ESTIMA
Brazilian Journal of Enterostomal Therapy

ORIGINAL ARTICLE
https://doi.org/10.30886/estima.v23.1571_IN

Coping strategies of individuals living with excretory stomas and associated factors: a cross-sectional study

Damaris Nunes de Lima Rocha Morais[1]*, Iana Mundim de Oliveira[1], Larissa Arbués Carneiro[1], Patrícia de Sá Barros[1]

ABSTRACT

Objective: To analyze the coping strategies of individuals living with excretory stomas in a specialized public healthcare service within the Brazilian Unified Health System (*Sistema Único de Saúde* – SUS). **Method:** This cross-sectional study included 201 individuals with digestive and/or urinary stomas, regardless of etiology. A sociodemographic and clinical questionnaire was used, along with the Problem Coping Modes Scale, which assesses four types of focused coping strategies: problem-focused (factor 1), emotion-focused (factor 2), pursuit of religious practices/imaginative thinking (factor 3), and search for social support (factor 4). **Results:** The following means were observed: factor 1 (4.19), factor 2 (1.81), factor 3 (3.84), and factor 4 (2.61). Factor 1 showed associations with age (p=0.04), employment status (p=0.05), and surgery preparation (p=0.05). An association was found between factor 2 and age (r=-0.14; p=0.04), income (p=0.003), practice of physical activity (p=0.04), and number of ostomy pouches used (p=0.01). Factor 3 was found to be associated with gender (p=0.02), age (p=0.02), income (p=0.04), stoma duration (p=0.04), cause of stoma creation (p=0.01), stoma type (p=0.04), and number of pouches used per month (p=0.01). Factor 4 showed associations with age (r=-0.194; p=0.006) and stoma duration (p=0.03). **Conclusion:** A lack of prior preparation was identified among individuals living with a stoma. Understanding coping strategies and patient profiles is essential for developing effective interventions focused on support and psychoeducation.

DESCRIPTORS: Psychological adaptation. Ostomy. Coping strategies. Coping abilities. Stoma care.

Estratégias de enfrentamento de pessoas com estomias de eliminação e fatores associados: estudo transversal

RESUMO

Objetivo: Analisar as estratégias de enfrentamento de pessoas com estomias de eliminação em um serviço especializado no atendimento a pessoas com estomias do Sistema Único de Saúde (SUS). **Método:** Estudo transversal com 201 indivíduos com estomias intestinais e/ou urinárias por qualquer causa. Utilizou-se questionário sociodemográfico, clínico e Escala Modo de Enfrentamento de Problemas, que avalia estratégias de enfrentamento focalizado: problema (fator 1), emoção (fator 2), busca por práticas religiosas/pensamento fantasioso (fator 3), suporte social (fator 4). **Resultados:** Observa-se as médias: fator 1 (4,19), fator 2 (1,81), fator 3 (3,84) e fator 4 (2,61). O fator 1 associou idade (p=0,04), condição de trabalho (p=0,05) e preparação para cirurgia (p=0,05). No fator 2, a associação foi com idade (r=-0,14; p=0,04), renda (p=0,003), prática de atividade física (p=0,04) e número de bolsas (p=0,01). Sexo (p=0,02), idade (p=0,02), renda (p=0,04), tempo de estomia

[1]Universidade Federal de Goiás – Goiânia (GO), Brasil.
*Corresponding author: damarismoraispsi@ufg.br

Section Editor: Manuela de Mendonça F. Coelho
Received: August 2, 2024 | Accepted: March 25, 2025
How to cite this article: Morais DNLR, Oliveira IM, Carneiro LA, Barros PS. Coping strategies of individuals living with excretory stomas and associated factors: a cross-sectional study. ESTIMA, Braz J Enterostomal Ther. 2025;23:e1571. https://doi.org/10.30886/estima.v23.1571_IN

(p=0,04), causa de estomia (p=0,01), tipo de estomia (p=0,04) e número de bolsas/mês (p=0,01) foram associados ao fator 3. A idade (r=-0,194; p=0,006) e o tempo de estomia (p=0,03) se correlacionaram ao fator 4. **Conclusão:** Verificou-se falta de preparação prévia sobre a condição de pessoa com estomia. O conhecimento das estratégias de enfrentamento e do perfil dos pacientes contribui para intervenções efetivas de acolhimento e psicoeducação.

DESCRITORES: Adaptação psicológica. Estomia. Estratégias de enfrentamento. Capacidades de enfrentamento. Estomaterapia.

Estrategias de afrontamiento de personas con estomías de eliminación y factores asociados: estudio transversal

RESUMEN

Objetivo: Analizar las estrategias de afrontamiento de personas con estomías de eliminación en un servicio especializado en la atención a personas con estomías del Sistema Único de Salud (SUS). **Método:** Estudio transversal con 201 individuos con estomías intestinales y/o urinarias por cualquier causa. Se utilizó un cuestionario sociodemográfico, clínico y la Escala de Modo de Afrontamiento de Problemas, que evalúa estrategias de afrontamiento focalizadas: en el problema (factor 1), en la emoción (factor 2), en las prácticas religiosas/pensamiento fantasioso (factor 3) y en el apoyo social (factor 4). **Resultados:** Se observaron las siguientes medias: factor 1 (4,19), factor 2 (1,81), factor 3 (3,84) y factor 4 (2,61). El factor 1 se asoció con la edad (p=0,04), la condición laboral (p=0,05) y la preparación para la cirugía (p=0,05). El factor 2 se asoció con la edad (r=-0,14; p=0,04), los ingresos (p=0,003), la práctica de actividad física (p=0,04) y el número de bolsas (p=0,01). El sexo (p=0,02), la edad (p=0,02), los ingresos (p=0,04), el tiempo con estomía (p=0,04), la causa de la estomía (p=0,01), el tipo de estomía (p=0,04) y el número de bolsas al mes (p=0,01) se asociaron con el factor 3. La edad (r=-0,194; p=0,006) y el tiempo con estomía (p=0,03) se correlacionaron con el factor 4. **Conclusión:** Se observó una falta de preparación previa sobre la condición de persona con estomía. El conocimiento de las estrategias de afrontamiento y del perfil de los pacientes contribuye a intervenciones efectivas de acogida y psicoeducación.

DESCRIPTORES: Adaptación psicológica. Estomía. Estrategias de afrontamiento. Capacidades de afrontamiento. Estomaterapia.

INTRODUCTION

The term "stoma," meaning "opening" or "mouth," refers to the external opening created during an ostomy — a surgical procedure in which a hollow organ is brought to the surface of the body to allow for excretion, nutrition, or breathing[1]. Stomas are most created due to cancer, traumatic injury (e.g., accidents or gun violence), Chagas disease, inflammatory bowel disease, and congenital defects. The therapeutic approach may be either temporary or permanent. Living with a stoma presents individuals with a range of physical, emotional, and social challenges, often imposing significant limitations on daily life due to the profound lifestyle changes it entails[2-4].

