TEXTO & CONTEXTO ENFERMAGEM

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SIMULATION TRAINING FOR HOSPITAL ADMISSION OF PATIENTS WITH COVID-19: ASSESSMENT OF NURSING PROFESSIONALS

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ABSTRACT

Objective: to assess skills, satisfaction, self-confidence and experience with debriefing of nursing professionals in a simulated scenario for hospital admission of patients with COVID-19.

Method: this is a quantitative, observational, cross-sectional study, carried out at a university hospital with nursing professionals. Data were collected in June 2020 using the following instruments: sociodemographic questionnaire, checklist for assessing patient admission skills, the Student Satisfaction and Self-Confidence in Learning Scale and the Debriefing Experience Scale. Subsequently, the collected data were analyzed using descriptive and analytical statistics.

Results: sixty-two professionals participated, 23 (37.10%) nurses and 39 (62.90%) nursing technicians, with an average age of 36.82 (±6.19). Compliance with patient admission skills ranged from 66.13% to 90.32%. The overall average score on the Student Satisfaction and Self-Confidence in Learning Scale was 4.46 (± 0.36) and, on the Debriefing Experience Scale and factors, 4.63 (±0.33). Professionals who updated themselves with scientific articles and protocols obtained a higher average score on both scales (p<0.05).

Conclusion: most professionals demonstrated skills on patient admission, satisfaction with learning, self-confidence in the simulated scenario and adequate experience with debriefing.

DESCRIPTORS: Nursing. Hospitalization. Coronavirus infections. Patient simulation. Nursing education. Nursing professionals.

TREINAMENTO POR SIMULAÇÃO PARA ADMISSÃO HOSPITALAR DE PACIENTES COM COVID-19: AVALIAÇÃO DE PROFISSIONAIS DE ENFERMAGEM

RESUMO

Objetivo: avaliar habilidades, satisfação, autoconfiança e experiência com *debriefing* de profissionais de enfermagem em um cenário simulado para admissão hospitalar de pacientes com covid-19.
Método: estudo quantitativo, observacional, de corte transversal, realizado em um Hospital Universitário com profissionais de enfermagem. Os dados foram coletados em junho de 2020 utilizando os seguintes instrumentos: questionário sociodemográfico, *checklist* de avaliação das habilidades para admissão do paciente, Escala de Satisfação dos Estudantes e Autoconfiança na Aprendizagem e Escala de Experiência com o *Debriefing*. Posteriormente, os dados coletados foram analisados por estatística descritiva e analítica.
Resultados: participaram 62 profissionais, sendo 23 (37,10%) enfermeiros e 39 (62,90%) técnicos em enfermagem, com idade média de 36,82 (±6,19). O cumprimento das habilidades na admissão do paciente variou entre 66,13% e 90,32%. A pontuação média geral na Escala de Satisfação dos Estudantes e Autoconfiança na Aprendizagem foi de 4,46 (±0,36) e, na Escala e fatores de Experiência com o *Debriefing*, 4,63 (±0,33). Profissionais que se atualizavam por artigos científicos e protocolos obtiveram maior pontuação média nas duas escalas (p<0,05).
Conclusão: a maioria dos profissionais demonstrou habilidades à admissão do paciente, satisfação com a aprendizagem, autoconfiança no cenário simulado e adequada experiência com o *debriefing*.

DESCRITORES: Enfermagem. Hospitalização. Infecções por coronavírus. Simulação de paciente. Educação em enfermagem. Profissionais de enfermagem.

ENTRENAMIENTO DE SIMULACIÓN PARA EL INGRESO HOSPITALARIO DE PACIENTES CON COVID-19: EVALUACIÓN DE PROFESIONALES DE ENFERMERÍA

