

## Quality of life from oncological patients with definitive and temporary colostomy

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**ABSTRACT: Introduction:** Colorectal cancer is one of the most prevalent neoplasms in the western world. Colostomy, temporary or permanent, can be a serious limiting factor affecting the quality of life of oncological patients. **Objective:** To compare the quality of life of oncological patients with definitive and temporary colostomy. **Methods:** Descriptive cross-sectional study carried out at a public hospital in Brasília, Federal District of Brazil. The study analyzed 39 patients with colorectal cancer, 76.9% males, sorted into two groups: definitive ostomy (n=26) and temporary ostomy (n=13). The World Health Organization Quality of Life (WHOQOL)-bref questionnaire was used to assess the quality of life. Data were analyzed using Excel 2007 and Statistical Package for Social Sciences 19.0. **Results:** 50% of definitive and 76.9% of temporary ostomy patients reported that the physical pain did not interfere in the affairs. 38.5% of definitive and 46.2% of temporary ostomy accepted their physical appearance. 46.2% of definitive and 53.8% of temporary ostomy reported good quality of life. 84.6% of definitive and 46.2% of temporary ostomy did not enjoy their life. 50% of definitive and 53.8% of temporary ostomy were satisfied with their sleep. 57.7% of definitive and 53.8% of temporary ostomy considered the environments as healthy. Over 70% of definitive and over 50% of temporary ostomy had financial constraints and were dissatisfied with leisure opportunities, respectively. 69.2% of definitive and 46.2% of temporary ostomy presented lower libido. 88.5% of definitive and 61.5% of temporary ostomy attended the church. **Conclusion:** The results showed that temporary ostomy patients suffer the same afflictions as the patients with definitive ostomy, equally affecting the quality of life of these patients.

**Keywords:** quality of life; colorectal cancer; ostomy.

**RESUMO: Introdução:** O câncer colorretal é uma das neoplasias mais prevalentes no mundo ocidental. A colostomia, temporária ou definitiva, pode ser um sério limitador da qualidade de vida de pacientes oncológicos. **Objetivo:** Comparar a qualidade de vida de pacientes oncológicos colostomizados definitivos e temporários. **Métodos:** Estudo transversal descritivo realizado em um hospital público do Distrito Federal. Amostra constituída por 39 pacientes com câncer colorretal, 76,9% homens, separados em dois grupos: colostomizados definitivos (n=26) e colostomizados temporários (n=13). Utilizou-se o questionário *World Health Organization Quality of Life (WHOQOL)-bref* para avaliar a qualidade de vida. Os dados foram analisados pelos programas Excel 2007 e *Statistical Package for Social Sciences 19.0*. **Resultados:** 50% dos colostomizados definitivos e 76,9% dos temporários referiram que a dor física não interferia nos afazeres. 38,5% dos definitivos e 46,2% dos temporários aceitavam bem a aparência física. 46,2% dos definitivos e 53,8% dos temporários relataram boa qualidade de vida. 84,6% dos definitivos e 46,2% dos temporários aproveitavam pouco a vida. 50% dos definitivos e 53,8% dos temporários estavam satisfeitos com o sono. 57,7% dos definitivos e 53,8% dos temporários consideravam os ambientes salutaros. Mais de 70% e mais de 50% dos definitivos e temporários tinham limitações financeiras e estavam insatisfeitos com as oportunidades de lazer, respectivamente. 69,2% dos definitivos e 46,2% dos temporários estavam insatisfeitos com a libido. 88,5% dos definitivos e 61,5% dos temporários frequentavam a igreja. **Conclusão:** Os resultados mostraram que os colostomizados temporários sofrem as mesmas angústias que os colostomizados definitivos, o que afeta igualmente a qualidade de vida dos mesmos.

**Palavras-chave:** qualidade de vida; câncer colorretal; estomia.

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## INTRODUCTION

Colorectal cancer is one of the most prevalent neoplasms in the western world. Studies show that it is the third most common cause of malignant tumors and the second cause of death, affecting mostly people from 50 to 70 years old<sup>1</sup>.

Colorectal cancer involves a multifactorial etiology and several risk factors, such as: hereditariness, advanced age, presence of chronic inflammatory bowel disease, obesity, sedentariness and excessive intake of saturated fatty acids and red meat, associated or not with low intake of fruits and vegetables<sup>2</sup>.

The person with alterations in the gastrointestinal tract may be submitted to a temporary or definitive colostomy surgery<sup>3</sup>. Colostomy is a procedure in which a portion of the intestine is brought out through an external incision, named stoma<sup>4</sup>. The purpose of the stoma is to act as an alternative channel for stool to leave the body<sup>5</sup>.

