

# CLINICAL AND DEMOGRAPHIC CHARACTERISTICS OF INTESTINAL STOMA PATIENTS ASSISTED BY ORTHOTICS AND PROSTHESIS GRANT PROGRAM OF THE CLINICAL HOSPITAL OF THE FEDERAL UNIVERSITY OF UBERLÂNDIA, BRAZIL

## *CARACTERÍSTICAS CLÍNICAS E DEMOGRÁFICAS DOS PACIENTES PORTADORES DE ESTOMAS INTESTINAIS ASSISTIDOS PELO PROGRAMA DE CONCESSÃO DE ÓRTESE E PRÓTESE DO HOSPITAL DE CLÍNICAS DA UNIVERSIDADE FEDERAL DE UBERLÂNDIA, BRASIL*

**Mariana Alves Machado RIBEIRO<sup>1</sup>; Maria Cristina de MOURA-FERREIRA<sup>2</sup>; Selma de Andrade COELHO<sup>3</sup>; Guilherme Silva MENDONÇA<sup>4</sup>**

1. Nurse, Master's degree student of the Postgraduate Program in Health Sciences at the Federal University of Uberlândia and Specialist Policy and Health Management at the State Department of Health of Minas Gerais, Uberlândia, MG, Brasil. marianaamribeiro@gmail.com; 2. Assistant Professor of the Graduate Program in Nursing at the Federal University of Uberlândia; Guiding the Research, Uberlândia, MG, Brasil; 3. Ostomy Nurse in Orthotics and Prosthesis Grant Center of the Clinical Hospital of the Federal University of Uberlândia; Co-Supervisor of the Research, Uberlândia, MG, Brasil; 4. Pedagogue, Nurse, Specialist Distance Education, Master's degree student of the Postgraduate Program in Health Sciences at the Federal University of Uberlândia, MG, Brazil.

**ABSTRACT:** With the increase of world's population life expectancies and quality of life, the incidence of cancer ranks second as cause of deaths in Brazil, becoming a public health problem. In cases of colon and rectum cancer, most patients are submitted to surgery, many end up by needing some type of ostomy. This is a retrospective, descriptive, exploratory and quantitative research aiming to characterize demographic and clinical users from the Orthotics and Prosthesis Grant Program of the Clinical Hospital of the Federal University of Uberlândia – CH - FUU, Brazil. Intestinal stoma people who were assisted by this program since its implementation until 2010. The technique used was medical records gathering. Population consisted of 1146 individuals. Demographic data analysis results: age average of users 55.77 years old, while among females the average age was 58.25 years old; in males, it was 53.36 years old. Males frequency over females, corresponds to 51.22% of population; most users were married (52.63%); prevailed white ethnicity (72.32%); retired were the occupations in both situations, before and after the stoma, accounting for 78.9% and 33.67% of the samples for these variables, respectively. The majority (81.31%) of users were from Uberlândia Health Region center; 85.95% of users were referred by Unified Health System - UHS or served directly to CH - FUU. Cancer is the most prevalent diagnosis, responsible for the indication of intestinal stoma, making up 45.03%. 1.146 users assisted by the program in the period analyzed, 425 (40.21%) died, 387 (36.61%) underwent reconstruction of intestinal transit, 190 (17.98%) remained active in the treatment up to the limit of the reporting period and 55 (5.22%) hung up the program by city transfer reason, treatment withdrawal or other unknown reasons. The vast majority of stomas, represented by 95% of the samples are colostomies type. Regarding permanence of intestinal ostomy character, we found that 76% were temporary. Among complications in stoma, prevails peristomal dermatitis (29.4%). This study presents results of clinical and epidemiological relevance to basement in the formulation of public policies, prevention campaigns, treatment and adoption of effective multidisciplinary health care for the ostomy patient.

**KEYWORDS:** Intestinal stomas. Ostomy. Bowel diseases.

## INTRODUCTION

Stoma or ostomy - terms suitable for the Portuguese language in Brazil, according to the Brazilian Academy of Letters - are designative derived from Greek meaning mouth or opening, used to indicate the manifestation of any hollow viscera through the body for various causes. Dependently to the limb where it comes from, it receives different names. Therefore, for intestinal stoma we have the colostomy, ileostomy and the jejunostomy. (MARTINS; ROCHA, 1997; HABR-GAMA; ARAÚJO, 2000).

