



## Review Article

# Self-care of elderly people with ostomy by colorectal cancer



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### ABSTRACT

**Objective:** To identify in literature the scientific production about self-care in elderly people with ostomies by colorectal cancer.

**Method:** Integrative review, performed with the descriptors “self-care”, “ostomy” and “elderly/aged” with the Boolean operator AND in the following databases: SCOPUS, CINAHL, MEDLINE, LILACS and COCHRANE. For the theoretical basis, Orem’s Self-Care Deficit Theory was used.

**Results:** A total of 533 papers were found, however, after applying the eligibility criteria, 16 studies composed the final sample of the review.

**Conclusion:** The nurse is one of the professionals closest to the person with the stoma and his family, and should act as a link between the elderly person, the family and the multi-professional health team. In this sense, health professionals, especially nurses, should be trained and competent in assisting the diverse demands of care of this specific population, so that it is effective, resolute, integral and, above all, humanized, aiming at the improvement of quality of life.

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## Autocuidado de pessoas idosas com estomia por câncer colorretal

### RESUMO

#### Palavras-chave:

Autocuidado

Pessoa idosa

Estomia

Enfermagem gerontológica

**Objetivo:** Identificar na literatura a produção científica sobre o autocuidado em pessoas idosas com estomia por câncer colorretal.

**Método:** Revisão integrativa de literatura, realizada com os descritores “autocuidado/self-care”, “estomia/ostomy” e “pessoa idosa/idoso/aged” com o operador Booleano and nas Bases de Dados SCOPUS, CINAHL, MEDLINE, LILACS e COCHRANE. Para o embasamento teórico empregou-se a Teoria do Déficit de Autocuidado de Orem.

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Resultados: Encontrou-se um total de 533 artigos, no entanto, após a aplicação dos critérios de elegibilidade 16 estudos compuseram a amostra final da revisão.

Conclusão: O enfermeiro é um dos profissionais mais próximos da pessoa com estomia e de sua família, devendo atuar como um elo entre a pessoa idosa, a família e a equipe multiprofissional de saúde. Nesse sentido, profissionais da área da saúde, especialmente o enfermeiro, devem estar capacitados e ser competentes na assistência às diversas demandas de cuidado dessa população específica, para que ela seja efetiva, resolutiva, integral e, sobretudo, humanizada, visando à melhora da qualidade de vida.

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## Introduction

Integrative review centered on self-care of elderly people with ostomy by colorectal cancer. Seeing that in this age range may occur sensory-motors modifications, obesity or overweight, anemia, physical and mental deterioration that, along with the presence of an ostomy, can compromise even more the self-care.<sup>1</sup>

Hence, in the population aging context, some diseases are commons in the aging process, among them cancer gains visibility. According to World Health Organization, cancer is a generic name given to a vast group of diseases, which can invade adjacent body parts and disseminate through the organism. It is considered the second cause of death, with 8.8 million of death in 2015.<sup>2</sup> In Brazil, estimates from the Cancer National Institute to 2017 point to the occurrence of 600 thousand new cases; being colorectal cancer responsible for 7.8% of the cases; yet, assumes third and second places regarding incidence, in men and women, respectively.<sup>3,4</sup>

Colorectal cancer is a pathology with multiple localizations and clinical-pathological aspects, besides, it does not have pathognomonic signs, in other words, do not present specific signs and symptoms.<sup>4</sup> Due to the diagnosis might be made, in an advanced staging, some drastic therapeutic decisions may be adopted, such as a surgical construction of an ostomy; thus, abdominal resection with a creation of an ostomy continues to be the main approach.<sup>5</sup> Furthermore, the surgical procedure may be accompanied by chemo or radiotherapy, implying, in a greater self-care demand to the elderly people.

Ostomy refers to a surgical-created opening in the body, aiming to eliminate corporal effluents or diet administration, it can be permanent or temporary.<sup>6</sup> Thereby, the presence of new condition, of have an ostomy, affects not only the biological dimension of the subject, as well as its psych-emotional, generating a demand of effective and integral care; so, health professionals must be capacitated in attendance of elderly people with an ostomy.

