The Psychological Aspects of Patients with Artificial Anal Sphincter in Severe Fecal Incontinence: the nurse’s assignments

Os Aspectos Psicológicos dos Pacientes com Esfíncter Anal Artificial na Incontinência Fecal Grave: o papel do enfermeiro*

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ABSTRACT

The objective of this study is to study the psychological aspects of patients with severe AI in choosing the insertion therapy of the AAS device. This is an exploratory study of an integrative review of the literature, with a qualitative approach, with a transversal cut. The selected databases were: Scientific Electronic Library Online (SciELO) and Latin America and Caribbean Health Sciences Literature (LILACS), using the BIREME data platform, Virtual Health Library (VHL). For the better understanding, the following categories were created: Fecal Incontinence, Therapy, Artificial Anal Sphincter and Nursing Assistants. One of the innovative treatments is the implantation of the artificial anal sphincter in a patient with severe fecal incontinence, which requires a careful investigation of the clinical symptoms of the individual and their physical and mental state due to the functionality of the device. This new device is a very attractive alternative, however, people suffering from AI should understand that it is not every case that this alternative is the most appropriate or appropriate. After performing sphincteroplasty, nursing care takes on a new aspect, the role of the nurse in this phase is to stimulate the adequate use of the artificial anal sphincter, unveiling any doubts that the patient has about the device and its practical applicability, besides giving a new support for the family in this new beginning.

Keywords: Severe Anal Incontinence; Artificial Anal Sphincter; Nursing.

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INTRODUCTION

Anal incontinence (AI) is a condition of etiopathogenesis and complex mechanisms involved. Its exact incidence in the population is still unknown, but it is estimated that it affects between 0.1 and 5% of the individuals. It is also estimated that this pathology significantly interferes with the social and family life of individuals(1).

The population aging is a worldwide phenomenon. Successful aging theories see the subject as proactive, regulating their life quality by defining goals and striving to achieve them, accumulating resources that are useful in adapting to change, and actively involved in maintaining well-being(2).

Given that, the elderly population is the most affected with chronic and congenital diseases, especially with AI, it is of the utmost importance that a better mechanism to provide a more adequate alternative therapy to the patients(3).

AI is defined as the involuntary and recurrent passage of feces or gases through the anal canal and represents a multifactorial etiology with a significant impact on the life quality due to the physical and psychological disorder that it entails. Corresponding to the second cause of elderly population institutionalization in the United States(4).

The anal sphincter is a muscle located at the end of the digestive tract between the rectum and the anus, which allows the evacuation process. In the human, there are two sphincters in the body: an internal, whose functioning is involuntary and which consists of muscle fibers called smooth, and external one under voluntary control. The defecation mechanism works when feces are present in the rectal ampulla, with a feeling of need to evacuate, causing the internal anal sphincter to relax. Immediately thereafter, the external anal sphincter contracts by reflex. The patient can continue to maintain the contraction until going to the bathroom and the defecation begins when the person decides to relax the external sphincter(5).

The defecation afferent pathways reflex follow the parasympathetic nerves through the pelvic nerve. The reflex is increased by the stimulation at the level of the anus, thus, the passage of feces through the anal canal potentiates the reflex. The control and coordination of defecation occurs at the defecation center located in the bulb and is associated with its specific chemoreceptor stimulus zone located on the floor of the fourth ventricle. Stimulation of this zone or the center itself by certain chemicals, toxins or drugs can cause defecation. Defecation also can be triggered by stimulation of certain areas of the diencephalon. Transection of the marrow, above L1 generally, causes fecal incontinence(5).

In the anomaly in the sphincters event, these mechanisms do not function properly and there may be involuntary loss of feces or gases called fecal or rectal incontinence. This clinical picture can cause several psychological problems in the bearer of the given disorder(6).

Patients who have this anal sphincter dysfunction feel very uncomfortable, not reporting the disorder to the doctor, aggravating the problem and, over time, they stop leaving home, isolating themselves from society until they are completely distanced from the their social and family lives(6).

In this context, it is necessary to investigate the nursing assistant’s competences in severe AI, with nursing who is responsible for education, orientation and integral assistance to the patient, both support for all care in the complications prophylaxis, as well as in the self-esteem improvement and promotion of life quality. To have creativity for the care of the new reality, which the patient finds in his economic and socio-cultural aspects, emphasizing the psychological support(7).