Address stoma epidemiology, in our country, is as difficult as any other topic that requires systematic information registration. Continental dimension, registration failures, communication difficulties - despite the spread of electronic media - are only some of the aspects involved in the data systematization and information on health. On the other hand, stomas are sequels or consequences of diseases or traumas - morbidity - not causes or diagnostics, which complicates your information (SANTOS, 2006).

As for people with special needs or disabilities - such as population, also users of the

Unified Health System - UHS - some private isolated individual movements, aimed at their integration into the national scene, they started up in education from the nineteenth century, reflecting the interest of some inspired educators in International experiences. However, some rights were not won or recognized as integral elements of some social policies until the mid-twentieth century, beginning then, to characterize their integration into general service systems (SANTOS, 2006).

Decree n° 400/November 16, 2009, Ministry of Health, considering the need for health institutions organization, providing services to stomized people, setting flows reference and counter-referral with the hospitals, decides in his first article: "Establishing National Guidelines for Health Care of Ostomized under the Unified Health System - UHS, to be observed in all federal units, respecting the competencies of the three levels of government."

The Orthotics and Prosthesis Grant Program is the only reference for stomized people of Uberlândia Health Region and it was implemented at the Clinical Hospital of the Federal University of Uberlândia (CH - FUU) in 1993, although assistance to intestinal and urinary ostomy patients was initiated in mid 1990. In 1990, the CH - FUU did not have resource materials to meet the demand of ostomy pouching distribution. Users holding intestinal stoma, in most cases, had no financial condition to acquire the pouches, which are expensive, and which at the time couldn't be found on the market in Uberlândia.

According to the National Cancer Institute (NCI), estimation for 2010 was that 1210 new cases of colon and rectal cancer arose, as primary sites in women and 1040 in men in the state of Minas Gerais. Adding this to the fact of increase in abdominal trauma with knives and firearms with increasing urban violence, besides several intestine inflammatory diseases, having increased the need for intestinal stoma preparation.

The results obtained in the present study are rather valuable once it will show the colostomy care team their work dimension, will promote the appreciation of the program, enabling comparative analyses with other researches carried out in CH - FUU, or other health institutions, and contribute to the literature, encouraging researches with a similar approach.

From these perspectives, this study aimed to characterize demographic and clinical users from the Orthotics and Prosthesis Grant Program in the Clinical Hospital of the Federal University of

Uberlândia who are carriers of stoma and were assisted by the program from 1993 until 2010.

## MATERIAL AND METHODS

A retrospective, descriptive, transversal, exploratory and quantitative research that characterized clinically and demographically intestinal stoma patients assisted by Orthotics and Prosthesis Grant Program at the Clinical Hospital of the Federal University of Uberlândia, since its implementation in 1993 until 2010. The survey was led through hospital record available in medical records and electronically by consulting the HIS (Hospital Information System) and the Program record books. The variables used were age at the time of data collection, gender, marital status, ethnicity, previous profession at the surgery making the stoma, profession at the time of data collection, home municipality, if the user's origin was the public or private, diagnosis associated with the need for making intestinal stoma, the situation of the users as for their link to the Program at the time of data collection, type of intestinal ostomy, character of intestinal stoma permanence, complications and Reconstitution of Intestinal Transit (RIT). The population was composed by the total of users assisted by the program in the period, what generated a population of 1146 patients.

The study included all patients with intestinal stoma of colostomy or ileostomy types registered in the program since its implementation in 1993 until 2010. There wasn't no loss of records, however, some important data to the variables in this study were not recorded in the medical records. The data were tabulated and analyzed under the descriptive statistics.

This research project, previously submitted to the Ethics Research Committee of the Federal University of Uberlândia - ERC / FUU, got approval in judgment under number 148 on June 11, 2010, after fulfilling the requirements of Resolution N° 196/96 of the National Health Council / Ministry of Health during its execution.

## RESULTS AND DISCUSSION

Of the 1146 patients whose medical records were analyzed, 51.22% were male and 49.77% were female, what shows a increase of males over females. Similar increase was observed by Luz et al. (2009) and Violin et al. (2008) in their research, which revealed that 52.63% and 53.5% of intestinal stoma patients, respectively, were male. However, in studies by Stumm et al. (2008) at the control

center of Health Regional Coordination in the Macroregion Misiones, Rio Grande do Sul, covering 20 municipalities, with a sample of 88 members, found prevalence of females, represented by 62.5%. Bechara et al. (2005) found in their study at Ostomy Center of Juiz de Fora/MG, that 59 participants, 54.2% were female.

