

Clinical and epidemiological aspects of children and adults with intestinal stoma of the Bahia-Brazil reference center

Perfil de crianças e adultos com estomia intestinal do centro de referência da Bahia-Brasil

Aspectos clínicos y epidemiológicos de niños y adultos con estoma intestinal del centro de referencia de Bahía-Brasil

Ana Cláudia Gonzaga^{1,*}, Aurenice Karine Almeida Albergaria¹, Karina Oliveira Portugal Araújo¹, Eline Lima Borges², José Ferreira Pires Junior³

ORCID IDs

Gonzaga AC  <https://orcid.org/0000-0002-4926-2314>

Almeida AKA  <https://orcid.org/0000-0003-0585-3128>

Araújo KOP  <https://orcid.org/0000-0001-6907-8824>

Borges EL  <https://orcid.org/0000-0002-0623-5308>

Pires Junior JF  <https://orcid.org/0000-0002-6019-0198>

HOW TO CITE

Gonzaga AC; Almeida AKA; Araújo KOP; Borges EL; Pires Junior JF. Clinical and epidemiological aspects of children and adults with intestinal stoma of the Bahia-Brazil reference center. ESTIMA, Braz. J. Enterostomal Ther., 18, 2020: e0520. https://doi.org/10.30886/estima.v18.698_IN

ABSTRACT

Objective: To characterize children and adults with intestinal stoma in relation to sociodemographic and clinical aspects of the State Reference Center of Bahia. **Method:** This is a cross-sectional descriptive research, with a quantitative approach and a convenience sample of 43 patients that met the inclusion criteria. The data were collected through an interview and evaluation of the stoma and skin, around and analyzed by descriptive statistics, with frequency and percentage distribution. **Results:** There was a predominance of males, aged between 40 and 59 years old, unmarried, with incomplete elementary education, family income of a minimum wage, having colorectal cancer and firearm trauma as responsible for the stoma. It emphasized the occurrence of temporary descending colostomy, use of a drainable device, a single piece, with a cut-off, with a cut greater than the diameter of the stoma, presence of dermatitis. Stomatal hygiene and device switching were performed independently. **Conclusion:** The results of the study indicated a need to reassess the strategies used in specialized care, with emphasis on educational actions aimed at self-care and greater participation of the user in the program, aiming at their rehabilitation and improvement in quality of life.

DESCRIPTORS: Child; Adult; Ostomy; Health profile; Stomatherapy.

RESUMO

Objetivo: Identificar o perfil de crianças e de adultos com estomia atendidos em um Centro Estadual de Referência do Estado da Bahia. **Método:** Trata-se de pesquisa descritiva transversal, com abordagem quantitativa, com amostra de conveniência de 43 pacientes que atenderam aos critérios de inclusão. Os dados foram coletados por meio de entrevista e avaliação da estomia e pele ao redor, analisados por estatística descritiva, com distribuição de frequência e percentual. **Resultados:** Houve predomínio do sexo masculino, idade de 40 a 59 anos, solteiros, com ensino fundamental incompleto, renda familiar de um salário mínimo, tendo o câncer colorretal e trauma por arma de fogo como responsáveis pela estomia. Destacou-se a ocorrência da colostomia descendente

1. Escola Bahiana de Medicina e Saúde Pública – Curso de Especialização Enfermagem em Estomaterapia – Salvador (BA), Brazil.

2. Universidade Federal de Minas Gerais – Escola de Enfermagem – Departamento de Enfermagem Básica – Belo Horizonte (MG), Brazil.

3. Universidade Federal de Minas Gerais – Escola de Enfermagem – Programa de Pós-graduação em Enfermagem – Belo Horizonte (MG), Brazil.

*Correspondence author: anaclaudia_gonzaga@hotmail.com

Received: Jan. 10, 2019 | Accepted: Feb. 24, 2020



temporária, uso de dispositivo drenável, peça única, recortável, com recorte maior que o diâmetro da estomia, presença de dermatite. A higienização da estomia e troca do dispositivo eram realizadas de forma independente pela maioria. **Conclusão:** Os resultados do estudo indicaram necessidade de reavaliar as estratégias utilizadas na assistência especializada com ênfase nas ações educativas voltadas ao autocuidado e maior participação do usuário no programa, objetivando sua reabilitação e melhoria na qualidade de vida.

