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NOTE PREVIEW ARTICLE

A QUASI-EXPERIMENTAL STUDY WITH NURSES ABOUT INTESTINAL STOMAS OF ELIMINATION

ESTUDO QUASE-EXPERIMENTAL COM ENFERMEIROS SOBRE ESTOMIAS INTESTINAIS DE ELIMINAÇÃO

UN ESTUDIO CUASI-EXPERIMENTAL CON ENFERMEROS ACERCA DE ESTOMIAS INTESTINALES DE ELIMINACIÓN

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ABSTRACT

Objective: to evaluate the effect of distance education in the knowledge of primary care nurses on intestinal ostomies of elimination. **Method:** a quasi-experimental study, of the before-after type. The study population consisted of primary care nurses of Teresina-PI, Brazil. Data collection will be through the instrument of evaluation of the nurses' knowledge about intestinal ostomies of elimination built and validated in Brazil. The scores of hits in the pre and post-test will be compared using the Wilcoxon test and the level of significance will be $\alpha=0.05$. The results of tests with α less than or equal to 0.05 will be considered statistically significant. **Expected results:** to promote increased knowledge of nurses after participation in a distance educational intervention on intestinal ostomies of elimination, thus improving the care quality for the ostomized client. **Descriptors:** Ostomy; Primary Health Care; Distance Education; Continuing Education; In-service Training; Nursing.

RESUMO

Objetivo: avaliar o efeito da educação a distância no conhecimento de enfermeiros da atenção primária sobre estomias intestinais de eliminação. **Método:** estudo quase-experimental, do tipo antes-depois. A população do estudo será composta por enfermeiros da atenção primária de Teresina-PI, Brasil. A coleta de dados será por meio de instrumento de avaliação do conhecimento dos enfermeiros sobre estomias intestinais de eliminação construído e validado no Brasil. Para comparar os escores de acertos no pré e pós-teste será utilizado o Teste de Wilcoxon e o nível de significância adotado será de $\alpha=0,05$. Serão considerados estatisticamente significantes os resultados dos testes que apresentarem α menor ou igual a 0,05. **Resultados esperados:** promover aumento do conhecimento dos enfermeiros após participação em uma intervenção educativa a distância sobre estomias intestinais de eliminação, melhorando assim a qualidade do cuidado frente ao cliente estomizado. **Descritores:** Estomia; Atenção Primária à Saúde; Educação a Distância; Educação Continuada; Capacitação em Serviço; Enfermagem.

RESUMEN

Objetivo: evaluar el efecto de la educación a distancia en el conocimiento de los enfermeros en la atención primaria de estomas intestinales de eliminación. **Método:** un estudio cuasi-experimental, del tipo antes y después. La población de estudio está compuesta por enfermeros de la atención primaria de Teresina PI, Brasil. La recolección de datos será a través del instrumento de evaluación de los conocimientos de los enfermeros acerca de estomas intestinales de eliminación construido y validado en Brasil. Para comparar las puntuaciones de aciertos antes y después la prueba se utilizará el teste de Wilcoxon y el nivel de significación será $\alpha=0,05$. Se considerarán estadísticamente significativos resultados de pruebas que presenten α inferior o igual a 0,05. **Resultados esperados:** promover un mayor conocimiento de los enfermeros después de su participación en una intervención educativa a distancia sobre estomas intestinales de eliminación, mejorando así la calidad de la atención al cliente ostomizado. **Descriptor:** Estoma; Atención Primaria de Salud; Educación a Distancia; Educación Continua; Capacitación en Servicio; Enfermería.

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INTRODUCTION

Intestinal ostomies of elimination result from surgical interventions performed in the large or small intestine and consist of exteriorizing an intestinal segment, through the abdominal wall, creating a stoma that allows eliminating feces and flatus.¹⁻²

In Brazil, the national guidelines for Health Care of Ostomized People in the Context of the Unified Health System (UHS) highlight the need to promote the training of professionals in this topic at all health care levels and the implementation of guiding actions for self-care, prevention of complications in stomas and supply of collectors and adjuvants for the protection and safety.¹

