



# Profile of users of a stomatherapy service: cluster analysis

*Perfil de usuários de um serviço de estomaterapia: análise de cluster*

*Perfil de usuarios de un servicio de estomaterapia: análisis de cluster*

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## ABSTRACT

**Objective:** To analyze the profile of people with intestinal and/or urinary ostomies followed up in a stomatherapy service, according to sociodemographic and clinical variables. **Method:** This is a cross-sectional study, carried out with 90 users of the stomatherapy service. Data collection was carried out from January to February 2020, using two instruments: COH-QOL-Ostomy, adapted and translated to the Brazilian context; and City of Hope Quality of Life – Ostomy Questionnaire, an original instrument with a questionnaire prepared by the researchers themselves, considering the sociodemographic and clinical aspects. These data were transferred and organized in the Statistical Package for Social Science Software, version 22. **Results:** Four distinct clusters were identified. In cluster 1, the group has two to three complications associated with the stoma and 52.9% have a colostomy. In cluster 2, 45% have no complications and 70% have urostomy. In cluster 3, the entire group presents a complication and colostomy. And in cluster 4, none of the participants in the group have complications and all have a colostomy. **Conclusion and implications for practice:** The study provided the generation of data that can help in planning the work developed by the health teams with ostomy patients.

**Keywords:** Nursing; Stomatherapy; Ostomy; Patients; Health.

## RESUMO

**Objetivo:** Analisar o perfil das pessoas com estomias intestinais e/ou urinárias acompanhadas em serviço de estomaterapia, conforme variáveis sociodemográficas e clínicas. **Método:** Trata-se de um estudo transversal, realizado com 90 usuários do serviço de estomaterapia. A coleta foi realizada de janeiro a fevereiro de 2020, por meio de dois instrumentos: *COH-QOL-Ostomy*, adaptado e traduzido para o contexto brasileiro; e *City of Hope Quality of Life – Ostomy Questionnaire*, instrumento original com questionário elaborado pelas próprias pesquisadoras, contemplando os aspectos sociodemográfico e clínico. Esses dados foram transferidos e organizados no *Software Statistical Package for the Social Science*, versão 22. **Resultados:** Foram identificados quatro grupos distintos. No cluster 1, o grupo possui de duas a três complicações associadas ao estoma e 52,9% possuem colostomia. No cluster 2, 45% não apresentam nenhuma complicação e 70% têm urostomia. Já no cluster 3, a totalidade do grupo apresenta uma complicação e colostomia. E no cluster 4, nenhum participante do grupo apresenta complicação e todos têm colostomia. **Conclusão e implicações para a prática:** O estudo proporcionou a geração de dados que podem auxiliar no planejamento do trabalho desenvolvido pelas equipes de saúde junto aos pacientes estomizados.

**Palavras-chave:** Enfermagem; Estomaterapia; Estomia; Pacientes; Saúde.

## RESUMEN

**Objetivo:** Analizar el perfil de las personas con ostomías intestinales y/o urinarias seguidas en un servicio de estomaterapia, según variables sociodemográficas y clínicas. **Método:** Se trata de un estudio transversal, realizado con 90 usuarios del servicio de Estomaterapia. La recolección de datos se realizó de enero a febrero de 2020, utilizando dos instrumentos: *COH-QOL-Ostomy*, adaptado y traducido al contexto brasileño; y *City of Hope Quality of Life – Ostomy Questionnaire*, instrumento original con cuestionario elaborado por las propias investigadoras, considerando aspectos sociodemográficos y clínicos. Estos datos se transfirieron y organizaron en *Software Statistical Package for the Social Science*, versión 22. **Resultados:** Se identificaron cuatro clústeres distintos. En el clúster 1, el grupo tiene de dos a tres complicaciones asociadas con estoma y el 52,9% tiene una colostomía. En el grupo 2, el 45% no presenta complicaciones y el 70% tiene urostomía. En el clúster 3, todo el grupo presenta complicación y colostomía. Y en el clúster 4, ninguno de los participantes del grupo tiene complicaciones y todos tienen una colostomía. **Conclusión e implicaciones para la práctica:** El estudio generó datos que pueden ayudar a planificar el trabajo que desarrollan los equipos de salud con pacientes ostomizados.

