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Knowledge of undergraduate nursing course teachers on the prevention and care of peristomal skin



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ABSTRACT

Objective: To evaluate the knowledge of undergraduate nursing course teachers on peristomal skin care in individuals with intestinal stoma.

Methods: This is an exploratory, analytical and cross-sectional study, conducted with undergraduate nursing course teachers from two private universities in the city of São Paulo, named A and B. The sample consisted of 42 teachers/nurses, being 22 from University A and 20 from University B, who supervised the internship at Hospital Vila Nova Cachoeirinha. With the aim to collect data, a structured questionnaire consisting of 10 questions (checklist) was used; each question in the checklist had correct and wrong answers. The teachers had to indicate with "x" the correct answer. The questionnaire was delivered to teachers/nurses on a predetermined day. Data collection was carried out on August 2006.

Results: The majority of study participants know that stoma demarcation must be performed preoperatively, and that it is important to educate the patient about surgery, care for the stoma and on the collecting device, as well as to perform a sensitivity test for the equipment. The hygiene should be performed with mild soap and water and with a piece of clean, soft, damp cotton cloth without rubbing, and the skin must be kept dry. The hair removal should be done with curved tip scissors, cutting close to the abdominal wall.

Conclusion: The results showed that, although most of the participants have a basic knowledge about stomized patients care, updating and improvement are needed.

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Conhecimentos dos docentes do curso de graduação em enfermagem sobre prevenção e cuidados com a pele periestoma

R E S U M O

Palavras-chave:

Colostomia
Ileostomia
Educação
Cuidados de enfermagem

Objetivo: Avaliar o conhecimento de docentes do curso de graduação em enfermagem sobre os cuidados com a pele periestomal nos indivíduos com estomas intestinais.

Métodos: Trata-se de um estudo exploratório, analítico e transversal realizado com os docentes dos Cursos de Graduação em Enfermagem de duas Universidades privadas da cidade de São Paulo, denominadas A e B. A amostra foi constituída de 42 docentes/enfermeiros, sendo 22 da Universidade A e 20 da Universidade B, que supervisionavam estágio no Hospital Vila Nova Cachoeirinha. Para a coleta de dados, foi utilizado questionário estruturado, composto de 10 questões (check list); cada questão do check list tinha respostas corretas e erradas. Os docentes tinham de assinalar com x a resposta correta. O questionário foi entregue aos docentes/enfermeiros em dia pré-determinado. A coleta de dados foi realizada em agosto de 2006.

Resultado: A maioria dos participantes do estudo sabe que a demarcação do estoma deve ser realizada na fase pré-operatória e que é importante orientar o paciente quanto ao ato operatório, aos cuidados com o estoma, equipamentos coletores e realização do teste de sensibilidade aos equipamentos. A higiene deve ser feita com água e sabão neutro e com um pedaço de tecido de algodão limpo, macio e úmido, sem esfregar; a pele deve ser mantida seca. A remoção de pêlos deve ser feita com tesoura de ponta curva, cortando rente à parede do abdômen.

Conclusão: Os resultados revelaram que apesar da maioria dos participantes possuir conhecimentos básicos sobre o cuidado da pessoa estomizada, há necessidade de atualização e aprimoramento.

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Introduction

Colon and rectum cancer is a disease that affects people worldwide, being regarded as the third most common cause of death by cancer in the world, in both genders, and the second leading cause in developed countries.¹ The census of the *Instituto Nacional do Câncer* (INCA) estimated that, in 2010, 28,110 cases of colorectal cancer were diagnosed in Brazil, with 13,310 cases in men and 14,800 cases in women.^{2,3}

Technological and therapeutic advances in surgery and early diagnosis of those patients undergoing an ostomy-generating surgery contribute to the reduction of overall postoperative complications, improving the quality of life, body image and self-esteem, resulting in increased survival and favoring the return of these people to leisure activity, work and social life.^{3,4} It is also important to choose the device with a view on prevention and care of peristomal skin complications, because it is necessary to educate ostomized patients with respect to self-care and for actions that contribute to the prevention of peristomal skin complications.