DESCRITORES: Criança; Adulto; Estomia; Perfil de saúde; Estomaterapia.

RESUMEN

Objetivo: Caracterizar niños y adultos con estoma intestinal en cuanto a los aspectos socio demográficos y clínicos del Centro Estadual de Referência de Bahía. **Método:** Se trata de una investigación descriptiva transversal, con abordaje cuantitativo, con muestra de conveniencia de 43 pacientes que atendieron los criterios de inclusión. Los datos fueron recolectados por medio de entrevista y evaluación del estoma y piel, alrededor y analizados por la estadística descriptiva, con distribución de frecuencia y porcentual. **Resultados:** Hubo predominio del sexo masculino, edad de 40 a 59 años, solteros, con enseñanza fundamental incompleta, ingreso familiar de un salario mínimo, teniendo el cáncer colorrectal y trauma por arma de fuego como responsables del estoma. Se destacó la ocurrencia de la colostomía descendente temporal, uso de dispositivo drenable, pieza única, recortable, con recorte mayor que el diámetro del estoma, presencia de dermatitis. La higienización del estoma y el cambio del dispositivo se realizaban de forma independiente. **Conclusión:** los resultados del estudio indicaron la necesidad de reevaluar las estrategias utilizadas en la asistencia especializada con énfasis en las acciones educativas dirigidas al autocuidado y mayor participación del usuario en el programa, objetivando su rehabilitación y mejoramiento en la calidad de vida.

DESCRIPTORES: Niño; Adulto; Estomía; Perfil de salud; Estomaterapia.

INTRODUCTION

The number of patients undergoing stoma-generating surgery in Brazil is growing, especially due to the high incidence of colon and rectum cancer¹. Another factor is the urban violence that results in a high number of patients who are victims of abdominal trauma, mainly due to white weapons and firearms, which require surgical interventions to correct these injuries. The performance of an intestinal ostomy consists of a surgical procedure in which the surgeon exteriorizes part of the small or large intestine. These stomata are intended to eliminate the fecal content. They get their name according to the intestinal portion involved. The exteriorization of the ileum and colon through the abdominal wall generates ileostomy and colostomy, respectively².

The stoma can be temporary or definitive. This temporality is related to the fact that it was necessary to make it. Temporary stoma may be necessary to protect the anastomosis until it heals, to put at rest a certain intestinal segment that presents an inflammatory process or fistula, for example in Crohn's disease, or in cases of intestinal obstruction for various reasons. The definitive stoma is performed when there is no possibility of reestablishing intestinal transit due to the loss of a large part of the affected area, usually in situations of rectal cancer, near the anal border³.

The provision of quality nursing care by the health services, focused on the demands presented by the person with stoma, challenges the nurse. This professional needs to

develop a care that encompasses technical-scientific aspects necessary to guide nursing actions, respecting ethical and legal precepts. It is important that the evaluation of the person is carried out in a holistic way, aiming at a humanized assistance.

The attention to the person with stoma has been consolidating over time. In 2009 Ordinance no. 400, considered a milestone, was published, despite some remaining gaps in the organization of services and allocation of financial resources. The document establishes the National Guidelines for the creation of the Health Care Service for People with Stoma (SASPO, *Serviço de Atenção à Saúde das Pessoas Ostomizadas* in Portuguese) within the Unified Health System (SUS, *Sistema Único de Saúde* in Portuguese) to be observed in all federal units, respecting the competencies of the three spheres of management⁴.

Thus, it is mandatory that health professionals, especially nurses, know the demographic and clinical aspects of patients with stoma treated in health services for adoption or review of institutional protocols. This stage aims to improve user care in primary, secondary and tertiary care, thus expanding the professional commitment of the nurse, from prevention to the patient's rehabilitation process. Promoting the mediation of education in the search for autonomy for self-care, for the defense of their rights of citizenship, dignity and quality of life⁵.

In view of the above, the study is justified by the gap in knowledge of the real demands of people with assisted

stoma in specialized services in Bahia. It is believed that the result will subsidize health professionals and managers to obtain information to structure and plan quality care, aiming at early rehabilitation and quality of life for such patients attended and followed up at the Reference Center of the city under study.