The population of individuals living with a stoma represents a significant epidemiological group in many countries and warrants increased attention in public health policy. In the United States, research estimates that over 750,000 individuals live with a stoma, and approximately 100,000 new stoma surgeries are performed each year[1].

The Brazilian Ministry of Health, through Ordinance No. 400, has established the National Guidelines for Ostomy Care within the framework of the Brazilian Unified Health System (*Sistema Único de Saúde* – SUS). Type I services require the presence of a physician, a nurse, and a social worker. Type II services, in addition to these professionals, are also recommended to include a psychologist and a nutritionist[5]. The Health Care Guide for People with Ostomies, released by the Brazilian Ministry of Health, highlights the importance of a multidisciplinary team in caring for individuals living with stomas[6].

Providing multidisciplinary care and addressing psychological aspects during the preoperative phase of stoma creation can facilitate patient adaptation and support both physical and psychosocial rehabilitation. Care planning should include supporting the patient and providing education about the surgery and its consequences, with the active involvement of both the patient and their family members. Beyond physical aspects, emotional, social, cultural, and spiritual dimensions must also be taken into consideration[2].

The multidisciplinary team plays a key role in helping patients develop adaptive strategies to cope with the challenges of living with a stoma[7]. The set of strategies — whether adaptive or not — used by individuals to deal with stressors or difficult circumstances, is referred to as *coping*. Although the term *coping* has no direct translation in Portuguese, it can be interpreted as "to deal with," "to adapt to," "to face," or "to manage"[8].

The concept of coping also encompasses the cognitive appraisal of the situation[9]. The way individuals perceive the stoma and their ability to deal with the challenges it brings directly influences their coping strategies. For example, an individual who perceives the stoma as a threat to their identity may adopt different coping strategies than someone who views it as an opportunity to enhance their health and quality of life[10,11].

The coping strategies chosen by an individual during stressful moments can have both beneficial and detrimental impacts on their health and well-being, serving as a key factor that can either strengthen or weaken their ability to face challenges[7]. Therefore, understanding the coping strategies of individuals living with stomas is crucial for developing effective support and psychoeducation programs. These programs can enhance the well-being and quality of life of both the individuals with stomas and their families, ensuring a more holistic approach to care.

OBJECTIVES

Therefore, this study aimed to analyze the coping strategies employed by individuals living with excretory stomas in a specialized stoma care service within the Brazilian Unified Health System (*Sistema Único de Saúde* – SUS) in the Central-West region of Brazil.

METHODS

This is a cross-sectional, analytical study with a quantitative approach, focusing on the coping strategies used by individuals who have undergone ostomy surgery.

The study population consisted of 201 individuals with intestinal and/or urinary stomas, irrespective of gender or underlying cause, who were registered with a referral service in the city of Goiânia (Goiás). The sample size was determined for a finite population, using data from 2021, which indicated an average of 380 patients per month receiving their waste-collection devices through the program (as reported by the nurse in the Ostomy Division). A total of 192 participants made up the representative sample, with a 95% confidence level.

The inclusion criteria consisted of individuals aged 18 or older with temporary or permanent excretory stomas, regardless of the cause. Participants with physical or mental limitations that prevented them from responding properly to the research instrument were excluded.

The study did not utilize a cognitive assessment scale, such as the Mini-Mental State Examination, to assess the cognition of the respondents. If a participant was found to be unable to provide reliable responses to the questionnaire, the scale was not applied, and the corresponding data were excluded from the final analysis. One of the researchers personally conducted the entire data collection process.

Data collection was carried out between April and July 2022 at a Level II referral center. It took place in various settings where participants typically waited for appointments or to receive their collection devices, including outpatient waiting rooms, exam areas, chemotherapy units, inpatient wards, the chapel, common areas, the volunteer room, and the psychology outpatient clinic.

Participants were approached in these settings and invited to participate in the study, ensuring that their ongoing care was not disrupted in any way. At that point, the objectives of the study were explained, informed consent was obtained by having participants sign the consent form (Portuguese Acronym: TCLE), and the assessment instrument was then distributed for completion.

Participants were instructed to complete the self-administered questionnaire on-site at the referral center. In case of any doubts regarding the questions, participants were encouraged to seek assistance from the researcher at any time. If participants had difficulty recording their responses or chose not to do so, the researcher was available to assist by documenting their answers. Most participants opted to have the researcher document their responses. The questionnaire took an average of 30 minutes to complete.

For sample characterization, a sociodemographic and clinical questionnaire was used, which included the following information: age, self-reported color or race, gender, religion, monthly income in minimum wages, place of residence (Goiânia or surrounding countryside towns), marital status, presence of children, education level, practice of leisure activities, practice of physical activities, current employment status, stoma duration, cause of stoma creation, type of stoma, number of pouches used per month, surgery preparation, whether the stoma was permanent, indefinite, or temporary, and an open-ended question: "what comes to mind when you think about the stoma?".

The Problem Coping Modes Scale (Portuguese Acronym: EMEP) was used based on the interactive stress model, which measures coping strategies in relation to specific stressors. In other words, this scale evaluates stress as a product of the interaction between the individual and their environment. The literature highlights the effectiveness and suitability of the EMEP for use in research contexts and interventions, particularly within clinical settings[12].

The EMEP has been validated in Brazil[12,13] and shows good validity and internal consistency[14], making it suitable for use in various health contexts, such as obesity[15], cancer cases[16], bariatric surgery[15], surgical wound infections[17], and acquired immunodeficiency syndrome[14].

The scale consists of 45 items and assesses four distinct problem-coping strategies:

1. Problem-focused strategies (18 items);
2. Emotion-focused strategies (15 items);
3. Pursuit of religious practices/imaginative thinking (7 items); and
4. Search for social support (5 items)[12].

The scale assesses four distinct coping styles, which are as follows:

1. The problem-focused coping strategy comprises 18 items that include direct approaches to managing or resolving the stressful situation. These include cognitive strategies aimed at positively reappraising the problem.

2. The emotion-focused coping strategy includes 15 items that encompass unrealistic thoughts, avoidance, denial, expressions of anger, tension, and a tendency to place blame on oneself or others. Emotion-focused behaviors involve attempts to alleviate the emotional distress caused by a stressor, often through distractions or the use of substances such as alcohol or drugs to avoid directly addressing the situation. This type of coping includes cognitive strategies like reframing the stressor or denying unpleasant information to reduce emotional distress. People often turn to this type of coping strategy when they feel they have little control over the stressful situation or when they perceive their resources and abilities to handle it as insufficient.