In the postoperative period, the nurse will resume self-care education with the ostomy and its functioning, as well as the use, management and exchange of collectors and use of adjuvants, providing practical guidelines for adequate sanitary conditions according to home features of these people and the need for adjustments in their everyday life, as well as the clarification of doubts. Moreover, the nurse performs referral to the Ostomy Program (maintained by the UHS) closest to the residence city, as well as is able to present and direct other possibilities of services in the health care network, such as the Family Health Strategy (FHS) of his/her attached area.¹

In this sense, the knowledge appropriation by nurses on the surgical technique and the intestinal anatomophysiology is essential to identify consequences and specific modifications suffered by each person. This will directly influence in self-care education, in the indication of the type of the collector and adjuvants, considering the type of ostomy, the individual needs and the prevention of complications in the ostomy and peristomy skin.²

Studies on the nursing care to people with intestinal ostomies of elimination indicate that there are shortcomings and mistakes in the rehabilitation process of the ostomized person, which may be caused by the nurses' insufficient knowledge in relation to the theme, insufficient training during graduation or lack of technical and scientific training after graduation.³⁻⁶

In the Primary Health Care context, in which there are still problems associated to inadequate operation of the system, the Permanent Health Education (PHE) emerges as an important instrument, because it is a dynamic way to associate reality and scientific evidence in the knowledge formation, in

which learning and teaching incorporate in the daily life of organizations and work, based on meaningful learning and the possibility of transforming professional practices. PHE seeks the construction of new practices in health and Nursing and Distance Education (DE) represents important tool that can be used to improve knowledge management, care quality and customer satisfaction by nurses about ostomies.⁷⁻⁸

The DE appears to meet certain needs, such as access to learning and training opportunities, update of skills, reduction of costs of educational resources, directed educational campaigns for specific audiences and provision of emergency training for target groups.⁸

Although there are studies on the use of the DE for teaching ostomized people and nursing students about ostomies⁹, few have used the DE for permanent education of nurses¹⁰, and none was conducted with nurses from basic health care, thus justifying the need for surveys of this nature. Therefore, this study chose the DE for permanent education of nurses of the Family Health Strategy (FHS) on intestinal ostomies of elimination, by recognizing the need for updates and training of health workers in their daily work, expanding the possibilities of collective educational spaces that favor the exchange of experiences.

The following research questions guided the investigation: What is the profile of the nurses participating in the study? What is the nurses' knowledge about intestinal ostomies of elimination before and after the DE? Is there any difference in the nurses' knowledge about intestinal ostomies of elimination before and after the DE?

OBJECTIVE

- To assess the impact of an online educational intervention on the knowledge of nurses from the Basic Care of Teresina-PI on intestinal ostomies of elimination.

METHOD

A quasi-experimental study, of the before and after type. The study population is composed by all nurses (n=81) from the Center/North Regional Health of Teresina. The sample will be obtained by convenience, according to the following inclusion criteria: availability to perform activity in a virtual learning environment (VLE) of Moodle outside workload, Internet and computer access and knowledge to use computer and Internet. Nurses on vacation and/or medical leave at the time of data collection were excluded.

Data collection will use instruments of sociodemographic characterization, adapted computer and Internet, and another for evaluating nurses' knowledge on intestinal ostomies of elimination built and validated in Brazil.¹¹

The DE on intestinal ostomies of elimination will be offered through a Virtual Learning Object (VLO) built, validated and hosted at Moodle VLE <http://ead.uninovafapi.edu.br>.¹¹ The overall objective will be to offer DE on intestinal ostomies of elimination for FHS nurses from Center/North Regional Health of Teresina. The content will be organized into seven units, two for the introduction (to inform and present the following to the target public: tutors, objectives, content, schedule of activities and interactive tools) and five units for the following contents: anatomy and physiology of the digestive system, conceptual aspects of the ostomy of elimination, nursing care in the perioperative period of intestinal ostomy, early and late complications, rights of ostomized people and procedures for changing the intestinal ostomy collector. All units have the same structure: content, objectives, videos, didactic material, discussion forums and exercises of Hot Potatoes crosswords. The total duration of the DE on intestinal ostomies of elimination will be 48 hours, distributed in seven weeks, during June and July 2018. Week 0, six hours, for understanding Moodle VLE and answering the pre-test, weeks one to five, 40 hours to study the didactic material on intestinal ostomies of elimination, watch videos, answer the discussion forums and Hot Potatoes crossword and week seven, two hours to answer the post-test.

