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Clinical simulation of nursing care to women in the third trimester of pregnancy: validation of a scenario

Simulação clínica no atendimento de enfermagem à mulher no terceiro trimestre gestacional: validação de cenário

Simulación clínica en la atención de enfermería a mujeres en el tercer trimestre gestacional: validación del escenario

ABSTRACT

Objective: To develop and validate a clinical simulation scenario and a checklist to evaluate teaching/learning aspects about nursing consultation to pregnant women in the third gestational trimester. **Method:** Methodological study in 5 stages (Overview, Scenario, Scenario Desing Progression, Debriefing and Assessment), developed from November 2019 to July 2020. The validation was performed remotely by the judges, with the completion of a Likert scale. The Content Validity Index (CVI) was calculated. **Results:** The scenario "Nurses' actions before a pregnant woman in the latent phase of labor during the prenatal consultation" and its checklist were validated by 5 judges, reaching a CVI equal to 1.0. **Conclusion:** The validation process attests to the scientific rigor with which the scenario and ckecklist were elaborated and can, therefore, be used safely in undergraduate nursing education. It is hoped that this study will stimulate further research on the subject.
Descriptors: Simulation Training; Education, Nursing; Validation Study; Prenatal Care; Labor Onset.

RESUMO

Objetivo: Elaborar e validar um cenário para simulação clínica e checklist para avaliação do ensino sobre consulta de enfermagem no terceiro trimestre gestacional. **Método:** Estudo metodológico em 5 etapas (*Overview, Scenario, Scenario Desing Progression, Debriefing e Assessment),* desenvolvido de novembro de 2019 a julho de 2020. A validação foi realizada pelos juízes de forma remota, com preenchimento de uma escala *likert*. Foi calculado o Índice de Validade de Conteúdo (IVC). **Resultados:** O cenário "Conduta do enfermeiro frente a uma gestante em fase latente do trabalho de parto na consulta de pré-natal" e seu checklist foram validados por 5 juízes, com IVC igual a 1,0. **Conclusão:** O processo de validação atesta o rigor científico com o qual o cenário e o ckecklist foram elaborados, assim permite que seja utilizado com segurança, no ensino de graduação em enfermagem. Espera-se que este estudo estimule novas pesquisas sobre a temática.
Descritores: Treinamento por Simulação; Educação em Enfermagem; Estudo de Validação; Cuidado Pré-Natal; Início do Trabalho de Parto.

RESUMEN

Objetivo: Desarrollar y validar un escenario para la simulación clínica y de un checklist para la evaluación de la enseñanza y el aprendizaje de una consulta de enfermería en el tercer trimestre del embarazo. **Método:** Estudio metodológico en 5 etapas (Overview, Scenario, Scenario Desing Progression, Debriefing e Assessment) desarrollado de noviembre de 2019 a julio de 2020. La validación fue realizada remotamente por los evaluadores, con la cumplimentación de una escala Likert. Se calculó el Índice de Validez de Contenido (IVC). **Resultados:** El escenario "Conducta de la enfermera hacia una mujer embarazada latente en el cuidado prenatal" y su checklist fueron validados por cinco evaluadores con un IVC de 1.0. **Conclusión:** La validación da fe del rigor científico con el que se desarrollaron el escenario y el checklist, lo que permite utilizarlo con seguridad en la educación en enfermería. Se espera que este estudio estimule más investigaciones sobre el tema.
Descriptores: Entrenamiento Simulado; Educación en Enfermería; Estudio de Validación; Atención Prenatal; Inicio del Trabajo de Parto.

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INTRODUCTION

Each stage of pregnancy has singularities that require specific approaches and care from nurses. Thus, in the prenatal consultations of the third trimester, due to the proximity of delivery and the anxiety of pregnant women and their families, it is important that nurses are able to offer precise guidance, so as to reassure them and prepare them for a safe and informed delivery, demonstrating knowledge and technical skills to perform clinical and obstetric assessment, and recognizing labor and its phases, being effective in the situations identified[1-2].