Of the total population analyzed in this study, 31 patients were newborns (aged 0 to 28 days), which corresponds to 2.7% of the population, with 51.61% were male and 48.39% are female.

To analyze patients' age, we took a sample of 738 where information was available. The age ranged from 0 to 106 years old - considering only those over 28 days, averaging 55.77 years old. In a study by Meirelles and Ferraz (2001), similar results could be observed with an average of 56.3 years old, however, with ages ranging between 18 to 93 years old.

Regarding users' marital status, sample of 741 users was obtained. From the analysis, we found that 390 (52.63%) users were married, 140 (18.9%) were widowers, 106 (14.3%) were single, 54 (7.29%) were under 18 unmarried and 51 (6.88%) were divorced, showing a majority of married individuals.

Such evidence was also found by Stumm *et al.* (2008) and Bechara et al. (2005), in their research, which revealed that 52.3% and 62% of intestinal stoma patients, respectively, were married.

Concerning users' ethnicity, samples of 943 users were gotten. There was a large number when compared to the second most prevalent result for this variable, in intestinal stoma patients who declared or were considered white (682) in the records, corresponding to 72.32% of the sample. People who declared themselves or were considered brown and black corresponded respectively to 18.24% (172) and 9.33% (88) of the sample. Only one (0.1%) user declared himself or was considered yellow and no user has pleaded or was considered indigenous. No similar studies have been found to serve as parameter for comparison in this variable.

The professions of users were analyzed before surgery and after surgery the production of intestinal stoma. Regarding the profession exercised prior to making the stoma, a sample of 283 was obtained. Data analysis reveals that 78.09% (221) of users were retired, 3.88% (11) were housewives and 2.82% (8) were drivers. Other professions such as farmer, salesperson, manual and seamstress appear in fewer number in the research, representing at total 15.21% (43).

Regarding the profession after making the intestinal stoma and at the time of registration in the

program, the sample analyzed was 591. It was observed that 33.67% (199) of these users were retired, 22% (130) were homemakers and 5.24% (31) were unemployed. Other professions were observed and appeared in smaller number such as: general assistant, driver, student, businessperson and teacher, representing at total, 39.9% (231).

In a survey conducted by Bechara et al. (2005), the professions of patients with intestinal stoma were analyzed but without the purpose of evaluating the users stay in a professional occupation after submission to the stoma confection surgery. Professions like farmer, public server, mason, embroiderer and cook, among others were found.

Previously to submission to the surgery, we obtained data from 62 users of the sample of 283 for occupation by excluding retirees and the unemployed. Of these, 34 users (54.84%) remained with a professional occupation after the production of the intestinal stoma. Bechara et al. (2005) found a similar result, in their studies, which showed that 41% of patients with intestinal stoma resumed his professional activities after generating the stoma surgery.

By analyzing the origin of users of intestinal stoma, observed in a sample of 1140, that 81.31% of users (927) came from Uberlândia, 8.77% (100) came from Araguari, 2.9% (33) came from Tupaciguara, 1.93% (22) came from Monte Alegre, 1.5% (17) came from Prata and other cities appear in lower prevalence. The Orthotics and Prosthesis Grant Program of the CH - FUU assists intestinal stoma users from the cities that are part of Uberlândia Health Region.

The origins of users assisted by the Program concerning public and private health network were analyzed. There was precariousness of these notes in the users' records in registration record books and HIS, which resulted in a sample of 121. Of these, 104 (85.95%) users were sent to CH - FUU by the public health network or were assisted directly in CH - FUU and the Supplemental Health referred to 17 users (14.05%).

We note that the cancer was the primary diagnosis associated with the need for making intestinal stoma. Based on the total population of this study (1146), we checked that 516 (45.03%) users had Cancer as a motivating disease making the stoma, followed by the Megacolon with 187 (16.32%) users and Volvo, with 92 (8.03%) affected users.

In this study, we use the term Cancer in a general way, encompassing several malignancies of the colon.

The table 1 shows the incidence of diagnoses that led to the making of intestinal stoma.

**Table 1.** Simple and percentage distribution of stomas second diagnosis intestinal carriers, registered in Orthotics and Prosthesis Grant Program at the Clinical Hospital at Federal University of Uberlândia, 2010.