The nurse, as a part of the multi-professional health team, has the duty of managing the care of elderly people with an intestinal ostomy, in any levels of assistance, since the diagnosis process to the home monitoring. In primary level of assistance, its practice centers itself in the prevention of cancer-risk behaviors, in reference and counter-reference of patients with ostomies; making partnerships between the Health and Education sectors and the Government, aiming

to guarantee the right to necessary supplements. In the secondary level, its assistance begins in the preparing for the treatment (chemo, radio, surgical or mixed), helping in these and, before the hospital discharge, has the potential to develop the health education, guiding the elderly people about the performance of the self-care at home. In this scenario, the nurse with the multi-professional health team, must provide quality care for people going through an ostomy surgery, a life-changing experience.<sup>7</sup>

Notwithstanding, in care planning of the elderly with ostomy and in the adaptation process, the Family must be involved. It is indispensable the survey of needs, taking into consideration the elderly with ostomy, multi-professional health team and family singularities. Thus, health professionals that work in care management must assess individual needs, patient attitudes, willingness to learn and be comfortable manipulating the ostomy and the collector device of effluent, the abilities to usual ostomy care, capacity to identify possible problems, care with peristome skin and to understand how to prevent and manage potential complications,<sup>8</sup> having as a goal the return to daily life activities, the prevention of social isolation and improvements in the quality of life.

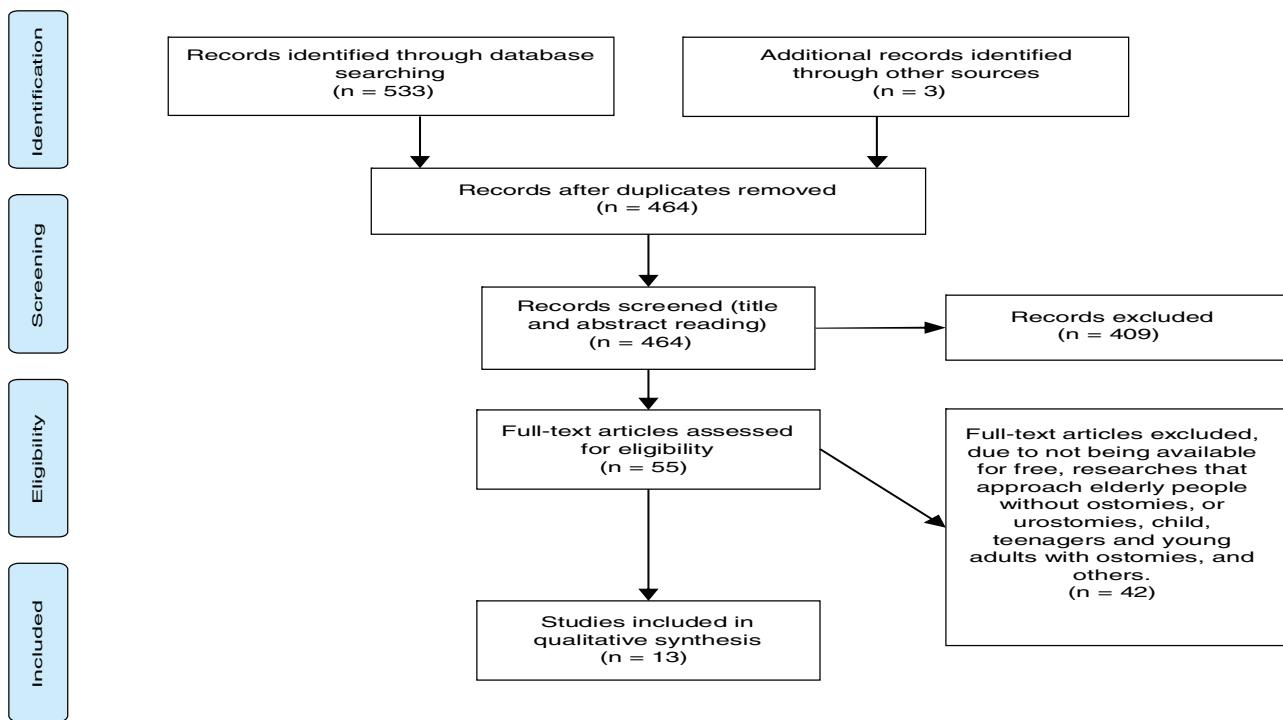
In this scenario, the integrative review aimed to: investigate self-care of elderly people with ostomy by colorectal cancer and to answer the research question: how is the self-care of elderly people with ostomy by colorectal cancer?

## Method

An Integrative Review was elaborated, that provides a broad search and interpretation of investigative methodologies in a single study, consisting in five stages; which are explained below.<sup>9</sup>

### Step one: research problem identification

Although its well-known benefits, an ostomy demands a complex health-related assistance and is also needed domiciliary care, performed by the own elderly, in other words, self-care. This care includes procedures related to deflation, changes and fixation of the collector device, among others. In this perspective, self-care has great importance, with direct influence in patient's quality of life, comfort and well-being. From the need to adapt to a new condition, the following researches



**Fig. 1 – PRISMA flow diagram\* – literature search process. \*Adapted by the authors from: Moher et al.<sup>10</sup>**

questions emerged: "How self-care is performed by elderly people with ostomies? How have these people been oriented in relation to self-care? What is the role of the nurse in the self-care of the elderly with ostomies?"