3. The coping strategy involving religious practices and imaginative thinking comprises 7 items that reflect behaviors and thoughts related to religion or fantasy as means of coping with the problem. The pursuit of religious practices or wishful thinking reflects a spiritual dimension, involving the search for meaning, purpose, and a sense of connection to something greater than oneself.

4. The strategy focused on seeking social support consists of five items and involves obtaining emotional, practical, and informational support from others, including family members, friends, support groups, and healthcare professionals.

The EMEP is a five-point Likert scale. At the end of it, there is an open-ended question: "Have you been doing anything else to cope with or manage your condition?". The purpose of this question was to identify additional coping strategies not

covered by the EMEP. In this question, the researcher emphasized the term "stoma" to better align participants' responses with the study's objectives, as the original scale prompts individuals to reflect on how they cope with or have coped with a generic condition or health issue.

The instrument also allows for a clinical or qualitative analysis of the coping strategies employed by the patient, based on their responses to its items.

The process for obtaining the scores corresponding to the four coping factors assessed by the EMEP is described below[12]:

- Factor 1: Problem-focused coping strategies; items: 40, 39, 45, 36, 1, 33, 28, 32, 42, 24, 17, 10, 3, 15, 30, 19, 14, and 16. The total score is obtained by summing all the individual item scores and then dividing the result by 18.
- Factor 2: Emotion-focused coping strategies; items: 29, 20, 13, 25, 38, 23, 35, 2, 5, 22, 34, 37, 12, 18, and 11. The total score is calculated by summing all the individual item scores and then dividing the result by 15.
- Factor 3: Pursuit of religious practices/imaginative thinking; items: 44, 6, 21, 41, 27, 8, and 26. The total score is calculated by summing all the individual item scores and then dividing the result by 7.
- Factor 4: Search for social support; items: 9, 31, 43, 7, and 4 (in the factor analysis, factor 4 is negative, so its scores must be reversed before calculation, i.e., 1=5, 2=4, 3=3, 4=2, and 5=1). The total score is obtained by summing all the reversed scores and dividing the result by 5.

The researcher obtained authorization to use the EMEP Scale from the authors who validated the instrument.

Once collected, the data were entered into *Microsoft Excel for Windows* 2010® spreadsheets, and their consistency was subsequently verified. Data analysis was performed using *Stata software*, version 14.0.

Sociodemographic and clinical characteristics associated with the EMEP were presented through frequency distributions and percentages for categorical variables. For quantitative variables, normality was assessed using the Kolmogorov-Smirnov test (for samples with more than 50 participants). Descriptive statistics were applied to characterize the variables.

To analyze the association between the variables studied and the EMEP factors, Student's t-test was used for comparing two means, and ANOVA was used for comparing more than two means. The Bonferroni post-hoc test was employed to identify differences between the various groups. The significance level was set at $p \leq 0.05$.

A multivariable linear regression model was applied to adjust for potential confounding factors, with variables included if they had a p-value below 20% ($p < 0.20$) in the bivariate analysis. In the final model, variables with statistical significance below 10% ($p<0.10$) were retained, in accordance with the guidelines established by the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE)[18].

The study was approved by the Ethics Committee of the *Universidade Federal de Goiás* (CEP/UFG) under Opinion No. 5.261.065 and by the Ethics Committee of the *Associação de Combate ao Câncer em Goiás*, under Opinion No. 5.351.186.

RESULTS

A total of 201 individuals with intestinal or urinary stomas participated in the study - 106 (52.7%) were female and 95 (47.3%) were male. The mean age was 58.1 years (SD=10.7), ranging from 27 to 79 years. The most frequently reported skin color was white (n=129; 64.2%), followed by mixed race (n=60; 29.8%) and black (n=12; 6.0%). Most participants had completed at least elementary school (n=123; 61.2%), followed by incomplete or complete high school (n=55; 27.4%), and incomplete or complete higher education (n=23; 11.4%).

Among the participants not engaged in the labor market, 9% (n=18) were unemployed, while 19.4% (n=39) were homemakers or students. Additionally, 36.8% (n=74) were retired, and 26.4% (n=53) were off work, on leave, or receiving financial aid from the Continuous Cash Benefit Program (BPC). Only 8.4% (n=17) were employed or engaged in informal work.

Most participants had a household income of up to 2 minimum wages (n=144; 71.7%), followed by three or more minimum wages (n=57; 28.4%). Regarding marital status, 57.2% (n=115) were married, 17.4% (n=35) were widowed, 13.0% (n=26) were single, and 12.4% (n=25) were separated or divorced. 90% (n=175) had children, 10% (n=20) did not have children, and 3.0% (n=6) had grandchildren or lived with the person who had a stoma. Most participants resided in the

countryside of Goiás (60.2%), 33.3% (n=67) lived in the city of Goiânia, and 6.5% (n=13) lived outside the state of Goiás.

Regarding the clinical characteristics of individuals living with intestinal and/or urinary stomas regardless of the underlying cause, 66.2% (n=133) had had a stoma for up to 2 years, 11.9% (n=24) for 3 to 5 years, and 21.9% (n=44) for more than five years. Most stomas were caused by colorectal cancer (n=159; 79.1%), followed by other types of cancer (n=23; 11.4%), while 9.5% (n=19) were related to other conditions. Regarding the type of stoma, 57.2% (n=115) had a colostomy, 33.8% (n=68) had an ileostomy, and 9% (n=18) had a urostomy. The stoma was permanent for 42.2% (n=84) of the individuals, temporary for 35.7% (n=71), and indefinite for 22.1% (n=44).

Among all participants, 71.8% (n=143) reported using up to 15 pouches per month, while only 28.2% (n=56) used more than 15 devices per month. Most individuals with stomas (n=165; 82.5%) did not receive prior psychological and/or nursing preparation. Of these, 43.6% reported that the doctor mentioned they might need a stoma bag but did not provide further details; 28.5% underwent emergency surgery, and 27.9% woke up from anesthesia with a stoma, having never been informed about the condition. Prior preparation involves a range of actions, including marking the site for stoma placement, assessing physical factors such as nutrition, bowel function, and comorbidities, as well as considering social aspects related to family dynamics and social support.

Most participants reported not engaging in regular physical activities (60.7%) or visiting beaches, pools, or waterfalls (n=133; 66.2%). However, 92,4% mentioned participating in leisure activities.

Table 1 describes the scores related to the EMEP. Factor 1 (problem-focused coping strategy) and factor 3 (coping strategy focused on religious practices/imaginative thinking) showed higher averages.