Diagnosis	n	%
Cancer	516	45,03
Megacolon	187	16,32
Volvo	92	8,03
Diverticular Bowel Disease	65	5,67
Obstructive Acute Abdomen	39	3,4
Injury by Gun	23	2,01
Caplasia	22	1,92
Traumas	19	1,66
Acute Appendicitis	17	1,48
Inflammatory Bowel Diseases	17	1,48
Others Diagnosis*	149	13
<b>Total</b>	<b>1146</b>	<b>100</b>

Stumm et al. (2008) found similar results in their research, which the prevailing diagnosis was cancer, accounting for 56.9% of the population.

From the analysis of the more incident diagnoses that led to the making of intestinal stoma, related to gender, we obtained the following results: for Cancer diagnosis, we had 516 affected users and of these, 53.3% were female and 46,7% were male; for Megacolon diagnosis, we had 187 affected users, of these, 57.2% were male gender, and 42.8% were female; for diagnosis Volvo, we had 92 affected users and of these, 53.26% were females and 46.74% were male.

Cancer is an important cause of morbidity and mortality in Brazil. Since 2003, this disease is the second cause of death in population, representing almost 17% of known cause of deaths reported in 2007 in the Mortality Information System of the National Cancer Institute – NCI (INSTITUTO NACIONAL DO CÂNCER, 2010).

Of the 516 users whose ostomy was caused by cancer, we obtained a sample of 476 users, we relate this fact to the variable Current Situation of ostomy at the time of this study execution. Thus, we find that more than half of users, affected by cancer progressed to death: 251 individuals, representing 52.73% of the sample.

Analyzing the drivers making diagnoses that motivated stoma in newborns (31), we observed that the most prevalent diagnoses are the Imperforate Anus, with 32.25% (10), the Anomalies Anorectal Unspecified, with 19.35% (6) and Hirschsprung disease (HD) (Congenital Megacolon) with 19.35% (6).

We found that from the six newborns

affected by HD, 5 (83.33%) were male and 1 (16.67%) was female. This fact confirms the characteristic of incidence based in gender of this disease. It is estimated that HD occurs in 1/2000 to 1/5000 births, being more common in male children, affecting them in 70-80% of cases.

Regarding the situation of the users as for their link to the Program, we obtained the following results in a sample of 1057 patients: 40.21% (425) died, 36.61% (387) were submitted to Reconstitution of Intestinal Transit (RIT), 17.98% (190) remained active in treatment until January 31, 2010 and 5.2% (55) were hung up from the program by city transfer reasons, abandon treatment or other unknown reasons.

Among newborns (31), 24 (77.41%) were submitted to RIT, 3 (9.67%) died, 3 (9.67%) were hung from the Program by city transfer reasons, withdrawal of treatment or other unknown reasons and one (3.22%) remained active until January 31, 2010.

Although the findings in literature that discuss the topic mortality point higher rates for men than for women and life expectancy is higher for women than for men, we found in this study that the 425 deaths in the period analyzed, 231 (54.35%) were female individual and 194 (45.65%) were male ones.

When we analyzed the data on the type of intestinal stoma, we found that most ostomy, represented by 1083 (95%) with the stoma users, were ostomy type colostomies, and 83 (5%) users were people with ostomies the ileostomies type, considering the population (1146).

Colostomies comprised the majority of

intestinal ostomies found in several studies, such as the one carried out by Bechara et al. (2005), which, when analyzing a population of patients with intestinal stoma in Juiz de Fora, Minas Gerais, found that 88% of ostomy were type colostomies. Considering the high and significant number of colostomies in several studies, some researchers have as target population only those with colostomies.

Among the newborns (31), we observed that prevailed the majority represented by colostomies: 93.55% (29) patients had the colostomy ostomy type and 6.45% (2) patients had ileostomies.

Analyzing the character of intestinal stoma permanence, we detected lack of information, particularly in medical records. Most information regarding this variable was obtained through the Program registration record books. We found that in a sample of 633, 76%, (481) of intestinal ostomy were temporary and 24% (152) were final.

However, studies realized by Bechara et al. (2005) and Stumm et al. (2008) showed that most intestinal ostomy have definitive character, a fact represented by 66.1% and 75% of their samples, respectively.

Among the newborns, we found that in a sample of 25 patients for this variable, 100% (25) patients had temporary intestinal ostomy.

Regarding the incidents in stoma complications, we found that the information pertaining to this variable are rare in the records, both in the nursing records and in the medical ones. For analysis of this variable, we obtained a sample of 17. Of these, the most prevalent data showed that 5 users (29.4%) had peristomal dermatitis, 3 (17.64%) showed shrinkage and 2 (11.8%) had swelling. Other complications such as stenosis, prolapse, peristomal hernia and inadequate self-care appear even smaller percentage, given the small sample size.