**Palabras clave:** Enfermería; Estomaterapia; Estomía; Pacientes; Salud.

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Submitted on 08/09/2021.

Accepted on 11/23/2021.

DOI:<https://doi.org/10.1590/2177-9465-EAN-2021-0307>

## INTRODUCTION

It is understood as a person with an ostomy, the individual who has undergone a surgical bypass procedure for the exteriorization of the digestive, respiratory and/or urinary system, with the creation of a stoma<sup>1</sup>. The need for ostomy surgery commonly appears unexpectedly, being a complex event in the life of the person who has undergone surgery, because of important changes related to their existence due to the modification of their body<sup>2</sup>.

A study found that ostomy interferes in the physical and social domains of quality of life, with clinical factors related to the definitive character and longer duration of ostomy having a positive impact on the physical domain<sup>3</sup>. In this sense, quality of life can be conceptualized as the individual's perception of their health status in relation to social, physical, psychological, economic and spiritual aspects<sup>4</sup>. It is observed that the intensity of this experienced situation can affect in a particular manner each individual, depending on their adaptive and emotional capacity. The way of coping with this condition can lead to feelings of exclusion, embarrassment and rejection, with the possible consequence of the decrease in the quality of life of these people<sup>5</sup>.

In this context, nursing care for people with ostomy requires the active participation of professional nurses, especially in the process of rehabilitation and resocialization, with an individualized approach aimed at difficulties and needs, considering the various sociodemographic characteristics<sup>6</sup>. Also, knowing the sociodemographic and clinical characteristics of a population of people with ostomy can guide the planning of care according to the real needs, ensuring access to care services and equipment<sup>7</sup>.

Thus, this study aimed to analyze the profile of people with intestinal and/or urinary ostomies followed up in a stoma therapy service, according to sociodemographic and clinical variables.

## METHODS

This is a cross-sectional study, carried out with 90 patients of a stoma therapy service (STS) of a University Hospital located in southern Brazil, with care exclusively via the Unified Health System (UHS). The hospital has services in different areas, such as emergency care, general practice, pediatrics, gynecology and obstetrics, surgery, general and pediatric intensive care, among other services.

People with intestinal and/or urinary ostomies attended at the STS of the University Hospital participated in the study. The STS is an outpatient service for people with ostomies and works in the areas of teaching, research and extension, with the main objective of teaching self-care and improving the quality of life of people with ostomies. It is a specialized place where nursing consultations take place, supplying the necessary material for care, in addition to group therapies. All people served have a registration and membership is made on demand.

Considering that the total population consisted of 144 people who had intestinal and/or urinary ostomies attended at the STS, according to the sample size calculation performed in the StatCalc Epi Info v5.4 application, the minimum sample size of

89 participants was obtained – having this study counted with the participation of 90 patients. The error was 5% and 95% confidence,  $p < 0.05$ , based on the sample calculation formula:  $n = N \cdot Z^2 \cdot p \cdot (1-p) / Z^2 \cdot p \cdot (1-p) + e^2 \cdot N - 1$ , where  $n$ : calculated sample,  $N$ : population,  $Z$ : normal variable,  $p$ : actual probability of the event,  $e$ : sampling error.

The inclusion criteria for the selection of participants were: being 18 years old or older and having an active registration in the STS. Exclusion criteria were limited to the person's absence from the STS nursing consultations, being in a chemotherapy and/or radiotherapy process or in a state of general malaise.

For the selection of participants, non-probabilistic convenience sampling was used, in which the selection of sample elements is done in a non-random way, considering the characteristics of the group of study participants<sup>8</sup>. Thus, the participants were selected according to their presence and availability on site at the time of data collection.

Two instruments were used for data collection: COH-QOL – Ostomy and City of Hope Quality of Life – Ostomy Questionnaire; and a sociodemographic and clinical questionnaire. The COH-QOL-Ostomy is an instrument aimed at evaluating the quality of life of people with ostomy, validated in Brazil in 2010. The instrument has 43 items assessed using a Likert-type scale, divided into well-being domains: physical; social; psychological; and spiritual<sup>9</sup>.

Considering the composition of the instrument in ordinal variables, in which the Likert scale is used, it is possible to identify the intensity of the statement, being able to adapt intermediate alternatives, since the participant needs to choose between answers between strongly agree or strongly disagree<sup>10</sup>. The City of Hope Quality of Life – Ostomy Questionnaire is the original instrument that presents a Likert scale ranging from 0 for "Not a problem"/ "Not at all" to 10 for "A lot"/ "Extremely", being possible to verify the intensity of the case.