The association of sociodemographic and clinical characteristics is shown in Table 2. Factor 1 (problem-focused coping strategy) was significantly associated with age (p=0.04), employment status (p=0.05), and surgery preparation (p=0.05). Factor 2 (emotion-focused coping strategy) showed significant associations with age (r=-0.14; p=0.04), income (p=0.003), practice of physical activities (p=0.04), and number of pouches used (p=0.01). It is important to note that the correlation between age and factor 2 was negative, indicating that older individuals were less likely to use emotion-focused coping strategies. Gender (p=0.02), age (p=0.02), income (p=0.04), stoma duration (p=0.04), cause of stoma creation (p=0.01), type of stoma (p=0.04), and number of pouches used per month (p=0.01) were significantly associated with factor 3 (religious practices/imaginative thinking). Age (r=-0.194; p=0.006) and stoma duration (p=0.03) had a significant correlation with factor 4 (search for social support), with age demonstrating an inverse correlation with the factor.

After applying the multivariate linear regression model, it was observed that each factor had its own independent association model, with age being the only common factor across all four models (Table 3).

In the multivariate model examining the association with factor 1 (problem-focused coping strategy), both age and employment status remained significant variables. Older age was associated with more effective problem-focused coping (higher scores), and individuals who were off work, on leave, receiving disability benefits or the BPC had significantly higher scores compared to unemployed participants (r=0.374; p=0.005). Additionally, individuals who received prior preparation for ostomy surgery scored higher in the problem-focused coping strategy.

In the multivariate model examining the association with factor 2 (emotion-focused coping strategy), age, household income, and parental status remained as significant variables. There was a negative correlation with age, indicating that older

Table 1. Descriptive analysis of scores on the Problem Coping Modes Scale (Portuguese Acronym: EMEP) among individuals with intestinal and/or urinary stomas, regardless of cause, at a referral outpatient service in Goiânia (GO), 2022 (n=201).

EMEP Factors	Mean±standard deviation	Median	Confidence interval
			Lower bound–Upper bound
Factor 1	4.19±0.49	4.33	4.13–4.27
Factor 2	1.81±0.53	1.67	1.72–1.87
Factor 3	3.84±0.75	3.86	3.75–3.95
Factor 4	2.61±0.87	3.40	3.15–3.38

EMEP: Portuguese Acronym for Problem Coping Modes Scale; Factor 1: Problem-focused coping strategy; Factor 2: Emotion-focused coping strategy; Factor 3: Coping strategy focused on the pursuit of religious practices/imaginative thinking; Factor 4: Coping strategy focused on the search for social support.

Table 2. Association of sociodemographic and clinical variables with the factors of the Problem Coping Modes Scale among individuals with intestinal and/or urinary stomas, regardless of the cause, at a referral outpatient service in Goiânia (GO), 2022 (n=201).

Characteristics	Factor 1		Factor 2		Factor 3		Factor 4	
	Mean±SD	p-value	Mean±SD	p-value	Mean±SD	p-value	Mean±SD	p-value
Gender								
Female	4.22±0.47	0.32	1.87±0.54	0.06	4.00±0.71	0.02*	2.65±0.91	0.53
Male	4.16±0.52		1.73±0.51		3.71±0.77		2.57±0.83	
Age (r)	0.14	0.04*	-0.140	0.04*	-0.158	0.02*	-0.194	0.006*
Self-reported skin color								
Mixed Race	4.26±0.41	0.25	1.84±0.52	0.76	3.91±0.77	0.66	2.61±0.89	0.21
Black	4.02±0.64		1.85±0.38		3.73±0.70		2.20±0.75	
White	4.18±0.51		1.79±0.55		3.82±0.74		2.66±0.86	
Educational Level								
No education	4.18±0.24	0.08	1.67±0.48	0.57	3.74±0.76	0.08	2.53±0.80	0.49
Incomplete elementary education	4.24±0.49		1.83±0.56		3.83±0.74		2.53±0.91	
Complete elementary education	4.36±0.37		1.94±0.61		4.14±0.95		2.66±0.88	
Incomplete or complete high school education	4.05±0.56		1.74±0.48		3.67±0.72		2.64±0.79	
Incomplete or complete higher education	4.25±0.42		1.82±0.46		4.06±0.54		2.89±0.91	
Employment Status								
Unemployed	3.91±0.57[a]	0.05*	1.89±0.40	0.83	3.83±0.71	0.77	2.77±1.01	0.81
Employed	4.15±0.52		1.88±0.61		3.87±0.94		2.52±1.06	
Retired	4.22±0.54		1.76±0.51		3.88±0.75		2.54±0.84	
Off work/on leave/receiving disability benefits/Continuous Cash Benefit Program (BPC)	4.31±0.36[b]		1.83±0.57		3.87±0.70		2.67±0.89	
Other	4.15±0.47		1.79±0.53		3.70±0.72		2.65±0.75	
Household income (minimum wage)								
Less than 1	4.31±0.47	0.25	1.79±0.61	0.003*	3.85±0.76	0.04*	2.65±0.82	0.95
1	4.23±0.49		2.04±0.69[a]		4.10±0.74[a]		2.63±0.94	
More than 1 and up to 2	4.23±0.48		1.70±0.45[b]		3.72±0.67[b]		2.57±0.85	
3 or more	4.09±0.51		1.77±0.40[c]		3.80±0.80		2.65±0.86	
Marital status								
Single	4.04±0.45	0.38	2.00±0.63	0.20	4.04±0.70	0.40	2.73±0.92	0.39
Married/common-law marriage	4.22±0.47		1.77±0.47		3.81±0.74		2.67±0.87	
Separated/divorced	4.25±0.45		1.74±0.56		3.93±0.83		2.42±0.74	
Widowed	4.20±0.61		1.84±0.59		3.75±0.75		2.48±0.91	
Has children								
No	4.19±0.52	0.74	1.70±0.39	0.09	3.83±0.60	0.99	2.53±0.78	0.15
Yes, they live with the participant	4.16±0.50		1.81±0.52		3.85±0.72		2.78±0.92	
Yes, they don't live with the participant	4.23±0.49		1.79±0.55		3.84±0.79		2.49±0.84	
Grandchildren, they live with the participant	4.31±0.32		2.31±0.51		3.81±1.02		2.63±0.66	
Place of residence								
Goiânia	4.16±0.57	0.25	1.88±0.57	0.36	3.74±0.75	0.16	2.51±0.87	0.45
Countryside	4.24±0.44		1.78±0.51		3.92±0.75		2.68±0.89	
Another state	4.03±0.47		1.71±0.39		3.62±0.67		2.55±0.59	

Continue...

Table 2. Continuation.

