

CONSTRUCTION AND VALIDATION OF SIMULATED SCENARIO FOR NURSING CARE TO COLOSTOMY PATIENTS

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ABSTRACT

Objective: to construct and validate a high fidelity clinical simulation scenario on nursing care to colostomy patients.

Method: descriptive study of construction and validation of the appearance and content of a high fidelity clinical simulation scenario referring to nursing care for colostomy patients. To guide the elaboration of the scenario, a study was carried out in the literature on nursing care for the colostomy patient in the hospital environment. The scenario was constructed according to the items proposed by Fabri, based on the Bloom's Taxonomy. For the selection of the nine experts, the criteria proposed by Fehring were used. The scenario, after being structured, was tested by a group of students from the 3rd and 4th years of graduation in nursing in a clinical simulation laboratory of a public university. It was considered 80% level of agreement.

Results: in the validation of the scenario, all the experts agreed with the proposed items, suggesting the inclusion of some references, book chapters, skills training, preparation of reading material and *checklist* follow-up of participants. This scenario test allowed the identification of relevant contributions for adjustments of the simulated activity and allowed to test the *debriefing* with the support of the *checklist*. It was also evidenced the need to include information in the patient medical record and to increase the time of development of the scenario to solve the proposed objectives.

Conclusion: the results show that for practical simulated well defined and successful are required to careful preparation, validation and prior testing of the planned activities.

DESCRIPTORS: Simulation. Patient simulation. Surgical stoma. Nursing. Teaching. Education.

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CONSTRUÇÃO E VALIDAÇÃO DE CENÁRIO SIMULADO PARA ASSISTÊNCIA DE ENFERMAGEM A PACIENTES COM COLOSTOMIA

RESUMO

Objetivo: construir e validar um cenário de simulação clínica de alta fidelidade sobre assistência de enfermagem a pacientes com colostomia.

Método: estudo descritivo de construção e validação de aparência e conteúdo de um cenário de simulação clínica de alta fidelidade referente à assistência de enfermagem a paciente com colostomia. Para direcionar a elaboração do cenário, foi realizada uma pesquisa na literatura sobre cuidados de enfermagem ao paciente com colostomia no ambiente hospitalar. O cenário foi construído segundo os itens propostos por Fabri, com base na Taxonomia de Bloom. Para seleção dos nove peritos, foram utilizados os critérios propostos por Fehring. O cenário, após estruturado, foi testado por um grupo de estudantes do 3º e 4º anos de graduação em enfermagem em um laboratório de simulação clínica de uma universidade pública. Foi considerado nível de concordância 80%.

Resultados: na validação do cenário, todos os experts concordaram com os itens propostos, sugerindo a inclusão de algumas referências, capítulos de livros, treino de habilidades, confecção de material de leitura e *checklist* de acompanhamento aos participantes. Essa testagem do cenário permitiu identificar contribuições relevantes para ajustes da atividade simulada e permitiu testar o *debriefing* com o apoio do *checklist*. Evidenciou-se, ainda, a necessidade de incluir informações no prontuário do paciente e de aumentar o tempo de desenvolvimento do cenário para resolução dos objetivos propostos.

Conclusão: os resultados mostram que para práticas simuladas bem delineadas e exitosas são necessárias a elaboração criteriosa, a validação e a testagem prévia das atividades planejadas.

DESCRITORES: Simulação. Simulação de paciente. Estomas cirúrgicos. Enfermagem. Ensino. Educação.

CONSTRUCCIÓN Y VALIDACIÓN DE UN ESCENARIO SIMULADO PARA ATENCIÓN DE ENFERMERÍA A PACIENTES CON COLOSTOMÍA

RESUMEN

Objetivo: construir y validar un escenario de simulacro clínico de alta fidelidad sobre atención de enfermería a pacientes con colostomía.

Método: estudio descriptivo de construcción y validación de apariencia y contenido de un escenario de simulacro clínico de alta fidelidad, referente a la atención de enfermería a pacientes con colostomía. Para orientar la elaboración del escenario, se realizó una investigación en la literatura sobre los cuidados de enfermería al paciente con colostomía en el ambiente hospitalario. El escenario se construyó según los ítems propuestos por Fabri, con base en la Taxonomía de Bloom. Para seleccionarlos nueve especialistas, se utilizaron los criterios propuestos por Fehring. El escenario, luego de ser estructurado, ha sido testeado por un grupo de estudiantes de 3º y 4º año de la carrera de grado en enfermería en un laboratorio de simulacro clínico de una universidad pública. Se consideró un nivel de concordancia del 80%.