This study aimed to identify the profile of children and adults with stoma treated at a State Reference Center in the State of Bahia.

METHODS

It is an observational, exploratory, descriptive, cross-sectional study conducted at a State Reference Center in the city of Salvador-BA, which houses the Center for Prevention and Rehabilitation of the Person with Disability (CEPRED, *Centro de Prevenção e Reabilitação da Pessoa com Deficiência* in Portuguese). This is a unit of the Unified Health System (SUS), inaugurated in 1999 and later accredited as a Specialized Rehabilitation Center III (SRC III), according to Ordinance MS 793, of April 24, 2012, characterized by a specific service that includes physical, auditory and intellectual rehabilitation.

The study had a convenience sample due to time limitations for data collection, constant representation of the user by legal attorneys and/or family members for the acquisition of scholarships in the service, and the patient's disagreement to participate in the survey.

The sample consisted of 43 patients registered in the reference service who met the inclusion criteria: to have intestinal elimination stoma (ileostomy or colostomy), attend the nursing consultation for evaluation, present capacity to answer the study questions. In the case of children, the legal guardian should present this capacity. Older people (60 years or older) and those who refused to change the collector device during the nursing consultation for assessment of the stoma and surrounding skin were excluded.

Data collection took place from July to October 2018. Participants underwent an interview and physical examination, including assessment of the stoma, surrounding skin and the collector device in use. Personal identification data, sociodemographic, clinical and self-care variables were recorded on a form.

The data collected were typed into spreadsheets created in the EpiData program, exported to the Statistical

Package for the Social Sciences (SPSS), version 20.0, and analyzed using descriptive statistics.

The study was conducted in accordance with Resolution 466/2012, of the National Health Council and is part of the project entitled *Prevalence and characterization of people with an elimination stoma living in several municipalities of Brazil* which was submitted to the Research Ethics Committee of the Federal University of Minas Gerais, receiving a favorable opinion for its development by the Certificate of Presentation for Ethical Appreciation No. 49807115.0.0000.5149.

The participants received the necessary clarifications and signed the Term of Free and Informed Consent (TFIC), guaranteeing them anonymity and exemption of financial burden. In the case of children, the TFIC was signed by the legal guardian.

RESULTS

The sample consisted of 43 patients with intestinal stoma, coming from different parts of Bahia and proximity. One (2.3%) came from Riacho do Jacu, municipality of Pernambuco and the other 42 were from several cities of Bahia: 21 (48.8%) were from Salvador, 2 (4.7%) from Camaçari and 19 (44.2%) were from 19 different municipalities. The surgery that generated the stoma was performed in public (17/80.9%) and private (04/19.1%) institutions, located in several municipalities in the state of Bahia, including Salvador.

The study included 37 (86.0%) adults and 6 (14.0%) children (all under 5 years), with distinct sociodemographic characteristics (Table 1).

The average age was 37.47 (\pm 18.6) years, with the youngest having one month and the oldest 59 years. The number of years studied by adults ranged from 0 to 17 years, mean 8.1 (standard deviation 5.1).

The reason for hospitalization was disease, surgical complication or trauma that required surgical intervention, culminating in the stoma confection (Table 2).

The ten patients who presented associated disease cited systemic arterial hypertension, *diabetes mellitus*, hypothyroidism and depression.

Each participant had one stoma, 32 (74.4%) with colostomy and 11 (25.6%) with ileostomy; 33 (76.7%) were temporary and 10 (23.3%) definitive; 17 (39.5%)

Table 1. Sample sociodemographic aspects (n=43). Salvador (BA), Brazil - 2018.

Variable	n	%
Gender		
Female	16	37.2
Male	27	62.8
Age in years		
00-05	6	14.0
06-12	0	0.0
13-17	0	0.0
18-39	14	32.6
40-59	23	53.5
Literacy*		
Illiterate	3	8.1
Literate	34	91.9
Schooling in years of study*		
0	3	8.1
6-9	14	37.8
10-12	16	43.2
Above 13	4	10.8
Marital status*		
Married/stable union	19	51.4
Single/separate	17	45.9
Widower	1	2.7
Ethnic group		
White	10	23.3
Black	12	27.9
Brown	20	46.5
Yellow	1	2.3
Basic sanitation		
Yes	39	90.7
No	4	9.3
Monthly family income in minimum wages		
< 1	9	20.9
1	22	51.2
2	6	14.0
3	1	2.3
≥ 5	5	11.6
Retirement pension*		
Yes	3	8.1
No	34	91.9

*n = 38. Children were excluded.

were made with definitive terminal stoma, 11 (25.6%) with temporary terminal stoma (Hartmann's colostomy) and 15 (34.9%) with two stomata.