Characteristics	Factor 1		Factor 2		Factor 3		Factor 4	
	Mean±SD	p-value	Mean±SD	p-value	Mean±SD	p-value	Mean±SD	p-value
Engages in regular physical activities								
Yes	4.24±0.48	0.29	1.71±0.52	0.04*	3.73±0.80	0.08	2.53±0.84	0.27
No	4.17±0.50		1.87±0.53		3.91±0.70		2.67±0.89	
Engages in leisure activities								
Yes	4.20±0.49	0.73	1.79±0.51	0.06	3.82±0.73	0.10	2.62±0.86	0.66
No	4.16±0.59		2.04±0.71		4.14±0.84		2.52±0.97	
Visits beaches, pools, or waterfalls								
Yes	4.24±0.52	0.33	1.80±0.51	0.93	4.17±0.75	0.98	2.63±0.94	0.84
No	4.17±0.48		1.81±0.54		3.81±0.75		2.60±0.83	
Duration of stoma (years)								
Less than 1	4.18±0.49	0.83	1.80±0.50	0.14	3.86±0.71	0.04*	2.66±0.85	0.03*
From 1 to 2	4.22±0.46		1.75±0.41		3.93±0.65		2.80±0.90[a]	
From 3 to 5	4.26±0.27		2.03±0.62		4.04±0.78[a]		2.21±0.70[b]	
More than 5	4.16±0.63		1.77±0.62		3.57±0.85[b]		2.53±0.89	
Cause of stoma creation								
Colorectal cancer	4.20±0.48	0.68	1.80±0.49	0.77	3.91±0.69	0.01*	2.66±0.86	0.16
Other causes	4.17±0.57		1.83±0.65		3.58±0.88		2.45±0.88	
Type of stoma								
Colostomy	4.22±0.45	0.59	1.78±0.53	0.71	3.87±0.77[a]	0.04*	2.62±0.87	0.83
Ileostomy	4.15±0.54		1.84±0.51		3.89±0.63[b]		2.58±0.86	
Urostomy	4.23±0.59		1.86±0.62		3.43±0.88[c]		2.72±0.89	
Stoma condition								
Temporary	4.21±0.40	0.95	1.73±0.43	0.23	3.90±0.65	0.21	2.68±0.82	0.72
Permanent	4.18±0.56		1.88±0.61		3.73±0.81		2.57±0.88	
Indefinite	4.19±0.51		1.78±0.51		3.96±0.73		2.60±0.92	
Number of pouches used per month								
Less than 10	4.20±0.48	0.16	1.67±0.40[a]	0.01*	3.71±0.80	0.01*	2.57±0.91	0.37
From 10 to less than 15	4.27±0.40		1.83±0.53		3.99±0.64[a]		2.69±0.78	
From 15 to 20	4.09±0.64		1.70±0.52		3.52±0.78[b]		2.36±0.93	
More than 20	4.07±0.61		2.02±0.65[b]		3.91±0.83		2.70±1.00	
Surgery preparation								
Yes	4.35±0.44	0.05*	1.87±0.60	0.45	3.71±0.78	0.22	2.69±0.97	0.58
No	4.17±0.49		1.79±0.51		3.87±0.74		2.60±0.85	

*Significant difference. Factor 1: Problem-focused coping strategies; Factor 2: Emotion-focused coping strategies; Factor 3: Pursuit of religious practices/imaginative thinking; Factor 4: Search for social support. Application of the Bonferroni post-hoc test for comparing more than two groups: different letters indicate significant differences between the variable categories. DP: Standard deviation; BPC: Continuous Cash Benefit Program; r: Pearson's correlation coefficient.

individuals were less likely to rely on emotion-focused coping strategies (r=-0.007; p=0.046). Similarly, higher household income was negatively associated with emotion-focused coping scores, showing an average decrease of 0.079 points for each increase in income level (r=-0.079; p=0.063). Individuals living with grandchildren, compared to those without children, reported higher average scores, indicating a stronger reliance on emotion-focused coping strategies (r=0.568; p=0.019).

In the multivariate model assessing the association with the pursuit of religious practices (factor 3), age, gender, and the underlying cause of stoma creation remained significant variables. Age was negatively correlated, suggesting that older individuals were less likely to rely on religion-based coping strategies (lowest score: r=-0.010; p=0.039). Additionally, men had significantly lower scores than women, with an average decrease of 0.242 points (r=-0.242; p=0.020). A statistically

Table 3. Multivariate analysis of the association between demographic and clinical variables and the factors of the Problem Coping Modes Scale among individuals with intestinal and/or urinary stomas, regardless of the cause, a referral outpatient service in Goiânia (GO), 2022 (n=201).

Characteristics	Factor 1		Factor 2		Factor 3		Factor 4	
	r	p-value	r	p-value	r	p-value	r	p-value
Gender								
Female (R)	-	-	-	-	-	-	-	-
Male	-		-		-0.242	0.020	-	-
Age	0.007	0.067	-0.007	0.046	-0.010	0.039	-0.015	0.006
Employment status								
Unemployed (R)	-	-	-	-	-	-	-	-
Employed	0.195	0.237	-		-		-	
Retired	0.216	0.115	-		-		-	
Off work/on leave/receiving disability benefits/ Continuous Cash Benefit Program (BPC)	0.374	0.005	-		-		-	
Other	0.199	0.153	-		-		-	
Household income	-	-	-0.079	0.063				
Has children								
No (R)	-	-	-	-	-	-	-	-
Yes, they live with the participant	-		0.124	0.338	-		-	
Yes, they don't live with the participant	-		0.108	0.397	-		-	
Grandchildren, and they with the participant	-		0.568	0.019	-		-	
Duration of stoma (years)								
Less than 1 (R)	-	-	-	-	-	-	-	-
From 1 to 2	-		-		-		0.197	0.188
From 3 to 5	-		-		-		-0.392	0.048
More than 5	-		-		-		-0.062	0.695
Cause of stoma creation								
Colorectal cancer (R)	-	-	-	-	-	-	-	-
Other causes	-		-		-0.364	0.004	-	

Factor 1: Problem-focused coping strategies; Factor 2: Emotion-focused coping strategies; Factor 3: Coping strategies based on the pursuit of religious practices/imaginative thinking; Factor 4: Coping strategies based on the search for social support. R: reference; r: Pearson's correlation coefficient.

significant difference was also observed regarding the cause of stoma creation: individuals whose stoma was due to conditions other than colorectal cancer were less likely to engage in religious coping compared to those with stomas resulting from colorectal cancer (r=-0.364; p=0.004).

As for the multivariate model examining the association with factor 4 (search for social support), age and stoma duration remained significant. Age was negatively correlated, indicating that older individuals were less likely to seek social support as a coping strategy (r=-0.015; p=0.006). Similarly, individuals who had been living with stomas for three to five years scored significantly lower than those with less than 1 year of stoma experience, with an average decrease of 0.392 points (r=-0.392; p=0.048).

DISCUSSION

The sociodemographic and clinical profile influences the coping strategies adopted by individuals with stomas. A few key considerations arise, such as the fact that lower educational levels suggest the necessity for tailored information and education regarding stoma care, pouch management, hygiene, and the prevention of complications. Awareness and educational strategies tailored to the patients' educational background may be effective in enhancing their adaptation and overall

quality of life[19]. Furthermore, the predominance of married individuals highlights the spouse's key role in the caregiving process and emotional support. Spouses can play an essential role in learning stoma care techniques and encouraging their partner's participation in leisure and physical activities[7,20-22].