RESUMEN

Objetivo: evaluar habilidades, satisfacción, autoconfianza y experiencia con el debriefing de los profesionales de enfermería en un escenario simulado para el ingreso hospitalario de pacientes con Covid-19.
Método: estudio cuantitativo, observacional, transversal, realizado en un Hospital Universitario con profesionales de enfermería. Los datos se recolectaron em junio 2020 utilizando los siguientes instrumentos: cuestionario sociodemográfico, lista de verificación para evaluar las habilidades de admisión del paciente, Escala de Satisfacción y Confianza Propia de los Estudiantes en el Aprendizaje y la Experiencia con Debriefing. Posteriormente, los datos recolectados fueron analizados mediante estadística descriptiva y analítica.
Resultados: participaron 62 profesionales, 23 (37,10%) enfermeros y 39 (62,90%) técnicos de enfermería, con una edad media de 36,82 (±6,19). El cumplimiento de las habilidades de admisión del paciente osciló entre el 66,13% y el 90,32%. El puntaje promedio general en la Escala de Satisfacción y Confianza Propia de los Estudiantes en el Aprendizaje fue de 4.46 (±0.36) y, en la Escala de Experiencia de Debriefing y factores, 4.63 (±0.33). Los profesionales que se actualizaron con artículos y protocolos científicos obtuvieron una puntuación media más alta en ambas escalas (p<0,05).
Conclusion: la mayoría de los profesionales demostraron habilidades en la admisión de pacientes, satisfacción con el aprendizaje, confianza en sí mismos en el escenario simulado y experiencia adecuada con el debriefing.

DESCRIPTORES: Enfermería. Hospitalización. Infecciones por coronavirus. Simulación de pacientes. Educación en enfermería. Profesionales de enfermería.

INTRODUCTION

On March 11, 2020, the World Health Organization (WHO) declared infection caused by the new coronavirus, COVID-19, as a pandemic and emergency public health disease.[1] Since then, provisional guidelines on the management of infected patients and the necessary precautions for prevention have been released.[2] However, the knowledge under construction on the virus' pathogenicity and the rapid increase in the number of COVID-19 cases in the world have required rapid responses from health systems, through qualified professionals, ready to make a decision, based on scientific evidence.[2–4]

Health professionals are responsible for ensuring the safety of the health care environment so that care is free of iatrogenesis, damage to personal and population health.[5–6] Thus, it is imperative to employ the tested and proven effective protocols to control the spread of SARS-CoV-2 in the context of health services.[6] For this, some health institutions have used clinical simulation to train health professionals, in order to develop specific skills and abilities for the subsequent care of infected patients.[7] Clinical simulation is a teaching method that uses planned and controlled environments, defined as simulated scenarios. They are prepared with simulators and/or actors that reproduce real situations of clinical practice.[7]

An Indian quasi-experimental study, carried out with medical residents for simulated training in ventilatory management in a patient with COVID-19, demonstrated that the planned scenario was opportune for the development of participant skill, safety and satisfaction. Of the 23 study residents, there was a significant increase between the pre-test and post-test scores ($p < 0.0001$), with the training meeting and/or exceeding the expectations of 88.4% of participants.[8]

An investigation conducted with 46 American nurses assessed, through simulation, the ability to perform nasopharyngeal swabs for the RT-PCR exam. It was found that most participants were unaware of the correct form of the technique and that, after the educational activity, they improved their performance by up to 1.41 point ($p < 0.0001$) in relation to the pre-test.[9]

In the context of the pandemic, simulation-based education can be a practical and flexible tool for training nursing professionals, in order to achieve desirable levels of knowledge, skills and attitudes.[7,9] Moreover, it allows participants to perform a practice in a safe and controlled setting, in which it is possible to repeat and improve the skill before it is performed in nursing practice.[10] In this sense, the ability of a professional to perform procedures or activities within their competence, preventing potential problems, may imply greater satisfaction and confidence in professional practice.[9–10]

A study carried out in the United Kingdom used simulation in situ or simulation employed in the clinical environment itself to identify potential problems in the admission of patients with COVID-19 to an Intensive Care Unit. Through simulation, it was possible to identify and correct operational deficiencies around protocols of multiprofessional work and communication, increasing the safety of assistance provided.[11]

Considering that literature still lacks studies that assess the skills, satisfaction and confidence of nursing professionals in approaching patients with COVID-19, the proposal for an educational activity in a simulated scenario is justified. Thus, the study aimed to assess skills, satisfaction, self-confidence and experience with debriefing of nursing professionals in a simulated scenario for hospital admission of patients with COVID-19.