It is up to the nursing staff to understand the real circumstances of these people and their carers, so that they can receive care beyond the physiological needs and ensure emotional support, guidance, respect and help toward a new way of life, with more autonomy of the stomized individual and its family.^{5,6} Nursing professionals working with people suffering from chronic diseases, especially ostomized people, should

consider these individuals as the center of a protective, holistic and globalized process and as active agents which also take part in the rehabilitative process, eliminating the passive image of mere receptacles of care, so that the educational activity materializes in a reflective way, within the cultural universe of these clients, with whom these professionals share the learning.^{7,8} Therefore, it is up to the professional to design the care to be provided to this individual and thus acquire knowledge on the prevention and care of ostomized patients.

A large proportion of nurses/teachers working in the stomatherapy area are concerned about the challenge of teaching their students and staff with respect to systematic, individualized care, guidance on stoma and skin local care (hygiene and replacement of collecting device), indication of the collecting device most suited for each situation and aspects relating to the prevention of complications, as well as those aspects related to the psychosocial impact coming from the use of a stoma.

Even when not specialized in stomatherapy, the nurse must understand how the stoma was manufactured and the complications that can result from this surgical procedure, as well as the characteristics of the effluent and the care for prevention of complications. In addition, the nurse can share this knowledge with students, clients and other colleagues who are working with competence in this area.⁹ The act of taking care of a stomized person demand technical and scientific knowledge related to anatomy, physiology, prevention

and treatment of complications. More importantly, the nurse must understand the multiplicity of aspects related to the new condition of life, because there is evidence of impairment in multiple dimensions, considering that the meanings and the symbolic aspect are expressions of a singular experience in the health-disease process, involving several ways of adjustment to the new living condition.¹⁰

Given the plurality of knowledge and constant changes regarding stoma care, this led to reflections on the importance of mastering these skills by the nurse (whether or not a teacher) and how its absence can jeopardize the quality of nursing care and the quality of these individuals.

This study aimed to assess the level of knowledge of undergraduate nursing teachers on the prevention of peristomal skin complications in intestinal stoma users.

Methods

This is a descriptive, exploratory, analytical and cross-sectional study, conducted with undergraduate nursing course teachers of two private universities in the city of São Paulo, named A and B.

The sample consisted of 42 teachers/nurses, being 22 from University A and 20 from University B; these professionals supervised the nursing internship at Hospital Vila Nova Cachoeirinha. Inclusion criteria were: teaching at a nursing school for more than a year, overseeing stages of nursing undergraduate students in their last year, providing care for ostomized patients, not being a specialist in stomatherapy or dermatology, and accepting to participate in the study.

As to data collection, we used a structured questionnaire consisting of 10 questions (checklist); each question in the checklist had correct and wrong answers. The teachers had to check a box with x for the correct answer. The first part of the questionnaire was related to socio-demographic characteristics of the population, and the second part focused on the knowledge and difficulties of teachers with respect to knowledge regarding treatment and prevention of peristomal skin complications.

The questionnaire was delivered to teachers/nurses at a pre-determined day, in a private room, under the supervision of one of the authors of this study, considering the need to preserve the reliability of data involving information related to the knowledge on prevention of peristomal skin complications. Data collection was carried out on August 2006.

The study complied with the ethical guidelines established by Resolution 196/96 of the National Health Council/MS on research guidelines and regulations concerning human subjects and was approved by the Ethics Committee in Research of the *Universidade de Taubaté* (Protocol 322/06). Authorization has been applied for data collection to the coordinators of the two participating universities.

The questions answered by the participating teachers were conferred by the authors, who used a template. The data were manually tabulated and presented in tables containing absolute numbers and percentages, involving those aspects relevant to achieving the goals proposed in this study.

Results

In the sample studied, it was found that 16 (73%) of recruited teachers were female, 15 (68%) were aged between 30 and 50 years, 10 (46%) were nursing graduates for 11–13 years and 11 (50%) were teaching for periods between 6 and 10 years. As for the titles and degrees, only 5 (22.70%) of the recruited teachers had a Master's degree, and the remaining 17 (77.30%) were specialists in some field of Nursing.

It can be seen in [Table 1](#) that most of the participants know the importance of the equipment to prevent peristomal skin complications: 15 (68.2%) and 14 (70.0%) respectively for the institutions A and B.

[Table 2](#) shows that most of the teachers from the two participating universities answered that stoma demarcation should be performed preoperatively and that it is important to educate the patient on the operative procedure, stoma care and on the collecting device, and that a sensitivity test for the equipment should be performed.

In [Table 3](#), it can be seen that the majority of teachers from universities A and B also answered that a transparent device should be applied intraoperatively, as well as evaluating its adherence and preventing leakage or infiltration into the surgical wound; and in anticipation of this event, a new collecting device should be installed.