The varied geographic distribution of participants may indicate disparities in healthcare access, especially in relation to the availability of stoma supplies in specific areas. Ensuring equal access to quality devices and services nationwide is critical to addressing the ongoing care needs of individuals with stomas, particularly in the countryside. In this study, for example, 60.2% of participants reported traveling from small towns to the capital to collect their devices.

For many people living with stomas, going to beaches, rivers, or swimming pools remains a taboo, as it involves wearing swimwear. The fear of the device coming loose frequently discourages individuals with stomas from participating in these types of activities. It is essential to highlight the role of the multidisciplinary team in educating patients about the diverse possibilities of living with a stoma, while also reassuring them that, with access to appropriate and sufficient supplies, the pouch imposes minimal limitations[20].

Regarding the number of pouches, most participants in the study used up to 15 pouches per month. Pursuant to Ordinance No. 400 issued by the Brazilian Ministry of Health, individuals living with stomas are entitled to receive up to 30 one-piece pouches per month. For users of two-piece systems, the regulation permits up to ten units of each component monthly[5]. For some individuals, this standard quantity may be insufficient. In such cases, the stoma care nurse responsible for distributing the supplies should advise the patient to seek an evaluation from a physician or a qualified nurse in order to request a higher quantity of pouches.

Coping strategies represent the ways individuals respond to stress, involving mental efforts and actions aimed at managing demands that exceed or overwhelm their internal or external resources. Some coping strategies are beneficial and empowering, known as positive coping. These include seeking social support, engaging in religious or spiritual practices, using relaxation techniques, staying physically active, exploring creative or musical activities, among others. On the other hand, some strategies can be counterproductive and detrimental, known as negative coping. These include avoiding or denying problems, suppressing emotions, and neglecting self-care[23].

The Problem Coping Modes Scale (Portuguese Acronym: EMEP) comprises four factors (problem-focused coping, emotion-focused coping, pursuit of religious practices/imaginative thinking, and search for social support). This framework provides insight into the different coping strategies individuals employ to manage stressors[14]. In the present study, the highest coping scores were found in problem-focused coping (mean score=4.19) and in the pursuit of religious practices/imaginative thinking (mean score=3.84). These findings are consistent with those of a previous study[24]. These two factors were also the most prominent in a study on coping strategies among patients with surgical wound infections[17].

Regarding the coping strategy centered on the pursuit of religious practices, census data consistently indicate that Brazil is a predominantly religious and Christian country, with most of the population identifying as Roman Catholic (64.4%)[25]. Additionally, individuals living with stomas face considerable disruptions to their daily routines, affecting various aspects of their lives, including physical, social, and emotional dimensions. Such changes often lead to feelings of insecurity, fear, and anxiety, marking a pivotal moment in which individuals may turn to spirituality as a valuable source of support for coping with their new reality[26].

The use of problem-focused strategies and the adoption of religious practices or imaginative thinking tend to play complementary roles in addressing stressful situations[17]. The problem-focused coping strategy entails directly confronting the stressor by actively seeking solutions and/or reframing one's thoughts to manage the situation more effectively—whether it involves adapting to life with a stoma or addressing other life challenges[17,24]. In the context of living with a stoma, avoiding or neutralizing the stressor is not a viable strategy for maintaining a fulfilling life. Therefore, adopting a problem-solving approach is essential for effectively managing the condition and promoting well-being.

Problem-focused coping showed a significant positive association with surgery preparation. The data collected in this study reveal that only 17.5% of participants underwent preoperative preparation that included psychological or nursing support. Excluding the 28.5% who underwent emergency surgeries, this gap can be partially attributed to the lack of such services in many hospitals. This issue arises from a limited understanding of the profound impact a stoma can have on a patient's life.

Additionally, there is a shortage of qualified professionals to provide this essential care, as highlighted in another study[27]. It is crucial to educate patients on adopting adaptive strategies that address both technical and psychosocial aspects[14,16].

Studies on the adaptation process of patients living with stomas highlight a significant gap in intervention-based research focused on evaluating strategies to cope with the challenges of this transition. Caring for individuals with stomas involves multiple stages, including hospital discharge planning, health education, strengthening self-care strategies that incorporate social support, and ensuring continuous involvement of healthcare professionals in managing home care[21,27,28].

Regardless of the type of specialized service, caring for individuals with stomas is a complex and demanding process that necessitates addressing the person holistically, going beyond technical aspects such as hygiene, pouch changes, and device selection. Therefore, it is essential to take a holistic, multidisciplinary approach, considering the psychosocial aspects of the individual[20].

Given the often-long-term nature of living with a stoma and the stigma frequently associated with it, psychosocial factors play a critical role alongside the already demanding physical and biological challenges. In this context, the establishment of multidisciplinary teams becomes essential to improving the quality of care provided to patients, in addition to ensuring the continuity of their treatment. The stigma surrounding this condition and its acceptance are closely linked to the psychosocial adaptation of individuals living with stomas[29].

Healthcare professionals must acquire specialized knowledge, skills, and training to deliver high-quality care to individuals living with stomas[30]. A multidisciplinary team can implement targeted interventions, including training specialized staff in coping strategies and psychosocial care. These efforts are essential to promote acceptance of the condition, reduce stigma, and support the psychosocial adaptation of individuals living with stomas[27,29].

Another notable finding of this study is the reliance on religious practices and imaginative thinking, which emerged as the second most used coping strategy. This approach involves relying on religious beliefs or imaginative thinking as a way to foster acceptance and adaptation when facing stressful situations. It is important to note that this strategy is often seen with ambivalence: positively, as a source of comfort and hope, but also negatively, when it fosters a passive attitude in which the individual merely waits for a miracle to resolve their problem[17].

It is worth noting that participants whose stomas resulted from non-cancer-related conditions scored lower on the religious coping strategy. Studies have shown that cancer patients are more likely to utilize religious coping strategies, likely due to the association of a cancer diagnosis with suffering and death, which often drives individuals to seek greater spiritual connection. In relation to this factor, male participants had lower scores. Understanding this factor is crucial for the multidisciplinary team, particularly psychologists, who play an essential role in encouraging and reinforcing assertive coping strategies[16].

Nursing professionals have conducted studies on the care of individuals with stomas, focusing on psychological aspects such as coping strategies, psychological adjustment, and stigma. These studies underscore the importance of providing emotional and psychological support to individuals who have undergone ostomy surgery[7,27]. They also emphasize the need for multidisciplinary teams, with a particular focus on nursing, which can add to the burden on these professionals as they manage both the technical and emotional needs of their patients in daily practice[28].