METHOD

This is a quantitative, observational, cross-sectional study conducted at the University Hospital of *Universidade Federal de Juiz de Fora* (UH/ UFJF), located in the city of Juiz de Fora, Brazil. UH/ UFJF is a medium-sized hospital that has 136 beds and has become a public service of regional reference for admission and treatment of patients with COVID-19.

For participation in the study, the following inclusion criteria were adopted: being a nurse, nursing technician or nursing assistant involved with the direct admission of patients. Those who were away from professional activities due to sick leave or vacation at the time of data collection were excluded.

The research was carried out in June 2020, a period in which educational activities took place in the institution's simulation laboratory, addressing the theme of admitting patients with COVID-19. The simulation laboratory is multidisciplinary and interdisciplinary. It has qualified instructors, as well as physical structure and equipment that allow it to meet varying levels of complexity.

For training, all interested professionals who met the inclusion criteria could register through the hospital's website. A non-probabilistic sampling was adopted, for convenience, considering that the participants were inserted in the educational activity for convenience, according to the availability and interest in participating in the activity.

The demand for training emerged with the purpose of equalizing the standard operating procedure for admitting patients with COVID-19 (Ad.POP.COVID-19) and providing greater safety to patients and the professional team in the face of the increased number of hospitalizations.

Attentive to professional safety, the training team, formed by the authors of the study, chose to send by email all the theoretical content of the course, or Ad.POP.COVID-19, in addition to information about the simulated scenario. The practical part of the course took place in the simulation laboratory, with a reduced number of people, considering all the guidelines regarding the current rules and precautions. In the simulated environment, instructors, previously trained, were responsible for preparing the environment, simulating patients with COVID-19, assessing skills, facilitating debriefing and applying scales.

On the day of the educational activity, the initial 5 minutes were reserved so that each professional participating in the training could answer questions, review the Ad.POP.COVID-19, in addition to recognizing the entire simulation scenario.

For training the subscribers, 16 rounds of two-hour activities were made available, in various shifts, throughout the month of June, with the objective of providing opportunities for the participation of professionals. In each hour of training, two professionals passed through the scenario, with an average of 60 minutes reserved for each pair to develop admission actions. This format was chosen because the average was considered 5 minutes for clarification and recognition of the scenario, 25 minutes for the development of Ad.POP.COVID-19, 25 minutes for debriefing and the final 5 minutes reserved for the training team to adjust and organize the scenario for the next professional. The times were not established in a fixed way, but only taken as a parameter that could be adjusted according to each professional team's needs.

Before the educational activity, the simulated scenario of high complexity was validated by five judges regarding content, appearance and fidelity, obtaining a Content Validity Index (CVI) of 0.91.

For the Ad.POP.COVID-19 scenario, ten skills assessed by a checklist were considered: gowning with personal protective equipment (PPE); receiving the patient with attentive listening to complaints and providing clarifications; multiparametric monitoring and measurement of vital signs; identification and reporting of changes in clinical signs (aloud); oxygen therapy installation; puncture of venous access and implementation of the initial prescription (500 milliliters of 0.9% saline solution at 14 drops per minute); collection of material for laboratory examination (venous blood); establishment of safety measures and circulation control (guidance on circulation and installation of an aerosol precaution notice board); discarding the infectious material used in the procedures correctly, degowning and hand hygiene.

The simulated scenario had all the necessary resources for the admission activity and standardized procedures, such as gowning and degowning, oxygen therapy, multiparametric monitoring and pulse oximetry, venipuncture and blood collection for examination. Simulating a real ward, in a

laboratory anteroom, the professional could perform hand hygiene and gowning. In this location, a small nursing station was also adapted, with all the materials needed to carry out the procedures, in addition to the instructions posted on the door on what should be done in the scenario. Before entering the scenario of direct patient care, the professional received a request for venous blood collection for biochemical exams and basic medical prescription, informing a bland diet, administration of 0.9% saline solution every 12 hours and installation of oxygen by glasses-like nasal catheter at three liters per minute, if necessary. It is worth mentioning that the assessment of the ten skills related to Ad.POP. COVID-19 was established through the sum of the performance of the pair, respecting the attribution of each professional.