The sociodemographic and clinical instrument was built by the authors based on the reading of articles on the profile of people with ostomies. Thus, this is composed of information such as gender, age, address, underlying pathologies, complications after surgery, among other information.

Data collection took place from January to February 2020. The instruments were inserted in the "Google Forms" tool, for application through a fixed computer of the STS or mobile device, in a reserved room in the clinic, ensuring the participant's privacy at the time needed to answer the researcher's questions. In cases where the participant agreed to participate in the study, but was unable to attend the STS, the researcher carried out the collection at the participant's home. In both cases of collection, at the STS or at home, the date and time were previously scheduled according to the participant's availability. All participants signed the Informed Consent Form.

Descriptive statistics were used to describe the sociodemographic and clinical characteristics, with the description of the mean, standard deviation and frequency being performed. As for the assessment of quality of life, the scores for each domain were

presented based on the average answer to the questions. The score was based on their general average.

The identification of the profile of people with urinary and/or intestinal ostomy and the assessment of quality of life, based on the means, was carried out by means of grouping or Cluster Analysis. This statistical technique aims to classify similar elements into a group and separate the different ones. Thus, these variables are positively or negatively related, without any dependence between them. In order to be able to define the groups in their similarity or difference, it is necessary to use a distance function based on the context of the problem in question<sup>11</sup>.

The cluster analysis used in this study corresponds to the TwoStep Cluster or Two-Step Cluster analysis. The TwoStep Cluster Analysis procedure is an exploratory- tool designed to reveal natural clusters within a dataset that would otherwise not be apparent<sup>12</sup>.

The algorithm employed by this procedure has several desirable features that differentiate it from traditional grouping techniques: treatment of categorical and continuous variables – by assuming that the variables are independent, a joint multinomial normal distribution can be placed on categorical and continuous variables; automatic selection of number of clusters – by comparing the values of a model choice criterion in different cluster solutions, the procedure can automatically determine the optimal number of clusters; scalability – by building a cluster resource tree that summarizes the records, the TwoStep algorithm allows analysis of large data files<sup>12</sup>.

The variables that made up the cluster were: complications of ostomy, type of ostomy and average quality of life. All variables present significant differences between the four clusters, having previously been performed the chi-square test for categorical variables and mean comparison test (ANOVA) for the numerical

variable, in both cases,  $p < 0.05$  was adopted. For the development of all analysis steps, the Statistical Package for Social Science (SPSS) version 22 was used.

This study was based on the ethical recommendations established by Resolution 466/12, which guides research involving human beings. The project was approved by the Research Ethics Committee, CAAE: 26331019.3.0000.5324.

## RESULTS

In accordance with the variables, the Cluster analysis allowed the identification of four distinct groups. The variables used in the model indicated a high level of quality for the analysis, all of which present significant differences between the four clusters ( $p < 0.05$ ): complications of the ostomy; type of stoma; and average obtained on the scale.

Thus, each cluster identifies a sub-profile of the population studied according to the division made possible by the variables, as shown in Table 1.

### Sociodemographic characteristics of each Cluster

The sociodemographic characteristics are presented from each cluster, which identifies a sub-profile of the population studied according to the division made possible by the variables. Table 2 presents the sociodemographic data according to each cluster.

## DISCUSSION

In this study, females were predominant in clusters 1 and 4; the number of males and females were the same in cluster 2; and in cluster 3, with the largest grouping, the male gender

**Table 1.** Cluster analysis for each block of variables in the profile of ostomy patients. Rio Grande (RS), 2020.

Variables	Cluster 1	Cluster 2	Cluster 3	Cluster 4
	(n=17)	(n=20)	(n=31)	(n=22)
	18.90%	22.20%	34.40%	24.40%
<b>COMPLICATIONS OF STOMIZATION*</b>				
No Complications	-	9(45%)	-	22(100%)
Stoma Complications - 1 Complication	-	7(35%)	31(100%)	-
Stoma complications - 2 complications	13(76.5%)	2(10%)	-	-
Stoma complications - 3 or more complications	4(23.5%)	2(10%)	-	-
<b>STOMA TYPE*</b>				
Colostomy	9(52.9%)	-	31(100%)	22(100%)
Ileostomy	8(47.1%)	6(30%)	-	-
Urostomy	-	14(70%)	-	-
<b>AVERAGE QUALITY OF LIFE SCALE**</b>				
	6.2	7.3	7	7.1

Source: survey data, 2020.