The data in [Table 4](#) show that almost all recruited teachers had said that, for the prevention of peristomal dermatitis, the skin should be kept free of moisture and, upon removal of the collecting device, skin rubbing should be avoided.

In [Table 5](#), it can be seen that the majority of teachers answered that one should hygienize the skin with mild soap and water, using a piece of clean, soft, damp cotton cloth without rubbing; the skin should be kept dry; and hair removal should be done with curved tip scissors, cutting close to the abdominal wall.

[Table 6](#) shows that almost all teachers responded that the collecting device must be removed with gentle movements, and the microporous adhesive removal should start at the lateral tab; and it is convenient to press the abdominal wall with the other hand, while removing the adhesive from the skin.

Discussion

In an effort to keep up with social change, nursing educators are showing increasing interest by educational practices, rethinking the training of future professionals and progressing not only in the preparation of a new nurse professional but, above all, of a critical and reflective person – a citizen ready to create, propose and, especially, construct.¹¹

The act of teaching requires a critical reflection on practice in a dynamic and dialectical movement between what to do and what to think. The educator must turn to himself/herself, adopting a questioning attitude about his/her training and becoming aware that this should be an ongoing and continuous process, going along with the transformations of reality, because only thinking critically the current or past practice we can improve our future practice. By being reflective, the facts

Table 1 – Teachers' knowledge at two undergraduate nursing courses with respect to use of collecting devices to prevent peristomal skin complications. São Paulo, 2006.

Knowledge about equipment use in the prevention of peristomal skin complications	University A		University B	
	n	%	n	%
The use of a suitable equipment postoperatively contributes only to the prevention of allergic dermatitis. Any kind of collecting bag can be used.	3	13.6	3	15.0
Abdominal contour, preference on the type of collecting device, type of physical activity, ability constraints related to manual dexterity, visual acuity and learning, and collecting system adherence (so that no leakage nor infiltration into the surgical wound occurs) are important factors in selecting the equipment to prevent complications. All these factors contribute to the prevention of complications.	15	68.2	14	70.0
The collecting device is a safeguard for conditions of safety, protection and economy.	4	18.2	3	15.0
Total	22	100.0	20	100.0

Table 2 – Teachers' knowledge at two undergraduate nursing courses with respect to the nurse's role on preoperative preparation of the ostomized patient. São Paulo, 2006.

Knowledge on the nurse's role with respect to patient's preoperative preparation	University A		University B	
	n	%	n	%
Adequately prepare the patient for surgery, perform a sensitivity test and decrease the risk of some complications preoperatively.	2	9.9	2	10.0
Complement explanations of the physician about the surgery, answer any questions of patients using clear and simple terms, and prevent complications that may impair their recovery, renewing their confidence.	1	4.5	2	10.0
Stoma demarcation. Educate patients with respect to the surgery, previous preparation in general, the stoma, the collecting device, public assistance programs and sensitivity testing to equipment.	19	85.6	16	80.0
Total	22	100.0	20	100.0

Table 3 – Teachers' knowledge at two undergraduate nursing courses with respect to the nurse's role on intraoperative preparation of the ostomized patient. São Paulo, 2006.

Knowledge about the nurse's role with respect to patient's intraoperative preparation	University A		University B	
	n	%	n	%
Apply the transparent collecting device and evaluate its adherence intraoperatively, at the time of its installation, preventing leakage or surgical wound infiltration. In anticipation of this event, install a new collecting device.	16	72.0	17	85.0
Detect electrolyte and hemodynamic changes and apply a transparent device in the stoma.	3	13.6	2	10.0
Perform stoma site demarcation, talk to the patient and his/her family explaining the surgical procedure; apply a transparent equipment in the stoma, which allows constant observation of the stoma.	3	13.6	1	5.0
Total	22	100.0	20	100.0

Table 4 – Teachers' knowledge at two undergraduate nursing courses with respect to peristomal dermatitis prevention. São Paulo, 2006.

Knowledge about peristomal dermatitis hygiene	University A		University B	
	n	%	n	%
Keep the skin free of moisture, making use of peristomal skin's protective barrier. Avoid skin rubbing while removing waste material and equipment.	20	91.0	19	95.0
Keep the skin moist, making use of a skin's protective barrier.	1	4.5	1	5.0
Keep the skin free of moisture; skin's protective barrier is not used.	1	4.5	–	–
Total	22	100.0	20	100.0

Table 5 – Teachers' knowledge at two undergraduate nursing courses with respect to peristomal skin hygiene. São Paulo, 2006.