In the simulated scenario of the infirmary, one of the instructors interpreted a 72-year-old widow who was transferred from the institution's outpatient clinic complaining of worsening dyspnea, cough, abdominal pain, with SARS-CoV-2 detectable by the RT-PCR exam performed two days in an Emergency Care Unit. After the patient's monitoring procedure, the simulated parameters were projected on a monitor, indicating the need for oxygen installation by an eyeglass catheter, according to the ten skills related to Ad.POP.COVID-19. For venipuncture puncture and blood collection, an arm and forearm manikin for blood collection and intravenous puncture was adapted to the side of the actor's chest.

Debriefing was a reflexive discussion that took place right after the execution of the activities in the scenario, in which the instructors highlighted the positive aspects, the points to be improved by the professionals and the level of satisfaction. To this end, three central aspects guided the debriefing: activities performed and not performed, points to be improved and what represented the training for each professional.

Sociodemographic data were collected through a questionnaire asking for information on age, sex, education, work sector, length of professional experience, simulation training and updates on COVID-19. To assess the skills performed on patient admission, a checklist was used with ten items referring to the skills listed in Ad.POP.COVID-19, with the possibility of three answer options in each item: yes, partially, and no. The checklist was assessed and adjusted according to the considerations of five experts regarding clarity, relevance and content. The Student Satisfaction and Self-Confidence in Learning[11] and Debriefing Experience scales were also used.[12] Both were cross-culturally validated for Brazilian Portuguese, with high internal consistency, with the Student Satisfaction and Self-Confidence in Learning Scale a Cronbach's alpha of 0.86 and the Debriefing Experience Scale, a Cronbach's alpha of 0.94.

The Student Satisfaction and Self-Confidence in Learning Scale have 13 items and consists of two subscales, the first referring to satisfaction (with five items) and the second to self-confidence (with eight items). For each item that makes up the scale, the five possible responses are of Likert type, ranging from strongly disagree with the statement to strongly agree with the statement.[12]

The Debriefing Experience Scale is composed of 20 items and subdivided into four domains: analyzing thoughts and feelings (with four items); learning and making connections (with eight items); teachers' ability to conduct debriefing (with five items); appropriate teacher guidance (with three items). For each item that makes up the scale, the five possible responses are of a Likert type, ranging from strongly disagree with the statement to strongly agree with the statement.[13]

Data were tabulated in Microsoft Excel and analyzed using Stata software version 15.0. Sociodemographic data and the skills checklist score, as well as the Student Satisfaction and Self-Confidence in Learning Scale and the Debriefing Experience Scale, were initially analyzed by calculating frequencies and measures of position and dispersion.

The normality of distribution of quantitative variables was verified by applying the Shapiro-Wilk test. From the results, analysis of differences in means by sociodemographic variables was

performed by applying the Student's t test for unpaired samples and analysis of variance to a factor. The correlation between the scale scores was verified using Pearson's test. Bilateral tests were adopted throughout the analysis and a significance level of 5%.

The research was initiated after approval by the Research Ethics Committee with Human Beings at the University Hospital of *Universidade Federal de Juiz de Fora* and upon signing an Informed Consent Form by the study participants.

RESULTS

Also, 62 nursing professionals participated in the study, whose average age was 36.82 (± 6.19) years. Women accounted for 77.4% of the sample. Of the total, 23 (37.1%) were nurses and 39 (62.9%) were nursing technicians, with no participation of nursing assistants. As for the sector of work at the institution, medical clinic (25.8%) prevailed, followed by surgical clinic (11.7%) and outpatient clinic (14.5%). The predominant professional experience was from 11 to 15 years (29.0%), followed by six to ten years (27.4%). The updating of COVID-19 through scientific articles/protocols and social networks/news/newspapers was reported by 93.5% of participants, while 6.5% reported updating only through social networks, such as Facebook, Instagram and WhatsApp. Most (56.4%) reported having already been trained by simulation.

As for the ten skills assessed in complying with Ad.POP.COVID-19, the relative frequency of performance of activities by professionals ranged from 66.1% to 90.3%. However, it is worth noting that 30.6% of participants partially fulfilled the ability to neglect the infectious material used in the procedures in an appropriate place, degowning and hand hygiene, and 27.4% did not report the simulated patients' clinical changes, despite 90.3% identified these changes (Table 1).

