

Treinamento para internos de enfermagem sobre uso de equipamentos de proteção individual no contexto da COVID-19

Training for nursing interns on the use of personal protective equipment in the context of COVID-19

Capacitación para pasantes de enfermería sobre el uso de equipos de protección personal en el contexto del COVID-19

RESUMO

Objetivo: relatar a experiência de treinamento do uso de equipamentos de proteção individual para internos da graduação de enfermagem em um laboratório de habilidades e simulação realística. Método: relato de experiência, desenvolvido no período de setembro de 2020 e março de 2021, com internos de enfermagem de universidade pública no Rio de Janeiro. Foram implementadas atividades voltadas a paramentação/desparamentação e higienização das mãos no contexto da pandemia Covid-19. Utilizou-se como estratégia pedagógica a demonstração, a realização in loco dos procedimentos e esclarecimentos de dúvidas. Resultados: Participaram 76 discentes, do 8º e 9º últimos períodos. Dividiu-se em: organização do espaço físico e logística para treinamento, execução das atividades, treinamentos e posterior avaliação. Conclusão: Evidenciou-se que é possível antever algumas situações nas quais alunos de enfermagem poderão estar sujeitos em seus campos de prática e dessa forma colaborar na redução de riscos a sua segurança e à segurança do paciente.

DESCRIPTORES: Treinamento por simulação; Enfermagem; Coronavírus.

ABSTRACT

Objective: to report the experience of training in the use of personal protective equipment for undergraduate nursing inmates in a realistic simulation and skills laboratory. Method: experience report, developed from September 2020 to March 2021, with nursing interns at a public university at Rio de Janeiro. Activities aimed at dressing/undressing and hand hygiene were implemented in the context of the Covid-19 pandemic. As a pedagogical strategy, the demonstration, the in loco performance of procedures and clarification of doubts was used. Results: 76 students from the 8th and 9th last periods participated. It was divided into: organization of physical space and logistics for training, execution of activities, training and subsequent evaluation. Conclusion: It was evident that it is possible to foresee some situations in which nursing students may be subject in their fields of practice and thus collaborate in reducing risks to their safety and patient safety.

DESCRIPTORS: Simulation training; Nursing; Coronavirus.

RESUMEN

Objetivo: reportar la experiencia de capacitación en el uso de equipos de protección personal para internos de enfermería de pregrado en un laboratorio realista de simulación y habilidades. Método: relato de experiencia, desarrollado entre septiembre de 2020 y marzo de 2021, con pasantes de enfermería de una universidad pública en Río de Janeiro. Las actividades destinadas a vestirse / desvestirse e higiene de manos se implementaron en el contexto de la pandemia Covid-19. Como estrategia pedagógica se utilizó la demostración, la realización de procedimientos in loco y la aclaración de dudas. Resultados: participaron 76 alumnos del 8º y 9º último período. Se dividió en: organización del espacio físico y logística para la capacitación, ejecución de actividades, capacitación y posterior evaluación. Conclusión: Se evidenció que es posible prever algunas situaciones en las que los estudiantes de enfermería pueden estar sujetos en sus campos de práctica y así colaborar en la reducción de riesgos para su seguridad y la seguridad del paciente.

DESCRIPTORES: Entrenamiento en simulación; Enfermería; Coronavirus.

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INTRODUCTION

Since March 2020, Brazil has been facing a serious health crisis caused by the Pandemic of the new coronavirus. This virus, called SARS-CoV-2, causes a disease called Covid-19. It is highly transmissible and causes from common flu-like symptoms to complex conditions such as severe acute respiratory syndrome (SARS). Lethality varies according to age group, associated clinical conditions, comorbidities, among others.^{1,2,3,4,5}

Given this epidemiological scenario, the Ministry of Health (MS) and specialists strongly recommend measures of social distancing, the use of masks and social etiquette. Since the first months of the pandemic, several restrictions were implemented, such as the suspension of in-person activities in Higher Education Institutions (HEIs), day care centers, schools, with a view to protecting the population and, consequently, reducing the circulation of the virus, number of cases and deaths.^{3,5}

However, several institutions have adopted pedagogical strategies for professional training, using online platforms to conduct emergency remote education, as well as crea-

ting training and qualification strategies with a view to safe care.