The protrusion varied from 0.0 to 12 cm, being absent in 5 (11.6%) stomata and predominance of 3.0 cm

Table 2. Reason for hospitalization and surgical procedure performed. Salvador (BA), Brazil - 2018.

Variable	n	%
Cause of stoma confection		
Acute abdomen	3	6.9
Appendicitis	2	4.6
Bladder cancer	1	2.3
Colorectal cancer	15	34.8
Uterine cancer	1	2.3
Severe chronic constipation	1	2.3
Diverticulitis	1	2.3
Incarcerated hernia	1	2.3
Megacolon (chagasic/congenital)	6	13.9
Uterine fibroid + enteric fistula	1	2.3
Intestinal obstruction	2	4.7
Intestinal polyposis	1	2.3
Idiopathic ulcerative rectal colitis	1	2.3
Firearm-related trauma	6	14.0
Sigmoid volvulus	1	2.3
Surgical procedure performed		
Abdominoperineal rectus amputation	4	9.3
Enterocystoplasty	1	2.3
Colectomy	10	23.3
Colostomy	17	39.5
Ileostomy	4	9.3
Proctocolectomy	1	2.3
Rectosigmoidectomy	6	14.0

in 7 (16.3%). The diameter varied from 15 to 65 mm, distributed in 25 mm (9/20.9%), 35 mm (6/14.0%), 45 mm (5/11.6%) and 50 mm (5/11.6%).

The colostomies (32) had a mean diameter of 34.93 mm (standard deviation 11.73) and median of 35 mm; mean protrusion of 2.24 cm (standard deviation 2.52) and a median of 1.65 cm. These same characteristics in the group of ileostomies (11) were: mean diameter 27.51 mm (standard deviation 9.42), median 25 mm; mean protrusion 1.97 cm (standard deviation 1.53) and median 3.0 cm. There were several data on the abdomen location, level and shape of the stoma (Table 3).

Regarding complications, 24 (55.8%) participants presented from one to three complications, such as: dermatitis (13), granuloma (7), retraction (4), prolapse (3) and hernia (2).

The participants presented effluent of loose (53.5%), watery (20.9%), soft (20.9%) or formed (4.7%) consistency, with an elimination pattern of four to five times a day

(44.2%), countless times a day (23.3%), three times a day (16.3%), one (9.3%) time a day and two (7.0%) times a day. Elimination of flatulence was reported by 39 (90.7%) patients, with unpleasant odor in 16 (41.0%).

The participants used either a one-piece (26/60.5%) or two-piece (17/39.5%) drainable bag (42/97.7%) or a closed bag (1/2.3%). The base of the bag of 2 (4.7%) participants was precut and 41 (95.3%) cuttable, whose diameter ranged from 18 to 70 mm, with greater frequency 45 mm (7/16.2%), 25 mm (6/13.9%) and

30 mm (5/11.6%). Some devices had the cutout larger than the diameter of the stoma (Figure 1); 21 (48.8%) participants demanded adjuvants, such as resin powder (12), resin paste (6) and belt (3).

As for care, 24 (55.8%) participants were totally independent to perform the care with stoma and device; 31 (72.1%) performed the hygiene of the device and 24 (55.8%) performed the exchange. The failure of the 19 (44.2%) patients to fully achieve self-care was due to physical limitations, lack of manual dexterity and insecurity.

Table 3. Characteristics of the sample's stoma (n = 43). Salvador (BA), Brazil - 2018.