The recognition of the beginning of labor is crucial for the parturients to be taken to the health unit in a timely moment, avoiding early hospitalization that can culminate in a longer and more painful labor for the pregnant women, babies and companions, as well as excess interventions or even unnecessary cesarean sections.

The World Health Organization (WHO) didactically divides labor into four stages, also called clinical periods. The first period is labor, which is subdivided into a latent phase, marked by contractions that can be painful, with a regular pattern and slower progression, and result in the effacement of the cervix and dilation of up to 5 cm; an active phase, which is characterized by painful and regular contractions with 5 cm faster effacement of the cervix until complete dilation; and the transition phase to the second stage, characterized by the beginning of the expulsion. The second period is the expulsion, which corresponds to the delivery itself. The third period corresponds to placental delivery, and the fourth period to the first hours of postpartum recovery. The duration of each phase is unique for each parturient, however this phase does not usually exceed 8 hours in duration[3].

In order to meet the new demands of the health sector and accompany the growing appreciation of the role of nursing in Primary Health Care (PHC) for prenatal care, it is necessary to encourage the use of innovative teaching-learning methodologies, providing adequate resources for teaching and associating theory with practice[4]. In this sense, clinical simulations are a type of active teaching methodology that combines practice with theory and encourages students to participate in the construction or fixation of their knowledge by experiencing scenarios that seek to imitate reality.

The simulated scenarios enable students to develop and exercise technical and non-technical skills for care focused on patient safety and gain greater confidence and security in case they experience these same situations in the future, during their clinical practice[5-6]. However, in order for the learning objectives proposed in each scenario to be achieved, it is essential to include debriefing at the end of the simulation, as this step encourages reflection on the simulated experience and promotes the improvement of learning and the increase of self-awareness and self-efficacy of the participants[7].

The elaboration of clinical scenarios is complex due to the details that need to be planned to reach the maximum similarity to the clinical reality of the contexts of practice in healthcare environments. In this sense, a clinical case can be built in three modalities (high, medium and low fidelity) according to the levels of proximity to the reality that one wishes to reproduce and the learning objective that one seeks to achieve[8-9]. In addition, it is recommended that, after construction, the scenario be validated by judges/experts and/or the target audience in order to guarantee its technical safety and integrity to be later reproduced[10-11].

Although simulation is proven to be a strategy capable of adding value to nursing education[12], studies related to the development and validation of clinical simulation scenarios in nursing care in normal-risk prenatal consultations during the third trimester of pregnancy were not found. In this sense, in 2007, Brazil created the Pro-health, a program of the Ministry of Health that encourages the link between undergraduate training and the needs of the population with the central axis of teaching-service integration, through experience of students in the real scenario of PHC practices[4], since the experience of prenatal care is considered essential to achieve a positive outcome in the health of future mothers and their families in the puerperal-pregnancy cycle. Therefore, this study aimed to develop and validate a clinical simulation scenario and a checklist for teaching/learning evaluation about nursing consultations in the third gestational trimester for undergraduate nursing education.

METHOD

This is a methodological study which adopted the assumptions of Gilbert and Adamson (2016)[13] based on recommendations of the International Nursing Association for Clinical Simulation and Learning (INACSL) for the elaboration and validation of a clinical simulation scenario. According to the methodological framework adopted, the following 5 stages were carried out:

Overview: reflection on questions that supported the elaboration of the scenario such as: organizational, educator, and learning needs, as for example the skills and/or competences to be worked in the simulation related to the prenatal consultation.

Scenario: creation of the scenario based on a solid theoretical basis, a relevant clinical case, and an environment close to the reality of a consultation for normal-risk third-trimester pregnancy.

Scenario Design Progression: Definition of roles/actors, scripts and decisions about the use of a mannequin/simulator and its configuration.

