



Simulation design evaluation by students at the admission of pregnant woman in labor

Avaliação do design da simulação por discentes em admissão da gestante em trabalho de parto
Evaluación del diseño de simulación por estudiantes en la admisión de gestantes en trabajo de parto

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ABSTRACT

Objective: To evaluate the design of realistic simulation as a teaching-learning strategy. **Method:** A descriptive study with a quantitative approach developed between August 2019 and July 2020 in a public higher education institution. The study participants were students attending 3rd and 4th year of the undergraduate course in Nursing. Data collection took place through the application of two instruments, namely: a sociodemographic questionnaire and the Simulation Design Scale, after the students' participation in a setting on the admission of pregnant women in labor. The data were tabulated in Excel version 2016 and the categorical variables were presented as absolute and relative frequency. **Results:** The sociodemographic characterization revealed a total of 51 participants, where 80.4% (n=41) are female and 19.6%, male (n=10), aged between 21 and 25 years old. As for the simulation design, the students feel self-confident with using it and attribute a high degree of importance to the clinical practice. **Conclusion:** When well-structured and cohesive, realistic simulation emerges as a useful tool in the pedagogical process.

Descriptors: Education in Nursing. Nursing Students. Training through Simulation.

RESUMO

Objetivo: avaliar o delineamento da simulação realística enquanto estratégia de ensino-aprendizagem. **Método:** estudo descritivo, com abordagem quantitativa desenvolvido entre Agosto/2019 a Julho/2020 em instituição de ensino superior pública. Participaram do estudo alunos do 3º e 4º ano de ensino do curso de graduação em Enfermagem. A coleta de dados se deu pela aplicação de dois instrumentos: um questionário sociodemográfico e a Escala do Design da Simulação, após os discentes participarem de um cenário sobre admissão da gestante em trabalho de parto. Os dados foram tabulados no programa Excel versão 2016 e as variáveis categóricas apresentadas como frequência absoluta e relativa. **Resultados:** a caracterização sociodemográfica revelou um total de 51 participantes, onde 80,4 % (n=41) são do sexo feminino e 19,6% do sexo masculino (n=10). Com idade entre 21 e 25 anos. Quanto ao design da simulação, os alunos sentem-se autoconfiantes com seu uso e atribuem um elevado grau de importância à prática clínica. **Conclusão:** a simulação realística quando bem-estruturada e coesa desponta como instrumento útil no processo pedagógico.

Descritores: Educação em Enfermagem. Estudantes de Enfermagem. Treinamento por Simulação.

RESUMÉN

Objetivo: Evaluar el diseño de simulación realista como estrategia de enseñanza-aprendizaje. **Método:** Estudio descriptivo con enfoque cuantitativo desarrollado entre agosto de 2019 y julio de 2020 en una institución pública de educación superior. Participaron del estudio estudiantes del 3º y 4º año de la carrera de Enfermería. La recolección de datos se realizó mediante la aplicación de dos instrumentos: un cuestionario sociodemográfico y la Escala de Diseño de Simulación, luego de que los estudiantes participaran en un escenario sobre la admisión de gestantes en trabajo de parto. Los datos se tabularon en Excel versión 2016 y las variables categóricas se presentaron como frecuencia absoluta y relativa. **Resultados:** La caracterización sociodemográfica reveló un total de 51 participantes, donde el 80,4% (n = 41) son del sexo femenino y el 19,6% del sexo masculino (n = 10), con edad entre 21 y 25 años. En cuanto al diseño de la simulación, los estudiantes se sienten seguros en relación a su uso y otorgan un alto grado de importancia a la práctica clínica. **Conclusión:** La simulación realista cuando se halla bien estructurada y cohesionada surge como herramienta útil en el proceso pedagógico.

Descritores: Educación en Enfermería. Estudiantes de Enfermería. Capacitación por Simulación.

INTRODUCTION

Traditionally, the way of teaching was supported on compartmentalized, conservative and traditional modalities, favoring knowledge fragmentation. For many years, teaching in health was thus marked by the Cartesian mechanism¹.