Variable/category	n	%
Location in abdomen		
Upper quadrant D	5	11.6
Lower quadrant D	15	34.9
Upper quadrant E	8	18.6
Lower quadrant E	15	34.9
Skin around the stoma		
Regular	29	67.4
Irregular	14	32.6
Stoma level		
Retracted	6	14.0
Plan	8	18.6
Protruded	25	58.1
Prolapse	4	9.3
Stoma shape		
Round	28	65.1
Oval	15	34.9

DISCUSSION

The results of this study showed a predominance of adults, with colorectal cancer and firearm trauma as the main causes of stoma. These findings may be related to an increase in the incidence of this type of cancer, which has been described in the literature related to the pattern of inappropriate eating, excessive consumption of alcoholic beverages, smoking and sedentarism. Another factor is the increase in the number of traumas due to automobile accidents, urban violence with firearm and white weapons perforation, situations that constitute motivating causes for a stoma^{6,7}.

In the study, when analyzing the children's group, the age group from 0 to 5 years prevailed. This finding is in line with other studies of epidemiological profile

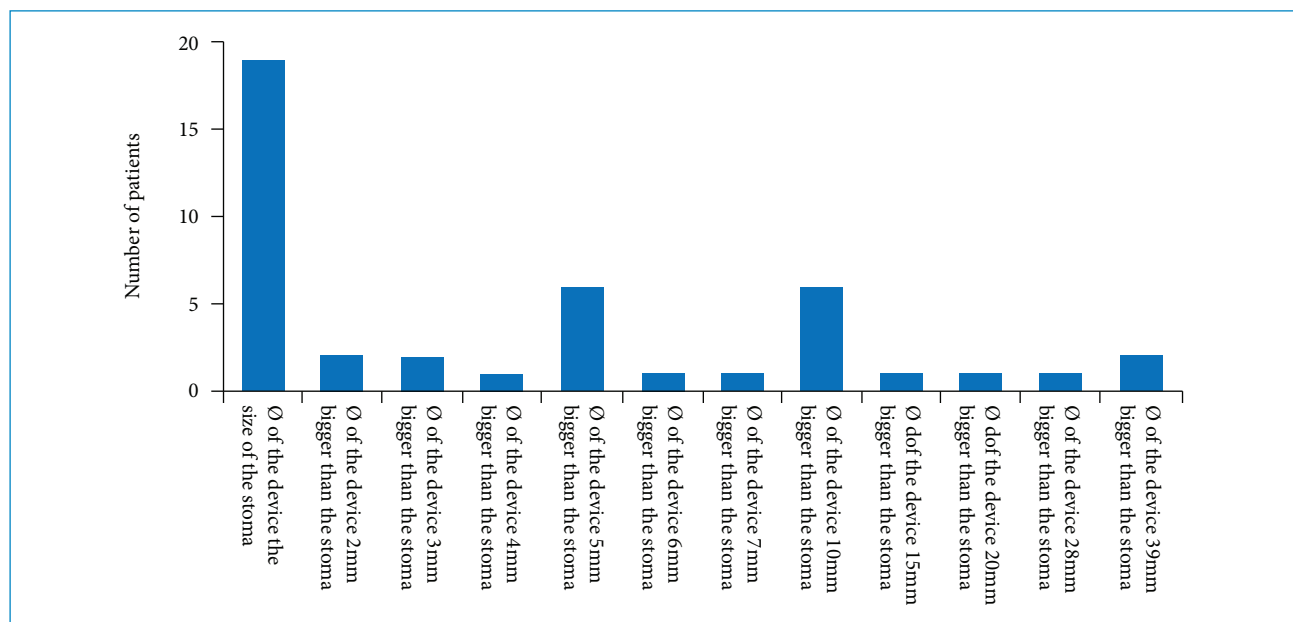


Figure 1. Diameter of devices with cutout larger than the size of the stoma (n=33). Salvador, Bahia, Brazil – 2018.

of children with stoma, in which the authors found the predominance of congenital malformation as a basic cause of surgery, especially in males^{8,9}.

Hirschsprung's disease or congenital megacolon was found to be the main cause of surgical indication for colostomy in five children (83%) of the six studied. This finding corroborates the results of a study conducted in Rio de Janeiro involving children and adolescents in which there was, among the congenital causes, the prevalence of congenital megacolon as an indication of ostomy¹⁰.