Resultados: en la validación del escenario, todos los especialistas concordaron con los ítems propuestos, sugiriendo la inclusión de algunas referencias, capítulos de libros, capacitación de habilidades, confección de material de lectura y *checklist* de acompañamiento a los participantes. Este test del escenario permitió identificar las contribuciones relevantes para los ajustes de la actividad simulada y testear el *debriefing* con el apoyo del *checklist*. También se puso en evidencia la necesidad de incluir información en el informe del paciente y de aumentar el tiempo de desarrollo del escenario para resolver los objetivos propuestos.

Conclusión: los resultados demuestran que para prácticas simuladas bien delineadas y exitosas son necesarias una elaboración criteriosa, una validación y un test previo de las actividades planificadas.

DESCRIPTORES: Simulación. Simulación de paciente. Estomas quirúrgicos. Enfermería. Enseñanza. Educación.

INTRODUCTION

The ostomy (stoma or colostomy) is a surgical procedure, of provisional or definitive character, whose objective is the exteriorization of any hollow viscera of the digestive, respiratory, urinary or others, with the external environment, bypassing the normal transit. If this derivation is not surgically created, it is called fistula. The exteriorized segment is named according to the affected hollow viscus. Intestinal ostomies can be classified into three types: jejunostomies, ileostomies and colostomies. Indications for this type of procedure include: trauma, congenital diseases, inflammatory diseases, chronic pathologies, neoplasias, among others.¹

The ostomies generate alterations of the biological functions, repercussions in the emotional, physical and social aspects, being able to generate suffering and need of adaptation to face this new condition.¹ When submitted to a temporary or permanent ostomy, patients present a series of changes in life habits such as alterations in body image, leisure activities, family, sexual and social relationships, affecting their autonomy and quality of life. Not only the alteration of their self-image, but also the use of the excrement collecting devices influence the quality of life of the patients. In this sense, it is recommend the use of devices that present essential requirements such as safety, protection, efficiency in the collection of waste, easy handling, comfort and economy for patients, allowing, therefore, to cope with these changes with greater safety, comfort and quality.²

The devices used by stomized patients basically consist of a collecting bag which contains an adhesive part that adheres to the skin surrounding the stoma and a bag collecting the residues. Ostomized devices have evolved enormously, providing better medical and nursing care for users. Health professionals, and especially the nurse, are responsible to know the pathology and the evolution of these technologies to enable the patient and his caregivers in the correct choice of the necessary materials, approaching them with efficient communication and empathy. In this way the understanding about the ostomy and its care, strengthening self-confidence and self-care for a better quality of life for both patients and their families.²⁻⁴

Usually, ostomized patients present difficulties in relation to self-caring, regarding the use of the collecting system, adaptation to the new reality, complications in the stoma and reduction of the quality of life. Health professionals, more specifically the enterostomal therapist nurse or the nurse with experience in the field, have enormous responsibility with these patients. This type of assistance requires reflection and action, in order to contribute to the rehabilitation process. The nurse must define the best devices to be used, the handling and the orientations based on the specific needs of each patient, which are diverse and constantly changing.³⁻⁶

To reach these competencies with a focus on a critical and reflective professional, educational institutions in the country and around the world have successfully used the clinical simulation that consists of trying to imitate a real setting in a fictitious environment. It aims to make the student experience the professional practice in a totally safe space without chances of causing harm to patients. Likewise, it allows the opportunity to develop skills, clinical reasoning and decision making, allowing to plan the actions against the most common distractors that occur in the care of patients and caregivers.⁷

Thus, teaching in simulated practice allows the development of several aptitudes in students and the teacher, in that moment, in the role of facilitator, contributes according to the learning objectives planned in simulated scenarios, which may have varying complexity depending on the use or not of a series of possible resources. Scenarios for success must have clear goals and allow students to get as close to reality as possible for greater fidelity. The construction of a scenario is the first phase to be consolidated in a simulated clinical activity. The well-planned and defined scenario gives the student a context close to clinical practice and makes him feel real emotions.⁸ The knowledge and competence of the facilitators will guide the planning and development of the activity.⁹⁻¹⁰

The fidelity of the scenario will determine the complexity of the resources to be used. In addition to physical facilities that mimic the various areas of health services, simulated practices are common in the use of simulators as well as simulated patients. The simulated patients, in the different modalities in which they are employed (role play, defaulted patients and standardized patients), have been widely associated with the development of communication skills and, when associated with an anatomical sample (mixed patients), allow a lower cost for the development of technical skills.¹¹

After the construction of the simulated scenario, it must be validated to achieve the proposed objectives. This validation, performed by a group of experts in the area for which it is intended, guarantees not only the reliability of the proposed clinical case, but also contributes to its closer increment to reality and the use of the best evidences. Generally, it is recommended the projection of the simulated scenario to a group of qualified professionals with practical experience to indicate the need for adjustments and creation of daily distractors, thus guaranteeing characteristics that reflect the real world.¹²

In this context, this study aims to construct and validate a high fidelity clinical simulation scenario for nursing care of colostomy patients.