#### Step two: literature research

The exploration process was conducted in 2017 July, on five databases by the authors (RPS and EMRD). The search strategies, Health Sciences Descriptors, MeSH Terms and the Boolean operator AND were applied. On SCOPUS database was used the search strategy "self-care", "ostomy" and "aged" [keywords], resulting in a total of 23 publications. In the next database, CINAHL, "self-care" and "ostomy" [MeSH Word in subject heading] strategy was applied, resulting in 193 studies. On MEDLINE, was applied the "self-care" and "ostomy" [MeSH terms] strategy, finding 292 publications. On Cochrane database the search was done with "self-care" and "ostomy" [keywords], returning three studies. Lastly, on LILACS was used "autocuidado", "ostomia" and "idoso" [Subject descriptors in Portuguese], resulting in 22 references.

The eligibility criteria adopted were: articles freely available and online, that approached the theme of self-care of the elderly, published in the last ten years and in Portuguese, Spanish and English. A total of 533 potential studies were found. However, after title and abstract readings, the application of eligibility criteria and critical reading, 13 studies were selected to compose the final sample. The bibliographic selection process is available on PRISMA flow diagram<sup>10</sup> in Fig. 1.

#### Step three: data assessment

The aim of this step was to define, establish and synthesise information from the studied references, elaborating an accessible database, with double typing, in the Microsoft Excel software 2016 version, including: type and country of the study, aims, applied methodology, subjects, sample and sampling, findings and main conclusions of each study. The references were validated by critical reading, verifying the criteria defined in the previous step, besides, the relevance of each study to the review, method quality and self-care related information.

On the information that were extracted from the studies, the authors defined that the following data could be used and highlighted on the review discussion; among the data were: self-care ability and performance, self-care information and health education, the role of the nursing in the education toward the independence for self-care, among others that allowed a general contextualization of self-care of elderly people with an ostomy. Furthermore, aiming to give trustworthiness to the review, was adopted the Evidence Level,<sup>11</sup> to categorize each study.

#### Step four: data analysis

In this phase, the data of the selected references were critically analyzed and classified, codified, categorized and synthesized in the form of conclusions; to answer the research questions,<sup>9</sup> regarding self-care in elderly people with ostomies; by the authors (RPS, SMCLF and EMRD) between May and July 2017. By constant

comparison, conclusive evidences were categorized into groups by similarities and differences; which identified three main themes that are presented posteriorly.

#### **Step five: data presentation**

Finally, the last phase consisted in providing essential data of each research, seeking to apprehend the depth of the object being studied – self-care of elderly people with ostomies. The phase of discussion and final presentation of results is fundamental to delineate how is self-care in this specific population; which was evidenced in the references that composed this Integrative Review.

#### **Theoretical frame of Orem's self-care theory**

To base the analysis of references, we opted for Orem's Self-Care Deficit Theory. In this sense, it is perceived that the care, considered by Orem as self-care, is that carried out by the own individual to his benefit, through actions or activities capable of satisfying the biopsychosocial and spiritual needs of his own being, through certain requirements, be them physiological or behavioral.<sup>12</sup>

Orem's Self-care Deficit theory in its entire encompasses eight distinct functions that must be taken into account by the nurse, they are: (1) Define which terms are more appropriate to nursing, in relation to the human being; (2) Choose the most appropriate nursing approach; (3) Establish a language of the profession; (4) Define guiding limits of thought, practice, research and education; (5) To minimize cognitive load, aiming to propose subsidies to receive information and enable the application to categorize the concepts in order to relate insights about the characteristics of concrete nursing situations; (6) Allow inferences regarding the articulations of nursing with the most diverse domains of human activity; (7) Encourage and generate in nurses and nursing academics a standardized style of thinking and communication, and finally (8) To insert the nurses in the academic scope.<sup>13</sup> Thus, being aware of the existence or not of the self-care deficit and the aspects that may be contributing to it, whether positive or negative, are important indicators for nurses, so that they can use the Theory to guide their care planning, implementation<sup>14</sup> and evaluation.

## **Results**

The characterization of the analyzed studies regarding authorship, Country of origin, study focus, conclusions and evidence level, is shown in Table 1. Furthermore, the level of evidence was analyzed, of each study, based on the classification of Melnyk and Fineout-Overholz,<sup>11</sup> be the quality of evidences seven classification levels: (1) Evidence from meta-analysis of multiple clinical trials; (2) Evidences from individual studies with experimental design; (3) Evidence from quasi-experimental studies; (4) Evidence from descriptive or qualitative researches; (5) Evidence from systematic review of qualitative or descriptive studies; (6) Evidence from only a descriptive or qualitative study, experience or case reports; and, (7) Evidence based on the expert experience and opinion.