Table 1 – Assessment of nursing professionals regarding the skills developed in the simulation scenario. Juiz de Fora, MG, Brazil, 2020. (n=62)

Skills developed	Yes (n%)	Partially (n%)	No (n%)
1. They gown correctly	44 (71.0)	17 (27.4)	1 (1.6)
2. They welcome patients, listen to complaints and clarify them	50 (80.7)	8 (12.9)	4 (6.4)
3. Monitor and measure vital signs	55 (88.7)	7 (11.3)	0
4. Identify clinical changes	56 (90.3)	5 (8.0)	1 (1.7)
5. Report clinical changes	41 (66.1)	4 (6.4)	17(27.5) (27.42)
6. Start oxygen therapy	49 (79.0)	13 (21.0)	0
7 Venipuncture and implement prescription	49 (79.0)	9 (14.5)	4 (6.5)
8. Perform material collection for exams	44 (71.0)	12 (19.3)	6 (9.7)
9. Establish safety and circulation control measures	53 (85.5)	7 (11.3)	2 (3.2)
10. Disregard infectious material, degown and clean their hands	42 (67.8)	19 (30.6)	1 (1.6)

In the distribution as to mean, standard deviation, median, maximum and minimum in the scale and subscales Satisfaction with Current Learning and Self-confidence in Learning, the scores were between 3.60 and 5, with an overall mean of 4.46 (± 0.36). In the Debriefing Experience Scale factor, the scores were between 3.25 and 5, with an overall mean of 4.63 (± 0.33) (Table 2).

High internal consistency was found in the two applied scales, with a Cronbach's alpha of 0.86 for the Student Satisfaction and Self-Confidence in Learning Scale and a Cronbach's alpha of 0.93 for the Debriefing Experience Scale.

When considering the distribution of scores on the Student Satisfaction and Self-Confidence in Learning Scale based on the relationship with sociodemographic characteristics, no significant variations were identified in most of the means, except in the means of updating on COVID-19 (p <0.001). For the Debriefing Experience Scale, similarly, from the relationship, no significant variations were found in most of the means, except in the means of updating COVID-19 (p <0.016). Although most professionals use scientific articles and government and institutional protocols as well as social networks to increase knowledge about COVID-19, the group that updated itself with scientific articles and protocols obtained a higher mean score on both scales (Table 3).

Table 2 – Scoring on the Student Satisfaction and Self-Confidence in Learning Scale and the Debriefing Experience Scale. Juiz de Fora, MG, Brazil, 2020. (n=62)

Variables	Mean	SD[*]	Mediana	Maximum	Minimum
Student Satisfaction Scale	4.46	0.36	4.53	5	3.84
Subscale 1 - Satisfaction with learning	4.56	0.41	4.60	5	3.60
Subscale 2 - Self-confidence in learning	4.40	0.42	4.50	5	3.37
Debriefing Experience Scale	4.63	0.33	4.70	5	3.80
Factor 1 - Analyzing thoughts and feelings	4.52	0.43	4.75	5	3.25
Factor 2 - Learning and making connections	4.63	0.38	4.81	5	3.87
Factor 3 - Teacher skill lead debriefing	4.71	0.37	5	5	3.80
Factor 4 - Appropriate teacher guidance	4.62	0.41	4.66	5	3.66

[*] Standard deviation.

Table 3 – Distribution of means scores on the Student Satisfaction and Self-Confidence in Learning Scale and the Debriefing Experience Scale related to professionals' sociodemographic characteristics. Juiz de Fora, MG, Brazil, 2020. (n=62)