METHOD

This is a descriptive study of the construction and validation of the appearance and content of a high-fidelity clinical simulation scenario for nursing care of colostomy patients. It should be emphasized that the research took into account the ethical aspects.

Construction of the scenario

To guide the elaboration of the simulated scenario, an initial research was carried out in the literature on nursing care in the care of colostomy patients. Researchers specialized in clinical simulation and a professor in the area of surgical nursing participated in the elaboration of the scenario. The scenario elaborated comprised the patient care in the hospital environment in a surgical clinic unit.

The scenario was idealized based on the Bloom's Taxonomy¹³ and constructed and revised by a group of researchers who used their precepts in the cognitive, affective and psychomotor domains. The cognitive domain is related to the acquisition of knowledge, to learning. In it, the objectives are gathered at levels of hierarchy that, in certain situations, can be modified and interpolated. The categories of this domain are: 1) remember; 2) understand; 3) apply; 4) analyze; 5) synthesize; and 6) create. The affective domain is related to the feelings and postures that embody the emotional and the affective and comprise the categories receptivity, response, valorization, organization and characterization. The psychomotor domain is linked to physical abilities and their categories involve imitation, manipulation, articulation and naturalization.¹³⁻¹⁴

To guide the development of the scenario, we also used the theoretical reference on ostomies¹⁵⁻¹⁸ and the items proposed by Fabri et al.,¹⁹ i.e.: a) prior knowledge of the student; b) learning objective; c) theoretical foundation of the activity; d) preparation of the scenario; e) development of the scenario; f) debriefing e g) evaluation.

Validation of appearance and descriptive content of the scenario

Data collection was carried out from March to April of 2017. For the selection of experts, it was used the criteria proposed by Fering,²⁰ being considered expert the professional with minimum degree of masters and that obtained a minimum score of five points, in a total of 14 distributed: title

of master in nursing (4 points), dissertation of masters in the area of interest of the study (1 point), doctoral thesis in the area of study interest (2 points), clinical practice with one year or more of experience in the subject of the study (1 point), specialization in the topic of interest of the study (2 points), relevant research publication in the area of interest of the study (2 points) and publication of an article in the area of interest of the study in reference periodicals (2 points). In this study, it was considered an area of interest of the clinical simulation study and topic of interest in the nursing study in enterostomal therapy.

For the validation process, after the construction of the scenario, experts were invited to analyze and judge the items related to the proposed scenario and with experience in the areas and topics of interest: clinical simulation and nursing assistance to the colostomized patient. The experts were selected through the analysis of the Curriculum Lattes and the experts characterized according to the criteria proposed by Fehring.²⁰

For the participation of the experts, an invitation to participate in the study was sent electronically, a free and informed consent form, an instrument for characterization of the individuals, a content analysis instrument and a scenario to be validated, and a 30-day deadline for documents. Among the 15 invited experts, nine effectively participated (60%). It was considered 80% level of agreement among the judges for each item of the scenario to be validated²¹ and Content Validity Index (CVI), equal to or greater than 0.80, according to the items proposed by Fabri et al.¹⁹ The CVI uses a Likert type scale of 4 ordinal points, being: 1-inadequate; 2 - needs to be reformulated; 3 - adequate with possibility of revision; and 4 - adequate. The index was calculated as follows: $CVI = \text{total number responses "3 or 4"} / \text{total number of responses}$.

Scenario Testing

After the construction, the scenario was tested by a group of 3rd and 4th year undergraduate students in Nursing. The test of the scenario occurred in the clinical simulation laboratory of a public university. The group received previous guidance regarding the behavior in the simulation, resources used and scenario that, in the end, filled the same content validity index instrument as the experts.

RESULTS

Construction of the scenario

The scenario was constructed according to the items proposed by Fabriet al.¹⁹ based on the Bloom's Taxonomy.¹³ The chart 1 presents the items considered in this construction with their representation in the taxonomy.

Although the proposed domains in Bloom's Taxonomy¹⁴ have collaborated significantly for organization and planning of the learning process, often in the simulated clinical scenario domains are not treated in isolation, since they complement each other.