Regarding evidence level,<sup>11</sup> eight papers (61.5%) had the level VI, two level II (15.4%) and one of I, IV and V level (7.7%). In this sense, most of the papers had descriptive design, the researches curried in specific population, with a generalization bias; two papers had a randomized-controlled design and only one study had, as a design, evidences from a systematic or metanalysis review of randomized-controlled clinical studies. This indicates that the literature is not incipient, however, most studies use descriptive or qualitative approach; we emphasize the importance of new researches with randomized clinical and experimental or quasi-experimental design, as well as meta-analysis, scope or systematic reviews. To better comprehend, in depth, the multifaceted thematic of self-care of the elderly with an ostomy by colorectal cancer.

## **Discussion**

After critical analysis of the chosen references to the review, were elaborated three main categories: contextual aspects of ostomy by colorectal cancer, intervening factors of self-care and the role of nurses in the management of care and self-care of the elderly with ostomy.

#### **General aspects of ostomy by colorectal cancer**

Initially, an ostomy can be summarized as a surgical procedure that results in an external bypass to the human body waste. Most common are intestinal ostomies, that encompasses colostomies and ileostomies to divert the fecal flow.<sup>15</sup> The colostomy is formed in the colon, the surgeon removes part of the tissue to form a communication with the exterior, as a way of leaving solids human waste; is usually performed on the left side of the body and require collector equipment. The ileostomy is formed in the ileum, on the right side of the body, as a way of leaving more liquid human waste; require a drainage equipment and has a filter.<sup>16</sup> In this sense, the individuals who live with an ostomy demand specialized care management to maintain physical and psychological health and quality of life.<sup>15</sup>

The studies used in this review, in their contexts, indicate a higher incidence of ostomy construction in men.<sup>5,17-19</sup> It is significant to mention that distinct cultural contexts may influence attitudes toward the ostomy.<sup>5</sup> Nevertheless, some aspects must be observed and require continuous attention after the surgery, such as the ostomy itself and current collector equipment, the treatment of peristome cutaneous complications, the access to the ostomy supplements and the financial assistance, the consultations with nutritionists and emotional support, which are configured as strategies for the management of care with ostomies.<sup>15</sup>

Was noticed that there is a lack in Expanded and Shared Clinic in health, which should, primordially, value the individual with an ostomy in his singularities and develop actions aiming to prepare this person to daily coping and the development of personal autonomy, so that they can take care for themselves.<sup>20</sup> It is also emphasized that most of health professionals still focus on technical aspects, a limiting factor to progress toward the patient's personal autonomy, that is, the development of co-autonomy does not occur.<sup>20</sup> Thus, to

**Table 1 – Characterization of the sample about authorship, Country of publication and study focus, main conclusions and evidence level (n=13).**

| Authorship and year of publication | Country       | Study focus  | Method   | Conclusions  | Evidence level |
|------------------------------------|---------------|--|--|--|----------------|
| Martins et al. (2015)              | Brazil        | Rehabilitation of individuals with intestinal ostomy under the perspective of the Sociology of health.               | Qualitative study based on Ethnography with a sample of 15 patients with an intestinal ostomy. The thematic analysis was made from the perspective of sociology of health.                   | Nurses can help in improving coping and adaptations of individuals with ostomies, with their own bodies and society. The progressive teaching of self-care reaffirms to the patient that he can achieve self-reliance.   | VI             |
| Mota et al. (2015)                 | Brazil        | Factors that facilitate the transition from dependence to self-care of individuals with ostomies.                    | Descriptive and qualitative study with 27 ostomized participants. Were used semi-structured interviews to comprehend the factors that facilitate or difficult self-care.                     | The facilitating factors were: to attribute positive meaning to the ostomy, to receive guiding in relation to self-care with the stoma and adaptations in daily living; psychological stability and seek for comfort in faith and religiosity. Conditions related to the community: receive Government equipment, family and health professional team supports, especially nurses, the exchange of experience and contact with others with ostomies. | VI             |
| Lopes and Decesaro (2014)          | Brazil        | Factors involved in the process of adaptation of individuals with gastrointestinal ostomy.                           | Literature review performed on six databases, with a final sample of 21 papers. The authors applied Bardin's thematic analysis to form three categories.                                     | Individuals with ostomy need time and Family and professional support, the presence of friends is also important. This support includes overcoming the appearance and social stigma. Caregivers and Health professionals care providers should act as information resources while stimulating autonomy and independence in self-care.  | V              |
| Maydick (2014)                     | United States | Quality of life of individuals with permanent ostomies and costs involving the collector device.                     | Comparative, descriptive study; performed with 140 individuals with a permanent ostomy.  | The authors suggest that there is a relation between quality of life and financial status to buy collector devices.  | VI             |
| Cheng et al. (2013)                | China         | Knowledge about the ostomy, self-care ability and psychosocial adaptation of individuals with ostomies.              | Study with a descriptive design, the authors also used correlation in the research. The 54 participants were individuals that had an intestinal surgery and returned for follow-up.          | Individuals with higher knowledge about the ostomy had higher psychosocial adaptation levels. In this sense, to providing knowledge and teaching/emphasizing self-care may help these individuals to make adaptations in daily activities and social life.   | VI             |
| Poletto and Silva (2013)           | Brazil        | Assistance of health professionals to individuals with ostomies, from the perspective of Expanded and Shared Clinic. | Qualitative study, based on Expanded and Shared Clinic. Ten patients that had surgery and they family carer were interviewed after hospital discharge.                                       | There was an absence of expanded and shared health assistance, in which professionals valued people in their global context and developed activities aiming to prepare them for daily coping and the development of personal autonomy.   | VI             |
| Recalla et al. (2013)              | Canada        | Care management with the ostomy and management of peristome skin.  | Systematic review of literature. The research process was carried on four distinct international databases. Was found a total of 929 papers. However, 61 articles composed the final sample. | It was evidenced that nurses have understanding regarding the physical and psychosocial impact of the ostomy in the daily life of the individual.  | I              |