Today, the quality of life has been investigated in the various contexts of health and disease. It is a multidimensional concept that includes one's perception of his/her standing in life, in relation to his/her values and his/her objectives, expectations, standards and concerns<sup>6</sup>.

Colostomy, temporary or permanent, can be a serious limiting factor affecting the quality of life of patients with colorrectal cancer, as these patients have physical and psychological difficulties, not only due to the disease, but related to the limiting aspects related to the stoma<sup>7</sup>.

The purpose of this study was to compare the quality of life of oncological patients with definitive and temporary colostomy of a public hospital in Brasilia, Federal District of Brazil.

## MATERIALS AND METHODS

### Study design

A descriptive cross-sectional study conducted at the Service of Proctology of the Hospital de Base do Distrito Federal (HBDF), Brazil, from May to November 2011. This study was approved by the Human Research Ethics Committee of the State Division of Health in the Federal District (CEP/SES/DF), protocol n° 418/09. All patients who met the selection cri-

teria and accepted to participate in the study signed the Informed Consent Term after providing detailed information about the study objectives and procedures employed.

### Studied population

This study analyzed a population of patients with colorrectal cancer, of both genders, sorted into two groups: with definitive and temporary colostomy. The patients were selected according to the following inclusion criteria: patients diagnosed of colorectal cancer, at least twenty years old; and exclusion criteria: children, adolescents, pregnant women, breastfeeding women, patients in bed, physically disabled patients, metastatic patients, and people with other non-transmissible chronic diseases.

### Data collection

The World Health Organization Quality of Life (WHOQOL)-bref<sup>8</sup> questionnaire was used for data collection, a short version in Portuguese (WHOQOL-100), developed by the World Health Organization Health Commission, validated in 1998 by the Department of Psychiatry and Legal Medicine at the Universidade Federal do Rio Grande do Sul (UFRGS).

The WHOQOL-bref<sup>8</sup> has 26 items that represent the profiles of four aspects: physical, psychological, social relations and environment. The answers to all questions of the WHOQOL-bref are provided using a 5-point Likert scale, whose scoring ranges from 1 to 5, as well as two questions on general quality of life, calculated as a whole to generate a single score, regardless of the scores in each of the four aspects, named "general quality of life".

### Statistical analysis

The statistical analysis based on the patients' data was performed using mean values, standard deviation and frequencies, in Microsoft<sup>®</sup> Office Excel version 2007 and Statistical Package for Social Sciences (SPSS, SPSS Inc., Chicago, USA) for Windows, version 19.0.

## RESULTS

The sample was composed of 39 patients: 76.9% (n=30) males and 23.1% (n=09) females,

mean age of 53.1±26.5 years, sorted into two groups: with definitive colostomy (n=26) and temporary colostomy (n=13).

Mean age of definitive colostomy patients was 59.5±19.5 years, with predominance of males (n=18; 69.2%), married patients or with a steady partner (n=15; 57.7%) (Table 1). The mean age of temporary colostomy was 47.8±23.5 years (n=12; 92.3%), most were males (n=07; 53.8%), married or with a steady partner (Table 1).

The Catholic religion was predominant in the group of definitive colostomy patients (n=18; 69.2%), where the prevalent education level was concluded primary education (n=17; 65.4%) – and 80.8% (n=21) of these patients were retired or in medical license supported by the Brazilian Social Security System (INSS), with mean family income of 3.47 basic wages (Table 1).

In the group of temporary colostomy patients, the Evangelical religion was predominant (n=06; 46.2%), and both education levels of concluded primary education and non-concluded primary education were equal, with 46.2% (n=06), and most were retired or in medical license supported by the INSS (n=12; 92.3%) and with mean family income of 1.88 basic wages (Table 1).

When analyzing the physical aspect, the following results were obtained: 50% (n=13) of definitive and 76.9% (n=10) of temporary colostomy patients answered that the physical pain did not prevent them from doing what they had to do (Figure 1).

Regarding their energy and moving ability, the results showed that 53.8% (n=14) of definitive and 53.8% (n=07) of temporary colostomy patients said they had sufficient energy, and 80.7% (n=21) of definitive and 84.6% (n=11) of temporary colostomy patients presented excellent moving capability (Figure 1).

Regarding their performance of daily activities and satisfaction, the results showed that 65.4% (n=17) of definitive and 53.8% (n=07) of temporary colostomy patients had good performance of daily activities, and 65.4% (n=17) of definitive and 53.8% (n=07) of temporary colostomy patients were satisfied with themselves (Figure 1).