\*Chi-square for categorical variables,  $p < 0.05$ ; \*\*ANOVA for numerical variable,  $p < 0.05$ .

**Table 2.** Analysis for each cluster regarding the sociodemographic data of ostomy patients. Rio Grande (RS), 2020.

Variable	Cluster 1	Cluster 2	Cluster 3	Cluster 4
	(n=17)	(n=20)	(n=31)	(n=22)
	(18.9%)	(22.2%)	(34.4%)	(24.4%)
<b>Sex</b>				
Female	11 (64.7%)	10 (50%)	15 (48.4%)	12 (54.4%)
Male	6 (35.3%)	10 (50%)	16 (51.6%)	10 (45.5%)
<b>Ethnicity/Race</b>				
White	16(94.1%)	15(75%)	22(71%)	15(68.2%)
Black	1(5.9%)	2(10%)	6(19.4%)	3(13.6%)
Brown	-	3(15%)	3(9.7%)	4(18.2%)
<b>Marital status</b>				
Married	6(35.3%)	7(35.0%)	14(45.2%)	6(27.3%)
Single	2(11.8%)	5(25.0%)	8(25.8%)	5(22.7%)
Widower	5(29.4%)	3(15.0%)	4(12.9%)	7(31.8%)
Divorced	3(17.6%)	1(5.0%)	3(9.7%)	3(13.65)
Common-law marriage	1(5.9%)	4(20.0%)	2(6.5%)	1(4.5%)
<b>Sexual orientation</b>				
Heterosexual	17(100%)	19(95.0%)	31(100%)	22(100%)
Homosexual	-	1(5.0%)	-	-
<b>Location by Zones</b>				
Portuária	4(23.5%)	3(15.0%)	10(32.3%)	7(31.8%)
Cidade Nova/ Lagoa	5(29.4%)	5(25.0%)	9(29.0%)	5(22.7%)
Oeste	1(5.9%)	5(25.0%)	2(6.5%)	2(9.1%)
Itália	4(23.5%)	2(10.0%)	6(19.4%)	4(18.2%)
Litorânea	2(11.8%)	4(20.0%)	-	3(13.6%)
Rural	1(5.9%)	1(5.0%)	4(12.9%)	1(4.5%)
<b>Education</b>				
Complete Elementary	-	1(5.0%)	1(3.2%)	2(9.1%)
Incomplete Elementary	6(35.3%)	10(50.0%)	13(41.9%)	10(45.5%)
Complete High School	5(29.4%)	3(15.0%)	4(12.9%)	6(27.3%)
Incomplete High School	2(11.8%)	1(5.0%)	-	1(4.5%)
Higher Education	3(17.6%)	5(25.0%)	7(22.6%)	2(9.1%)
Incomplete Higher Education	1(5.9%)	-	2(6.5%)	1(4.5%)
Illiterate	-	-	4(12.9%)	-
<b>Employment Status</b>				
Retired	11(64.7%)	10(50.0%)	17(54.8%)	13(59.1%)
Medical leave	2(11.8%)	3(15.0%)	7(22.6%)	4(18.2%)
Beneficiary	4(23.5%)	4(20.0%)	3(9.7%)	4(18.2%)
Homemaker	-	2(10.0%)	3(9.7%)	1(4.5%)
Other	-	1(5.0%)	1(3.2%)	-
<b>Age</b>				
Minimum	30	28	33	29
Maximum	92	82	84	80
Average	60.5	60.7	60.6	66
Standard deviation	15.39	11.93	12.97	11.48

Source: survey data, 2020.

predominated. This shows heterogeneous groups that, when compared to another study, such as the one carried out in Brasília, shows the predominance of females (60.3%)<sup>13</sup>.

In a study carried out in Cabo Frio, Rio de Janeiro, which characterized the socio-clinical epidemiological profile of the population with ostomy treated at a reference center, a higher number of males was identified (54.1%)<sup>11</sup>. In short, it is observed that in the aforementioned studies there is no relevant difference regarding the predominance of sex, as there are studies that show the prevalence of both.