Regarding the 'search for social support' factor, older adults were observed to have lower scores. This may be explained by their greater life experience, limited access to support resources (often relying solely on family) and reduced ability to use social media. It is important to emphasize that social support plays a vital role, with both family involvement and peer interaction widely recognized as key factors in the adaptation process of individuals living with a stoma[24,27]. Participants living with a stoma for more than three years reported significantly less reliance on this factor, suggesting that as individuals adapt to the condition over time, social support may be perceived as less essential than during the first year after surgery.

These findings highlight the importance of support groups, especially associations of individuals living with stomas[24]. These communities offer a supportive environment for individuals who have recently undergone ostomy surgery, providing guidance on the use of ostomy appliances, clarifying patient rights, and creating opportunities for members to share their experiences. Although not all municipalities have patient associations, distribution centers can play a crucial role by facilitating gatherings and encouraging the exchange of experiences.

Finally, the emotion-focused coping strategy was the least used by participants in this study. This can be considered a positive outcome, since high scores in the emotion-focused coping strategy—which seeks to alleviate or manage emotional distress related to the situation—may indicate psychological difficulties, interfere with treatment adherence, or encourage avoidance of the problem. These aspects have been observed in previous studies on various stressors, where such scores often reflect feelings of guilt or other negative emotions[16].

It is worth noting that emotion-focused coping showed a negative correlation with family income. Higher income is generally associated with greater access to healthcare, information, and appropriate devices, which in turn provide better conditions for addressing the situation proactively rather than reacting to it with emotional distress.

Individuals' perceptions of their stoma and their ability to cope with its associated challenges significantly influence the coping strategies they adopt. For instance, a person who views their stoma as a threat to their identity may adopt different coping strategies than someone who sees it as an opportunity to improve their health and quality of life.

This study presented certain limitations, notably its cross-sectional design, which prevents the tracking of changes in coping strategies over time within the same individuals following ostomy surgery. Furthermore, relying on a convenience sample restricts the extent to which the results can be generalized to the broader population. When consulting the Health Sciences Descriptors (DeCS) for the term "Coping", the equivalent found was "psychological adaptation", although some more recent articles have opted to translate it as "facing". In this study, the terms "coping", "facing" or "psychological adaptation" were used as synonyms, depending on the source consulted[7,20]. Another limitation arises from the questions related to leisure, which were formulated in a very general way and therefore did not allow for in-depth discussion. Furthermore, the low frequency of visits to aquatic environments could not be thoroughly explored, as it may not be solely attributable to the presence of a stoma but could also reflect individual lifestyle choices or personal preferences.

This study contributes to the field of nursing, particularly in ostomy care, by exploring the coping strategies employed by individuals living with stomas. The study highlights the importance of understanding coping strategies to inform effective interventions centered on support and psychoeducation, with the goal of promoting more humanized and comprehensive care. Another significant contribution of this study is its potential to guide the development of training and continuing education programs for professionals in specialized services, focusing on effective coping strategies for individuals who have undergone ostomy surgery and promoting psychosocial adaptation for those living with a stoma.

Individuals with stomas may experience stigma and social distancing from friends, making the meetings organized by these associations a safe and inclusive space where members can share experiences, express feelings and concerns, and receive support and advice from others. These meetings serve as a vital coping tool that supports adaptation, enabling individuals with stomas to learn how to manage life changes in a positive and constructive manner[24]. The opportunity to connect with others facing similar challenges can enhance self-confidence and self-esteem, ultimately improving quality of life.

CONCLUSION

A lack of preoperative preparation for ostomy surgery was identified. The predominant coping strategies included a problem-focused approach and engagement in religious practices. Younger individuals were more likely to use emotion-focused strategies and seek social support. A clear understanding of patients' coping strategies and personal characteristics is essential for effectively planning supportive and psychoeducational interventions for individuals with stomas and their families. It is also essential that multidisciplinary teams in specialized stoma care services integrate coping strategies into daily practice, therapeutic planning, and professional development through continuous training and education.

A more comprehensive understanding of coping strategies can be attained through future studies using longitudinal designs and methodological triangulation, combining quantitative and qualitative data from diverse sources. These approaches would enable a more thorough and nuanced analysis of the coping strategies individuals employ over time, enhancing our understanding of the phenomenon, advancing knowledge, and informing the design of interventions grounded in a biopsychosocial framework.

Acknowledgments: Not applicable.

Author contributions: DNLRM: project administration, formal analysis, conceptualization, data curation, writing – original draft, writing – proofreading and editing, investigation, methodology, software, supervision, validation, visualization. IMO: formal analysis, conceptualization, data curation, writing – original draft, writing – proofreading and editing, investigation, methodology, software, supervision, validation, visualization. LAC: formal analysis, conceptualization, data curation, writing – original draft, writing – proofreading and editing, software, supervision, validation, visualization. PSB: formal analysis, conceptualization, data curation, writing – original draft, writing – proofreading and editing, software, supervision, validation, visualization.

Research data availability: All data were generated or analyzed in the present study.

Funding: Not applicable.

Conflict of interest: None.