Chart 1 – Description of the scenario according to Bloom's Taxonomy¹⁴ and proposed by Fabriet al.¹⁹

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Previous experience of the student: Participated in the activity students of the 3rd and 4th year of undergraduate nursing.

Primary Learning Objective: Provide nursing care in a comprehensive way to the colostomized patient. **Secondary Objectives** use of biosafety principles; perform effective communication; evaluate the conditions of the peristome skin, intestinal stoma, operative wound, characteristic, amount of effluent and the presence or not of complications; select appropriate material for the procedure of emptying and changing the bag; record the intervention performed.

Duration of the scenario: 15 to 20 minutes.

Pre-reading material: Four references were submitted on-line for prior study.^{17,22–24}

Human Resources: 1 (one) lecturer in the clinical nursing area; 1 (one) lecturer specialized in clinical simulation; 2 (two) laboratory technicians; and 1 (one) simulated patient (actor).

Scenario preparation: Proposed theme: "Nursing care for the colostomized patient" Medicaldiagnostic: Rectal neoplasia. Reason for the current hospitalization: Post-operative segmental colectomy with left stoma. **Loyalty to the scenario:** high Fidelity. **Clinical situation/case:** Patient João Alves Bandeira, male, 68 years old in the 12th postoperative period of segmental colectomy with definitive colostomy on the left. He is conscious, oriented, calm, communicative, with venous access in the back of the hand of the right upper limb with flexible short catheter No.22, without phlogistic signs. Low distended abdomen, with operative wound in the middle abdominal area with a clean and dry appearance, with no phlogistic signs and a functioning colostomy on the left (semi-pasty feces in great quantity).

Information for the student: You are a nurse at the general surgical clinic and were called in room 2236 to care of a 68-year-old patient on the 12th postoperative day of colectomy surgery with left colostomy. He is in the bed in supine position with peripheral venous access in the back of the hand of the upper right limb with saline solution 0.9% 500ml. Vital signs: blood pressure= 140/90mmHg; pulse= 80bpm, temperature= 36.5 °C, respiration= 18irpm. Colostomy bag in the left functional intestine, with elimination of semi-pasty effluents in large quantity. In this scenario, perform patient care. Consider have already performed hand hygiene. **Script for simulated patient training:** Your name is João Alves Bandeira, 68 years old, married to Juliana Alves. You have three (3) children, being two (2) men and one woman, aged 22, 25 and 28, respectively. Your wife is a housewife. You work as a bricklayer. In the last four months she has been showing a change in the intestinal habit, alternating periods of diarrhea and constipation. At the beginning of the condition, you did not notice abnormalities, but you began to notice that the feces were darker and sharper (stringy type). Even so, you did not seek medical care. In the last 30 days you began to present blood in the feces and subsequently rectal bleeding, in addition to persistent abdominal discomfort, accompanied by cramps, excessive gas elimination and a feeling that your intestine was not completely empty. Since you haven't improved, communicated to your wife and she immediately scheduled a medical appointment. After performing several blood and imaging tests (computed tomography), the biopsy-colonoscopy diagnosed a tumor. You underwent surgery and is now in the 12th postoperative period of colectomy, with a colostomy on the left. Try to answer the questions in a low-key voice, appropriate for the environment, and if the student asks for some information that has not been commented on your illness, answer "I do not have this information" ("not relevant to the case"). **Characterization of the actor:** the actor was featured in clothing appropriate to the hospital environment, peripheral venous access on the back of the right upper limb hand. The artistic make-up for aging was latex in two layers; covered with compact powder and base with coloration close to the skin color of the simulated patient. Talc powder was used for the hair. For the manufacture of the abdominal surgical wound, was used artistic makeup mass, latex, compact powder for cover and surgical suture. For the preparation of the intestinal stoma located in the left lateral region of the abdomen, close to the transumbilical line (figure 1), the following were used: latex for fixation; mass of artistic makeup in

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stoma format; Red paint; and false blood. The feces, inside the colostomy pouch, with their characteristic odor were prepared using beaten bovine liver and kept outside the refrigerator for two days. **Material resources:** drainable colostomy bag of the following types: one-piece cut-out colostomy bag and two-piece, opaque and transparent colostomy bag in adult and child sizes. Stoma measure, straight and curved scissors, gauze, tray, procedure glove box, goggles/protective visor, mask, disposable apron, sterile glove, 500 and 250ml saline, 10ml and 20ml syringe, 40x12 needle, short catheter flexible number 22, saline infusion set, saline identification label, plaster, micropore, towel, paper towel, compress, dressing pack, bedpan, urine bottles, jar, bucket, skin protection materials (powders, skin protection paste) and antiseptics (alcohol gel, anti-germ chlorhexidine, alcoholic). **Documentation:** patient's medical record containing medical prescription, medical evolution, nursing evolution, nursing prescription, laboratory and anatomical-pathological exams. Physical space of the environment properly characterized as general surgery ward with two beds.