The groupings presented by the four clusters show similar data with regard to the predominance of white ethnicity. In comparison with data from the Associação dos Estomizados do Rio Grande do Norte – AORN (Association of Ostomy Patients, in free translation), there is a difference, as most members declared themselves brown (47.3%), followed by white (38.1%) and yellow (8.2%)<sup>14</sup>. According to data from the Pesquisa Nacional por Amostra de Domicílios Contínua – PNAD Contínua (Continuous National Household Sample Survey, in free translation), this aspect can be justified by the proportion of people who declared themselves as such, with the population declared white, in 2019, in the South region, having a predominance of 73.2%, while in the North, this number is 19.1%<sup>15</sup>.

As for marital status, clusters 1, 2, and 3 showed disparity between the characteristics, where we found three groups with a predominance of married people and one with a predominance of widowers. These results are important, as they can influence self-care, considering that the support and motivation of the partner are essential factors for the recovery to occur satisfactorily.

Support becomes a fundamental factor for psychosocial adaptation, exerting positive effects on the couple's quality of life, since having an ostomy does not diminish the value of that person. Not having a partner can have a negative impact on the adaptation process, because in this analysis, the marital status of the ostomy patient, as well as his sex life, is directly linked to the problems arising from the ostomy, caused in part by the anatomical mutilation resulting from resection involving muscles and nerves responsible for the functioning of sexual organs or for feelings of shame and sexual disinterest<sup>16</sup>.

Thus, the presence of a partner for the person with ostomy helps to maintain a realistic attitude of hope, as they can share concerns and fears, which makes it possible to deal with these new situations<sup>17</sup>.

This study also mapped the location of the participants who live in the municipality where the four clusters showed a predominance of areas with different territorial characteristics. Knowing some characteristics, we can better understand patients with ostomy in the reality of their territory.

In clusters 3 and 4, in the *Portuária Zone*, there are *Porto*, *Centro* and *Getúlio Vargas* neighborhood, which despite not being geographically distant, have distinct dynamics and are connected in different relationships with *Porto*. This *Zone* is also characterized by the large number of public buildings that serve the entire municipality, as it comprises the *Center*, and,

as a consequence, a greater movement of users of the *Public Policies in force*<sup>18</sup>.

Cluster 1, on the other hand, has the *Cidade Nova/ Lagoa zone* with the major characteristic of families with greater socioeconomic organization in terms of the right to property and access to formal work. However, there are some contrasts within this *Zone*, such as of the *Lagoon region*, on *Henrique Pancada St*, for example, with situations of greater socioeconomic vulnerability<sup>18</sup>.

In the municipality, the proposed connection of public policy networks and services mapped the territories and divided them into zones. Here, it is understood that the public policy network is composed not only of services, but also of programs, projects and actions. The services that are part of the network are of reference to health, social assistance, education, guarantee of rights and public safety, divided into specialized services such as those that do not have an assigned area of coverage<sup>18</sup>.

Observing these characteristics of the aforementioned territorial zones, we have two clusters, 3 and 4, where the *Portuária zones* stand out, as they are closer to the *Center*, and, as a consequence, have a greater number of public policy services in this region, facilitating access to patients in that zone<sup>18</sup>. This fact may explain the scalar average of 7.0 points in cluster 3 and 7.1 points in cluster 4 in quality of life, due to the location and access to specialized services.

Therefore, cluster 1, which had the lowest average in quality of life, with 6.2 points, had as a prominent variable the *Cidade Nova/ Lagoa Zone*, which, due to its characteristics, is composed of neighborhoods with socioeconomic vulnerability, which may imply in the difficulty in seeking specialized care.

As for cluster 2, which had the highest score in terms of quality of life, with 7.3 points, there is a variation where, in addition to the zones mentioned above, we have the *Litorânea zone*, which consists of multiple organizations among its areas, having areas with rural characteristics, such as *Senandes* and *Bolaxa*, with resort aspects, such as *Cassino*, or with a structure dedicated to fishing, such as *Barra*. Also, in this same grouping we have the *Oeste Zone*, which has the highest population density in the city, with the largest number of teams from public policy services, as well as a greater number of families with multiple demands<sup>18</sup>.