Debriefing: Elaboration of a checklist to assist the evaluation process and the debriefing in the simulated activity, with specific discussion points for the validated scenario.

Assessment: Evaluation of the documents produced by the judges, over the previous stages.

In order enable the stage of validation of the scenario and the checklist in the midst of the coronavirus pandemic, an online approach was chosen. Thus, 11 judges with expertise in the theme addressed in the scenario, based on information contained in the Lattes platform and availability of e-mail were selected and invited to participate. Only five judges responded to the invitation.

The inclusion criteria were: professionals with experience in women's health who obtained at least 4 points in the Scoring System for the Selection of Judges adapted from Góes et al. (2014)[14], considering academic degrees, professional experience, teaching area, development/supervision of research studies, and publications. The curricular information of the professionals in the Lattes platform curricula was consulted to calculate the score. The exclusion criteria were: professionals who were absent from care or teaching activities for two years or more because this could imply lack of updated knowledge about the scientific evidence.

The first four stages corresponded to theoretical study and occurred only with the participation of the researchers. The fifth stage, however, consisted of the validation itself. Experts were contacted by an invitation email containing: a brief summary of the study, an Informed Consent Form (ICF) signed by the researchers, a PDF file containing the complete description of the scenario, the proposed checklist for the evaluation of teaching and learning aspects, a sheet for characterization of the judges, and a link to access the form prepared on the Google Forms® platform, to be filled out after reading the documents, for the assessment of the scenario and the checklist elaborated. The study was developed from November 2019 to July 2020, and the online validation stage was carried out between May and July 2020.

The Google Forms® form included a Likert scale evaluating 18 aspects related to the scenario and the checklist to evaluate teaching and learning aspects. Each evaluated aspect had 4 alternative answers: totally inadequate; inadequate, but with possibility of modification; adequate with small adjustments; and totally adequate. The evaluated aspects included technical questions about the scenario, questions related to teaching such as adequacy to the level of knowledge of the students, about the realism of the scenario, about the decision-making tree, and questions related to debriefing.

After collecting data, the Content Validity Index (CVI) was calculated using the Microsoft Excel® software, version 2016. For the analysis of the CVI, considering the number of judges below 6, it was stipulated a minimum CVI of 1.0 among the judges[15]. The two alternatives called “adequate” scored positively in the calculation of the CVI. Data related to the profile of the judges were analyzed using descriptive statistics and expressed in absolute and relative frequencies.

The study was approved by the Ethics Committee of the institution of origin under CAAE nº 03107418.5.0000.8093, and the assumptions of resolutions 466/12 and 510/2016 of the National Health Council were strictly followed[16].

RESULTS

The scenario elaborated called “Nurses’ actions before a pregnant woman in the latent phase of labor during the prenatal consultation” was about a nulliparous parturient, 35 years old, and with 38 weeks and 2 days of gestational age

who was together with her companion, attending a routine prenatal consultation during the third trimester of pregnancy in a Basic Health Unit (BHU). At the consultation, she mentioned strong but bearable colic. Until the time of the consultation, there was no loss of amniotic fluid or vaginal bleeding. The scenario proposes that the students, who will interpret nurses, identify that the parturient is in the latent phase of labor, demonstrating technical skills and knowledge for decision making in this phase of labor in PHC. It is important to emphasize that the educator must work in the classroom the theoretical contents on prenatal care, embryology, and physiology of pregnancy and labor before carrying out the simulation, so that students can achieve the learning objectives proposed.

In order for the environment to be as realistic as possible, it is recommended that the scenario has all materials compatible with a BHU's office be present: Furniture/Decoration - table, 4 chairs, stretcher, ladder, trash bin, table calendar, posters, and printed material about campaigns of the Ministry of Health which are usually found in BHU's offices; Medical and hospital supplies - Obstetric Sonar and reproduction of real Fetal Heart Beat (FHB) auscultation sound, sphygmomanometer, stethoscope, measuring tape, thermometer, clinical flashlight, sonar gel bottle, 70% alcohol, sterile gloves, hospital gown, disposable sheet for stretcher, extra sheet to cover patient in eventual vaginal touch examination, blank sheets, and pens; Documents - pregnant woman's booklet filled with previous consultations, birth plan, prescription pad, exam request form pad, pregnant woman's referral (to maternity service) report pad. The scenario is summarized in Figure 1.