Scenario Development: Evolution of the clinical case as shown in figure 2: Tree-making decisions.

Debriefing: The debriefing was carried out in a structured way.^{25,26} Initially, the participating students described the scenario and then expressed their feelings and reactions about what happened. The positive points occurred during the scenario were potentiated and the knowledge gaps identified, with reflection on the points to be improved. The possibilities of applying content in professional practice were also discussed.

Evaluation: The evaluation of the activity was carried out by the following instruments: 1) Scale of Satisfaction and Self-confidence in learning;²⁷ 2) Scale of Satisfaction with Simulated Clinical Experiences;²⁸ e 3) Theoretical evaluation with objective questions.

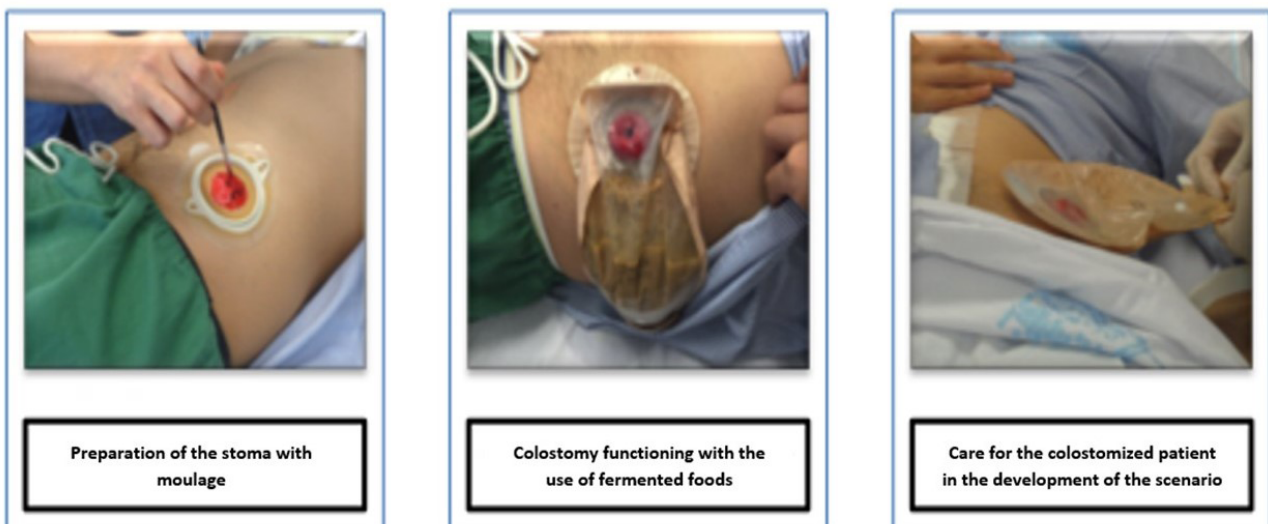


Figure 1 – Preparation and development of the scenario.