With very diverse characteristics in relation to the zones and their contexts with regard to public policy services, we can observe that determining factors influence the life course of ostomy clients and their families. Among these factors we can mention the social, economic, cultural, ethnic, racial, psychological and behavioral factors, which determine and condition, as a whole, the maintenance of health and the occurrence of diseases<sup>19</sup>.

In this sense, attention should be paid to the public policies in force, in the care of ostomy clients and their families, as these can be important tools to enforce the rights and duties of UHS users, managers and health professionals. The comprehensiveness of health care needs to be worked on in several dimensions so that it is achieved as completely as possible in health care due to the evidence that the diagnosis and creation of the elimination stoma impacts their lives and of those with which they are related<sup>19</sup>.

With regard to the analysis of the level of education of the participants, the low level of education dominates, with the four clusters having a predominance of incomplete elementary education (35.3%, 50%, 41.9%, 45.5%, respectively from cluster 1 to 4). This results in greater difficulty in understanding their health, being an important factor for early prevention and treatment of cancer<sup>16</sup>. Also, a study carried out in Brasilia pointed the low education, where 67.1% of the participants have elementary education as the highest level of education<sup>13</sup>.

The result reveals a worrisome profile to citizenship and the rights of ostomy patients related to the predominance of this low level of education, which results in the difficulty of understanding how to express their doubts to a health professional and to carry out the necessary care, even in the prevention of diseases, routine exams, directly impacting the creating of a stoma.

In this context, it is important to know the rights of ostomy patients, as they often do not know they have. Ordinance 400, of 2009, of the Ministry of Health, was instituted to ensure the completeness and quality of care for users with elimination ostomy, establishing some interdisciplinary responsibilities, such as rehabilitation, emphasizing self-care, the preventing complications and provision of free collection equipment and adjuvants<sup>1</sup>.

The low level of education can affect the understanding and performing of necessary care at home. Economic limitations also affect the purchase of resources necessary for self-care, as well as access to specialized care related to their diagnosis. The lack of knowledge about preventive measures and possible complications arising from the lack of care related to ostomies makes health education actions implemented by nurses important<sup>17</sup>.

Another piece of data analyzed was the employment situation, which revealed mostly retired patients in the four groups. This may be due to the majority of patients' age being above 60 years, where the mean age of the four clusters was (60.5 SD 15.39) cluster 1, the lowest mean; cluster 2 the mean of (60.7 SD 11.93); cluster 3 (60.6 SD 12.97) and cluster 4 with the highest mean (66.0 SD 11.48).

It is noteworthy that the ostomy patient has the right, according to Decree No. 5296, of December 2, 2004, to receive government assistance for the period of the disease or permanently. The legislation aims to ensure the rights of people with physical disabilities with complete or partial alteration of one or more segments of the human body, causing the impairment of physical function, in the form of paraplegia, paraparesis, monoplegia, monoparesis, tetraplegia, tetraparesis, triplegia, tripareisia, hemiplegia, hemiparesis, ostomy, among others<sup>20</sup>.

One of the reasons given by the group represented by cluster 1 (n = 17) for the lowest score in relation to quality of life, with 6.2 points, can be given by the higher number of retirees, where the professional profile found may be associated with the challenge that these patients find to get a job or return to their work activities, as these factors are directly linked to self-image and lifestyle readaptation<sup>11</sup>.

In this context, another study also pointed out that 47.9% of patients were retired, with the creation of the stoma, and it was common not to perform work activities for fear of exposure and inability to work<sup>13</sup>. The absence from work does not only bring consequences in relation to fear of exposure, but it can directly affect the livelihood of the whole family, as the worker who becomes ill has a reduced income, receiving it as a retiree or sick pay, which usually entails financial difficulties<sup>17</sup>.

Regarding the clinical characteristics, the groups presented important data for understanding the quality of life of ostomy patients, indicating factors that influence their self-care.

Observing the variables in cluster 1, the number of complications associated with the stoma is highlighted. This group has two types of complications (76.5%) associated with the stoma and up to three or more complications (23.5%) and this is directly linked to the type of stoma, where colostomy presents 52.9% and ileostomy, 47.1%. Colostomy and ileostomy were the variables that most stood out in this group due to their characteristics and their effluents, as they present a greater chance of complications for the patient, which may interfere with their adaptation and rehabilitation.

