

# **Analysis of Preoperative Psychological Characteristics of Patients with Enterostomy**

#### Jing Fang<sup>1,2</sup>, Chun Yu<sup>1,2</sup>, Xiaocui Zou<sup>2,3</sup>, Tingting Yuan<sup>2,3</sup>, Jing Zhang<sup>2,3\*</sup>

- <sup>1</sup>Department of Breast Surgery Nursing, Sichuan Provincial People's Hospital, University of Electronic Science and Technology of China, Chengdu 610072, China
- <sup>2</sup> Chinese Academy of Sciences Sichuan Translational Medicine Research Hospital, Chengdu 610072, China
- <sup>3</sup> Nursing Department, Sichuan Provincial People's Hospital, University of Electronic Science and Technology of China, Chengdu 610072, China

DOI: 10.32629/ajn.v3i2.1143

Abstract: Enterostomy is to resect the diseased intestinal tract through surgery, free a section of normal intestinal tract, sew its opening on the abdominal wall, communicate with the intestinal tract, and use it to excrete metabolic waste in the intestinal tract. It is a common surgical method for cancer, which can save and prolong the life of patients. Intestinal stoma patients not only bring inconvenience to life, but also have physical and psychological problems such as depression, anxiety, insomnia, fatigue, and dyspnea, which seriously affect normal social activities. Therefore, attention should be paid to both physical and mental care of stoma patients. Family resilience refers to the support of family members to help patients get out of the plight of illness. Dual support and coping theory refers to the mutual support between patients and their main caregivers to achieve a stable relationship between family members and to jointly cope with the disease process. Quality of life is especially important. This article reviews the psychological characteristics of patients with enterostomy based on family resilience and dual support coping, aiming to provide reliable theoretical knowledge and nursing programs for postoperative physical and mental recovery of patients with enterostomy.

Keywords: enterostomy, psychological characteristics, family resilience, dual support coping

# 1. The concept and epidemiology of enterostomy

#### 1.1 The concept and classification of enterostomy

Enterostomy refers to surgically mobilizing a certain section of intestine and opening a channel connected to the intestine on the abdominal wall, so that the metabolic waste in the intestine can be excreted normally. Its main indications include inflammatory bowel disease, acute diverticulitis, stricture Intestinal obstruction and intestinal tumors.

According to the location of the free intestine, enterostomy can be divided into ileostomy and colostomy, which can be further divided into terminal stoma and loop stoma: the former refers to the stoma at the end of the intestinal tube, and the latter is to insert a certain After segmental intestinal canal resection, the posterior walls of the two intestinal stumps are anastomosed, and the front end is opened. The ileostomy is usually opened on the right side of the abdominal wall, and the colostomy is opened on the left side of the abdominal wall[1]; according to the duration of the stoma, it is divided into temporary stoma and permanent stoma, which are respectively suitable for intestinal stoma caused by inflammation and other reasons. Transient loss of segmental function or stoma after extensive bowel segmentectomy.

#### 1.2 Epidemiology related to enterostomy

The epidemiological data of enterostomy are scarce. Statistics show that there are about 100,000 new patients with permanent enterostomy in China every year, and the cumulative number of enterostomy patients reaches 1 million, and there will be an increasing trend in the future [2]. The age distribution of patients undergoing this operation is bimodal, and the indications are young patients with inflammatory bowel disease and elderly patients with colorectal tumors [3]. Statistics from the Global Cancer Epidemiology Database show that there are more than 550,000 newly diagnosed patients with colorectal cancer in China, accounting for 12.2% of the total number of newly diagnosed cancer cases [4]. Enterostomy has replaced traditional surgery as the most effective treatment for colon cancer One of the means [5].

While enterostomy is an effective means of treatment, it also brings huge changes in the lifestyle and psychological state of patients. Due to the long-term exposure of the stoma to feces, drugs, etc., postoperative complications are prone to occur [6]. Data show that 16% of patients with enterostomy have complications, 75% of which are skin diseases around the

Advanced Journal of Nursing 34 | Jing Fang, et al.

stoma, often caused by exposure to body fluids, including candida infection, ulcers, etc. [7], and other complications include stoma Parahernia, prolapse, retraction, fistula, stenosis, hemorrhage and ischemia, etc. [8]. The data show that the incidence of stoma hernia within two years after surgery is greater than 30%, which is closely related to the expected survival time after surgery [3]. Intestinal stoma not only brings inconvenience to the life of the patient, but also puts great pressure on the patient's psychology. Common psychological problems include easy fatigue, insomnia, pain, and dyspnea, which affect normal social activities. Therefore, attention should be paid to the physical and mental health of patients with stoma Double care.