When asked about the acceptance of their physical aspect, the results showed that 38.5% (n=10) of

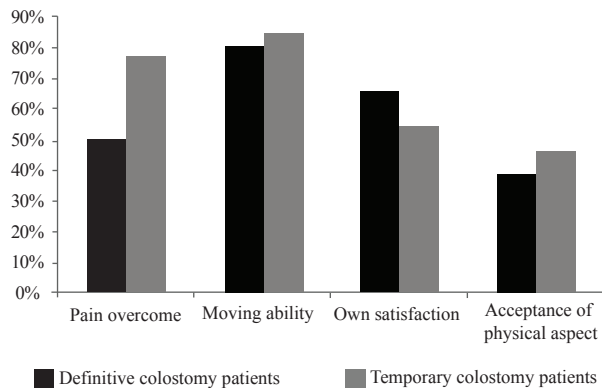
definitive and 46.2% (n=06) of temporary colostomy patients accepted well their physical aspect (Figure 1).

Regarding the psychological aspect, the results showed the following: 46.2% (n=12) of definitive and 53.8% (n=07) of temporary colostomy patients answered that they had good quality of life; 84.6% (n=22) of definitive and 46.2% (n=06) of temporary colostomy patients said that they did not enjoy life very much (Figure 2).

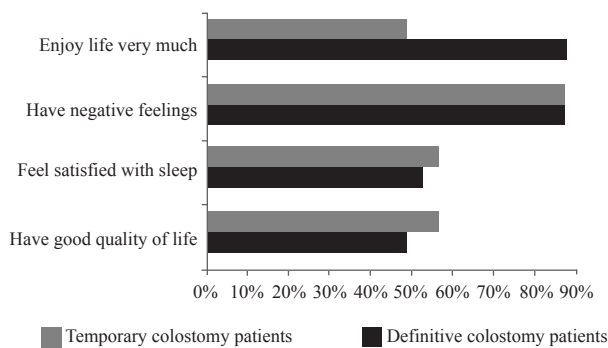
**Table 1.** Social and demographic characteristics of definitive and temporary colostomy patients treated at a public hospital in Brasilia, Federal District of Brazil (n=39).

Variables	Definitive (n=26) n (%)	Temporary (n=13) n (%)
Gender		
Male	18 (69.2)	12 (92.3)
Female	8 (30.8)	1 (7.7)
Marital status		
Married (or with steady partner)	15 (57.7)	7 (53.8)
Separated	5 (19.2)	3 (23.1)
Widow/widower	6 (46.2)	3 (23.1)
Single	0 (0.0)	0 (0.0)
Education level		
Non-concluded primary education	12 (46.2)	6 (46.2)
Concluded primary education	6 (23.1)	6 (46.2)
Concluded high school	7 (26.9)	1 (7.6)
Concluded higher education	1 (03.8)	0 (0.0)
Religion		
Catholic	18 (69.2)	4 (30.7)
Evangelical	6 (23.1)	6 (46.2)
None	2 (07.7)	3 (23.1)
Work		
Active	5 (19.3)	1 (7.7)
Retired (or in license supported by the INSS*)	21 (80.7)	12 (92.3)
Income (basic wages)		
Less than 1 BW	0 (0.0)	0 (0.0)
1 to 2 BWs	05 (19.2)	12 (92.3)
3 to 4 BWs	21 (80.8)	1 (7.7)
More than 4 BWs	0 (0.0)	0 (0.0)

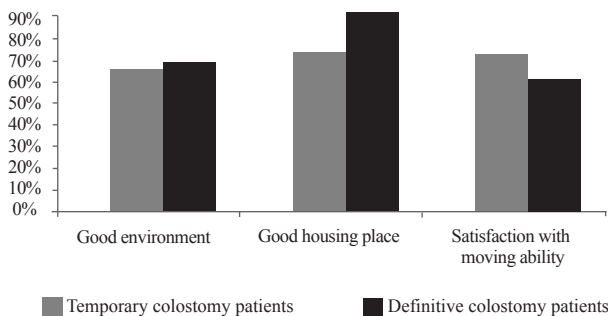
INSS: the Brazilian Social Security System; BW: basic wages.



**Figure 1.** Comparative analysis of colorectal cancer patients with definitive (n=26) and temporary (n=13) colostomy treated at a public hospital in Brasilia, Federal District of Brazil (n=39).



**Figure 2.** Comparative analysis of colorectal cancer patients with definitive (n=29) and temporary (n=13) colostomy treated at a public hospital in Brasilia, Federal District of Brazil (n=39).