Emergency remote teaching was adopted as an alternative to minimize harm to students, and made nursing professors and undergraduates end up reinventing themselves in this new context. However, it is urgent to emphasize the importance of in-person classes in the post-pandemic nursing education process.⁶

Furthermore, the pandemic period brought reflections on the teaching-learning process, especially in the health area. The return to the field of practice in health services, permeated by uncertainties, fears and anxieties, but essential for professional training, needed planning so that they could happen safely for the academic community.⁷

Higher Education Institutions (HEIs) compete to assess and organize processes for a safe return, considering epidemiological conditions, challenges and perspectives of undergraduate nursing education during Covid-19 to redefine the paths regarding teaching, in this scenario of pandemic.⁷

With the advancement of Covid-19, there is an urgent need for closer and more integrated teaching-service, requiring the presence of the student in the health service, in order

to minimize interruptions in training. Thus, training can be used as a pedagogical didactic strategy to maintain quality in the training of professionals for health services.⁸

The respiratory transmission of the virus makes it essential to use personal protective equipment (PPE) as the main precautionary measure to fight this pandemic. In this way, the adequate training in dressing and undressing for these future professionals in the care of infected patients is an effective and essential way to minimize the risk of contamination.⁹

Thus, simulation is seen as a method that enables the participation of professionals and students in a controlled and safe environment, allowing the repetition of the technique several times, without prejudice to the health team and patients, enabling the acquisition of knowledge, skills and attitudes, in addition to the possibility of improvement before being performed in practice, which can prevent potential problems and bring more security during care.¹⁰

Based on the above, this study aims to report the experience of training in the use of personal protective equipment for undergraduate nursing inmates in a laboratory of skills and realistic simulation of a Faculty of Nur-

sing of a public university in the State of Rio de Janeiro.

METHODS

This is an experience report developed by professors at the Faculty of Nursing of a public university in the State of Rio de Janeiro, Brazil, from September 2020 to March 2021. 76 nursing students participated in the training, belonging to the full curriculum of the Undergraduate Nursing Course, which is completed in at least 9 periods and a maximum of 14 periods.¹¹

Study participants belonged to the last year of graduation, that is, the 8th and 9th periods, the Nursing internship, which constitutes a moment of transitional experiences, necessary to articulate the transition from the role of student to that of Nurse, gaining autonomy and security for later professional performance.¹² In addition to the Internship, in this last year of graduation, students will build a mandatory Monograph, with a total workload of 90 hours for this, with a view to orientation and monitoring, the preparation of the research project and the final report.¹¹

Thus, the following inclusion criteria were used: 8th or 9th undergraduate nursing interns who were to enter the practical setting of a University Hospital, a reference in the care of patients affected by Covid-19. If they agreed to participate in the research, they signed an Informed Consent Form (ICF), in accordance with the Resolution of the National Health Council (CNS) No. 466/12 and No. 510/16, with a copy sent by email. Those who did not agree to participate would be excluded from the study, which did not occur.

The training strategy for interns was based on the Planning for Resumption of Teaching Activities in Remote format at the Faculty of Nursing. At first, preventive measures were established so that the return to the physical space could occur safely, both for the students and for the professors who carried out the training.

Therefore, for the planning and implementation of the activity, the following strategies were followed: meetings with the direction and coordination of graduation, forecast and provision of the purchase of personal protecti-

ve equipment (PPE), dimensioning the number of students per laboratory room, guarantee the minimum distance recommended by the technical notes and manuals of ministerial bodies through the marking of spaces, training of administrative technicians, cleaning staff and elevator assistance, guaranteed body temperature measurement at the entrance of the building, placement of alcohol dispensers in strategic locations, didactic planning of the activity, such as sending instructional didactic videos produced in the laboratory in partnership with the Institution's Telehealth, and the development of the activity.

It is noteworthy that all students previously received the Biosafety Standards on the operation of the laboratory and teaching material produced by the laboratory staff.

Still, the setting up of scenarios was carried out to carry out the proposed activities aimed at dressing/undressing and hand hygiene. As a pedagogical strategy, the on-site demonstration and performance of the procedures was used, with subsequent clarification of doubts.

All participants, using the QR-code, filled out a Google forms form before the activities with the following variables: measured temperature, respiratory symptoms and contact with a suspected and/or confirmed case. After the activity, they received another instrument, by email and messaging application, related to the assessment of the activity.

It is noteworthy that the study is linked to the project entitled: Validation of educational technologies for care practice in intensive care units, approved by the Research Ethics Committee, under opinion No. 3.443.800 and CAAE: 42417121.6.0000.5282, in agreement with the Resolution of the National Health Council (CNS) No. 466/12 and No. 510/16.

RESULTS AND DISCUSSION

A total of 76 students from the last graduation periods participated in the training. The first training, held in September 2020, involved 54 students, and the second training, held in February 2021, 32 students.