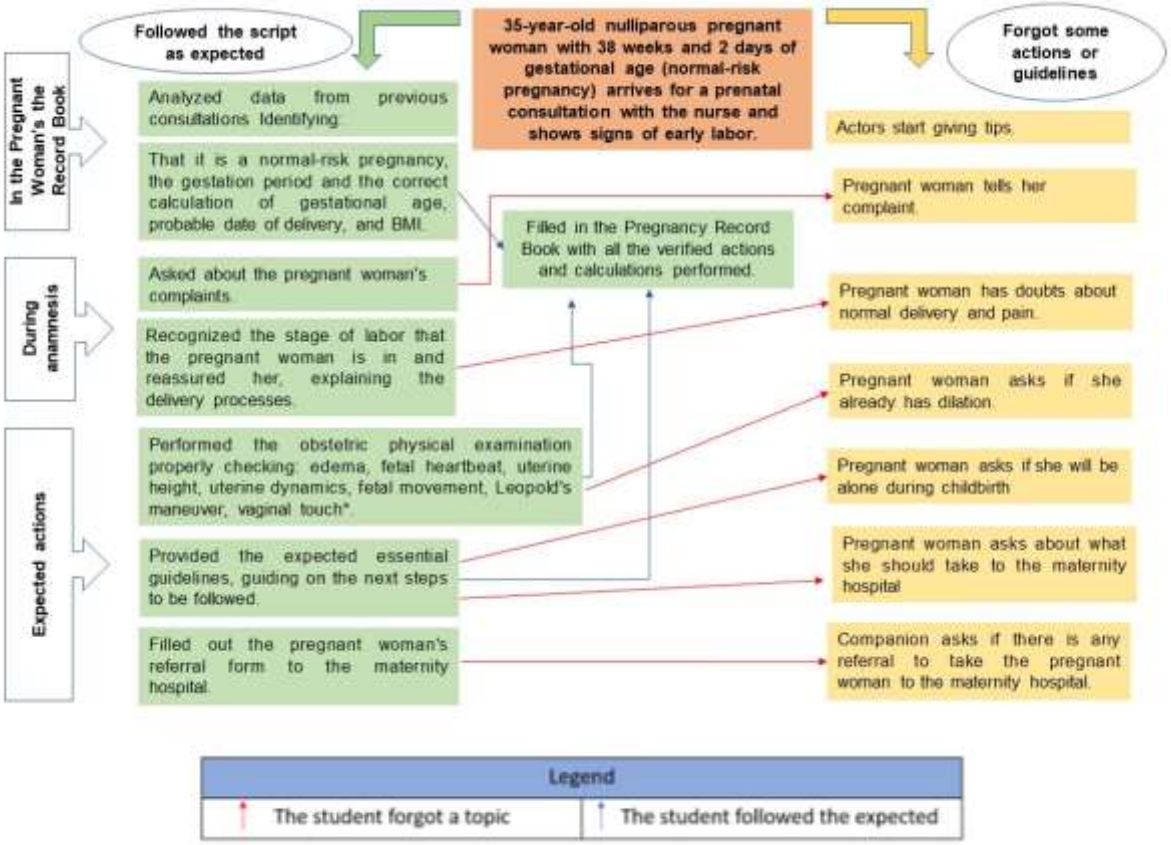
Figure 1 - Summary of the scenario entitled "Nurses' actions before a pregnant woman in the latent phase of labor during the prenatal consultation", Brasília, 2020.