## 2. Psychological characteristics of patients with enterostomy

Enterostomy can effectively prolong the life of patients and help patients return to normal life. However, it may cause individuals to experience various problems in terms of physiology, society and psychology. Take good care of the patient's body and mind at each stage, so as to avoid a series of physical and mental health problems caused by enterostomy, and improve the patient's psychosocial adaptation and quality of life (Quality of Life, QoL).

Since enterostomy brings huge lifestyle changes to patients, more than half of patients will have worries and concerns about the operation before the operation [9]. Medical workers should actively carry out preoperative health education to patients before operation. Clarify the relevant surgical plan, surgical purpose, surgical results, etc., so that patients can fully understand the enterostomy; through the application of self-report questionnaires such as psychosocial adaptation scale, body image scale, self-esteem scale, anxiety and depression scale, etc. The scale can help medical staff better understand patients' questions and concerns. According to the data, patients with enterostomy will have emotions such as uncontrollable uncertainty before operation, sense of shame after operation, worry about self-esteem and self-confidence after operation, frustration and helplessness caused by disease [10]; in addition, intestinal stoma Ostomy patients often have a strong sense of inferiority and fear before surgery, and have a negative attitude towards postoperative self-image [11]. At present, in China, ostomy therapists have been carried out to provide preoperative consultation to patients with ostomy in order to reduce the psychological pressure of preoperative patients [12]. Due to the particularity of psychosocial adaptation to this surgery, surgeons and enterostomy therapists should conduct detailed preoperative planning together to reduce the incidence of technical complications and help patients adequately prepare psychologically for postoperative life [13].

# 3. The research significance of family resilience in patients with enterostomy

Family resilience, also known as family resilience, refers to the support of family members to the patient, helping the patient get out of the plight of illness, restore normal life ability, and gain new advantages and social resources in this challenging period [14]. Due to the impact of enterostomy on the social and psychological aspects of patients, in addition to symptomatic nursing treatment, psychological counseling is often required for patients to improve postoperative quality of life and help patients return to normal social life. Because of the closeness of the family to the patient, the family can foster resilience when family members face change or crisis [15].

The family resilience of patients can be assessed by different scales, including the family index of regenerativity and adaptation (FIRA-G), the CONNOR-DAVIDSON resilience scale (CD-resilience scale, CD-RISC) and the Family Resilience Rating Scale. The family resilience survey scale is commonly used in China to evaluate. The scale is usually composed of family members' cooperation and coordination ability, clear communication degree, emotional sharing experience, family order evaluation, family members' intimacy and harmony, problem-solving ability, positive outlook, etc. Composition [16], to evaluate the strength support provided by the family to the patient [14]. Studies have shown that among patients with permanent enterostomy after colorectal cancer surgery in my country, the influencing factors of family resilience include two opposite factors, positive influence (protective factor) and negative influence (negative factor). Positive influencing factors include: payment method of medical expenses, educational level of patients and family members, marital status and gender of patients, etc. It is worth mentioning that regular postoperative QoL scores also have a positive impact on patients [17]; while tumor stage, anxiety and depression, etc. have a negative impact on patients' postoperative recovery.

According to the statistics of family resilience survey scale, the total score of family resilience of colorectal cancer patients with permanent colostomy is negatively correlated with stigma [14]. Therefore, improving the total score of patients' family resilience can effectively reduce patients' sense of stigma, thereby improving patients' quality of life and social psychological fitness. Since family resilience can be intervened by different factors, including couples' consultation, family meetings, multiple family group gatherings or forums for patients with enterostomy, etc., help patients and family members share their experiences with each other, thereby strengthening mutual psychological support and collaboration [18], so research on family resilience is worthy of clinical promotion.

## 4. Research significance of dual supportive coping in patients with enterostomy

Positive binary coping models include binary support coping, binary entrusting coping, negative binary coping, and shared binary coping [19]. There is a subject-object interdependence model in binary coping theory, that is, there is a strong interpersonal interaction between the patient and the main caregiver, and emotion, cognition, behavior, etc. will have a corresponding impact on the health outcome of the other party [20]. Among them, the dual support coping theory refers to the mutual support between the patient and his main caregivers during the illness, so that the relationship between family members can be stabilized, and at the same time, the patient's family can face the disease state and cope with the disease process[21].