Hirschsprung's disease is a congenital malformation of the large intestine, characterized by the absence of ganglion cells at the distal end of the intestine. Its incidence is about 1:5000 live births and the problem predominantly affects males at a ratio of 4:1^{9,11}.

A child with an intestinal stoma requires comprehensive care by a multiprofessional team together with parents/caregivers, focusing on the process of adaptation and rehabilitation, monitoring growth and development with special attention to individual demands, presented during this period, with distinct learning processes⁸.

In the study there was a predominance of males, coinciding with the results of previous studies conducted in several Brazilian regions^{6,12-15}. This finding may be related to greater male exposure to urban violence, automobile accidents, associated with the use of licit and illicit drugs, lower demand and use of Primary Health Care services for preventive measures, seeking medical attention only when the diseases worsen.

As for the level of education of users, it was observed that most were literate, however the number of years studied corresponded to incomplete primary education. People with a low level of education may not be aware of the need for routine examinations, and may have difficulty questioning professionals about their health problem and implementing self-care educational actions. The low level of schooling may have influenced family income, the majority of which was up to a minimum wage. These sample characteristics are in line with other studies^{7,9,12,14,16,17}.

It is noticeable that the population studied has low purchasing power, which makes it difficult to acquire, with own resources, scholarships and adjuvants suitable for self-care, considering their high cost. The facts

presented encourage the nurse professional to ensure that these patients receive through the Pole Care, by SUS, such equipment in adequate quantities, respecting individual needs.

Regarding marital status, it was observed that most adults were single, separated or widowed, since it differs from the results found in the various articles analyzed that cover this subject^{7,12,14,15,17}. The negative impact that the experience of living with a stoma has on patterns of sexuality, personal and family relationships, generating conflicting feelings that end up wearing down affective relationships, leading to social isolation or rejection of the partner⁷.

Regarding the origin of people with stoma, it was found in this study that the majority lived in the capital, although the service is a reference in the State of Bahia. This may be related to the difficulty for users living in other municipalities to attend the State Reference Center because of the distance from the locality, being mostly represented by relatives or legal attorneys. There is a need to expand the service in the various regions of Bahia for a greater insertion of the user in the program and reduce the number of representations.

Colorectal cancer was the most frequent complaint for the preparation of the definitive stoma. This result corroborates those of other studies conducted in different regions that identified malignant neoplasia as the main indication for surgical intervention to perform intestinal stoma^{7,12-16}.

Regarding the type of surgery performed and the type of stoma made, it was found that most were colectomies and descending colostomies, in a lower proportion to ileostomies, all of temporary nature. This data coincides with the results of a study performed in Maceió-CE with a total of 56.9% (n = 216) of temporary colostomies¹⁹, but differs from the results of most studies in which the stoma is more definitive^{12,14,20}.

Regarding location, consistency of effluent and gas emission, it was found that most stomata were located in the lower left quadrant, with effluents of loose consistency and a pattern of elimination of 4 to 5 times a day with flatulence. It is known that the consistency of the effluent and the presence of gases are related to the location of the part of the intestine in which the stoma was made and to the food ingested, and can be very or slightly irritating to the skin².

Faced with this finding, the importance of a multidisciplinary follow-up of these patients aimed at a greater control of the number of intestinal exonerations per day is perceived. In addition, the enterostomal therapist must ensure the proper use of the device with respect to the orientation of the cutout in the correct size and indication of the appropriate type of stoma, avoiding complications such as peristomal dermatitis caused by infiltration and overflow²¹.

Regarding the type of device used by the patient, it was found the predominance of single piece, drainable, cuttable flat base and adjuvants such as powder, paste and, to a lesser extent, the belt. Other studies that addressed the use of collecting equipment performed in different regions of Brazil corroborate with the results of this research^{7,8,14}.

As for care, it was observed that most of the participants in this study carried out the care of the stoma and device independently, since it coincides with the results of a study conducted in Natal-PE⁷, with a sample of 89 people, in which 93.3% carried out self-care, including single people with the best scores of self-care related to the hygiene of the stoma and management of the bag.

Most patients presented some complication in the stoma or surrounding skin, with greater occurrence of dermatitis, followed by granuloma and retraction. Fewer prolapse and parastomal hernia appeared. This data coincides with other studies that show dermatitis as the main complication in stomata, in the several postoperative phases^{13,14,19,20}.