Clarify any uncertainty that the client has about his pathology and the chosen therapeutic method, refer to the specialist when necessary, keep the nursing team informed and updated on the subject, are some of the nurse functions in the context of assistance to patients with AI(7).

There are a number of surgical available techniques, however, the artificial anal sphincter (AAS) is emphasized, which is a prosthesis designed to simulate normal sphincter function, the opening of the anal canal being mechanically driven by the patient, thus being a technique surgical treatment. AAS was designed approximately 20 years ago, and the first results of its clinical application were published about 10 years ago(6).

Despite the relatively high cost, AAS represents a very attractive therapeutic option in the treatment of severe AI because it significantly improves the life quality of the patients and gives the patients control of their own body. The AAS is characterized mainly by simplicity, both with regard to the operation mechanism and the technique required for its implementation. However, further experience with the method is still required to determine its actual contribution in the treatment of severe AI(6).

Thus, nursing attention is focused on: hygiene, for which the nursing technician will perform the excess stool removal and cleaning of the place, promoting protection of the skin from direct contact with feces, in order to avoid bacterial contamination of the urinary tract, as well as, no presence of foul smell, favoring social interaction (7).

In this study the subject will be discussed on the treatment of severe AI through AAS, demonstrated the benefits in relation to the other methods employed by current medicine, the AAS functioning, the use influences of this equipment in the patients, as well as the psychological and social aspects.

Thus, the objective is to study the psychological aspects of patients with severe AI, in the choice of AAS device insertion therapy.

METHOD

This is an exploratory study of a literature integrative review, with a qualitative approach and a transversal cut.

According to Gil(8), the exploratory researches are developed with a view to providing an problem overview, a
characteristic that makes it possible to meet the objective of this study.

The integrative review aims to provide greater familiarity with the problem, to make it more explicit or to constitute hypotheses. Can be said that these researches have as main objective the improvement of ideas or the intuitions discovery. And which comprise the following steps: preliminary bibliographic survey; formulation; the matter provisional plan preparation; search of sources; material reading; registration; logical organization of the subject; writing the text (9).

The selected databases were: Scientific Electronic Library Online (Scielo) and Latin America and Caribbean Health Sciences Literature (Lilacs), using the Bireme data platform, Virtual Health Library (Vhl). The descriptors used for the search were: Severe Anal Incontinence; Anal Sphincter; Nursing.

The inclusion criteria were: studies in article format; elaborated from 2010, thus being researched from 2010 to 2017; and selected by their theoretical basis and relevance level according to the proposed objective. The exclusion criteria applied to duplications, studies that did not meet the inclusion criteria established previously, and that were not in the databases and platform of data selected for the search.

In this way, 15 articles were selected, which will be presented in a dissertation way.

Based on this relevance, it was intended to perform a bibliographical research on the artificial anal sphincter and its importance in relation to the other methods used in medicine to treat patients with severe anal incontinence and the nurse’s importance in this context.

RESULTS AND DISCUSSION

For the better understanding, the following categories were created: Fecal Incontinence, Therapy, Artificial Anal Sphincter and Nursing Care.

1st Category: Fecal Incontinence

In a study (1) involving a community of 2,570 elderly, an incidence of 2.2% of incontinence was observed. From these, 30% were over 65 years-old and 63% were women; 36% of the patients were incontinent to solid stool and 60% to gas. It was noted that the incidence of incontinence progressively increased with age and that only 34% of the subjects had reported such a complaint to their physician. AI is unfortunately a social and medical problem with great socioeconomic impact, representing in America the second cause of elderly hospitalization in nursing homes and homes for the elderly, with an expenditure of more than U.S. $ 400 thousand in diapers and geriatric absorbents.

It is understood that the anal continence is submitted of numerous factors as well as, mental health, volume and consistency of the feces, colonic transit, rectal distension, rectal sphincter function, sensitivity and anorectal reflexes, being the risk factors: female sex, age advanced, general malfunction, physical limitations, diabetes mellitus, previous anal surgeries, pelvic radiotherapy, situations in which intra-abdominal pressure increases, morbid obesity, gestation, connective tissue disorders, smoking, long-standing intestinal constipation with chronic exertion to evacuate and strenuous physical activities (9).