Knowledge about peristomal skin hygiene	University A		University B	
	n	%	n	%
Hygienize with mild soap and water using a piece of clean, soft, damp cotton cloth, without rubbing; the skin must be kept dry; hair removal should be done with curved tip scissors, cutting close to the abdominal wall.	15	68.2	14	70.0
Hygienize with mild soap and water using a piece of clean, soft, damp cotton cloth; hair removal should be done with scissors, cutting close to the abdominal wall.	3	13.6	3	15.0
Hygienize with mild soap and water using a piece of clean, soft, damp cotton cloth, with or without rubbing; hair removal should be done with curved or straight tip scissors.	4	18.2	3	15.0
Total	22	100.0	20	100.0

Table 6 – Teachers' knowledge at two undergraduate nursing courses with respect to collecting device removal. São Paulo, 2006.

Knowledge about collecting device removal	University A		University B	
	n	%	n	%
This procedure should be performed with gentle movements, and the microporous adhesive removal should start at the lateral tab; it is convenient to press the abdominal wall with the other hand, while removing the adhesive from the skin.	20	91.0	19	95.0
It should be performed with gentle movements, and the removal should start in any part of the adhesive; it is convenient to press the abdominal wall with the other hand, while removing the adhesive from the skin.	1	4.5	1	5.0
It should be performed with gentle movements, and the microporous adhesive removal should start at the lateral tab; it is not convenient to press the abdominal wall with the other hand, while removing the adhesive from the skin.	1	4.5	–	–
Total	22	100.0	20	100.0

of everyday life can be worked out and used to our advantage, improving this construction process.¹²

Nursing teaching is a challenging process, and one questions the degree in which teachers and educational institutions prepare the students to cope with practical situations using their own potential and, in particular, to cope with those situations that involve the relationship with others in Nursing teaching, and how this training affects the choices and performance of the professional in this field of work.¹³

Undergraduate nursing course teachers prepare Nursing students to carry out their activities with skill and technical and scientific competence, and with awareness about the importance of caring with a humanized touch, guiding their students toward respecting the need that every professional has to specialize in different areas, without losing sight of the whole picture.¹⁴

In the field of stomatherapy, the nursing discipline has been generating and validating the necessary and useful knowledge to its specialty care practice, with the aim to fulfill the real needs of people in its areas of coverage: stomata, wounds and incontinence. Regarding the care of stomized patients, it is known that this is a complex and multifaceted practice and that, for its achievement, the professional must master specific skills, not always widely discussed at the time of undergraduate nursing education.

These skills involve pre-, intra- and postoperative care for the individual to be treated with an ostomy, aiming, among many things, to encourage self-care and prevention of stoma and peristomal skin complications.

Most of the teachers from universities A and B answered that, in pre- and intraoperative phases, a transparent device should be applied, with evaluation of its adherence and preventing leakage or surgical wound infiltration; and, in anticipation of its event, a new collecting device should be installed.

The main measures that can help in reducing peristomal skin complications are: preoperative stoma demarcation, a proper stoma application, a suited choice of the equipment, patient and caregiver education, and multidisciplinary care.^{14–16}

In users' guidance and teaching on stoma and peristomal skin care by the nurse, it is important that those procedures related to skin care and the choice and maintenance of the collecting device are developed in sequential, logical steps, in order that this information may be translated to the situations of everyday life at patient's home.

The order of transference of guidelines for stoma and peristomal skin care to the patient can influence his/her well-being in everyday routine. An information clearly transmitted contributes to arouse the patient's interest in actively participating in the rehabilitation process. The user's motivation and interest are essential for his/her participation in the teaching-learning process and, consequently, in the rehabilitative process.^{15,17–19}

Preoperatively, stoma site demarcation should be performed and, one can choose by placing a device with characteristics and diameter similar to that to be used in the immediate postoperative period.^{16,19–21}

Overall, the study participants reported that stoma demarcation contributes to the prevention of stoma and peristomal skin complications, and also to the rehabilitative procedure.