From the results, it was possible to see that users with peristomal dermatitis cut the device plate larger than the diameter of the stoma. This may be related to the large number of patients who do not go through the appointment with the nurse because they have the legal representative to pick up the device in their place.

Dermatitis may be caused by inadequate use of the collector device, with a larger cut in the protective barrier hole exposing the peristomal skin to effluent contact, low protrusion of ileostomies, constant device changes that also promote abrasion with the removal of the superficial layer of the epidermis compromising skin integrity^{19,20}.

Some factors made composition difficult and influenced the sample size, such as time for data collection from the study, constant representation of the user by legal attorneys at the service, preventing the nursing consultation for assessment of the stoma and replacement of the collecting equipment.

Despite the limitations presented by the study, it becomes important due to the scarcity of information on patients

with stoma in the research area. Knowing people with elimination stoma who demand the use of a collecting device and the reality experienced by them is essential to instrumentalize managers and professionals in the organization of specialized health care services for the early and less traumatic rehabilitation of these people, in addition to optimizing the use of the material resources available, considering that this clientele is quite frequent in professional practice, although their problems are little known and explored.

CONCLUSION

The study allowed identifying the sociodemographic characteristics, clinics of people from 0 to 59 years old with intestinal stoma, users of a SUS service, responsible for the care of a large part of the state of Bahia, and the way they performed the care with the collector device.

In view of the findings, it is necessary for the health team to make the person with stoma aware of the importance of their presence in the nursing consultation, considering that this is a primary moment of care in order to minimize complications related to the lack of orientation, in addition to the acquisition of collecting equipment and protection and safety adjuvants.

Although the results obtained in the study represent the reality of a local group, preventing the generalization of findings, it is expected to give greater visibility to the epidemiological and clinical profile of users with stoma for the planning of more efficient health education strategies aimed at prevention, treatment and rehabilitation with improvement in the quality of life of these people, in addition to allowing the dimensioning of human resources, equipment and adjuvants of the service.

AUTHOR'S CONTRIBUTION

Conceptualization, Gonzaga AC, Almeida AKA, Pires Junior JF and Borges EL; Methodology, Gonzaga AC, Almeida AKA, Araújo KOP and Borges EL; Investigation, Gonzaga AC, Almeida AKA and Araújo KOP; Writing - Original Draft, Gonzaga AC, Almeida AKA, Araújo KOP and Pires Junior JF; Writing - Review & Editing, Borges EL; Supervision, Borges EL.