Incontinence is a very serious and delicate condition for both the sufferer and his/her relatives and caregivers. Although it does not significantly increase the mortality rate, AI can have a number of physical consequences, including lions on the skin, urinary tract infections, nutritional changes, physical inactivity, and relevant economic costs related to the use of protection, diagnostics, specialized care, rehabilitation, there are psychosocial complications related to independence loss, social isolation and emotional impact. All of these consequences can affect daily life, overall health, and the life quality of the incontinent patient (9).

Whatever the etiology or the affected group, the social life for these patients is distressing, with great repercussion on their well-being and their life quality. However, the severity understanding of these issues arising from AI is very subjective and objective tests reveal a direct relationship between incontinence and psychological problems (9).

In recent years, the results of medical interventions have been evaluated, also through subjective variables that incorporate the individual's understanding of their well-being and life expectancies, specifically in the areas of physical, social, emotional and occupational domains. For this purpose, several instruments or questionnaires have been developed for the chronic diseases evaluation and specifically in the anal incontinence evaluation, recently the Fecal Incontinence Quality of Life (FIQL) was proposed, composed of 29 questions distributed in 4 domains (9).

Because it was conceived in English language, the questionnaire was submitted to a translation process and cultural adaptation according to international recommendations before starting the validation process, the original FIQL questionnaire was translated by two English language teachers into Portuguese. The versions were compared by a multidisciplinary group composed of two doctors, a nurse and two psychologists, and, through consensus, the first version of the questionnaire in Portuguese was originated. This version has been translated into English by two American English teachers. This time the multidisciplinary group evaluated all the versions, originating the second version of the questionnaire in Portuguese, which was used for the process of cultural adaptation (9).

This questionnaire, shown in Figure 1, was developed so that health professionals have a real idea of the seriousness of the problem that their AI patients are experiencing in the domains of their lives.
AI has a profound impact on the life quality of those with the disorder, and can result in severe restrictions on daily activities, such as: dining out, engaging in sexual activities, or even going to work. Patients report a high level of anxiety related to fear of incontinence episodes, ashamed of their lack of bowel control and depression. Some individuals isolate themselves to avoid episodes of incontinence and public humiliation.

When the patient presents with AI, he or she has the feeling of regression to childhood, because culturally the only individual who has the right to evacuate at any time and place is the child; he feels unable, as soon as he performs some movement or exerts some effort he may lose control of the feces or gases and consequently expose himself. To avoid these constraints, the individual with AI does not perform activities that used to do.

Many of the elderly who carry the AI are submitted to colostomy, a surgical method that consists of externalizing a segment of the intestinal loop in the abdominal wall, which brings several complications to the patient’s life.


**Fonte:** Yusuf(9).
In current medicine, the most commonly performed procedure for improving the problem of AI patients is called a colostomy: surgery that consists of severing one end of the large intestine and exposing it through an opening in the anterior abdominal wall, by which the fecal material. It is used in different diseases that affect normal intestinal transit, and may be transitory or definitive.

The patient should be hospitalized and under general anesthesia, an incision is made in the abdomen, which the intestine healthy tissue is trapped, constituting an orifice through which the feces and gases are eliminated, being collected by an adhesive bag, positioned around the opening and must be emptied periodically.

Generally, this artificial anus is done at the level of the transverse or sigmoid colon, but as the case may be done at another point in the intestine. The higher it is, the worse the digestion and absorption of food and water will be. More often, the proximal portion of the transverse colon and the free portion of the sigmoid are used, but the intestinal segment to be externalized depends on the site of bowel involvement, the type of condition, the patient's clinical condition, and the surgeon's preference. In the first days after surgery, the stoma may become swollen, but this soon regresses. Then it assumes a living pink coloration, similar to the mouth mucosa and as it has no nervous termination, it is painless.

The physical aspects are related to the changes of the anatomy and intestinal physiology that have repercussions in the social, psychological and spiritual aspects of the patient. Self-rejection, insecurity, feelings of inadequacy and disbelief in spiritual values are feelings that commonly accompany the colostomized during the adaptation process to their new condition.

Colostomies can be classified into three types, according to the part of the large intestine that is externalized: ascending colostomy, which is performed in the ascending part of the colon (right side of the large intestine); transverse colostomy, located in the transverse part of the colon (portion between the ascending and descending colon); and descending colostomy performed on the descending part of the colon - left side of the large intestine.