**- Table 1 (Continued)**

| Authorship and year of publication | Country        | Study focus   | Method  | Conclusions   | Evidence level |
|------------------------------------|----------------|---|---|---|----------------|
| Zhang et al. (2013)                | China          | Telephone follow-up by nurses about adaptation levels of patients with ostomies.            | Randomized controlled trial, performed with 103 people who had undergone ostomy surgery.        | Nurse's telephone follow-up of patients with ostomies may enhance self-care ability with the ostomy, confidence and should provide emotional and informational support.   | II             |
| Sun et al. (2013)                  | Canada         | Constant concerns and long-term adaptations in cancer survivors with ostomies.              | Qualitative study. The authors completed eight focus groups with 33 ostomized patients.         | The adaptation strategy focused on the exhaustive monitoring of the collector device to prevent embarrassing accidents; odor control is a constant battle to cancer survivors with ostomies.                      | VI             |
| Charúa-Guindic et al. (2011)       | Mexico         | Quality of life of patients with ostomies.  | Cross-sectional descriptive study with a sample of 83 ostomized patients.                       | The constant fear of leaks on the ostomy and sexual function were the aspects that most affected the patients with ostomies; which were responsible for the decrease in quality of life in this study.            | IV             |
| Lo et al. (2010)                   | Taiwan         | Effectiveness of a multimedia educational program in relation to ostomy knowledge.          | Randomized experimental study. 102 patients with a stoma were divided, randomly, in two groups. | An educational intervention with the use of multimedia, early in preoperative period has positive effect on the levels of knowledge and promotes attitudes and behaviors of self-care in patients with an ostomy. | II             |
| Black (2009a)                      | United Kingdom | Assistance to patients with ostomies regarding their self-care.                             | Clinical review about 12 papers; with a descriptive and reflexive design.                       | The caregiver professional should understand physical, emotional and psychosocial needs of the elderly patient with ostomy.   | VI             |
| Black (2009b)                      | United Kingdom | Changes in the care of institutionalized elderly people with a recent or unstressed ostomy. | Review of literature; with a discussion of self-care based on a sample of eleven papers.        | Problems related to ostomy care increase drastically in the elderly individual. The role of the caregiver professional is to encourage and teach the patient to self-care, aiming for their independence.         | VI             |

Source: Authors.

provide specific knowledge and emphasize or teach self-care before hospital discharge, may enhance quality of life of people with ostomies.<sup>18</sup>

Thus, the creation of an ostomy for the diversion of effluents can have a great impact on the daily life, autonomy and other fields of life of the individual; such impact can be enhanced when this individual is elderly, generating a greater demand for self-care, especially in relation to the ostomy management and the collection equipment. There is also the possibility of a decrease in self-esteem due to the corporal change, of social isolation, because it is feared the leakage of effluents and gases in public places, among others.