REFERÊNCIAS

- Santos MO. Estimativa 2018: Incidência de Câncer no Brasil. RBC. 2018;64(1):119-20. <https://doi.org/10.32635/2176-9745.RBC.2018v64n1.115>
- Borges EL, Ribeiro MS. Linha de Cuidados da Pessoa Estomizada. Belo Horizonte: Secretaria de Estado da Saúde; 2015. [cited 10 feb 2018]. Available at: http://www.saude.mg.gov.br/images/noticias_e_eventos/000_2016/2-abr-mai-jun/ostomizados/24-06-Linha-de-Cuidados-da-Pessoa-Estomizada.pdf
- Oliveira G, Maritan C VC, Mantovanelli C, Ramalheiro GR, Gavilhia TCA, Paula AAD. Impacto da estomia: sentimentos e habilidades desenvolvidos frente à nova condição de vida. ESTIMA, Braz J Enterostomal Ther. 2010;8(1):18-24.
- Ministério da Saúde (Brasil). Portaria n.º 400, de 16 de nov de 2009. Estabelece Diretrizes Nacionais para a Atenção à Saúde das Pessoas Ostomizadas no âmbito do Sistema Único de Saúde. [portaria na internet]. Diário Oficial da União 16 nov 2009 [cited 10 feb 2020]. Available at: http://bvsms.saude.gov.br/bvs/saudelegis/sas/2009/prt0400_16_11_2009.html
- Moraes JT, Amaral CFS, Borges EL, Ribeiro MS, Guimarães EAA. Avaliação da implantação do Serviço de Atenção à Saúde das Pessoas Estomizadas. REME – Rev Min Enferm. 2017;21:1-7. <https://doi.org/10.5935/1415-2762.20170027>
- Silva M, Errante PR. Câncer Colorretal: Fatores de Risco, Diagnóstico e Tratamento. Revista UNILUS Ensino e Pesquisa. 2016;13(33):133-40.
- Andrade RS, Martins JM, Medeiros LP, Souza AJG, Torres GV, Costa IKF. Aspectos sociodemográficos, clínicos e de autocuidado de pessoas com estomas intestinais. Rev Enferm UERJ. 2017;25:1-5. <https://doi.org/10.12957/reuerj.2017.19368>
- Monteiro SNC, Kamada I, Silva AL, Souza TCR. Perfil de crianças e adolescentes estomizados atendidos de um hospital público do Distrito Federal. ESTIMA, Braz J Enterostomal Ther. 2014;12(3).
- Cunha RR, Bezerra PD, Pinto ISM, Ramos EMLS, Silva CO, Ferreira SRM. Perfil sociodemográfico e clínico de crianças com estomia atendidas em um serviço de referência, Belém-PA. ESTIMA, Braz J Enterostomal Ther. 2017;15(4):214-21. <https://doi.org/10.5327/Z1806-3144201700040005>
- Santos OJ, Sauaia Filho EN, Barros Filho AKD, Desterro VS, Silva MVT, Prado RPS, et al. Children and adolescents ostomized in a reference hospital. Epidemiological profile. J Coloproctol. 2016;36(2):75-9. <https://doi.org/10.1016/j.jcol.2016.03.005>
- Diniz IV, Matos SDO, Brito KKG, Andrade SSC, Oliveira SHS, Oliveira MJO. Assistência de enfermagem aplicada à criança com estomia decorrente da doença de Hirschprung. Rev Enferm UFPE on-line. Recife, 2016;10(3):1119-26.
- Barbosa MH, Poggeto MTD, Barichello E, Cunha DF, Silva R, Alves PIC, et al. Aspectos clínicos e epidemiológicos de estomizados intestinais de um município de Minas Gerais. Rev Enferm Atenção Saúde 2014;3(1):64-73.
- Almeida EJ, Silva AL. Caracterização do perfil epidemiológico dos estomizados em hospitais da secretaria de estado de saúde do Distrito Federal. ESTIMA, Braz J Enterostomal Ther. 2015;13(1):11-6.
- Miranda SM, Luz MHBA, Sonobe HM, Andrade EMLR, Moura ECC. Caracterização sociodemográfica e clínica de pessoas com estomia em Teresina. ESTIMA, Braz J Enterostomal Ther. 2016;14(1):29-35.
- Moraes JT, Assunção RS, Sá FS, Lessa ER, Corrêa LS. Perfil de pessoas estomizadas de uma região de saúde mineira. Enferm Foco. 2016;7(2):22-6. <https://doi.org/10.21675/2357-707X.2016.v7.n2.788>
- Luz ALA, Luz MHBA, Antunes A, Oliveira GS, Andrade EMLR, Miranda SM. Perfil de pacientes estomizados: revisão integrativa da literatura. Cul Cuid. 2018;18(39):115-23.
- Lenza NFB, Sonobe HM, Zago MMF, Buetto LS. Características socioculturais e clínicas de estomizados intestinais e de familiares em um Programa de Ostomizados. Rev Eletr Enf. 2013;15(3):755-62. <https://doi.org/10.5216/ree.v15i3.17594>
- Lins Neto MAF, Fernandes DOA, Didoné EL. Caracterização epidemiológica de estomizados atendidos em centro de referência da cidade de Maceió, Alagoas, Brasil. J. Coloproctol. 2016;36(2):64-8. <https://doi.org/10.1016/j.jcol.2014.08.016>
- Nogueira A, Cozza AP, Fachine M, Vieira JB, Gomes JJ. Características clínicas e sociodemográficas de estomizados na região oeste do Paraná. Revista Saúde & Comunidade. 2018;1(1):37-41.
- Dantas FG, Souza AJG, Melo GSM, Freitas LS, Lucena SKP, Costa IKF. Prevalência de complicação em pessoas com estomias urinárias e intestinais. Rev Enferm Atual In Derme. 2017;82(20):55-61.