In patients with chronic diseases, dual support coping can not only improve the quality of life of the patients themselves, but also reduce the care pressure of their main caregivers, thus having long-term positive significance for the patients' families [22]. As a stressful event, enterostomy will have a profound impact on the whole family, and the characteristics of patients requiring long-term care are similar to patients with chronic diseases [23], so dual support is particularly important. The primary caregivers of patients with enterostomy also need to adapt to various challenges in the process of adjusting to the stoma after surgery. The dual support response can be artificially disturbed, and the health education of patients and their main caregivers is carried out through a group composed of doctors and nurses, including: holding regular knowledge lectures, carrying out daily nursing education after enterostomy, ensuring that patients and their main caregivers Caregivers participate together, guide patients to communicate with their main caregivers after surgery, and encourage patients and their caregivers to face the series of physical changes brought about by ostomy together [24], thus having a positive impact on patients and their families. Studies have shown that after dual support for coping with interference, the patient's QoL score is significantly increased, while the burden of the patient's main caregiver is reduced, and the care ability is improved [25].

#### 5. Summary

Enterostomy refers to surgically opening the intestinal tract to the abdominal wall for the excretion of metabolic waste such as feces. At present, colorectal cancer is more common in the world and tends to be younger. Enterostomy is one of the most effective methods for the treatment of colon cancer. The number of patients with enterostomy remains high every year. Enterostomy can effectively alleviate the patient's condition and save lives. However, because it violates the objective laws of the human body, the patient's excretion pathway is abnormal, self-image is damaged, and it will produce uncontrollable excrement and odor. In addition to the same complications [26], it also has special social and psychological effects. Statistics show that postoperative patients often have negative emotions such as anxiety and depression, and have a negative attitude towards their own image. In addition to normal postoperative care, long-term care is required.

As an important source of care for patients after discharge from the hospital, the family plays an important role in the postoperative physical and mental recovery of patients. Positive family resilience can support and encourage patients, helping patients with enterostomy to better accept their own changes after surgery, build self-confidence, and return to normal social life as soon as possible. The statistics of the scale data show that family resilience is often positively correlated with the quality of life of patients with enterostomy. In addition, the rehabilitation process of patients with enterostomy is closely related to the patients themselves and their main caregivers. Dual support coping means that patients and main caregivers support each other and go through the disease process together. The binary support rating scale is often used to evaluate the quality of communication between patients and their primary caregivers. The higher the score, the more supportive behaviors are given [27], which can be interfered by the simultaneous missionary lectures given by medical staff to two individuals., so as to have a positive impact on both parties, specifically manifested in the improvement of the patient's own QoL score and the reduction of the burden on the main caregiver.

It can be seen that due to the particularity of the social and psychological aspects of patients with enterostomy, not only the medical staff should understand the psychological concerns of the patients before the operation, but also help the patients to better go through all stages of the operation; at the same time, the family and the main Caregivers should communicate closely with patients with enterostomy to form positive and positive support, which will help reduce complications after enterostomy and establish a positive psychological state for patients. Relevant studies suggest that family resilience and dual support coping, as one of the directions of nursing care for patients with enterostomy, are worthy of clinical research and promotion.

#### Acknowledgments

This article is the research result of the general project funded by the Natural Science Foundation of Sichuan Province (2022NSFSC0648).

Advanced Journal of Nursing 36 | Jing Fang, et al.