REFERENCES

1. United Ostomy Associations of America. New ostomy patient guide [Internet]. United States of American: The Phoenix Magazine; 2021 [cited 2025 Apr 29]. Available from: https://www.ostomy.org/new-ostomy-patient-guide/
2. Alwi F, Setiawanb, Asrizal. Quality of life of persons with permanent colostomy: a phenomenological study. J Coloproctol (Rio J). 2018;38(4):295-301. https://doi.org/10.1016/j.jcol.2018.06.001
3. Olsen T, Indrebø KL, Lindam A, Skogmo LG, Dagsland V. Faglig anbefaling for oppfølging av stomiopererte [Internet]. 2020 [cited 2025 Apr 29]. Available from: https://www.nsf.no/sites/default/files/groups/subject_group/2020-10/norsk-faglig-anbefaling-for-oppfolging-av-stomiopererte.pdf
4. Ambe PC, Kurz NR, Nitschke C, Odeh SF, Möslein G, Zirngibl H. Intestinal ostomy. Dtsch Arztebl Int. 2018;115(11):182-7. https://doi.org/10.3238/arztebl.2018.0182
5. Brasil. Ministério da Saúde. Secretaria de Atenção à Saúde. Portaria nº 400, de 16 de novembro de 2009. Estabelecer Diretrizes Nacionais para a Atenção à Saúde das Pessoas Ostomizadas no âmbito do Sistema Único de Saúde–SUS, a serem observadas em todas as unidades federadas, respeitadas as competências das três esferas de gestão [Internet]. Brasília: Diário Oficial da União; 2009 [cited 2025 Apr 29]. Available from: http://bvsms.saude.gov.br/bvs/saudelegis/sas/2009/prt0400_16_11_2009.html
6. Brasil. Ministério da Saúde. Secretaria de Atenção Especializada em Saúde. Departamento de Atenção Especializada e Temática. Guia de atenção à saúde da pessoa com estomia. Brasília: Ministério da Saúde; 2021.
7. Faria FL, Labre MM, Sousa IF, Almeida RJ. Avaliação da qualidade de vida em pacientes com estomia intestinal. Arq Ciênc Saúde. 2018 Apr-Jun;25(2):8-14. https://doi.org/10.17696/2318-3691.25.2.2018.924
8. Panzini RG, Bandeira DR. Coping (enfrentamento) religioso/espiritual. Rev Psiq Clín. 2007;34(supl 1):126-35. https://doi.org/10.1590/S0101-60832007000700016
9. Antoniazzi AS, Dell'Aglio DD, Bandeira DR. O conceito de coping: uma revisão teórica. Estudos de Psicologia. 1998;3(2):273-94. https://doi.org/10.1590/S1413-294X1998000200006
10. Petersén C, Carlsson E. Life with a stoma-coping with daily life: experiences from focus group interviews. J Clin Nurs. 2021 Aug;30(15-16): 2309-19. https://doi.org/10.1111/jocn.15769
11. Martín-Muñoz B, Montesinos-Gálvez AC, Crespillo-Díaz AY, Jódar-Sánchez F. Efficacy of a social interaction intervention in early postoperative period to improve coping in persons with an ostomy: a randomized controlled trial. J Wound Ostomy Continence Nurs. 2022 Jul-Aug;49(4):352-7. https://doi.org/10.1097/WON.0000000000000886
12. Seidl EMF, Tróccoli BT, Zannon CMLC. Análise fatorial de uma medida de estratégias de enfrentamento. Psic Teor Pesq. 2001;17(3):225-34. https://doi.org/10.1590/S0102-37722001000300004
13. Gimenes MGG, Queiroz B. As diferentes fases de enfrentamento durante o primeiro ano após a mastectomia. In: Gimenes MGG, Fávero MH, orgs. A mulher e o câncer. Campinas: Editorial Psy; 1997. p. 171-95.
14. Seidl EMF, Melchíades A, Farias V, Brito A. Pessoas vivendo com HIV/AIDS: variáveis associadas à adesão ao tratamento anti-retroviral. Cad Saúde Pública. 2007 Oct;23(10):2305-16. https://doi.org/10.1590/S0102-311X2007001000006

15. Marin AH, Silva CT, Bellé AH, Bernardes JW. Estratégias de enfrentamento e autoeficácia em mulheres com sobrepeso e obesidade em tratamento nutricional. Psicogente. 2020;23(43):1-18. https://doi.org/10.17081/psico.23.43.3573

16. Silva CGV, Missiatto LAF, Feitosa FB. Coping strategies used by cancer patients in a rural city of the legal Amazon. Rev Bras Cancerol. 2020;66(4):e-08626. https://doi.org/10.32635/2176-9745.RBC.2020v66n4.626

17. Florisbal GS, Ruschel PP, Rosa DS. Cirurgia cardíaca: estratégias de pacientes com infecção da ferida operatória. Rev Epidemiol Controle Infecç. 2019;9(4):276-80. https://doi.org/10.17058/.v9i4.13422

18. What is STROBE? [Internet]. STROBE [cited 2022 Mar 14]. Available from: https://www.strobe-statement.org

19. Diniz IV, Barra IP, Silva MA, Oliveira SHS, Mendonça AEO, Soares MJGO. Perfil epidemiológico de pessoas com estomias em centro de referência. ESTIMA, Braz J Enterostomal Ther. 2020;18:e2620. https://doi.org/10.30886/estima.v18.929_PT

20. Son H, Kang Y. Coping processes of patients with ostomies in South Korea: a focus group study. Healthcare (Basel). 2020 Dec;9(1):21. https://doi.org/10.3390/healthcare9010021

21. Machado LG, Silva RM, Mendes VC, Tamiozzo J, Pretto CR, Lopes AP. Intestinal ostomy: adversities and care strategies after hospital discharge. Av Enferm. 2021;39(3):366-75. https://doi.org/10.15446/av.enferm.v39n3.89329

22. Santos FL, Castanheira JS, Mota MS, Brum NA, Barlem JGT, Paloski GR. Perfil de usuários de um serviço de estomaterapia: análise de cluster. Esc Anna Nery. 2022;26:e20210307. https://doi.org/10.1590/2177-9465-EAN-2021-0307

23. Muller JM, Silva N, Pesca AD. Estratégias de coping no contexto laboral: uma revisão integrativa da produção científica brasileira e internacional. Revista Psicologia Organização Trabalho. 2021;21(3):1594-604. https://doi.org/10.5935/rpot/2021.3.20385

24. Silva AL, Vieira ABD, Moraes RHG, Mazoni SR, Kamada I. Subjetividades e desafios de pessoas convivendo com estomia intestinal. Estima, Braz J Enterostomal Ther. 2021;19(1):e1721. https://doi.org/10.30886/estima.v19.1034_PT

25. Instituto Brasileiro de Geografia e Estatística. Cidades e Estados. Rio de Janeiro. População estimada [Internet]. Rio de Janeiro: IBGE; 2022 [cited 2025 Apr 29]. Available from: https://www.ibge.gov.br/cidades-e-estados/rj.html

26. Faria VB, Bracarense CF, Ferreira JFMF, Condeles PC, Molina NPFM, Nicolussi AC, et al. Influência da espiritualidade na vida da pessoa com estoma intestinal: uma revisão integrativa. Res Soc Dev. 2022;11(5):e12411527808. https://doi.org/10.33448/rsd-v11i5.27808

27. Heydari A, Manzari ZS, Pouresmail Z. Nursing intervention for quality of life in patients with ostomy: a systematic review. Iran J Nurs Midwifery Res. 2023;28(4):371-83. https://doi.org/10.4103/ijnmr.ijnmr_266_22

28. Kittscha J, Fairbrother G, Bliokas V, Wilson V. Adjustment to an ostomy: an integrative literature review. J Wound Ostomy Continence Nurs. 2022;49(5):439-48. https://doi.org/10.1097/WON.0000000000000895

29. Xi Z, Rong CM, Ling LJ, Hua ZP, Rui G, Fang HG, et al. The influence of stigma and disability acceptance on psychosocial adaptation in patients with stoma: a multicenter cross-sectional study. Front Psychol. 2022;13:937374. https://doi.org/10.3389/fpsyg.2022.937374

30. Stavropoulou A, Vlamakis D, Kaba E, Kalemikerakis I, Polikandrioti M, Fasoi G, et al. "Living with a stoma": exploring the lived experience of patients with permanent colostomy. Int J Environ Res Public Health. 2021 Aug;18(16):8512. https://doi.org/10.3390/ijerph18168512