Learning objectives	Carry out the nursing consultation for normal-risk prenatal care, identifying labor in the latent phase and giving the correct referrals and guidelines
Complexity	Medium
Loyalty	Medium
Duration	Up to 20 minutes
Participants	2 students to play nurses 2 actors to play the pregnant woman and her companion
Costume	Pregnant woman: Ordinary clothes for people in the age group close to 35 years and use of a modeler to protect the exposure of the actress' intimate areas and to accommodate the anatomical silicone pieces adapted to the costume (breasts and pregnant belly). Companion: The definition of the sex and kinship of the companion will be the responsibility of each institution that adopts this scenario in teaching. Therefore, the definition of costume and makeup as well.
Brief clinical case	A.P.L, 35 years old, arrives with a companion to the BHU for a routine prenatal consultation during the third trimester of pregnancy, mentioning strong but bearable colic. Last Menstruation Date: it must be provided to the student, so that the pregnant woman is 38 weeks and 2 days of gestational age on the day of the simulation. Vital signs and anthropometric measures: Heart Rate: 85 bpm; Blood Pressure: 130 x 80 mmHg; Respiratory Rate: 18 irpm; Saturation: 98%; Weight: 75 kg; Height: 1.60 m. Note: The actress has the following devices: silicone breast prosthesis and belly compatible with the gestational period and female pelvic simulator for advanced clinical training.

Source: Prepared by the researchers based on data obtained from the study.

According to INACSL, it is essential to use facilitating methods before, during and after the simulation. With this goal in mind, a decision-making tree, represented by Figure 2, was developed in order to achieve the learning objectives and the expected progression for the clinical case[17]. In this instrument, there are tips that the actors can provide to the students, during the simulation, if necessary, so that they may reach the learning objectives.

Figure 2 - Decision-making tree. Brasília, 2020.



Source: Prepared by the researchers based on data obtained from the study.

The validated checklist for evaluation of teaching and learning aspects was structured in 4 topics: attitude, anamnesis, actions, and essential guidelines. In attitude, aspects related to embracement, communication, interpersonal relationships, and security are evaluated during the consultation. In the anamnesis, aspects related to the quality of the interview conducted with the patient and companion in the consultation are evaluated. In actions, the students' technical skills and clinical reasoning in relation to the case for the correct handling of the situation are evaluated. In essential guidelines, the guidelines provided by the students to the parturient and companion about the labor stage in which they are in and about everything that is important for this case are evaluated. This checklist was proposed to standardize the validated debriefing of this scenario.

Figure 3 - Checklist of Skills and Knowledge sets Expected from Students for the Debriefing. Brasília, 2020.

Checklist of Expected Skills and Knowledge sets of Students				
	NP	I	PA	A
ATTITUDE				
They introduced themselves and welcomed the woman and the companion in a respectful and humane manner.				
They promoted qualified listening and effective communication during the consultation.				
They had a good interpersonal relationship with the team and with the patients and companions.				
They showed leadership and security when approaching the pregnant woman and the companion.				
ANAMNESIS				
They performed the anamnesis, by confirming information already contained in the pregnant woman's record book.				
They observed the data registered during previous consultations, finding out about the progress of the current pregnancy and the Probable Delivery Date.				

(Continues)

Figure 3 - Checklist of Skills and Knowledge sets Expected from Students for the Debriefing. Brasília, 2020.