Santos et al. (2007) observed the prevalence of peristomal dermatitis in their study, representing 28.7% of the complications found. A study lead in Ribeirão Preto by Meirelles and Ferraz (2001) has shown that complications of stomas totality properly inserted into the muscle, 19.2% developed peristomal hernia, 12.7% had prolapsed stoma and 4.3 % presented peristomal hernia and prolapse, in a sample of 50 individuals.

Some general factors may increase the incidence of stoma complications such as poor physical condition, radiation pre and postoperative and old age.

Analysis of the number of patients with intestinal stoma, who underwent RIT, showed that in a sample 511, 387 (75.73%) users were submitted to RIT and 124 (24.27%) users were not submitted to RIT.

Examining only patients with intestinal stoma, users of temporary permanence of character, we found that, in a sample 481, one represented most by 76.3% (367) of users was submitted to RIT and lower rates, we had 23.7% (114) of these users were not submitted to RIT.

Due to the importance of the data found, we consider of extreme importance relations establishment of demographic data with clinical data, from crossing the variables. From this perspective, the related results are presented below.

When analyzing types of ostomy related to character permanence, we found that, of the 1083 ostomy colostomy type, we obtained a sample 597 to analyze the permanence character. From this sample, we found that 450 (75.38%) colostomies were temporary and 147 (24.62%) colostomies were final. As for ostomy type of ileostomy, which make up a sample of 63 users, we obtained a sample of 36 users to analyze the permanence character. From then on, we found that 31 (86%) ileostomies were temporary and 5 (14%) were final ileostomies.

From the type of ostomy analysis, temporary character of permanence of ostomy and the day of RIT, we obtained the following results: the 450 patients users of temporary colostomy, 344 (76.44%) were submitted to RIT and 31 users of temporary ileostomy, 23 (74.2%) underwent RIT.

In literature studies, we could not find researches that have made similar relations like these for comparative purposes. However, we consider these relationships plausible and statistically significant regarding research on the intestinal stoma patient.

## CONCLUSION

With this study, we became aware of the profile of intestinal ostomized patients treated in CH – FUU. The present results have clinical and epidemiological relevance to support the formulation of public policies, prevention campaigns to bowels diseases, early diagnosis and treatment of diseases associated with intestinal stoma making, and adoption of effective multidisciplinary health care for ostomy patients. Ostomy patient's universe is large and requires specialist care, reaching the physiological, social, physical, psychological and emotional orders.

**RESUMO:** Com o aumento da expectativa e da qualidade de vida da população mundial, a incidência de câncer ocupa o segundo lugar como causa de óbitos no Brasil, tornando-se um problema de saúde pública. No câncer de cólon e de reto, a maioria dos pacientes é submetida à cirurgia, sendo necessário em muitos deles algum tipo de estomia. Trata-se de uma pesquisa retrospectiva, descritiva, exploratória e quantitativa, cujo objetivo foi caracterizar demográfica e clinicamente os usuários do Programa de Concessão de Órtese e Prótese do Hospital de Clínicas da Universidade Federal de Uberlândia – HC – UFU, portadores de estomas intestinais e que foram assistidos por este Programa desde sua implantação até 2010. A técnica utilizada foi a de levantamento de prontuários. A população foi composta por 1146 indivíduos. A análise dos dados demográficos resultou que: a média de idade dos usuários foi de 55,77 anos, sendo que no gênero feminino a média foi 58,25 anos e no gênero masculino foi 53,36 anos; prevalência do gênero masculino sobre o feminino, correspondente a 51,22% da população; a maioria dos usuários era casada (52,63%); prevaleceu a etnia branca (72,32%); as profissões exercidas antes e depois da realização do estoma eram, na verdade, aposentadas em ambas as situações, perfazendo 78,9% e 33,67% das amostras para estas variáveis, respectivamente. A maioria (81,31%) dos usuários eram procedentes do município-pólo da Região de Saúde de Uberlândia; 85,95% dos usuários foram encaminhados pela rede UHS ou atendidos diretamente no HC – UFU. O Câncer é o diagnóstico mais prevalente e responsável pela confecção dos estomas intestinais, perfazendo 45,03%. Dos 1146 usuários assistidos pelo Programa no período analisado, 425 (40,21%) evoluíram a óbito, 387 (36,61%) foram submetidos à reconstituição do trânsito intestinal, 190 (17,98%) permaneciam ativos no tratamento até o limite do período analisado e 55 (5,22%) desligaram-se do programa por motivo de transferência de cidade, desistência do tratamento ou outros motivos desconhecidos. A grande maioria das estomias, representada por 95% da população, são do tipo colostomias. Em relação ao caráter de permanência das estomias intestinais, verificamos que 76% eram temporárias. Dentre as complicações nos estomas, prevalecem as dermatites periestomais (29,4%). Este estudo traz resultados de relevância clínica e epidemiológica para embasamento na formulação de políticas públicas, campanhas de prevenção, diagnóstico e tratamento precoces e adoção de uma efetiva assistência multiprofissional à saúde do paciente estomizado.