A study pointed to irritative dermatitis as one of the most frequent problems in ostomy patients, usually due to irritating substances present in the effluent eliminated by the stoma that come into direct contact with the skin, due to the inadequate use of equipment, such as incorrect cutting of the orifice of the bag. The effluent from the ileostomy and colostomy in the right colon is rich in enzymes, highly irritating and corrosive to the skin<sup>21</sup>. The variables that influenced the lowest score in quality of life are linked to the number of complications. The study brought other types of complications, in which patients had associations with dermatitis, such as hernias, prolapse, bleeding and others.

Corroborating this study, a survey carried out on the clinical and sociodemographic characterization of people who had ostomy surgery treated at a reference center in Cabo Frio found dermatitis as the main complications, occurring in 44 people (17.3%), followed by the presence of granuloma (8.9%), prolapse (8.2%) and hernia (7.1%), these being the complications with the highest incidence among ostomy patients<sup>11</sup>.

In contrast, in this study, cluster 2 (n=20) had the highest score in relation to the quality of life of ostomy patients, with 7.3 points. In this grouping, 45% of patients had no complications associated with the stoma. This may justify the better score, as almost half of the group of patients did not need to deal with the discomfort caused by complications, which may favor a more relaxed return to routine, enabling a better quality of life after surgery.

It is noteworthy that 70% of this cluster has urostomy and that, in the literature, complications of stomas in urinary derivations usually present in the long-term period<sup>22</sup>. Also, a cohort study carried out with 213 patients undergoing cystectomy, with an average of 15 years follow-up showed an average of 2.3 complications per patient, while intestinal complications were the most common (20.3%)<sup>23</sup>.

Finally, when comparing clusters 2 and 4, where one group has 45% without complications and the other totally without, the two groups scored in relation to quality of life with a small difference, where cluster 2 has 7.3 points and the cluster 4, 7.1 points. This can be explained by the type of stoma, which may influence, as the prevalence of urostomy (70%) in cluster 2 is a urinary diversion. The colostomy, with 100% in cluster 4, is a derivation for fecal elimination. Social and psychological factors are more present in this issue, due to the different characteristics of the stomas, implying changes in body image, loss of control over eliminations and the need for constant emptying and cleaning of the collection equipment.

In differentiating the type of stoma, colostomy brings limitations and constraints caused by the odor of feces, the deprivation of fecal control and the elimination of gases, in addition to the possibility of leakage and physical discomfort, as main factors<sup>24</sup>. Fear of leakage from the pouch leads to loss of self-esteem, as well as loss of social status, fear of rejection from friends and family, being these important points that hinder or even prevent the return of these patients to daily activities and leisure time<sup>5</sup>.

## CONCLUSION AND IMPLICATIONS FOR PRACTICE

In general, the results presented showed that the identification of the profile of the population with intestinal and/or urinary ostomies, as well as the employment status, education, postoperative complications, among others, can directly influence the desired quality of life after undergoing ostomy surgery. The need for planning public policies and health care contextualized with the characteristics of the population studied is highlighted, since, based on these characteristics, it is possible to develop new proposals, in order to control and prevent the factors that affect therapeutic routine and the quality of life of patients, being important findings for the practice of health and nursing.

As a limitation of the study, there is the fact that it was carried out with a local population of a specific service, not allowing the generalization of the data. Thus, the importance of carrying out further research on this topic is highlighted in order to contribute to a better understanding of the difficulties encountered by people with intestinal and/or urinary stomas, helping to plan care focused on the real needs of this population. As a suggestion for future studies, it is considered relevant to think about the systematization of care for these patients, using the profile found in this study.

## AUTHOR'S CONTRIBUTIONS

Study design. Fabiane Lopes dos Santos. Janaína Sena Castanheira. Marina Soares Mota. Aline Neutzling Brum. Jamila Geri Tomaschewski Barlem. Gabriela do Rosário Paloski.

Data collection or production. Fabiane Lopes dos Santos. Janaína Sena Castanheira.

Data analysis. Fabiane Lopes dos Santos. Janaína Sena Castanheira. Marina Soares Mota. Aline Neutzling Brum. Jamila Geri Tomaschewski Barlem. Gabriela do Rosário Paloski.

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