**Figure 3.** Comparative analysis of colorectal cancer patients with definitive (n=29) and temporary (n=13) colostomy treated at a public hospital in Brasilia, Federal District of Brazil (n=39).

When asked about the meaning of life and sleep, the results showed that 84.6% (n=22) of definitive and 100% (n=13) of temporary colostomy patients answered that life meant so much, and 50% (n=13) of definitive and 53.8% (n=07) of temporary colostomy patients answered that they were satisfied with their sleep (Figure 2).

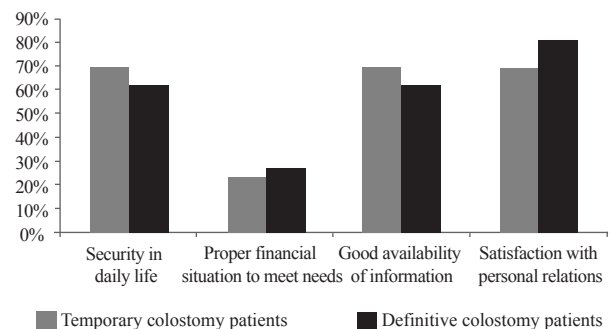
Regarding the frequency of bad humor, anxiety, depression and despair, most patients, in both groups, answered that they had these feelings: 84.6% (n=22) of definitive and 84.6% (n=11) of temporary colostomy patients (Figure 2).

When investigating the environmental aspect, the results showed that 57.7% (n=15) of definitive and 53.8% (n=07) of temporary colostomy patients thought they lived in healthy environments, regarding noise, pollution, climate and attractions (Figure 3).

The results showed that 80.7% (n=21) of definitive and 61.5% (n=08) of temporary colostomy patients were satisfied with the place they live, and 50% (n=13) of definitive and 61.5% (n=08) of temporary colostomy patients were satisfied with their moving ability (Figure 3).

Regarding work conditions, 50% (n=13) of definitive and 69.2% (n=09) of temporary colostomy patients were satisfied, although most in both groups were in medical license or retired (Figure 3).

For the social aspects, the results showed that 65.4% (n=17) of definitive and 61.5% (n=08) of temporary colostomy patients said that they needed little medical care in their daily life.



**Figure 4.** Comparative analysis of colorectal cancer patients with definitive (n=29) and temporary (n=13) colostomy treated at a public hospital in Brasilia, Federal District of Brazil (n=39).



The results showed that 61.5% (n=16) of definitive and 69.2% (n=09) of temporary colostomy patients presented a feeling of security in their daily life. Regarding the financial situation, 73.1% (n=19) of definitive and 76.9% (n=10) of temporary colostomy patients said that money is not enough to fulfill their needs (Figure 4).

The results also showed that 61.5% (n=16) of definitive and 69.2% (n=09) of temporary colostomy patients were satisfied with the availability of information in their daily life. On the other hand, 57.7% (n=15) of definitive and 53.8% (n=07) of temporary colostomy patients were unsatisfied with the leisure opportunities (Figure 4).

Regarding the satisfaction with their personal relations, 80.8% (n=21) of definitive and 69.2% (n=09) of temporary colostomy patients said they were satisfied (Figure 4).

In terms of sex, the results showed that 69.2% (n=18) of definitive colostomy patients were not satisfied with their libido and 46.2% (n=06) of temporary colostomy patients answered that sex was not satisfactory. In addition, the results showed that 79.5% (n=31) of the colostomy patients in both groups did not have a steady partner and were afraid of starting a new relation.

Regarding the aspect of religion, the study showed that most definitive (n=23; 88.5%) and temporary colostomy patients (n=8; 61.5%) attended the church and that action made them more confident.

## DISCUSSION

The studied sample was composed of 76.9% male colostomy patients. Similar results were found in the study conducted by Costa & Leite<sup>9</sup>, who observed predominance of colorrectal cancer in male patients. However, the medical literature shows controversial results, as, according to the National Cancer Institute (INCA) in Brazil<sup>10</sup>, malignant colorectal neoplasms are predominant in women.

The mean age of patients was 53 years. These results agree with those of other studies that indicate prevalence of colorrectal cancer in patients over 50 years of age<sup>11-13</sup>. According to Cozerattolini and Gallon<sup>14</sup>, more than 90% cases of colorectal cancers occur in subjects

over 50 years of age, and 75% affect individuals without risk factors other than age.

Another important demographic aspect is the marital status of the patients in this study, where over 50% of definitive and temporary colostomy patients were married. Studies analyzing people with malignant colorectal neoplasms show that 60 and 95% of people are married and live with a spouse, respectively<sup>14</sup>.