Brazilian higher education has undergone transformations over time. With the advancement of technologies, the way of educating grounded on innovation became indispensable. Teaching in the health area in our days shows to follow with ease the most modern trends².

In this logic, active methodologies are being used more frequently in the process of teaching-learning and knowledge consolidation, since, when compared to the traditional way of teaching, it provides students with a more participatory and active approach³. Among such, realistic simulation stands out as an innovative strategy for academic training, which takes place through training in scenarios that resemble real life⁴.

Simulation-based teaching is a device in which scenarios and case studies are applied for the students to develop through the information provided, so that they replicate reality. Therefore, realistic simulation is seen as a satisfactory and transforming methodology which covers and interconnects practice to theory⁵⁻⁶.

By making use of simulators in a controlled environment with the aid of a trained professor, simulation allows for the performance of procedures and experience through clinical cases, enabling students to the situations that can occur in real life in their professional performance⁷.

However, for the benefits of simulation to be achieved, it is necessary that the setting is well structured and designed. So as to provide cohesive information and objectives, it must be planned and effective.

Thus, this study aimed at evaluating the design of realistic simulation as a teaching-learning strategy.

METHOD

Type of study

This is a descriptive study with a quantitative approach to assess the design of realistic simulation as a teaching-learning strategy. The study is a clipping from a scientific initiation project carried out in the period from 2019 to 2020.

Study locus

The study was developed in a public higher education institution within the Brazilian Northeast inland, which has its curricular teaching grade based on the use of active methodologies and features a simulation center, where the Nursing course simulation lab is located. This offers high performance mannequins for skills training, among them a labor simulator, which can be adapted to enable the measurement of uterine height, auscultation of fetal heartbeats and uterine dilation; in addition to all the materials and inputs required to develop settings in the area related to maternal-child health.

Sample

The study population consisted of students attending 3rd and 4th year of undergraduation in Nursing at the institution, totaling 71 students. The sample consisted of all the students who attended the Women's Health module since 2018, when the simulation center began its activities and the simulations became part of the subunit for skills in maternal-child health. Sampling was for convenience (n=51), that is, it was made up by those who, upon meeting the inclusion criteria, agreed to take part in the study.

Initially, the students were recruited in person and, due to the new coronavirus pandemic, collection was conducted using a virtual environment where the researcher, upon addressing the student, made the invitation and then presented the FICF for its acknowledgment and filing out.

Data collection

The participants performed the simulation at two different moments; *a priori*, the students participate in the simulation in a setting of admission of the pregnant woman in labor that is contemplated in the programmatic content of the academic subject: "Process of caring for women in the pregnancy-puerperal cycle" in the curriculum grade of the third year of the course. However, given the time discrepancy across the classes, since the course is annual, there was a need to mark the application time of the setting for research purposes, in order to avoid memory bias. Two classes were also chosen due to the reduced number of students per class, resulting from the very teaching method adopted at the institution and in the 3rd cycle of the course, which generally has classes with a maximum of 9 students per professor. Thus, seeking to minimize such circumstances, the students who agreed to participate in the research, even having participated in the setting during the course of the academic subject, were invited to participate in a new simulation with the same setting.

The students were divided into groups respecting the limit of participants recommended for carrying out the simulations and the physical room of the laboratory. Thus, once the simulations were over, the data were collected through the application of two instruments by the researcher: a sociodemographic and academic questionnaire and the Simulation Design Scale (*Escala de Desing da Simulação*, EDS). Considering the specificity of the institution's students, who mostly come from other municipalities and need City Hall transportation to travel from the institution to their homes, which is carried out at a specific time, it was decided to apply the scale immediately after the end of the simulation; however, it was agreed that the sociodemographic and academic questionnaire, as it would not imply any bias for the study, would be applied after the shift at an opportune time for the student; thus, at first, collection of the sociodemographic data took place in person, although, as a result of the COVID-19 pandemic, it was necessary to readjust the collection format to an

electronic means, through the Google Forms® platform, in which the invitation to take part in the research was sent online again by email, with the justification described above, along with the FICF and the link that directed to the instrument.