Choosing the appropriate location in the abdominal wall should be made by prior demarcation of the stoma site; this site should be located in an area of skin without irregularities, to favor the attachment of the collecting equipment. The demarcation should be performed with the patient in different positions and taking into consideration his/her body type, abdomen configuration, motor skills and daily activities.

The demarcation of the stoma is a critical procedure to be held preoperatively, standing out as one of the most important aspects of the rehabilitative process.²²⁻²⁷

In the transoperative (or, more recently, perioperative) phase, the nurse working in the surgical center inspire confidence and minimizes the anxiety and fear, when the patient is faced with surgery, still during the preoperative visit. Furthermore, the patient/inpatient unit nurse (whether or not a stomatherapist) interaction is important for the exchange of information, especially with respect to the collecting device designated for postoperative use.^{20,28}

During the postoperative nursing care, the patient should be encouraged to learn how to care for his/her stoma, in order to preserve the independence and accepting a new life situation. Hemodynamic condition of the patient, stoma condition, effluent control, and collecting device adherence should also be evaluated. Postoperative nursing care involves paying attention to biological and psychosocial needs of stomized patients; it can be said that the rehabilitative process is directly related with the satisfaction of these needs in an early, individualized and systematic way.^{12,13,28}

Almost all teachers recruited in this study answered that, for peristomal dermatitis prevention, the skin should be kept free from moisture and, upon the collecting device removal, skin rubbing should be avoided; and hygienization with mild soap and water should be performed with a piece of clean, soft, damp cotton cloth without rubbing; the skin should be kept dry; and hair removal should be done with curved tip scissors, cutting close to the abdominal wall. All teachers answered that the removal of the collecting device must be performed with gentle movements, with the microporous adhesive removal starting at the lateral tab; the wall of the abdomen should be pressed with the other hand, while removing the adhesive from the skin.

Dermatitis is a frequent complication, more common in ileostomy and colostomy procedures and also in right colon transversostomy. Although some authors describe dermatitis as a late complication, it can occur at any time postoperatively. Dermatitis can be classified according to several color-, relief-, thickness- and tissue related changes, being generally categorized according to its severity in mild, moderate or severe. As for the most frequent causes, dermatitis may be classified as: contact or irritant dermatitis and allergic dermatitis.^{13,29}

The nursing care for stomized patients with dermatitis are: maintenance of moisture-free skin, use of a protective skin barrier, non-traumatic removal of the device, avoidance of friction and of continuous pressure on the skin by using a very tight belt, avoidance of a maladaptative device, and self-care teaching.^{17,25}

The stoma care include: hygienization of the stoma and peristomal area with mild soap and water or saline solution, properly drying with a soft clean cloth, periodic draining and measurement of the effluent, manufacture of a mold of plate hole (or collecting equipment hole) according to the measure of the result of previously measured stoma, and selection and use an appropriate collecting device for each type of stoma (taking into account the patient and effluent characteristics), as well as patient and caregiver's abilities.^{19,22}

In order for the skin to be cared throughout the patient's life cycle, it is important to understand the human development process, from infancy through old age, emphasizing mainly the skin development and characteristics.^{26,27} It is critical to know the characteristics of the skin in both states, normal and abnormal, so that an appropriate care is performed.

The nursing practice – as well as the practice of the undergraduate nursing course teacher – in the pre-, intra- and postoperative phases becomes essential for the prevention of stoma and peristomal skin complications and, as a consequence, for the patient's good recovery, being also vital to his/her rehabilitation and social reintegration.^{30,31}

Conclusion

Through this study we can conclude that:

- Most participants know the equipment importance in preventing peristomal skin complications: 15 (68.2%) and 14 (70.0%) respectively for institutions A and B.
- Teachers from universities A and B answered that, intraoperatively, it is necessary to apply a transparent equipment and evaluate its adherence, preventing leakage or surgical wound infiltration; and in the imminence of this event, to install a new collecting device.
- Teachers from the participating universities answered that stoma demarcation must be performed preoperatively, and that it is important to educate the patient about the surgery, stoma care and collecting device; and that a susceptibility test for the equipment should be performed.
- Participants know the importance of the equipment to prevent peristomal skin complications: 15 (68.2%) and 14 (70.0%), respectively, for the institutions A and B.
- All teachers from the two universities answered that stoma demarcation should be performed preoperatively, and that it is important to educate the patient on the act of surgery, stoma care, collecting device, as well as performing a sensitivity test for the equipment.

Conflicts of interest

The authors declare no conflicts of interest.

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