#### ***Intervenient factors of self-care in elderly people with an ostomy***

The self-care should be stimulated since the period of ostomies implementation.<sup>16</sup> The adaptation process of the ostomy in the elderly can be considered as complex and unique, therefore the capacity to perform self-care, as well as the understanding of health, may be harder for this specific population. In this sense, the changes in the life of the elderly with ostomies includes the acceptance of the new conditions, the acquisition of knowledge, the adaptation to new materials, being urgent the development of skills and competences for self-care.<sup>21</sup>

Proceeding, an ostomy is a medical treatment that, although very effective, implies a physical and psychological "attack". By affecting body integrity, there is also a chance in self-image, in functional and social capacity, with impacts in overall quality of life and on the daily life of the patient.<sup>19</sup> The rehabilitation of individuals with intestinal ostomies is a complex process, non-linear; may occur instability crisis, which may be related to the evolution of the disease or to the consequences of treatment however, these negative factors can be overcome with family and specialized professional support.<sup>22</sup>

The process of adaptation to the ostomy will then depend on the most varied factors, among which the following stand out: current illness, concomitant treatments, conditions of surgical intervention, complications with the ostomy, postoperative sequelae, prognosis, social, psychological and environmental characteristics, beliefs and values, physical limitations, pain, among others.<sup>19</sup> In the adaptation process some factors are facilitators, such as: the attribution of positive meaning to the ostomy, the preparation to the self-care experience beginning in preoperative period, to have psychological stability and the search for comfort in religiosity, as well as family and multi-professional health team support and the contact with people in similar life situation.<sup>21</sup>

The everyday life of elderly people has certain peculiarities, due to the deterioration of the organism and the aging process itself, which can make it difficult the performance of self-care. It is believed that the ostomy, by changing the patterns of elimination and food intake, can negatively impact the quality of life of this elderly individual. In this sense, the ability to learn also decreases with aging, so the procedures involved in self-care with the ostomy should be as uncomplicated as possible; In addition, it should be borne in mind that more time is required for the elderly patient to assimilate the new abilities and changes in their excretory functions.<sup>16</sup>

However, it is questioned the assistance provided to people with ostomies, since, even after the period of a surgery, they remain questioned and unaware of essential care for a life sustaining,<sup>20</sup> of a life with quality, comfort and well-being. Thus, in relation to the teaching of self-care, the nurse should pay attention to some details that will facilitate the process of acquisition of knowledge and skills by the elderly, among them, a large chair and a mirror may be useful, since the patient can see its abdomen,<sup>16</sup> the peristome skin, the collector equipment, whether they are cleaning or putting the collection bag correctly.<sup>1</sup> Elderly people with ostomies by colorectal cancer need care information with the stoma and with the collector equipment, such information can be offered by the nurse and include: peristome skin care, emptying and changing the device, inclusion and avoidance foods, control of gas and odors, and the supplements acquisition.<sup>7</sup> The progressive teaching of self-care reaffirms to the patient that he can achieve independence; hence, to be responsible for caring for one's own body allows the patient the capacity to identify potential complications with the ostomy and improves handling with the collector equipment.<sup>22</sup>

It is perceived that the entire biopsychosocial context of the patient should be considered so that health care is as effective as possible. However, these factors may be limiting to self-care. In the meantime, a factor to be highlighted is pain, which has the potential to affect the psychosocial aspects of the patient's life, such as the ability to work and to develop activities of daily living, rest patterns and emotional state (depression, anxiety and stress).<sup>19</sup> Also, odors and gases are challenging for people with an ostomy when in public places such as restaurants and restrooms. Numerous patients reported having "accidents" related to the leakage of gases and liquids, and often these incidents occurred in public, causing shame and anxiety.<sup>23</sup>

It can be noticed that the social context may be the most affected after the ostomy surgery, consequently, with negative implications in the daily life of the elderly person with an ostomy; highlighting the social isolation and the difficulty of returning to work activities, due to the constant fear of accidents with the collector equipment, as well as the pain, gas and other discomforts that can affect the elderly person.

#### ***The role of the nurse in the management of care to the elderly patient with an ostomy***

With the incidence of colorectal cancer being higher in the longer-lived population, the elderly who undergo a surgical procedure usually perceive the ostomy as the last threat to their independence.<sup>16</sup> In this sense, the follow-up performed by the nurse practitioner should cover all spheres of attention to health primary, secondary and tertiary care. This follow up can be performed in person, during nursing consultations, in domiciliary care and even by telephone. It can enhance the level of adaptation to the new condition, by improving self-care ability with the ostomy, trust, competence to deal with the ostomy itself, as well as providing individuals with informational and emotional support.<sup>5</sup> A teaching plan for self-care for the elderly with colorectal cancer can be useful, helping them to adapt to the new condition and giving them a routine to follow.<sup>16</sup> Thus, early educational intervention in the

postoperative period has a positive effect on knowledge and promotes self-care attitudes.<sup>17</sup>

Patients who undergo colorectal cancer ostomy surgery, regardless of the stage of their life cycle, will need information to manage their self-care. Such educational process encompasses the triad health professional – individual with ostomy – family and should include information such as: how and when to empty or replace the collector equipment device, which foods and fluids are most appropriate and which should be avoided, how to manage odor and gases, how and where to get the necessary supplements, and whom to seek help in case some problems arise with ostomy.<sup>7</sup> Therefore, it is useful to the nurse professional to put in the place of the elderly person with ostomies, aiming to perceive how to manage care with the stoma and how it would affect the daily activities.<sup>1</sup>