Instruments

One of the instruments was a sociodemographic and academic questionnaire composed of 15 items, including age, sex, gender, course, period/cycle, degree of satisfaction with the course and economic situation, among others, authored by the researcher, in addition to the Simulation Design Scale (EDS)⁸. EDS aims at analyzing whether the design of realistic simulation settings is structured so that the students can understand their objectives and find similarities with real life¹.

This scale is an instrument with 20 items that assess four characteristics of the simulations developed: 1) Objectives and information; 2) Support; 3) Problem solving; 4) Feedback/Reflection. For each item, the participant must indicate two columns: one on their assessment of the item and the other on the importance attributed to each item⁸.

The answer pattern is of the five-point Likert-type, where the participant first evaluates the characteristics of the simulation, where: 1 - I strongly disagree with the statement; 2 - I disagree with the statement; 3 - Undecided - I neither agree nor disagree with the statement; 4 - I agree with the statement; and 5 - I totally agree with the statement, having the "Not applicable" option when the statement does not relate to the simulated activity performed. Immediately afterwards, the participant assesses the degree of importance for the item, as follows: 1- Not important; 2- Little important; 3- Neutral; 4- Important; and 5- Very important.

Data analysis

In relation to the statistical analysis, the data were organized and tabulated in the Excel program, version 2016. The categorical variables were described by means of absolute and percentage relative frequencies.

Ethical considerations

Observing the provisions set forth in Resolution 466/2012, the project was submitted to the Ethics Committee of the Federal University of Sergipe, under opinion No. 3,509,846; and all the participants signed the Free and Informed Consent Form (FICF).

RESULTS

In relation to sociodemographic data of the sample under study, a total of 51 participants was obtained, of which 80.4% (n=41) are female and 19.6%, male (n=10).

Regarding age, there was predominance of the age group from 21 to 25 years old, which corresponds to 66.7% (n=34). Regarding the economic situation, 74% (n=37) are students with no fixed income, 24% are scholarship

holders (n=12) and 2% (n = 1) are employed. Thus, 97.7% (n=46) do not exercise any professional occupation.

With regard to the participants' academic characteristics, 58.8% (n=30) are students attending fourth year of the undergraduate course. For their previous learning experience, 94.1% (n=48) indicate contact with the traditional methodology, while only 2% (n=1) experienced the problematizing methodology, as presented in Table 2.

Also in this perspective, 98% (n=50) of the research participants stated that they were satisfied with the teaching methodology adopted in the campus and only 7.8% (n=4) reported having missed some academic module during their undergraduate studies.

Table 3 presents the scores of the answers to the Simulation Design Scale. To evaluate the *Objectives and Information* in the simulation design, there was agreement over 40% for the items that make up the question. This is composed of five items, in which the most significant, with 54% (n=27), was the element that contemplates providing sufficient information for simulation guidance and encouragement.

In relation to the degree of importance (Table 4), judgment of the items as "very important" at the simulation moment predominated; with the item corresponding to providing sufficient information for simulation guidance and encouragement standing out, with 74.5% (n=38).

Based on the participants' judgment, for the *Support* question (Table 3) in three of the four items which comprise it, the students showed to "totally agree with the statements". With 51% (n=26), the item linked to the support in the learning process (I was supported in the learning process) was the most relevant. For the degree of importance in this item, the participants judged the support provided during the simulation as "Very important", with 76.5% (n=36).

In accordance with the pattern of previously presented answers, "I totally agree with the statement" is repeated for the *Problem solving* item, with 60.8% (n=31). The statement that the simulation enables to prioritize Nursing assessments and care during its execution is more emphatic. The "I was encouraged to explore all the simulation possibilities" item stood out with 51% (n=26). Regarding the degree of importance of the item, 74.5% (n=38) of the students consider it as "Very important", with emphasis on the sub-item called "The simulation allowed me the opportunity to prioritize assessments and Nursing care".

Table 1. Sociodemographic characterization of the students who performed the realistic simulation. Lagarto, SE, Brazil, 2021.

