Jointly participate in the treatment, nursing and rehabilitation process of children after discharge[4]Thus, it has a positive role in improving the condition of children. In this study, the integrated medical management model was applied to children with neonatal enterostomy after discharge, which is reported as follows:

1. Objects and Methods

1.1 Study subjects

48 neonates undergoing enterostomy in our hospital from January 2020 to November 2021 were selected for retrospective analysis. The basic data collected include the age, sex, weight, diagnosis, stoma complications and management measures. 22 Men and 26 women; mean age 3.77 ± 2.12 d; mean weight 2.62 ± 0.72 kg; details are shown in Table.

Table 1: General Data of the study subjects

project	example	
sex		
man	22	0%.46
woman	26	0%.54
diagnose		
Hirschsprung's disease	10	21%
N EC	16	33%
atresia ani	8	17%
meconium peritonitis	14	29%
Enterostomy site		
Small bowel stoma	32	67%
Colon stomy	16	33%

1.2 Method

Establish a medical integration team: the specific members are as follows: 1 chief physician, 3 attending physicians and 5 responsible nurses.

During hospitalization: medical integrated mode is responsible for the children, before the discharge by specialist nurse one to one on-site guidance, demonstrate the correct method, enterostomy size and double stomy spacing measurement, pocket cutting method, paste skills and surrounding skin protection method, repeated demonstration, encourage family to ask questions, guide families to practice 1~2 times, improve family nursing practice ability, and inform parents discharge possible skin care problems.

Families to assess the degree of disease related knowledge, parents will join the establishment after discharge stoma care WeChat group, encourage the interaction between families, timely answer questions, encourage families to actively share experience, inform the importance of parents visit appointment, need to observe neonatal abdominal status at home, stomy defecation, etc.

After discharge, the Internet online outpatient re-visit is conducted every week, and the attending physician and the ward nurse are jointly responsible for outpatient follow-up and health education. The doctor is responsible for adjusting the treatment plan to understand the feeding, defecation, stool traits, weight, skin around the fistula, timely grasp the situation of the children, conduct in-depth communication with the families of the children, answer questions, understand their psychological state, and improve the disease knowledge and nursing level of the children.

1.3 Evaluation Indicators

1.3.1 Wound-Related Stoma-Related Complications [5]

Wound infection: redness or exudate of inflammatory secretions around the wound;

Peristomy dermatitis: peristoma skin has erythema, plaque wet dermatitis or ulcer, bleeding and other symptoms; stoma retraction: stoma subsidence is lower than the skin surface;

Separation of skin and mucosa: separation of the enterostomy edge from the surrounding skin;

stomy stenosis: stomy skin opening is small, it is difficult to see the mucosa or stomy skin opening is normal, but the fingers are difficult to enter, and the tissue around the intestine is tight;

Ostoma prolapse: the intestinal tube out of the skin surface more than 3cm, cannot return.

1.3.2 Knowledge of Care Knowledge

Evaluation and score from 5 aspects of stomy skin care, pocket replacement and cleaning process, stomy complications identification, stool abnormality judgment, basic knowledge of daily care, 1 is not master; 2 is partial to master; 3 are most master; 4 is all master; 5 is master.

1.3.3 Satisfaction

The parents of the children were evaluated after treatment, 1: dissatisfaction, 2: partial satisfaction, 3: basic satisfaction, 4: satisfaction, and 5: very satisfaction.

2. Results

Table 2: Complications Occurrence

complication	Example number	proportion
wound infection	1	5%
Peristomy dermatitis	8	47%
The mouth retraction	3	18%
Narrow stoma	2	12%
Cathostomy prolapse	3	18%

Table 3: Knowledge of care Knowledge

project	score
Ostomy skin care	4.79±0.11
Pocket replacement and cleaning process	.854±0.32
Identification of the stoma complications	3.62±0.61
Abnormal stool judgment	4.23±0.79
Basic knowledge of daily care	.364±1.22

2.3 Satisfaction Evaluation

Through data collection, parental satisfaction was rated as 4.23 ± 0.25 .

3. Discussion

3.1 The Integrated Telemedicine Model Can Improve the Knowledge Level and Skills of Parents to Care for Enterostomy Newborns

During the hospitalization of the children, the nursing of stomy was completed by the stomy nurse. After the condition of enterostomy was discharged, the families became the main place of enterostomy care, and the parents became the main caregiver of stomy[6], Care problems often become apparent at 1–4 weeks after discharge. Geng Shoufan et al[7]New mothers lack of knowledge of the disease, prognosis and other problems, prone to a series of symptoms such as anxiety. Reports show that frequent pocket replacement is the biggest problem in home care[8]And will even will be hospitalized again for ostomy care reasons.Remote care integration mode, doctors, nurses from different angles to complete children treatment and nursing, but expression and treatment, increase the trust of the patients' families, children once stoma related complications, can communicate with doctors, nurses, diagnosis and nursing, ensure the timely solve the problems, improve confidence in children, compliance to parents better learning and master the stoma nursing methods, avoid complications and infection, ensure the nutrition of children, to the implementation and effect of the secondary operation in children.

3.2 The Integrated Telemedicine Mode Can Improve the Cohesion of the Medical Team

The integration of medical care forms doctors and nurses as a whole. The ostomy problems of children are the common goal. At the same time, they provide high-quality diagnosis and care to solve problems, jointly assume the responsibility for patients, and emphasize joint participation and comprehensive cooperation.In the process of home care for children with neonatal enterostomy, every member of the medical team needs to have professional knowledge and skills. Doctors are mainly responsible for identifying the timing of closing the enterostomy through the consultation of the children's postoperative condition progress[9]And nurses mainly through the children home care environment, feeding, defecation, weight, stomy skin conditions around the health guidance, reflect various professional characteristics, effectively avoid doctors and nurses in a single environment for children problem solving limitations, can better cultivate the organization and coordination ability between medical staff, communication ability and team cooperation ability.

3.3. Discussion on the Integrated Mode of Remote Health Care

Since the outbreak of COVID-19 (COVID-19) 2019, "Internet + medical services" has developed rapidly[10]So that medical nursing services can span the limitation of space, patients can accept long-distance treatment and nursing services at home[11]. Implement home nursing enterostomy newborn parents can use weekly Internet remote outpatient service, through the hospital ostomy medical team feedback and nursing newborn problems, timely solve the special situation of enterostomy and correct the problems in the process of nursing, realize the seamless connection after discharge, ensure the continuation of treatment relationship, and adjust health education to meet individual needs. The application of the integrated mode of remote care can not only obtain timely information about the changes of patients' conditions, but also reduce the chance of children going out to be infected as far as possible, and through the full cooperation of doctors and patients, the quality of home care for children can be improved and the satisfaction of parents can be improved.

It is undoubtedly a practical and innovative measure to improve the utilization efficiency of medical

resources

4. Conclusion

Neonatal enterostomy postoperative complications are more, after discharge early assessment and meticulous care, early treatment of related complications is very important and necessary, to help doctors identify close stoma timing, the implementation of remote medical model in children after discharge still establish close ties, parents save time, also can reduce the chance of infection in the way, never leave home to receive professional guidance, improve enterostomy parents home care and stomy, reduce the incidence of neonatal stoma related complications, improve satisfaction.

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