The study also showed prevalence of Catholic and Evangelical patients among definitive and temporary colostomy patients, respectively, who reported increased faith after the disease diagnosis, with predominance in the group of definitive colostomy patients. Studies show faith in God as an essential aspect to move on and face the new condition<sup>15-18</sup>. And over half of patients in both groups attended the church, with higher percentage in the group of definitive colostomy patients. Religion may be an element that helps facing the disease condition, enabling better adhesion to the treatment, reduced stress and anxiety, seeking a meaning to the new situation<sup>19</sup>.

Family income and education level, in the studied groups, were relatively low, with better results in the group of definitive colostomy patients. These data emphasize the governmental support relevance to this population. Low education level may be a factor for non prevention of colorectal cancer, due to scarce information received about the factors that cause this disease, including dietary habits<sup>20</sup>.

In all groups, retired patients and/or in medical license supported by the INSS were predominant, with higher percentage in the group of temporary colostomy patients. Recent studies show that the follow-up visit of most definitive or temporary colostomy patients occurs only after the treatment; and specifically for definitive colostomy patients, many do not come back due to their age<sup>21</sup>.

In this study, definitive colostomy patients complained of physical pain more than temporary colostomy patients, probably due to their non-adaptation to the colostomy bag. Definitive colostomy patients need to adapt to the new condition as fast as possible, since this situation is permanent and required to survival<sup>22</sup>.

According to Souza et al.<sup>22</sup>, people with temporary colostomy have to readjust their lives, but they

still hope to return to the prior condition. This possibility may cause anxiety and influence them negatively. People with temporary colostomy present, on average, a higher level of anxiety than those with permanent colostomy.

Regarding the aspect of energy to perform daily tasks, only half of each group was satisfied. It shows that the discouragement may occur as a result of the change in the routine, which now includes attention to the colostomy bag handling, provision and handling of collection devices and contact with health professionals to learn how to handle the stoma<sup>22</sup>.

Both groups are concerned about the changes in the body and its functionality, and the causal aspects of colostomy. Knowing how long the patient will remain in this new condition, the phase of life in which colostomy is performed, as well as alterations due to the loss of bowel function control are factors that contribute to the patient's non-acceptance of body changes and dissatisfaction with their physical aspect<sup>22</sup>.

The influence of social rules on people start in their childhood phase, and many times, they become intrinsic. The act of evacuation is related to having control over it, and to something dirty, which should be done privately and not publicly, without control over such act<sup>22-24</sup>.

The quality of life was considered poor in 53.8 and 46.2% of definitive and temporary colostomy patients, respectively. The processes or events that change the daily life, affected by afflictions or physical inability, mainly those that put our life at risk, are important experiences in each person's life. Then, although related to a specific organ or condition, they spread to all aspects of the being, causing discontinuity, gaps, which involve questioning of values, priorities, life projects and affect the family, sex, social and economic life<sup>22</sup>.

In addition, more than 80% of the patients in both groups reported negative feelings, such as depression, anxiety, fear and bad humor. These results only confirmed that cancer per se generates these psychological conflicts in patients with this disease, in agreement with other studies<sup>25</sup>.

Both groups reported satisfaction with their environment, place they lived, moving ability and health attention. The neoplasm treatment has priority over these aspects, which, even considered secondary issues, are also relevant.

In this study, more than 50% of the patients of both groups reported that they would like to have more leisure opportunities, with higher percentage in the group of definitive colostomy patients. Colostomy patients are concerned about physical activities that may place them in embarrassing situations, such as bag exposure, rupture, leaking, among others. Then, leisure activities have to offer security. Alterations to body image are associated with loss of social status due to initial isolation these patients impose on themselves<sup>26</sup>.

In this study, definitive colostomy patients had a less active sex life than temporary colostomy patients, probably due to the permanent condition of having a bag. Those patients without a steady partner were not looking for partners, neither in definitive nor in temporary colostomy partners. The fear of a new relation and the possibility of non-acceptance of their new physical condition make them reject the others and themselves.

A stoma causes visible and significant body alteration, and it may deprive the body of its integrity, dynamism and autonomy, causing inner conflict and unbalance, which many times affect the relations with the outer world and the experience of sexuality, as the stoma changes the body image<sup>27</sup>.

## CONCLUSION

The results show that, despite their hope to return to prior conditions, temporary colostomy patients have the same afflictions as definitive colostomy patients, with equal impact on their quality of life. In this sense, the support of a multi-professional team (nutritionist, physician, psychologist, nurse, social assistant, among others) is essential for the rehabilitation of both definitive and temporary colostomy patients in physical and emotional aspects.

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