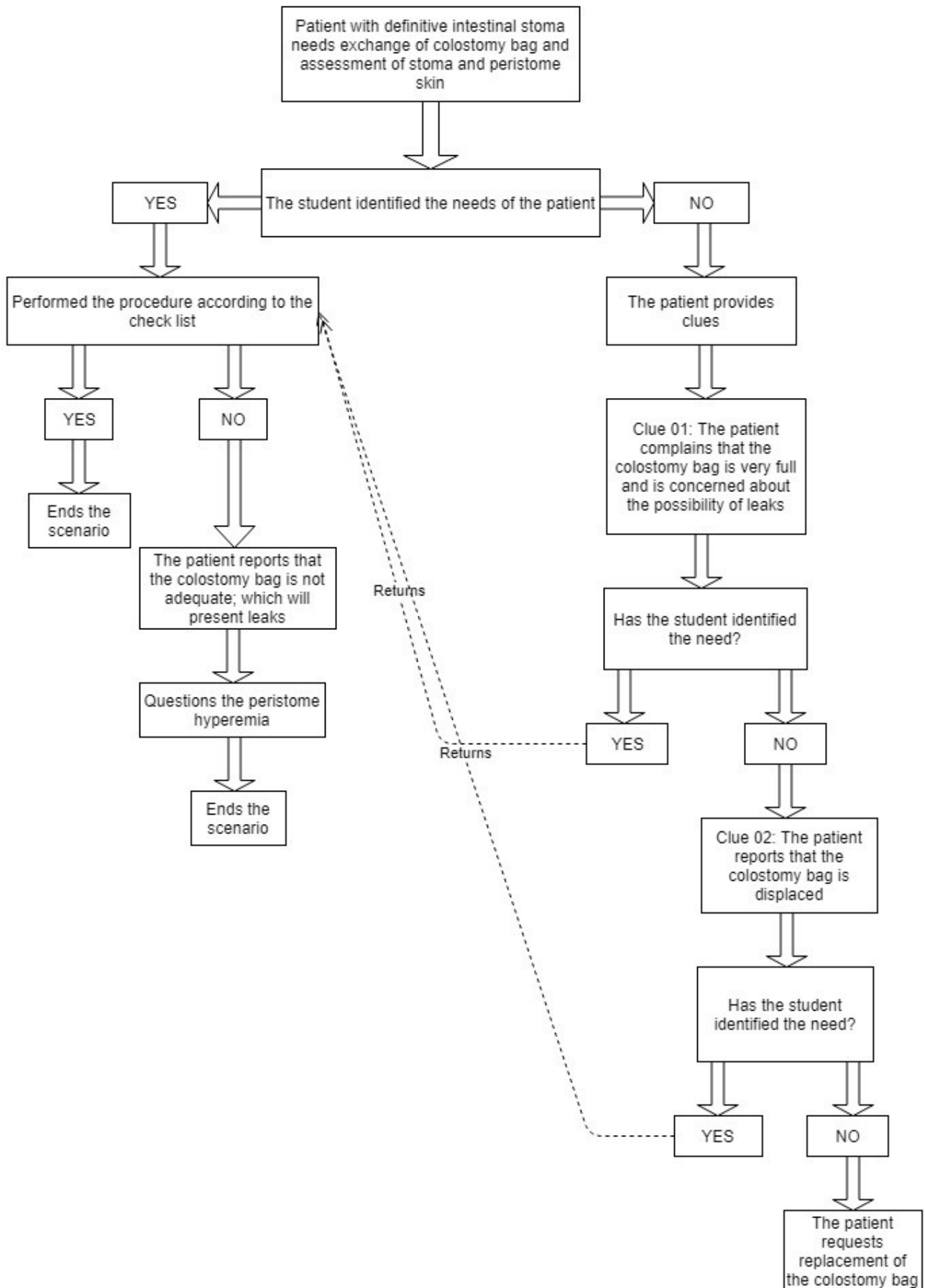


Figure 2 – Development of the scenario with evolution of the situation according to the Decision Tree

Validation and testing of the simulated clinical scenario

The simulated scenario was validated in content and appearance by nine nurses (five of the female gender and four of the male gender). The average age of the experts was 36.5 years (minimum of 28 and maximum of 48 years, median of 33 and mode of 31 years). The average training time was 12 years (minimum of seven and maximum of 22 years) and professional performance of 13 years (minimum of three and maximum of 30 years). Had performances in teaching undergraduate and graduate programs in nursing, health care management, continuing education and clinical care: teaching and management (2), enterostomal therapy and permanent education (1), hematology and hemotherapy (2), hospital care (1), intensive care unit (1) and medical-surgical nursing (2).

As for academic degrees, they all had specialization. The courses mentioned were: teacher training in technical professional education in the health area (1), cardiology (1), enterostomal therapy (1), prevention and control of infection in health services (1), medical-surgical (1), administration and management in health services (2), intensive care unit (1) and 1 did not referred. Among them, six still had a master's degree in nursing, five doctorates in the area of interest of the study (clinical simulation) and eight had relevant publications in clinical simulation.

The score, according to the criteria proposed by Fering²⁰ was established: three experts (33.3%) with 12 points, three (33.3%) with 14 points, two (22.2%) with 8 points and one expert with 6 points (11.2%).

Regarding the scenario validation, all the experts agreed with the proposed items. However, they suggested the inclusion of some references, book chapters, skills training, preparation of reading material and check list of participants follow up. The CVI of the scenario validation process among the experts, according to the items proposed by Fabri et al.,¹⁹ is described in Table 1.