Checklist of Expected Skills and Knowledge sets of Students				
	NP	I	PA	A
ANAMNESIS				
They checked the examinations already carried out and the vaccination status recorded in the pregnant woman's record book.				
They asked about complaints and doubts of the pregnant woman and her companion.				
ACTIONS				
They correctly performed the calculation of the BMI based on the weight and height provided in the case and correctly filled it out this information in the record book of the pregnant woman.				
They correctly performed the calculation of the gestational age and confirmed the probable delivery date already recorded in the record book of the pregnant woman.				
They were able to resolve the doubts and complaints presented by the pregnant woman and her companion.				
They performed an obstetric examination: Leopold's maneuver, checking fetal situation and presentation, measuring uterine height, auscultating the fetal heartbeat, uterine dynamics and, if there were fetal movements to the touch. They always explained the action and respected the woman's privacy.				
*They verified, through the examination of the vaginal touch, if there was dilation of the uterine cervix, explaining the procedure and respecting the woman's privacy. (optional)				
They verified the presence of edema in the lower limbs.				
They identified that the pregnant woman was in the latent phase of labor.				
They reassured the pregnant woman and companion about when to go to the maternity hospital.				
They filled out the referral form for referring the pregnant woman to the maternity hospital.				
They registered the consultation in the record book of the pregnant woman, demonstrating they had knowledge about where to find the data and the information in the record book of the pregnant woman.				
ESSENTIAL GUIDELINES				
They explained about the physiological evolution of labor and in which stage the pregnant woman was and the dilation of her uterine cervix.				
They advised on when the pregnant woman should go to the maternity hospital.				
They advised on non-pharmacological methods for pain relief and stimulation of the physiology of labor.				
They advised the pregnant woman on the benefits of vertical positions during labor.				
They addressed the benefits of natural and humanized childbirth.				
They commented on the Companion Law (Law 11,108/2005).				
They advised on what the pregnant woman should take to the maternity hospital.				
Legend: NP = Not performed; I = Inadequate; PA = Partially adequate; A = Adequate				

Source: Prepared by the researchers based on data obtained from the study.

In addition to the checklist, the following guiding questions for debriefing were also proposed: “What did you see when you entered the scenario?”; “How did you feel during the simulation?”; "What were its positive points?"; “What was your reaction, after hearing the brief presentation of the case?”; "From what you saw, what action did you undertake?"; “What led you to make that decision?”; "What were the objectives of your actions and guidelines?"; "Do you think that you forgot to carry out any important action or give any important guideline?"; "If you were to have that experience again, would you do something different?" It was suggested that debriefing lasted up to 15 minutes, starting with the students' speech about how the experience in the simulated scenario was for them and which were their impressions about positive aspects and aspects to be improved in their actions, and after that moment, the teacher should give comments about his evaluation.

After the construction of the clinical case and elaboration of the checklist, of the scenario was validated by judges through online assessment. They were experts in the field of women's health and simulations. Of the 11 invited professionals, only five participated in this stage. Of the five, four are teachers, in the area of women's health at Federal Universities, two from the Midwest, one from the South, and one from the Northeast. The fifth judge is an assistant nurse in the Midwest region.

Before inviting the judges, a search was carried out on the Lattes platform to analyze the curricula and calculate the Judge Scoring System. The judges reached the following scores: 7, 12, 14,

14 and 18 points. Table 1 presents the profile of the judges, with data related to their training and professional performance and their experience with simulations.

Table 1 - Characterization of the Judges Participating in the Study. Brasília, 2020

	N	%
Age (years)*	48.2 ± 12.03	
Training		
Graduation in Nursing	5	100
Academic degree		
Specialization	3	60
Master	5	100
PhD	3	60
Professional performance		
Care	4	80
Teaching	5	100
Time of experience (years)†	21.5 (14.5 – 29.0)	
Experience with simulations		
Teacher	3	60
Researcher	1	20
Student	1	20
Previous participation as a judge	2	40
Time of experience with simulations †	1.5 (1.0 – 2.5)	
Publications about women's health	5	100
Publications about realistic simulations	1	20

Source: Prepared by the researchers based on data obtained from the study.

* Values expressed as mean ± standard deviation

† Values expressed as median and interquartile range

The CVI was calculated based on data obtained when filling out the Likert scale in Google Forms®. Table 2 shows the 18 criteria evaluated and the score obtained. It is noted, at the end, that the obtained CVI was 1.0, according to the theoretical framework adopted[15].