### References

- [1] Ambe PC, Kurz NR, Nitschke C, et al. Intestinal Ostomy[J]. Dtsch Arztebl Int, 2018,115(11):182-187.
- [2] Guo Caixia, Lu Fengqing, Zhang Ping, et al. Current status and nursing progress of enterostomy [J]. *Advances in Modern Biomedicine*, 2010,10(16):3195-3197.
- [3] Prophylactic biological mesh reinforcement versus standard closure of stoma site (ROCSS): a multicentre, randomised controlled trial[J]. *Lancet*, 2020,395(10222):417-426.
- [4] Sung H, Ferlay J, Siegel RL, et al. Global Cancer Statistics 2020: GLOBOCAN Estimates of Incidence and Mortality Worldwide for 36 Cancers in 185 Countries[J]. *CA Cancer J Clin*, 2021,71(3):209 -249.
- [5] Verweij NM, Bonhof CS, Schiphorst A, et al. Quality of life in elderly patients with an ostomy a study from the population-based PROFILES registry[J]. *Colorectal Dis*, 2018,20(4):O92-O102.
- [6] Cressey BD, Belum VR, Scheinman P, et al. Stoma care products represent a common and previously underreported source of peristomal contact dermatitis[J]. *Contact Dermatitis*, 2017,76(1):27-33.
- [7] Colwell JC, McNichol L, Boarini J. North America Wound, Ostomy, and Continence and Enterostomal Therapy Nurses Current Ostomy Care Practice Related to Peristomal Skin Issues[J]. *Journal of Wound, Ostomy & Continence Nursing*, 2017,44(3): 257-261.
- [8] Rivet E B. Ostomy Management[J]. Surgical Clinics of North America, 2019,99(5):885-898.
- [9] Wu Yuexiang, Wu Wanqiu, Pu Youfang, et al. Analysis of factors affecting quality of life in patients with permanent enterostomy [J]. *General Nursing*, 2020,18(33):4652-4655.
- [10] Ayaz Alkaya S. Overview of psychosocial problems in individuals with stomach: A review of literature [J]. *International Wound Journal*, 2018,16(1):243-249.
- [11] Brown H, Randle J. Living with a stomach: a review of the literature[J]. J Clin Nurs, 2005,14(1):74-81.
- [12] Wang Lei, Yan Yuanyuan, Zhao Xiaoyan, et al. Summary of the best evidence on the nursing role and practice of stoma therapists [J]. Nursing Research, 2022,36(12):2086-2092.
- [13] Abcarian H, Pearl R K. Stomas[J]. Surg Clin North Am, 1988,68(6):1295-1305.
- [14] Wang Yuna, Huang Ping, Wang Jiaxiang, et al. Current status and influencing factors of family resilience in patients with rectal cancer with permanent colostomy [J]. *Journal of Wannan Medical College*, 2022,41(02):196-199.
- [15] Walsh F. The concept of family resilience: crisis and challenge[J]. Fam Process, 1996,35(3):261-281.
- [16] Hao Hongli, Feng Lixia. Analysis of current situation and influencing factors of family resilience in young breast cancer patients [J]. *Journal of Nurses Training*, 2021,36(23):2201-2204.
- [17] Li Limei, Yang Li, Rong Fei, et al. Influencing factors of family resilience in patients with permanent enterostomy after radical resection of rectal cancer [J]. *Nursing of Integrated Traditional Chinese and Western Medicine (Chinese and English)*, 2022,8(05):160-162.
- [18] Zhan Yuji, Wu Sijun, Zeng Wenfeng, et al. Research progress on family resilience [J]. *Occupation and Health*, 2022,38(14):2007-2010.
- [19] Yu Lingling. The impact of perceived stress and dualistic coping on the quality of life of couples with permanent enterostomy patients and their spouses [D]. Yanbian University, 2021.
- [20] Sun Haiyan, Qin Yang, Xu Yirong, et al. Research on the subject-object interdependence model of binary coping and psychological resilience in cancer patients and their spouses [J]. *Journal of Nursing*, 2022,29(06):60-64.
- [21] Bodenmann G, Meuwly N, Germann J, et al. Effects of Stress on the Social Support Provided by Men and Women in Intimate Relationships[J]. *Psychol Sci*, 2015,26(10):1584-1594.
- [22] Karademas EC, Giannousi Z. Representations of control and psychological symptoms in couples dealing with cancer: a dyadic-regulation approach[J]. *Psychol Health*, 2013,28(1):67-83.
- [23] Zhang Y, Xian H, Yang Y, et al. Relationship between psychosocial adaptation and health-related quality of life of patients with stomach: A descriptive, cross-sectional study[J]. *Journal of Clinical Nursing*, 2019, 28 (15-16):2880-2888.
- [24] Zhu Na, Cui Jing. Nursing effect of dual coping model in patients with rectal cancer enterostomy [J]. *Chinese Cancer Clinic and Rehabilitation*, 2022,29(09):1122-1126.
- [25] Kong Panpan. Study on the impact of dual coping model on the quality of life of patients with enterostomy and the burden of caregivers [J]. *Colorectal and Anal Surgery*, 2021,27(03):289-294.
- [26] Li Yanyan. Observation and Nursing Care of Enterostomy and Incision Infection with Moist Healing Dressing After Enterostomy [J]. *Clinical Research*, 2020,28(08):187-188.
- [27] Zhang Huan, Yan Rong, Cheng Fangfang, et al. Research on the Binary Relationship Between Coping Strategies and Depression Status in Permanent Enterostomy Patients and Their Spouses [J]. *General Nursing*, 2021,19(22):3121-3124.