**PALAVRAS-CHAVE:** Estomas intestinais. Estomia. Doenças intestinais.

## REFERENCES

- BECHARA, R. N. et al. Abordagem multidisciplinar do estomizado. **Revista Brasileira de Coloproctologia**, Rio de Janeiro, v. 25, n. 2, p. 146-149. 2005.
- BRASIL. Ministério da Saúde. Portaria n. 400, de 16 de novembro de 2009. Estabelece Diretrizes Nacionais para a Atenção à Saúde das Pessoas Ostomizadas no âmbito do Sistema Único de Saúde. **Diário Oficial da União**, Brasília, DF, 17 de nov. 2009. Disponível em: <[http://bvsms.saude.gov.br/bvs/saudelegis/sas/2009/prt0400\\_16\\_11\\_2009.html](http://bvsms.saude.gov.br/bvs/saudelegis/sas/2009/prt0400_16_11_2009.html)>. Acesso em: 20 jun. 2010.
- HABR-GAMA, A.; ARAÚJO, S. E. A. Estomas intestinais: aspectos conceituais e técnicos. In: SANTOS, V.L.C.G; CESARETTI, I. U. R. (Coord). **Assistência em estomaterapia: cuidando do estomizado**. São Paulo: Atheneu; 2000. p. 39-54.
- INSTITUTO NACIONAL DO CÂNCER (Brasil). **Estimativa 2010**: incidência de câncer no Brasil. Disponível em: <<http://www1.inca.gov.br/estimativa/2010/index.asp?link=tabelaestados.asp&UF=MG>>. Acesso em: 04 maio 2010.
- LUZ, M. H. B. A. et al. Caracterização dos pacientes submetidos a estomas intestinais em um hospital público de Teresina – PI. **Revista Texto Contexto Enfermagem**, Florianópolis, v. 18, n. 1, p. 140-146, 2009.
- MARTINS JUNIOR, A; ROCHA, J. J. R. Tipos de estomas intestinais. In: CREMA, E; Silva, E. **Estomas: uma abordagem interdisciplinar**. Uberaba: Pinti, 1997. p. 41-64.
- MEIRELLES, C. A.; FERRAZ, C. A.. Avaliação da qualidade do processo de demarcação do estoma intestinal e das Intercorrências tardias em Pacientes Ostomizados. **Revista Latino-Americana de Enfermagem**, Ribeirão Preto, v. 9, n. 5, p. 32-8, set/out. 2001. <http://dx.doi.org/10.1590/s0104-11692001000500006>

SANTOS C. H. M. et al. Perfil do paciente Estomizado e Complicações Relacionadas ao Estoma. **Revista Brasileira de Coloproctologia**, Rio de Janeiro, v. 27, n. 1, p. 16-19. 2007.

SANTOS, V. L. C. G. **Cuidando do estomizado**: análise da trajetória no ensino, pesquisa e extensão, 2006. 205 f. Tese (Livre-docência)—Escola de Enfermagem, Universidade de São Paulo, São Paulo, 2006.

STUMM, E. M. F; OLIVEIRA, E. R. A; KIRSCHNER R, M. Perfil de pacientes estomizados. **Revista Scientia Médica**, Porto Alegre, v. 18, n. 1, p. 26-30. 2008.

VIOLIN, M. R.; MATHIAS, T. A. F.; UCHIMURA, T. T. Perfil de clientes colostomizados inscritos em programa de atenção aos estomizados Profile of colostomized clients enrolled in program of attention to the ostomized Perfil de clientes colostomizados inscriptos en programa de atención a los estomizados. **Revista Eletrônica de Enfermagem**, Goiânia, v. 10, n. 4, p. 24-32, 2008.