Table 2 - Judges' Evaluation of the Validated Simulated Scenario and Checklist. Brasília, 2020

Items evaluated	Totally inadequate		Inadequate, but with possibility of modification		Adequate with small adjustments		Totally adequate		CVI
	n	%	n	%	n	%	n	%	
Plausibility of the clinical case	-	-	-	-	1	20	4	80	1.0
Adherence to available scientific evidence	-	-	-	-	1	20	4	80	1.0
Construction of the scenario according to recommendation of the Ministry of Health	-	-	-	-	1	20	4	80	1.0
Adequacy of the scenario in relation to the didactic support provided to the student	-	-	-	-	1	20	4	80	1.0
Complexity in relation to the student's level of knowledge and skills	-	-	-	-	1	20	4	80	1.0
Realism	-	-	-	-	1	20	4	80	1.0
Brief description of the case: information provided to the student before the simulation	-	-	-	-	1	20	4	80	1.0
Complete description of the scenario: script	-	-	-	-	1	20	4	80	1.0
Data provided to the student during the simulation: decision-making tree	-	-	-	-	-	-	4	80	1.0
Support provided to the student during the simulation	-	-	-	-	1	20	4	80	1.0
Promotion of the ability to prioritize nursing assessments and interventions	-	-	-	-	-	-	4	80	1.0
Promotion of autonomous problem solving	-	-	-	-	1	20	4	80	1.0
Adequacy of the number of actors/roles to the situation	-	-	-	-	-	-	5	100	1.0

(Continues)

Table 2 - Judges' Evaluation of the Validated Simulated Scenario and Checklist. Brasília, 2020

Items evaluated	Totally inadequate		Inadequate, but with possibility of modification		Adequate with small adjustments		Totally adequate		CVI
Adequacy of the costumes and devices used by the actors in relation to the simulation	-	-	-	-	-	-	5	100	1.0
Parameters of the simulator/actress consistent with the clinical case	-	-	-	-	-	-	5	100	1.0
Simulated environment	-	-	-	-	2	40	3	60	1.0
Materials and equipment provided to students	-	-	-	-	1	20	4	80	1.0
Aspects assessed in the debriefing	-	-	-	-	-	-	5	100	1.0
Average CVI									**1,0**

Source: Prepared by the researchers based on data obtained from the study.

During the validation process, the judges suggested minor adjustments. The suggestions accepted were: to include the birth plan as part of the documentation brought by the actress together with the record book of the pregnant woman; due to disagreements between WHO and the Ministry of Health and due to more specialized obstetric knowledge, performing vaginal touch has become an optional procedure depending on the student's confidence in performing this procedure; the companion became the most participative in the scene through his own speeches; it was added in the brief description that the pregnant woman had severe colic to clarify the diagnosis during the scenario; the term female pelvis was modified to female pelvic simulator for advanced clinical training; and finally, a sheet was included in the list of materials to cover the stretcher of the office.

DISCUSSION

The scenario proposed in this study considered the reality of the Federal District, the place of performance of the researchers. However, with minor adaptations, it can be used in other locations, since reaching the realism of the scenario in relation to the local characteristic is essential to provoke in students the same psychological responses that they would have in clinical practice and produce more effective learning experiences[9].

In order to meet the learning objectives, it is recommended that the scenario be conducted by an experienced facilitator and that, if necessary, tips are provided throughout the scenario[17]. The decision-making tree was prepared to standardize these tips. This tool keeps in the power of the facilitator so that he/she will control the necessary tips, according to the performance of the students in the situation. Debriefing is also essential after the simulated event to make the learning environment supportive, with open communication, and with the goal to promote self-analysis and reflection in students about the various aspects addressed in the scenario and on the creation of new actions[7,18]. To assist in the standardization of the debriefing in this scenario, the checklist for the evaluation of teaching and learning aspects was also validated. This checklist proposes not only criteria and objectives to be evaluated during the simulation, but also questions that the facilitator can use to stimulate students to speak at that moment.