Table 1 – Content validity index (CVI) of the process of validation of the scenarios between the experts (9) and the students (3). Ribeirão Preto, SP, Brazil, 2017

Items*	Experts					Students				
	1	2	3	4	CVI (%)	1	2	3	4	CVI (%)
Prior knowledge for the scenario										
Prior knowledge of the student	-	-	-	9	100%	-	-	-	3	100%
Learning Objectives	-	-	-	9	100%	-	-	-	3	100%
Theoretical foundation	-	-	-	9	100%	-	-	-	3	100%
Scenario preparation										
Check list	-	-	-	9	100%	-	-	-	3	100%
Final Components of the scenario										
Scenario Development	-	-	-	9	100%	-	-	-	3	100%
Debriefing	-	-	-	9	100%	-	-	-	3	100%
Assessment	-	-	-	9	100%	-	-	-	3	100%

* according to proposed by Fabriet al.¹⁹

After the validation and inclusion of the items suggested by the experts, the simulated clinical scenario was tested with a group of three undergraduate nursing students from a public university.

The testing of the scenario made it possible to identify relevant contributions for adjustments of the simulated activity. It also allowed to test the debriefing with the support of check list (indicated by

the judges), which was well evaluated by the participants. During the testing, it was also highlighted the need to include information in the patient's medical record and to increase the time of development of the scenario to solve the proposed objectives.

DISCUSSION

In recent years, clinical simulation has been presented as an important pedagogical strategy in teaching and health assessment, providing gains to the learner as satisfaction, self-confidence, clinical reasoning and decision making. To be successful, careful planning and performance of the activity is required by skilled and qualified professionals, guided by intentionality syllabus.²⁹

The success of skill training and the acquisition of competencies in simulated practices requires the use of well-planned, goal-oriented scenarios that lead to positive learners' experiences, inducing decision-making and successful problem solving.¹²

The development of the simulated clinical case provides the context for the simulation experiment. The educator, when developing the scenario, should prioritize the quality and validity of the content addressed, while maintaining the reliability and standardization of clearly defined, concise and relevant objectives, allowing students to demonstrate the skills acquired in the different stages of their formation.³⁰⁻³¹

Regarding the simulated clinical scenario presented in this study, the construction and validation process followed established criteria and recommendations. The primary objectives of a scenario should be broad, with essential competences, while the secondary objectives should be specific, include psychomotor, affective and cognitive skills such as communication, delegation of activities, performance of procedures, basic principles of the topic addressed among others.³⁰ There is no consensus among authors regarding the number of objectives of a simulated clinical scenario. Some recommend one to four between primary and secondary. Authors like Alinier,³² cite three to four goals for ten minutes of scenario and others even report that the activity can contain up to ten goals in the scenario.³⁰ However, the authors agree that what defines the number of objectives is the number of participants and the duration of the simulated clinical scenario.^{30,32-33}

Care for the colostomized patient is an integral part of the nurse's clinical practice and should be part of the training process. Real cases, when used to construct simulated clinical scenarios, portray with greater truthfulness the experience in clinical practice. They can also be formulated according to the previous experiences of the learners at different levels of complexity and when inserted in a curricular syllabus, with increasing competence levels defined throughout the training, can be replicated with increasing complexity of actions and decisions in clinical scenarios simulated low, medium and high fidelity.

The complexity or fidelity of the simulated clinical scenario is not related to the complexity of the resources used, but to the specific learning objectives.³¹⁻³² In this perspective, the fidelity of the scenario describes the realism of the experience in the simulated environment³⁴ and is of extreme importance since an environment similar to the actual clinical space can cause the individual the same psychological responses that he would have in clinical practice.³⁵

For the perception of realism, in the elaboration of the scenario, the educator must take into account from the physical space of the activity, which must replicate a real environment, to the necessary human and material resources as audio and video, suitable choice of the type of simulator or actor, the support team needed to develop the scenario, the hospital medical materials to be used, the medicines in use, the patient's medical record, the laboratory imaging tests, among others.³⁶⁻³⁷ In the scenario proposed in the present study, in addition to the approach of a real clinical situation common in the clinical practice of the nurse, were considered recent coverage and devices available in the market, appropriate for stoma care and that provide greater confidence and autonomy of the

colostomized patient.^{15,17} The educational institutions should guide the execution of these simulated activities in partnership with the clinical assistance area and demonstrate the application of the latest technologies and the strongest and most current scientific evidence. Therefore, a partnership with healthcare materials and equipment companies is necessary in addition to the careful selection of contents in order to expose students to the most current colostomy patient care devices.