Variable		n (%)	Satisfaction and Self-confidence Score Mean (SD) *	P value	Debriefing Experience Score Mean (SD)*	P value
Participants		62 (100)	4.56 (0.41)	-	4.63 (0.33)	-
Sex	Female	48(77.4)	4.56 (0.41)	0.586†	4.64 (0.34)	0.685†
	Male	14 (22.6)	4.58 (0.41)		4.60 (0.29)	
Training	Nurse	23 (37.1)	4.51 (0.41)	0.428†	4.60 (0.37)	0.618†
	Technician	39 (62.9)	4.60 (0.41)		4.64 (0.31)	
	Surgery Center	6 (9.7)	4.60 (0.45)	0.826‡	4.77 (0.25)	0.800‡
	Medical clinic	16 (25.8)	4.48 (0.37)		4.55 (0.43)	
	Surgical Clinic	11 (17.7)	4.60 (0.40)		4.59 (0.32)	
Work sector	Intensive therapy	6 (9.7)	4.40 (0.48)		4.60 (0.32)	
	Ambulatory	9 (14.5)	4.57 (0.50)		4.70 (0.21)	
	Image	6 (9.7)	4.77 (0.30)		4.58 (0.34)	
	Transplant	8 (12.9)	4.65 (0.45)		4.71 (0.34)	
Length of professional experience (years)	Minor 5	10 (16.1)	4.68 (0.34)	0.244‡	4.48 (0.30)	0.292‡
	From 6-10	17 (27.4)	4.37 (0.40)	0.244‡	4.48 (0.37)	
	From 11-15	18 (29.0)	4.60 (0.36)		4.70 (0.30)	
	16-20	12 (19.4)	4.63 (0.51)		4.71 (0.31)	
	20 more	5 (8.1)	4.72 (0.38)		4.66 (0.37)	
Previous training	Yes (n=35)	35 (56.4)	4.52 (0.41)	0.304†	4.59 (0.34)	0.372†
	No (n=27)	27 (43.6)	4.62 (0.41)		4.67 (0.32)	
COVID-19 Update	Articles/protocols	26 (42.0)	4.87 (0.38)	<0.001‡	4.70 (0.26)	0.016‡
	Social media	4 (6.4)	4.65 (0.19)		4.16 (0.32)	
	Both	32 (51.6)	3.56 (0.37)		4.63 (0.35)	

* Standard deviation; † Student's t test for unpaired samples; ‡Factor analysis of variance.

DISCUSSION

Nursing plays a crucial role in the entire health care process for individuals and communities.[14] At the hospital level, it is up to the nursing staff to implement various activities, both private and collaborative, which commonly begin upon patient admission.[15–16] In the context of the new coronavirus pandemic, there was an exponential increase in hospital admissions, requiring specific nursing actions for patient safety and monitoring.[16–17]

In this sense, the data from the present investigation emerged from a simulated scenario for training specific skills in the admission of patients with COVID-19. Participants' sociodemographic characteristics are compatible with other studies and with the profile of Brazilian nursing professionals.[15,18] It is a mainly female, young adult contingent, represented by nursing technicians and nurses, distributed in the most diverse hospital activities and specialties.[18]

Studies[16–17,19] have highlighted the important role of global nursing in coping with COVID-19, which involves everything from the epidemiological screening of infected patients to the management and diligent implementation of environmental control and patient safety measures. Training, mostly in the expository and remote format, was used as a resource for the dissemination of institutional protocols, with emphasis on specific skills such as: epidemiology of the new coronavirus; use of personal protective equipment; identification of signs, symptoms and worsening of the disease; monitoring of vital parameters; disposal of infectious materials and control of movement of people.[14,16,20]

In the present study, we opted to send the theoretical material by e-mail and develop the skills of professionals in a simulated scenario. It should be noted that the checklist used to assess the skills of professionals was developed specifically for the theme and involved the entire process of admitting a patient to the hospital. Although the studies highlight specific training for professionals, the skills required in patient admission require from nursing universal standards related to observation, listening, assessment, monitoring, guidance, and safety.[13,20]

An investigation[21] conducted in China, with 71 nursing professionals, adopted the distance modality for theoretical content and in-person simulation for practice, assessment of signs and symptoms of COVID-19, hospital infection control and psychological support for professionals. For assessment, pre- and post-tests were used, with improvement of knowledge about the theoretical content of COVID-19 in operational skills and psychological support (p <0.001).