Psychosocial aspects certainly determine the degree of their responses to the disease situation and the search for help or denial of this situation. The impact of the stoma presence determines the body image change and diverse reactions occur to its new reality, depending on the individual characteristics and the social supports found by him.

The colostomized patient emotional aspects that define the two impacts faced by the patient: the disease and the ostomy. This situation implies suffering and pain, body or life deterioration, uncertainties about the future, myths related to it, fear of social rejection.

In this context, it is necessary an alternative that minimizes the problems caused by AI, the pioneering study of Latin America is effective in the implantation of AAS for patients with severe AI because this procedure drastically reduces the complications of colostomy, much used in the present day.

3rd Category: Artificial Anal Sphincter

With the history of improving urinary incontinence with the artificial urethral sphincter, Latin America, in a study, pioneer, develops a similar mechanism for severe AI with the goal of improving the patients' life quality. Due to the need for an effective mechanism or device for the treatment of severe AI and stimulated by the satisfactory results obtained in the treatment of urinary incontinence with the artificial sphincter, interest in the method has recently been revived and experimental and clinical studies in several centers are being performed with the purpose of determining its safety and efficacy in the treatment of AI.

The AAS consists of three main mechanisms: occlusive or cuff, reservoir and control pump. The cuff is implanted around the anal canal and, when inflated, occludes the anal canal through circumferential pressure application or pressure-regulating balloon is implanted in the pre-vesical space and is responsible for controlling the pressure exerted by the cuff. The control pump is implanted in the scrotum or large lip and contains a resistor and valve that regulates the transfer of fluid from the reservoir to the cuff. The implantation operation was performed with the patient in a lithotomy position under general anesthesia and with prophylactic antibiotic therapy. Postoperative cares included liquid diet without residues and systemic antibiotic therapy for 5 days.

AAS is a prosthesis designed to simulate normal sphincter function, the opening of the anal canal being mechanically driven by the patient. The involvement of this prosthesis was shared with urology and the advances obtained nowadays are due to the technical alterations made in analog model, in the treatment of urinary incontinence.

Indicated for patients of both sexes, with severe idiopathic anal incontinence characterized by proctological examination and anorectal manometry of both sexes. Therefore, severe lesions of the anorectal sphincter, traumatic, neurogenic or congenital, in which there is no possibility of sphincteric apparatus restoration.

Contraindications include: patients of high surgical risk due to physical illness or when the doctor or patient chooses not to use medical implants containing silicone; patients with mental disability that makes it impossible to understand the procedure; presence of excessive fibrosis in the implant area, which may make it difficult or impossible to implant the occlusive band around the anal canal; disturbances affecting manual dexterity or movement may make it difficult to properly manage the prosthesis.
The cuff operation mechanism remains in a fluid filled basal position which promotes occlusion of the anal canal. To meet the call for evacuation, by pressing the regulator pump, the patient promotes the transfer of fluid from the cuff to the reservoir balloon. Thus, after several compressions, the cuff is emptied, and the anal canal is opened, allowing the patient to evacuate. After the evacuation, the fluid automatically returns from the balloon to the cuff to occlude the anal canal again after evacuation(53).

After the sphincterectomy recovery time, the patient will have a normal life, may perform activities that could not previously be due to insecurity, fear of incontinence episodes, embarrassment due to lack of body control, uncertainty about his acceptance in the society, fear of exposing oneself and being rejected by family and society(16).

Thinking about life quality, colostomy is also not the best choice because there is still the fear of not being accepted by society because the colostomy bag transmits a strong odor, and often the user does not attend parties or goes to work for being ashamed of his new life condition, he may be introverted on account of his new physical and anatomical form(16).

Analyzing these situations, the AAS is the best option for the treatment of AI because it significantly improves the patients’ life quality, it can return to their personal and professional life, as it will have control of their own body, may participate in social events, activities sexual relations and have a good family-social relationship without fears and fears(16).

In relation to the device operation effective time, it is estimated that it is the same lifetime of the artificial urinary sphincter (AUS), that is, on average from 7 to 8 years, since it is by this time that it has been verified that the components that constitute the AUS begin to have technical variations. However, the increasing improvement of the AAS that leads to assume a longer time of device functionality and its components, there is still the possibility of changing the broken component, rather than definitive withdrawal(17).