Organization of physical space and logistics for training

For the safety of those involved, biosecurity measures were used in order to avoid contamination between the participants. Among the measures, the following stand out: use of a sanitizer mat, sizing of physical space, dispensing of alcohol gel, preparation of individual training kits. It is important to emphasize the need for organizing materials that can be carried out efficiently by managers of both training units and hospital managers.

Additionally, the logistics of the environment must also be respected in accordance with the standards recommended by ANVISA for the physical space, since there are different recommendations regarding the need for a minimum distance of 1 meter concomitant with the use of a mask, according to the scale of virus transmission intensity¹³. According to images 1, 2, 3 and 4 that make up Figure 1:

Execution of training

In view of the need for the gradual reopening and maintenance of the functioning of the sectors of commerce, industry and service provision in the Municipality of Rio de Janeiro, allied to strict compliance with COVID-19 prevention measures, the city hall of the city of Rio de Janeiro published Decree Rio No. 47.488, defining protocols for the resumption of economic and social activities within the Municipality, in order to ensure that the return to normality is done in a gradual and orderly manner, seeking to mitigate the incidence of harmful events.¹⁴

In this sense, the University also took preventive measures guided by the laboratory's own guide containing biosafety standards in accordance with the Decree instituted by the City Hall. Thus, before the training, the students answered a questionnaire informing them about the laboratory use and safety standards. Contact emails and telephone numbers were collected, in case any students had respiratory symptoms they could contact.

In addition, temperature was measured and none of the students showed signs of fever. All people must undergo body temperature medication and entry should not be allowed in case of temperature equal to or greater than 37.5°C, as per the official recommendation of the ILO in its safe return to work guide in view of the prevention mea-

asures to COVID-19.¹⁵

As for contact with the suspected case of Covid-19 in the last 14 days, only 6% (n=5) reported contact. As for symptoms related to Covid-19, 90% (n=77) reported not having any symptoms on the day of training and 10% (n=9) reported isolated symptoms, such as: tiredness, nasal congestion, headache and cough. The local surveillance network and health teams in the territory should promote, know and maintain active communication with managers of schools and universities in their territory to assist with issues related to COVID-19 and be recognized as a local reference point for quick contact in order to previously recognize any occurrence of cases in a school and university environment.¹⁴

Participants were divided into two rooms, respecting the established limits. The following activities were carried out: hand hygiene with soap and water, alcohol gel, and the techniques of dressing and undressing. According to images, 5 and 6 below that represent Figure 2:

Training evaluation

Of the students who participated in the training, 19% (n=16) responded to the survey. 100% (n=19) were unanimous in stating that the training was important for the practice in the internship fields. When answering about the importance of the training, they informed that it served to resolve doubts, remember practices already taught and provide security for the return to the practical field, being essential in the practice scenarios in which they worked.

Nursing interns were trained in order to minimize the risks exposed and prepared to work on the front line, thus it is clear that training is a strategy to improve professional performance, in order to lead to improvement and quality in carrying out care practices.¹⁶

As for the continuity of training, 93.8% (n=15) answered yes. As for the organization of training, 81.3% (n=13) rated it as excellent and 18.8% (n=3) rated it as good.

Regarding the videos available, 87.5% (n=14) responded that they watched, the most accessed being: hand hygiene with soap and water (84.6%), antiseptic hand rub with



Source: authors, 2020-2021



Source: Authors, 2020-2021

alcohol (76.9%) and Dressing and Undressing of Health Professionals during the Covid-19 pandemic (84.6%).

However, the following suggestions by the students stand out: extend the training time, make more videos available and create an extension course. It is noteworthy that continuing education during the period of

the pandemic has become challenging, having seen the rules of social distancing necessary to prevent the spread of the virus¹⁶, however, the laboratory managed to produce instructional videos released by the Youtube Platform aimed at good practices in confronting COVID-19. However, despite the production being made available for free and

with easy access, the practice in loco becomes imperative under these conditions.

CONCLUSION

This report described an experience with the training practices of personal protective equipment carried out in the Laboratory of Skills and Realistic Simulation. Through this

experience, it was possible to sensitize students about the correct use and disposal of PPE and the importance of hand hygiene.

The strategy used to deliver the training was favored through prior planning of human and material resources, in addition to the development of teaching materials that could facilitate the training.

Therefore, it is feasible to develop practices

safely with the resources available in the laboratory environment. It is concluded, based on the reported experience, that with skills training and realistic simulation it is possible to foresee situations in which nursing students may be subject in their fields of practice and, in this way, collaborate for their safety and patient safety.

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