	N	%
1. SEX		
Female	41	80.4
Male	10	19.6
2. AGE		
17-20	15	29.4
21-25	34	66.7
Over 25	02	3.9
3. GENDER		
Female	38	82.6
4. ECONOMIC SITUATION		
Student without a fixed income	37	74.0
Scholarship holder	12	24.0
Employee	01	2.0
5. PROFESSIONAL ACTIVITY		
Yes	01	2.1
No	46	97.9

Key: n - absolute frequency. % - percentage frequency.

Table 2. Academic characteristics of the students who performed the realistic simulation. Lagarto, SE, Brazil, 2021.

	n	%
1. CYCLE		
3 rd cycle	21	41.2
4 th cycle	30	58.8
2. SCHOOLING LEVEL		
CES	01	2.0
IES	01	2.0
CHE	09	18.4
IHE	38	77.6
3. TYPE OF SCHOOL		
Public	23	46.0
Private	23	46.0
Both	04	8.0
4. TRAINING LEVEL		
Elementary School	01	2.0
High School	18	35.3
Elementary and High School	31	60.8
Higher Education previous to the current level	01	2.0
5. COMPLETION YEAR/HIGH SCHOOL		
2010-2015	36	70.6
2016-2018	15	29.4
6. PEDAGOGICAL EXPERIENCE PRIOR TO GRADUATION		
Traditional	48	94.1
Problematizing	01	2.0
Both	02	3.9
7. MODULE LOSS		
Yes	04	7.8
No	47	92.2
8. SATISFACTION WITH TEACHING METHODOLOGY		
Yes	50	98.0
No	01	2.0

Key: n - absolute frequency. % - percentage frequency. CES- Complete Elementary School. IES- Incomplete Elementary School. CHS- Complete High School. IHE- Incomplete Higher Education.

Table 3. Nursing students' assessment regarding the realistic simulation design as a teaching strategy. Lagarto, SE, Brazil, 2021.

ITEM: OBJECTIVES AND INFORMATION	n	%
1. Sufficient information to provide guidance and encouragement was provided at the beginning of the simulation.		
I disagree with the statement	1	2.0

Undecided - I neither agree nor disagree with the statement	3	6.0
I agree with the statement	19	38.0
I totally agree with the statement	27	54.0
2. I clearly understood the purpose and objectives.		
I disagree with the statement	1	2.0
Undecided - I neither agree nor disagree with the statement	2	3.9
I agree with the statement	21	41.2
I totally agree with the statement	27	52.9
3. The simulation provides sufficient information, clearly, for me to solve the problem situation.		
I disagree with the statement	2	3.9
Undecided - I neither agree nor disagree with the statement	4	7.8
I agree with the statement	25	49.0
I totally agree with the statement	20	39.2
4. Sufficient information was provided during the simulation.		
I disagree with the statement	3	5.9
Undecided - I neither agree nor disagree with the statement	4	7.8
I agree with the statement	21	41.2
I totally agree with the statement	23	45.1
5. The clues were adequate and directed to promoting my understanding.		
I disagree with the statement	1	2.0
Undecided - I neither agree nor disagree with the statement	2	3.9
I agree with the statement	27	52.9
I totally agree with the statement	21	41.2