Another study[22], carried out in Saudi Arabia, with 337 health professionals, also provided the theoretical content at a distance and assessed via simulation the screening and infection control skills. There was an equal compliance rate of 92% for skills in the use of PPE, 82% for the recognition of signs and symptoms of COVID-19 and 88% for the implementation of recommendations in the face of an infected patient. In the debriefing stage, 94% of participants reported satisfaction or great satisfaction with the training.

In the present investigation, it was possible to identify potential problems for patient admission and for professional safety, such as deficiency in gowning, in the identification of clinical changes, in the disposal of infectious materials and in hand hygiene. Potential problems were discussed in the debriefing, from the presentation of the flaws and possible outcomes to patient and professional safety, followed by strategies to prevent operational deficiencies in the protocol.

A survey[23] carried out in an emergency service, with a multidisciplinary team, assessed by simulation the basic and advanced skills for establishing airways in patients infected with COVID-19. Although most professionals perform the procedures correctly, about 21% did not follow the correct sequence and procedure for the use of personal protective equipment and hand hygiene.

Another study,[24] carried out in a hospital in Beirut, described the wide implementation of multiprofessional training in situ for initial care to patients with COVID-19, in different units of the

institution, totaling 22 diversified simulations. The authors highlighted simulation as an essential tool to solve latent problems and safety threats.

The study participants, when responding to the Student Satisfaction and Self-Confidence in Learning Scale Student Satisfaction, presented an overall average of 4.46 points out of 5. This score represents the degree of satisfaction of professionals in relation to their learning about the admission of patients with COVID-19 and their self-confidence with the performance in the simulated scenario. Regarding debriefing, measured by the Debriefing Experience Scale, the global average was 4.63 points out of 5. The result portrays professionals' assessment of reflection and analysis of the required skills and those employed in the scenario in their entirety, partially or not employed.

These data are compatible with literature, which has presented an average global score ranging from 3.9 to 4.5 for satisfaction and self-confidence with learning.[25–27] On the other hand, experimental studies have shown lower mean scores for the control group, in which the approach was limited to traditional expository teaching.[26–27]

Regarding the experience with debriefing in the simulation, studies have described an average global score ranging from 3.7 to 4.2 points.[28–30] These scores are below the global average identified in the admission debriefing of patients with COVID-19.

For both scales, higher average scores were identified among professionals who used protocols and scientific articles to update COVID-19. Considering that the content of the simulated scenario was based on scientific evidence, it is inferred that professionals used to access scientific content have found greater ease and consistency in the activity.

It is worth mentioning that, since the beginning of the pandemic, excess information has been produced, through not always reliable vehicles, on diagnosis, treatment, prevention, origin and spread of the new coronavirus. This excessive production of information has been reported as an infodemia or epidemic of information.[31–32]

A survey[33] assessed, between January and April 2020, a total of 1,225 false news about COVID-19, published in English. It was found that 50.5% were broadcast on social media, such as Facebook, Instagram and WhatsApp, and another 49.5%, by multiple sources, such as unknown people, government officials, websites, and tabloids.

In the present investigation, it was found that there are professionals who update themselves through social networks, despite not being a majority. Therefore, the consumption of information by these vehicles, without due verification of content and veracity, can represent risks to professional performance and individual and collective health.

As a study limitation, the use of a non-probabilistic sample is considered, which makes it difficult to generalize the results to the study population. Moreover, sending the theoretical material by electronic mail may imply heterogeneous access and study of the content. The availability of theoretical material on a platform or virtual environment can mediate the discussion and enrich the appropriation of knowledge.

Nevertheless, the study contributes to the area of education and clinical nursing practice, presents possibilities of continuing education based on simulated scenarios, strengthening care safety. The findings of this study contribute as useful information to guide the design of future research on the theme.

CONCLUSION

Through a simulated scenario, the study sought to assess the skills, satisfaction and self-confidence and the experience with debriefing of nursing professionals in the hospital admission of patients with COVID-19. In this regard, the results reflect that most professionals demonstrated skills

necessary for the admission of patients with COVID-19, in addition to satisfaction with learning, self-confidence with performance in the simulated scenario and adequate experience with debriefing.

Simulation made it possible to identify potential problems, such as deficiency in gowning, in the identification of clinical changes, in the disposal of infectious materials and in hand hygiene, these latent threats being discussed in debriefing.

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NOTES

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