Before the development of the scenario itself, the facilitator should situate the learner in the context in which he will be inserted, providing simple, prior information so that he can develop the activity. This act is called prebriefing or briefing and, when structured effectively, can positively affect student competency performance, clinical judgment, perceptions of pre-clarification, and improve meaningful learning.³⁸ The preliminary information to be passed on to students should include fast reading of content and good student understanding of good behavioral practices in the simulation. These can also be presented in video form or written in a summarized form with clarity and precision.³⁹

In this study, the contribution of enterostomal therapist in the validation process of the proposed scenario added value to the content and aroused the need to produce a concise study material intended for students. In order to succeed in the development of the scenario and attainment of the proposed objectives, it is necessary that information of the studied content be made available previously to the learners in the form of texts, tutorials and scientific articles. In addition, it should be possible to provide the opportunity to experience skills training to develop skills and psychomotor skills that will be part of the proposed scenario.³⁰

Skills training is essential for students to consolidate their knowledge and develop critical reasoning and decision-making skills during scenario resolution³¹ and this was also a recommendation from the experts in this study. The manipulation of the devices, the solutions, the accomplishment of the dressing and the change of bag could make the development of the scenario unfeasible, frightening the student in face of decision making. In the simulation, the previous experiences and the cognitive development of the learner acquire new form and result in new knowledge, which relates in a non-arbitrary and substantive way in their cognitive structure. New and old knowledge are related and form a modified third party, acquired and with greater value, since it will be modified and integrated to the previous knowledge of the apprentice.⁴⁰

Regarding the use of resources due to the need for interaction and to give greater veracity to the practice in this scenario, the simulation was performed with the simulated patient. In the scenario in question, this provided more truthfulness, since the student of the health area has more familiarity with the technical terms used. Scenic simulation has still been widely used as an effective technique in the development of empathy by students.⁴¹

Simulated patients should be adequately prepared to carry out the proposed clinical case with maximum fidelity, as their performance reflects in the degree of realism of the simulation³⁹ and can influence in a positive or negative way the development of the student. It is therefore necessary that they respond adequately to the questions of the students, however, without interfering in the development of the scenario. In this sense, it is essential to standardize some techniques and scores, as well as the use of a script offered to the actor/student/professional and even to a sound technician, when the resource used is the simulator. It is recommended that the elaborated text contain information that is prioritized in the patient's clinical history and, in some situations, such as those reported in the present study, Clues may be included to compel the students to make a decision within the context of the activity carried out.

Some authors suggest a set of procedures for the appropriate preparation and increase the probability of a good performance of the simulated patient. It is suggested a training prior to the development of the simulated activity through which are explained: the nature of the performance and its educational importance; the presentation of the details of the role to be played; the joint reading of

the written script; discussion of the script and inclusion of relevant changes; memorizing the script by the simulated patient; evaluation by the evaluator of the level of understanding of the situation and of script memorization; the testing of the simulation with the evaluator to correct any improprieties; and a second simulation for any additional adjustments.³⁹ The trained simulated patient must also act as an accomplice in the scenario to which he is involved, always focusing on the goals to be achieved and not offering confusing information to the participants that may compromise the good progress of the activity.³²

During the execution of the scenario, several valuable points may arise, allowing the identification of situations to be improved and eventual problems of interactions of those involved, which needs to be considered for future improvements in the simulated application. The debriefing has been considered the most important and most time-consuming part in the development of simulated practice. When properly structured provides the opportunity for reflection on experiences, perceptions, clinical reasoning, judgment and decision-making.^{30,42} It is a fundamental process for the association of previous experiences to the new knowledge and the enthronement of a new practice. It is a moment of reflection and synthesis of what has been learned and how it should be the incorporation of the knowledge and skills discussed in the future clinical practices of the student.

It is identified as a limitation of this study the reduced number of students participating in the process of testing the scenario

CONCLUSION

In this study, a simulated scenario of colostomy care was proposed and validated by a group of experts and described the specific steps of its construction and the richness of details of the characterization of the simulated patient and of the ostomy. The scenario was further tested by a group of students, showing their adequacy to the proposed learning objectives.

The results show that for simulated practices that are well delineated and successful, careful elaboration, validation and prior testing of planned activities are necessary. In the practices designed to characterize the colostomized patient, the use of specific makeup techniques are effective and give realism to the activity.

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NOTES

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ETHICS COMMITTEE IN RESEARCH

Approved by the Research Ethics Committee of the *Escola de Enfermagem de Ribeirão Preto*, with opinion number 1,761,782. CAAE: 60892816.5.0000.5393

CONFLICT OF INTERESTS

There is no conflict of interest.

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