The validation stage is recommended to confirm the reliability, security and applicability of the constructed scenario[14,11]. It is noteworthy that the scenario validation took place online, in a single evaluation round in view of the data obtained, with the CVI of 1.0 in all the evaluated criteria; if any of the criteria had obtained a lower score, there would be a new evaluation round.

The cutoff point of the CVI to consider a scenario validated is variable across studies, and the acceptable agreement index among the members of the expert committee must be at least 0.80, preferably greater than 0.90[19]. Recently published studies on the validation of clinical scenarios in the mother-child and women's health context have followed this pattern and considered parameters above 0.8 for CVI[10,20-21]. However, the reference framework adopted in this validation study proposes that, for studies with a panel of judges with less than 6 professionals, a CVI of 1.0 should be considered as the minimum acceptable; this value drops as the number of judges increases[15].

Despite obtaining a CVI of 1.0, the judges made some suggestions. Most of the suggestions were accepted and allowed to adjust the scenario and the assessment instrument to the proposed objectives, providing greater quality and realism. It is noteworthy that studies of scenario validation in the context of women's health published so far

have not proposed scenarios with the same theme. Studies were found with the following themes: care for pregnant adolescents for pregnancy diagnosis[20], humanized labor and delivery[21], and management of postpartum hemorrhage[10]. Thus, the scenario validated in this study represents a new theme and may encourage further research on the topic.

It is important to emphasize that this theme is of great value for the training of future nurses in view of the autonomy and the fundamental role of nursing during prenatal care of normal-risk pregnant women in PHC. This is because nurses must be qualified to: identify diseases or complications during pregnancy and intervene in a resolute and timely manner, prescribe medications and request tests established in protocols, identify the primordial needs of the pregnant woman, carry out a care plan, offer essential guidelines, promote the necessary referrals, and use humanization as the basis of their care practice[2,22]. Therefore, initiatives that develop critical thinking and problem solving must be promoted and encouraged, and the use of active teaching-learning strategies such as simulations can bring the future nurses closer to local, regional and national health needs[4].

A randomized study carried out in China with the participation of 177 nursing students demonstrated that the experimental group that used the simulation methodology as teaching strategy obtained a significant increase in the critical and clinical judgment skills, in relation to the group that used traditional methodologies[23]. Other studies have also shown that simulation is a strategy capable of adding value to higher education in nursing and has as positive points the preparation of students for clinical practice at the same time that favors the correlation between theory and practice[24].

As points to be improved in the simulation as a teaching tool, emotional issues such as fear, anxiety and difficulty working in a team in the context of observation stand out. Thus, there is a need for nursing professors to develop strategies and scenarios to minimize these stressors, as proposed by this study, to make the debriefing stage a moment of learning and not of judgment, give tips throughout the scenario, and have a facilitator with experience in teaching and simulation to mediate the simulation and its stages[12,17,24].

CONCLUSION

It is concluded that the study achieved the proposed objectives because the evaluation of the teaching and learning aspects of the scenario and checklist obtained the maximum CVI value in the validation process. Suggestions proposed by the judges resulted in a safer and more realistic scenario to be used in nursing education.

The study identified a gap in knowledge about the validation of clinical simulation scenarios in the context of prenatal care performed by nurses. Therefore, more studies on this theme are important in order to expand the use of realistic simulations in the teaching- learning of women's health during academic training of nurses.

The direct contribution of this study to nursing education is to encourage the development and validation of new scenarios and, indirectly, to provide an instrument for improving nursing education, as it stimulates the use of simulations in undergraduate courses. Simulations have been widely used and have proved to be an effective method in preparing future nurses for real clinical situations faced in the professional routine. Thus, it is understood that the study contributes to the training of better prepared professionals in the work market, especially in prenatal care that requires clinical reasoning and in decision-making by nurses.

The study's limitations were the absence of studies on the same theme to allow the comparison of data and the low adherence of judges for online validation of the scenario in this context of a pandemic.

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