In the context of professional nurses, they stand out for their expertise in this subject, having the capacity and ability to provide effective evaluation, care planning of nursing interventions, and patient evaluation,<sup>7</sup> about self-care, which should be global and consider the entire biopsychosocial, spiritual and health context of individuals and their families. Thus, educational materials can be used by nurses, aiming at supplementing health education,<sup>7</sup> in relation to the ostomy. Moreover, all health professionals play a unique role in addressing changes in body image and loss of sphincter control (and its repercussions on the individual's life), aiming to stimulate knowledge regarding self-care and self-esteem, potentially influencing their social reintegration, that is, moving toward personal autonomy.<sup>20</sup> Finally, health professionals should provide appropriate assistance and support so that these individuals can face their daily life limitations.<sup>22</sup>

In the perspective of recovery of the patient's health, self-care has a leading role, however the patient should seek to take control of the situation, for this the nurses should ensure that the self-care procedures are uncomplicated.<sup>16</sup> To better achieve self-care positive results, the nurse with the person with the ostomy should perceive barriers and identify possible resources to overcome them, to increase the impact of the educational programs.<sup>17</sup> In addition, the approach of teaching the patient with ostomy should begin in the preoperative period and remain in the postoperative period. The physician, the nursing team and, when available, an ostomy specialist nurse should be involved in this health education. If possible, the nurse should visit the patient prior to admission to identify the place of installation of the ostomy in the abdomen and initiate conversations about diet, the collector equipment and skin care.<sup>24</sup>

Thus, nurses and other health care professionals who work with people with ostomies should expand their knowledge and understanding of the feelings that can emerge during the process of adaptation to the ostomy, as well as its consequences and possible alternatives that may help the patient to restructure their lives. In this perspective, nurses must be prepared since the graduation, to be empowered to provide care and share knowledge, so that an excellence in care can be achieved.<sup>8</sup> It is important to mention that elderly people have distinct characteristics that, combined with longer exposure to environmental risk to diseases, being them vulnerable to chronic-degenerative illness, such as cancer.<sup>25</sup>

Finally, the nurse must be aware of patient's mental health status, since the ostomized individual may arrive at the outpatient clinic with feelings of anxiety, frustration, not accepting or adapting to self-care, and they can express feelings of loss.<sup>26</sup> Under this perspective, it is vital to the nurse to consider the patient, with special attention to negative feelings, because they can alter the willingness to perform self-care.

## Conclusion

The present review sought to present scientific evidence regarding self-care of elderly people with ostomies by colorectal cancer. It was observed the scarcity of publications on the theme and the predominance of descriptive studies. Studies have shown that the presence of the ostomy compromises not only the biological dimension, due to the stoma, the presence of the collector equipment, the changes in the pattern of elimination and altered body image, but, above all the important repercussions in the social and psychological dimensions, which has contributed negatively to the adaptation to the new condition.

It is important to mention that the communication with the ostomized patient must be clear and objective, for better comprehension by the client, considering that an effective nursing care should begin preoperatively, with the preparation of the individual facing the surgery.<sup>27</sup> In this context, it is also fundamental the valuation of the singularities of the people before the presence of the ostomy, to develop actions that meet their biopsychosocial and spiritual needs. Therefore, the nurse needs to become a protagonist in the actions of Health Education, and should prevail for the development of co-autonomy and self-care skills; it should also provide the elderly person with an ostomy the necessary knowledge to recover the potential to manage their self-care.

The review presents limitations regarding number of investigated databases, the focus on the general aspects of self-care and a limited number of papers; we also endorse that the specific knowledge regarding self-care of the elderly with ostomies still need further studies, with application of different methods and approaches, so health professional can offer a humanized and individualized care; aiming at the independence or at least co-autonomy for self-care and improvements in general quality of life.

## Conflicts of interest

The authors declare no conflicts of interest.

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## REFERENCES

- Black P. Teaching stoma patients to self-care. *Nurs Resid Care*. 2009;11:546–9.