ITEM: SUPPORT	n	%
6. Support was offered in a timely manner.		
I disagree with the statement	1	2.0
Undecided - I neither agree nor disagree with the statement	9	17.6
I agree with the statement	21	41.2
I totally agree with the statement	20	39.2
7. My need for help was recognized.		
I disagree with the statement	4	7.8
Undecided - I neither agree nor disagree with the statement	9	17.6
I agree with the statement	18	35.3
I totally agree with the statement	20	39.2
8. I felt supported by the professor during the simulation.		
I disagree with the statement	2	3.9
Undecided - I neither agree nor disagree with the statement	7	13.7
I agree with the statement	20	39.2
I totally agree with the statement	22	43.1
9. I was supported in the learning process.		
Undecided - I neither agree nor disagree with the statement	3	5.9
I agree with the statement	22	43.1
I totally agree with the statement	26	51.0
ITEM: PROBLEM SOLVING	n	%
10. Autonomous problem solving was made easier.		
I disagree with the statement	2	3.9
Undecided - I neither agree nor disagree with the statement	4	7.8
I agree with the statement	22	43.1
I totally agree with the statement	23	45.1
11. I was encouraged to explore all the simulation possibilities.		
Undecided - I neither agree nor disagree with the statement	7	13.7
I agree with the statement	26	51.0
I totally agree with the statement	18	35.3
12. The simulation was designed for my specific level of knowledge and skills.		
I disagree with the statement	2	3.9
Undecided - I neither agree nor disagree with the statement	3	5.9
I agree with the statement	25	49.0
I totally agree with the statement	21	41.2
13. The simulation allowed me the opportunity to prioritize Nursing assessments and care.		
I disagree with the statement	2	3.9
Undecided - I neither agree nor disagree with the statement	6	11.8
I agree with the statement	12	23.5

I totally agree with the statement	31	60.8
14. The simulation gave me an opportunity to set objectives for my patient.		
I disagree with the statement	2	3.9
Undecided - I neither agree nor disagree with the statement	4	7.8
I agree with the statement	21	41.2
I totally agree with the statement	24	47.1
ITEM: FEEDBACK/REFLECTION	n	%
15. The feedback provided was constructive.		
I disagree with the statement	1	2.0
Undecided - I neither agree nor disagree with the statement	4	7.8
I agree with the statement	15	29.4
16. The feedback was provided in a timely manner.		
I disagree with the statement	3	5.9
Undecided - I neither agree nor disagree with the statement	4	7.8
I agree with the statement	14	27.5
I totally agree with the statement	30	58.8
17. The simulation allowed me to analyze my own behavior and actions.		
Undecided - I neither agree nor disagree with the statement	2	3.9
I agree with the statement	14	27.5
I totally agree with the statement	35	68.6
18. After the simulation, there was an opportunity for guidance/feedback from the professor, in order to elevate knowledge to another level.		
I disagree with the statement	2	3.9
Undecided - I neither agree nor disagree with the statement	4	7.8
I agree with the statement	15	29.4
I totally agree with the statement	30	58.8
ITEM: REALISM	n	%
19. The setting resembled a real-life situation.		
Undecided - I neither agree nor disagree with the statement	6	11.8
I agree with the statement	20	39.2
I totally agree with the statement	25	49.0
20. Real-life factors, situations and variables were incorporated into the simulation setting.		
I disagree with the statement	1	2.0
Undecided - I neither agree nor disagree with the statement	6	12.0
I agree with the statement	16	32.0
I totally agree with the statement	27	54.0

Key: n - absolute frequency. % - percentage frequency.

With 68.6% (n=35), in the feedback/reflection item, compliance was observed in all the questions under study; presenting greater relevance in that the simulation provides the possibility for the students to evaluate their own behavior. Regarding the degree of

importance, there was the same tendency to “very important” with 80.4% (n=41) for the “After the simulation, there was opportunity for guidance/feedback from the professor, in order to elevate knowledge to another level” sub-item.

Table 4. Nursing students' assessment regarding the degree of importance of the simulation design as a teaching strategy. Lagarto, SE, Brazil, 2021.

ITEM: OBJECTIVES AND INFORMATION	N	%
1. Sufficient information to provide guidance and encouragement was provided at the beginning of the simulation.		
Neutral	2	3.9
Important	11	21.6
Very Important	38	74.5
2. I clearly understood the purpose and objectives of the simulation.		
Neutral	1	2.0
Important	18	35.3
Very Important	32	62.7
3. The simulation provides sufficient information, clearly, for me to solve the problem situation.		
Neutral	2	3.9
Important	17	33.3
Very Important	32	62.7
4. I was provided with sufficient information during the simulation.		
Neutral	3	5.9
Important	14	27.5