4th Category: Nursing Care

There is increasing evidence that AAS can be useful and extremely beneficial in severe AI cases. Initial fears of the device not being tolerated by the patients due to postoperative infections or rejection by the body have not been confirmed(17).

Multidisciplinary studies confirm the safety and efficacy of the surgical procedure and the equipment and its benefits both for the improvement of the disease and for its life quality in broad aspects, such as: family, social, psychological and organic(17).

In this debate, nursing has a fundamental role, being present throughout the patient clinical life, from the care with fecal incontinence, to surgery for the AAS implantation(9). The nurse plays a very significant role in the education, guidance and care of the patient with anal incontinence. The nursing responsibility is based on the ethical and bioethical principles of the profession, such as: autonomy, beneficence, justice and non-maleficence(9).

Autonomy refers to the right that the individual has about himself, his freedom of choice and decision-making power. For health professionals to exercise this principle, it is necessary to respect the individual, his culture, ideas and beliefs. The proximity that the nursing professional has with the patient facilitates the creation of a link and trust, which assists in the care process(9).

As an educator, it is the nurse responsibility to provide clear and consistent information to aid in decision making. Nursing is directly involved in the process of empowering patients so that they can exercise their autonomy more and more(7).

Beneficence imposes on the health professional the duty to promote good to the patient through the performance of his duties. Based on this principle, the professional should promote attitudes, practices and procedures in benefits of the other(7).

Justice is founded on the premise that people have the right to have their health needs met free from prejudice or social segregation. Strengthening in Law No. 8080, which states: “health is a fundamental right of the human being, and the state must provide indispensable conditions for its full exercise”(10).

Non-maleficence determines the obligation not to intentionally inflict harm, that is, the health professionals’ duties performance should not cause any harm to the assisted patient(7).

It is also responsible for the care plan, with the aim to avoid complications and improve the life quality. Customize care according to the psychosocial, economic and skillful reality of the elderly. Unveil any questions the patient has about the illness or treatment. Refer to a specialist when necessary. Improve the nursing team on the subject(9).

Elderly care with AI is important and should be inspected daily and protected from contact with feces using clear creams, oils or films. Pay attention to the diapers prolonged use, as it will favor the appearance of pressure injuries(9).

After performing sphincteroplasty, nursing care takes on a new aspect, the nurse’s role in this phase is to stimulate the adequate use of the artificial anal sphincter, revealing any doubts that the patient has about the device and its practical applicability, besides giving a new support for the family in this new beginning(17).

CONCLUSION

Fecal incontinence is a severely disabling condition. Connectedly, it is underdiagnosed due to the constraint and stigma related to this diagnosis. In other words, the silence law prevails and affects many patients, leading, over time,
to a serious impairment of life quality. Another important aspect concerns the outcome evaluation of a treatment or a treatments combination, which still lacks specificity.

Severe anal incontinence (AI) causes several disorders for those with dysfunctional sphincter, because their body does not function properly in the physiological way, and these individuals have their lives changed in different ways, for example, no longer feel part of society by not being able to control its organism, to feel ashamed by the incontinence episodes, and etc. In this way, AI sufferers stop working, go out with friends and family gatherings, to the point that they are completely estranged from their socio-family life.

In this picture, the main treatments for AI are: the colostomy, which consists of opening a stoma in the abdominal region, bringing several specific biological problems, depending on the part of the incision, and psychological disorders due to the deformation caused by the surgery; biofeedback therapy that returns strength, endurance, contraction, muscle relaxation and motor coordination to the pelvic floor; Sacral nervous stimulation, which, through electrodes, stimulates the sphincteric nerves to contract and relax, among other diverse treatments described in the present study.

One of the innovative treatments is the artificial anal sphincter implantation into a patient with severe fecal incontinence, which requires a careful investigation of the clinical symptoms and their physical and mental state due to the functionality of the device. This new device is a very attractive alternative, however, people suffering from AI should understand that it is not every case that this alternative is the most appropriate or indicated.

After a careful review of several academic studies, it is stated that patients undergoing sphincteroplasty were able to return to their daily routines normally, with no difficulty in regaining their position in society. However, there is a need to review the device mechanical failure. This being a recent device, it already demonstrates promising results from an in-depth and prolonged study.

It is hoped that the present study may contribute to the academic environment by sharing a new therapy, opening the way to new studies.

REFERENCES