2. Cancer. World Health Organization; 2017. Available from: <http://www.who.int/cancer/en/> [accessed on January 2018].
3. Coordination of Prevention and Surveillance. Estimate 2010: incidence of cancer in Brazil. Rio de Janeiro: José Alencar Gomes da Silva National Cancer Institute – INCA; 2009.
4. Coordination of Prevention and Surveillance. Estimate 2016: incidence of cancer in Brazil. Rio de Janeiro: José Alencar Gomes da Silva National Cancer Institute – INCA; 2015.
5. Zhang JE, Wong FK, You LM, Zheng MC, Li Q, Zhang BY, et al. Effects of enterostomal nurse telephone follow-up on postoperative adjustment of discharged colostomy patients. *Cancer Nurs.* 2013;36:419–28.
6. Ostomy information: what is an ostomy? United Ostomy Associations of America – UOAA. Available from: [http://www.ostomy.org/What\\_is\\_an\\_Ostomy.html](http://www.ostomy.org/What_is_an_Ostomy.html) [accessed on January 2018].
7. Maydick DR. Individuals with a permanent ostomy: quality of life and out-of-pocket financial costs for ostomy management. *Nurs Econ.* 2014;32:204–18.
8. Lopes APAT, Deceisaro MD. The adjustments experienced by persons with an ostomy: an integrative review of the literature. *Ostomy Wound Manag.* 2014;60:34–42.
9. Whittemore R, Knafl K. The integrative review: update methodology. *J Adv Nurs.* 2005;52:546–53.
10. Moher D, Liberati A, Tetzlaff J, Altman DG, PRISMA Group. Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. *PLoS Med.* 2009;6:e1000097.
11. Melnyk BM, Fineout-Overholt E. Evidence based practice in nursing & healthcare. A guide to best practice. 2nd ed. Philadelphia: Lippincott Williams & Wilkins; 2005.
12. Fialho AVM, Pagliuca LMF, Soares E. Adequação da Teoria do Déficit do autocuidado no cuidado domiciliar à luz do Modelo de Barnum. *Rev Lat-Am Enferm.* 2002;10:715–20.
13. Vitor AF, Lopes MVO, Araujo TL. Teoria do Déficit de autocuidado: análise da sua importância e aplicabilidade na prática da Enfermagem. *Esc Anna Nery (impr).* 2010;14:611–6.
14. Cade NV. A Teoria do Déficit do autocuidado de Orem aplicada em hipertensas. *Rev Lat-Am Enferm.* 2001;9:43–50.
15. Recalla S, English K, Nazarali R, Mayo S, Miller D, Gray M. Ostomy care and management: a systematic review. *J Wound Ostomy Cont Nurs.* 2013;40:489–500.
16. Black P. Care of the older ostomate in the residential care setting. *Nurs Resid Care.* 2009;11:123–7.
17. Lo SF, Wang YT, Wu LY, Hsu MY, Chang SC, Hayter M. Multimedia education programme for patients with a stoma: effectiveness evaluation. *J Adv Nurs.* 2011;67:68–76.
18. Cheng F, Meng AF, Yang LF, Zhang YN. The correlation between ostomy knowledge and self-care ability with psychosocial adjustment in Chinese patients with a permanent colostomy: a descriptive study. *Ostomy Wound Manag.* 2013;59:35–8.
19. Charúa-Guindic L, Benavides-León CJ, Villanueva-Herrero JA, Jiménez-Bobadilla B, Abdo-Francis JM, Hernández-Labra E. Quality of life in ostomized patients. *Cir Cir.* 2011;79:149–55.
20. Poletto D, Silva DMGV. Living with intestinal stoma: the construction of autonomy for care. *Rev Lat-Am Enferm.* 2013;21:531–8.
21. Mota MS, Gomes GC, Petuco VM, Heck RM, Barros EJL, Gomes VLO. Facilitators of the transition process for the self-care of the person with stoma: subsidies for Nursing. *Rev Esc Enferm USP.* 2015;49:82–8.
22. Martins LM, Sonobe HM, Vieira FS, de Oliveira MS, Lenza NFB, Teles AAS. Rehabilitation of individuals with intestinal ostomy. *Br J Nurs.* 2015;24:S4–11.
23. Sun V, Grant M, McMullen CK, Altschuler A, Mohler MJ, Hornbrook MC, et al. Surviving colorectal cancer: long-term, persistent ostomy-specific concerns and adaptations. *J Wound Ostomy Cont Nurs.* 2013;40:61–72.
24. Grant M, McCorkle R, Hornbrook MC, Wendel CS, Krouse R. Development of a chronic care ostomy self-management program. *J Cancer Educ.* 2013;28:70–8.
25. Lima JA, Muniz KC, Salomé GM, Ferreira LM. Association of sociodemographic and clinical factors with self-image, self-esteem and locus of health control in patients with an intestinal stoma. *J Coloproctol (Rio J).* 2018;38:56–64.
26. Salomé GM, Lima JA, Muniz KC, Faria EC, Ferreira LM. Health locus of control, body image and self-esteem in individuals with intestinal stoma. *J Coloproctol (Rio J).* 2017;37:216–24.
27. Salomé GM, Almeida SA, Mendes B, Carvalho MRF, Massahud Junior MR. Assessment of subjective well-being and quality of life in patients with intestinal stoma. *J Coloproctol (Rio J).* 2015;35:168–74.