Very Important	34	66.7
5. The clues were adequate and directed to promoting my understanding.		
Neutral	2	3.9
Important	14	27.5
Very Important	35	68.6
ITEM: SUPPORT		
6. Support was offered in a timely manner.		
Neutral	4	7.8
Important	11	21.6
Very Important	36	70.6
7. My need for help was recognized.		
Neutral	2	3.9
Important	13	25.5
Very Important	36	70.6
8. I felt supported by the professor during the simulation.		
Neutral	3	5.9
Important	10	19.6
Very Important	38	74.5
9. I was supported in the learning process.		
Neutral	1	2.0
Important	11	21.6
Very Important	39	76.5
ITEM: PROBLEM SOLVING		
10. Autonomous problem solving was made easier.		
Neutral	2	3.9
Important	14	27.5
Very Important	35	68.6
11. I was encouraged to explore all the simulation possibilities.		
Neutral	3	5.9
Important	12	23.5
Very Important	36	70.6
12. The simulation was designed for my specific level of knowledge and skills.		
Neutral	4	7.8
Important	12	23.5
Very Important	35	68.6
13. The simulation allowed me the opportunity to prioritize Nursing assessments and care.		
Neutral	1	2.0
Important	12	23.5
Very Important	38	74.5
14. The simulation gave me an opportunity to set objectives for my patient.		
Neutral	4	7.8
Important	12	23.5
Very Important	35	68.6
ITEM: FEEDBACK/REFLECTION		
15. The feedback provided was constructive.		
Neutral	2	3.9
Important	9	17.6
Very Important	40	78.4
16. The feedback was provided in a timely manner.		
Neutral	3	5.9
Important	10	19.6
Very Important	38	74.5
17. The simulation allowed me to analyze my own behavior and actions.		
Neutral	4	7.8
Important	7	13.7
Very Important	40	78.4
18. After the simulation, there was an opportunity for guidance/feedback from the professor, in order to elevate knowledge to another level.		
Little important	1	2.0
Neutral	2	3.9
Important	7	13.7

Very important	41	80.4
ITEM: REALISM		
	N	%
19. The setting resembled a real-life situation.		
Neutral	3	5.9
Important	11	21.6
Very important	37	72.5
20. Real-life factors, situations and variables were incorporated into the simulation setting.		
Neutral	1	2.0
Important	12	23.5
Very important	38	74.5

Key: n - absolute frequency. % - percentage frequency.

The *Realism* of the simulation design is the last item to be evaluated by the scale. In it, certain preference for the “I totally agree with the statement” answers is also observed. Here, the most relevant sub-item, with 54% (n=27), refers to the real life factors and variables that were incorporated into

the simulation setting. With 74.5% (n=38), the degree of importance of greater evidence in this item is for “Real-life factors, situations and variables were incorporated into the simulation setting”, pointed out as “very important” by the students.

DISCUSSION

In this study, female representativity in the simulation sessions is observed; this fact can be related to the discrepancy in the proportions between the two sexes when entering the course. This trend is very characteristic to health undergraduate courses, especially in the Nursing courses. Authors with similar research studies corroborate this finding when showing the predominance of women when compared to men, where the authors evaluated characteristics related to realistic simulation as a teaching tool⁴⁻⁶.

In relation to the mean age, in its last census, the Brazilian Institute of Geography and Statistics (*Instituto Brasileiro de Geografia e Estatística*, IBGE) showed that the mean age of young Brazilians entering higher education corresponds to the age group between 18 and 24 years old. This is the reflection of the expansion and democratization policies of the higher education system occurred in recent years. Thus, a number of studies on clinical simulation show that the mean age of the participants in realistic settings was around 25 years old⁹.

Although they fall within the economically active Brazilian profile threshold, the youth of this research are mostly students with no employment contracts and/or fixed income, with the exception of those receiving some assistance or scholarship from the university. This assertion leads to reflect on the time devoted to studying and its relationship with the success of the course, which, combined with the use of methodologies such as simulation, encourage these students towards academic success, with a negligible margin of failures among the respondents.