Data collection will occur in four stages: training of employees and active search for potential participants of the study, understanding of the Moodle VLE and pre-test, implementation of the DE on intestinal ostomies of elimination and post-test.

In the first stage, the researcher will train eight employees, students of the Nursing Course from a public university of Teresina that will assist in the active search for FHS nurses from the Center/North Regional Health of Teresina, in the Family Health Units (FHU), and will be tutors of the DE on intestinal ostomies of elimination. Then, the researcher will ask the Nursing Manager of the Municipal Health Foundation of Teresina a list with names and FHU of the FHS nurses from Center/North Regional Health. With this, the researcher and the eight nursing students will carry out an active search at all FHU of Center/North Regional Health of Teresina to

find potential research participants. On this occasion, nurses will receive information on the research objectives and the invitation to participate in the DE on intestinal ostomies of elimination and, when the nurse accepts to participate, he/she will be asked to sign the ICF, e-mail and telephone. These data will be used for registering nurses in Moodle VLE, sending login and password access and creation of a group on WhatsApp messaging application to facilitate the communication of the researcher, students and nurses during the DE on intestinal ostomies of elimination.

In the second stage, the nurses that accept to participate in the study will be released from a work shift, by the Municipal Health Foundation of Teresina, to attend the in-person meeting, six hours, in the Informatics Laboratory of the Postgraduate Course in Nursing at a Public University of Teresina, objectifying their understanding of Moodle VLE (Week 0). For this meeting, the nurses will be subdivided into five groups and each one will have the opportunity to access Moodle VLE, edit his/her profile, watch video, download and save files, answer forum for presentation, Hot Potatoes crossword exercises and answer the pre-test. In addition, at the end of the meeting, each participant will receive a tutorial with instructions on how to access and participate in the DE on intestinal ostomies of elimination, which will also be available at link within Moodle VLE.

In the third stage (weeks 1 to 5), the nurses will access Moodle VLE independently in time and space required for completing the corresponding units. The same will be released weekly and will remain open until the end of the DE, allowing the participant to complete all activities until the end of the DE. During this period, weeks one to five, each group of five or six participants will receive a student's tutorship, avoiding that they do not perform any DE activity and losses.

In the fourth stage (week 7), participants will be released from a work shift by the Municipal Health Foundation of Teresina to attend the in-person meeting, two hours, at the Informatics Laboratory of the Postgraduate Course in Nursing at a Public University of Teresina, to respond a post-test at the end of the DE on intestinal ostomies of elimination.

The collected data will be coded for preparation of a data dictionary, then transcribed, with the process of double entry in the Microsoft Excel spreadsheet application, correcting the errors to be exported to the program Statistical Package for Social Science Version 18.0 (SPSS version

18.0). The data treatment will be carried out in order to allow the analysis. The variables sex, marital status, education (Graduation, Specialization and Master's Degree), Use of Computer and Internet (Owns, Frequency and Place of use) will be dichotomized. Descriptive statistics (means, standard deviations, frequency and percentage) will be used for exploratory analysis of the sociodemographic, training, use of computer and Internet and nurses' knowledge about intestinal ostomies of elimination variables before and after the DE. The scores of hits in the pre and post-test will be compared using the Wilcoxon test and the level of significance will be $\alpha=0.05$. Results of tests with α less than or equal to 0.05 will be considered statistically significant.

All participants will sign the Informed Consent Form after presentation of the study objective according to the guidelines and regulatory standards for researches involving human beings, established in Resolution 466/12 of the National Health Council. The Ethics Committee of the Federal University of Piauí approved the study, Opinion 886,182.

EXPECTED RESULTS

This study shall increase the knowledge of basic care nurses after participation in an online educational intervention on intestinal ostomies of elimination, thus improving the care quality for the ostomized client. The DE can be an effective strategy for nurses' permanent education, since it is a form of education that encourages the knowledge construction, fosters student's autonomy in the pursuit and deepening of content, develops skills, improves the ability of argumentation and group work with the other participants.

The DE is not intended to replace the traditional education, but consolidate as complementary methodology in nurses' teaching-learning process. A specialized knowledge is necessary, since graduation does not address the thematic Stomatherapy enough, with gaps and deficits of practical knowledge. Permanent education is an important tool that should be used in professionals' training. The update will positively affect not only basic care, but also the quality of care provided to the ostomized person.

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