As for the undergraduate period, it was observed that the participants were attending the last years of the course, and it is in this period that the experience of the first internships is initiated. Therefore, these students need any and all input of experiences that enable the performance of knowledge, skills and attitudes in patient care, so simulation allows them to experience situations that will be part of their professional life before

being subjected to the challenges of a real situation. Thus, the use of such teaching strategy enables a more factual preparation of the technical and behavioral skills inherent to the health professional, as they represent real-world settings that can be experienced throughout the profession.

Meanwhile, when asked about satisfaction with the use of active methodologies, the students confirm being content with them; therefore inferring good acceptance among the learners. A number of advantages are found in the methodology, among which favoring training of the professional identity, development of autonomy in the search for the knowledge, criticality, integrated reasoning and theoretical-practical articulation are mentioned, in addition to direct contact with the outside community and its dynamics¹⁰.

Thus, by providing the association between active teaching methods and realistic simulation, there is a break in the logic of fragmented education, where the contents are broken down and the student ends up losing interest in learning. In addition, teaching sustained on evidence-based problematization contributes to training and to the ability to solve the complex challenges of the health care area.

Given the aforementioned, the existence of specific and detailed objectives is paramount during execution of the simulation, which must be aligned to the students' comprehension levels so that they can interpret them and achieve them successfully. The information about the objectives needs to be conveyed before the activity so that the participant is familiar with the equipment, mannequins and other materials found in the setting¹.

When performed by educators that master it, it reflects more reliability for the students, increases the satisfaction levels and improves academic performance¹⁻². The facilitator plays a primary role, generally centered on the teacher's figure. Their function is to convey the most original setting

possible, consistent with reality, in addition to having the necessary resources for its realization.

When well-understood, issues related to briefing and debriefing depict clear and cohesive settings that contribute to the construction of the clinical skills, since simulation is a technique that consists in creating and recreating potentially real situations in a controlled environment. Simulation tends to be supported in the clinical practice and to reduce the risks for the patient, in addition to providing clinical reasoning¹⁻¹¹. That is because, in clinical education, simulation is pointed out as an advantageous pedagogical tool that will provide the students with opportunities to practice and with insight for making decisions through real situations without exposing the patient to any harm.

The students who have prior contact with simulated teaching develop self-confidence and are better prepared to visualize the health needs related to the patients. The laboratory practice in the Nursing course is crucial for professional training. The implementation of the various procedures, although artificial, helps to develop skills and increase self-confidence in the future professionals¹¹.

The students who performed the simulation indicate that experiential learning, proposed by this method, builds knowledge more significantly, because there is the anchor of the new with other relevant knowledge to their cognitive structure. Therefore, in this process, learning will be constant because the new will be incorporated or integrated to previous knowledge and so the student is actively involved, resignifying their knowledge and becoming satisfied.

Simulated learning has competence to develop improved skill levels and theory-practice articulation. As a teaching strategy, it is recommended by the World Health Organization since, within the Nursing course, it raises the training standard of new nurses training, preparing them in a more comprehensive manner for the work market, in addition to training professionals that are more self-confident and ethical, as well as leaders for the process of the health services.

CONCLUSIÓN

The study shows that, according to the students' assessment of the simulation design, it is of great importance in the teaching-learning process for those who make use of it. The strategy assists and grounds decision-making in the clinical practice; in addition, it has great potential for the development of skills and critical-reflective thinking, which is indispensable for the qualification and training of Nursing professionals. Therefore, if well-structured and cohesive, it emerges as a useful instrument in the pedagogical process.

Thus, learning with simulated practice expressively revealed the students' satisfaction, recognition and increased self-confidence level. The reflective process about the actions executed in view of the simulated activity showed to be positive, considering that it is indispensable to recognize limitations and difficulties on the part of

the students. In this way, the students were able to hone their skills and abilities.

As a study limitation, the situation of public health experienced stands out, which resulted in the suspension of classes and social distancing, sometimes with difficulties in Internet access to give remote continuity to the collection of the research demographic data. However, due to such difficulty and to the new ways of teaching applied during the COVID-19 pandemic, this study stands out as extremely important for Nursing education, as it shows the students' satisfaction with the simulation design, which provides the basis for replicating the strategy in other scopes, including outside the academy for training professionals in the fight against the pandemic.

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