

DOI: <https://doi.org/10.36489/nursing.2021v24i275p5496-5505>

# Play and educational activity for hand hygienization in pandemic times: experience report

**ABSTRACT** | Objective: to describe the experience of a playful activity to reflect on the hand hygiene technique among nursing professionals regarding the care of patients with Coronavirus. Method: this is a study of a professional experience report about an educational activity carried out with 25 professionals who are on the front line of COVID-19. Result: the participants realized the flaws during the hand hygiene procedure and were clarified about the main doubts about the correct technique, friction time, amount of soap to be used, causing their practices to be put to the test. Conclusion: the permanent education is essential to encourage and carry out appropriate techniques, mainly those related to the barriers of exposure to the virus. The increasing in quality of hand hygiene requires investment in continuing education for health professionals and changes in the aspects related to the beliefs and culture of these professionals.

**Keywords:** Nursing professionals; Handwashing; Pandemics; Coronavirus infections.

**RESUMEN** | Objetivo: describir la experiencia de una actividad lúdica para reflexión sobre la técnica de higienización de las manos entre profesionales de enfermería en relación al cuidado de pacientes con Coronavirus. Método: se trata de un estudio de un informe de experiencia profesional sobre una actividad educativa realizada con 25 profesionales que se encuentran en la primera línea del COVID-19. Resultado: los participantes se notaron las fallas durante el procedimiento de higienización de las manos y se aclararon las principales dudas sobre la técnica correcta, tiempo de fricción, cantidad de jabón a utilizar, haciendo con que sus prácticas sean puestas a prueba. Conclusión: la educación permanente es fundamental para incentivar y realizar las técnicas adecuadas, principalmente aquellos que se refieren a barreras de exposición al virus. El incremento de la calidad de la higienización de las manos requiere inversiones en educación continua para los profesionales de la salud y cambios en los aspectos relacionados con las creencias y la cultura de estos profesionales.

**Palabras claves:** Profesionales de enfermería; Lavarse las manos; Pandemias; Infecciones por coronavirus.

**RESUMO** | Objetivo: descrever a experiência de uma atividade lúdica para reflexão da técnica de higienização das mãos entre profissionais de enfermagem frente ao atendimento de paciente com Coronavírus. Método: trata-se do estudo de um relato de experiência profissional sobre uma atividade educativa realizada com 25 profissionais que estão na linha de frente do COVID-19. Resultado: os participantes perceberam as falhas durante o procedimento de higienização das mãos e foram esclarecidos sobre as principais dúvidas sobre a técnica correta, tempo de fricção, quantidade de sabão a ser utilizado, fazendo com que suas práticas fossem postas à prova. Conclusão: a educação permanente é primordial para incentivar e realizar as técnicas adequadas, principalmente as que se referem às barreiras de exposição ao vírus. O aumento da qualidade na higienização das mãos, exige investimento na educação continuada para os profissionais de saúde e mudanças dos aspectos relacionados às crenças e à cultura desses profissionais.

**Palavras-chaves:** Profissionais de enfermagem; Lavagem das mãos; Pandemias; Infecções por coronavirus.

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**Received on:** 11/30/2020

**Approved on:** 02/02/2021

## INTRODUCTION

SARS-CoV-2 is a virus identified as the cause of an outbreak of respiratory disease, first detected in Wuhan - China - in December 2019. Many patients affected by this virus had some link with the seafood trade and animals, which suggested the transmission of the disease from animals to people. However, an increasing number of patients reportedly had no exposure to the animal market, indicating the occurrence of spread from person to person. <sup>(1)</sup>

It is now well established that this virus has a high and sustained transmissibility among humans. There is still

no vaccine available for the entire population to prevent infection with SARS-CoV-2. Thus, the best way to prevent the disease caused by this virus, called COVID-19, is to take actions to prevent its spread, one of which is hand hygiene (HH). <sup>(2)</sup>

In this perspective, hand hygiene is one of the most important habits to prevent diseases and infections. This simple measure is so essential that the World Health Organization (WHO) has elected May 5 as World Hand Hygiene Day and the release date of the campaign "Save lives: clean your hands". In 2019, the proposal by WHO, supported by the National Health Surveillance Agency (ANVI-

SA), was “Safe care for everyone is in your hands”.<sup>(3)</sup>

Thus, the objective of these campaigns and mobilizations is to put the issue at the center of attention worldwide and to encourage professionals to perform good practices of clean and safe care for the prevention of infections in patients in health services.<sup>(4)</sup>

It is known that hand hygiene (with 70% alcoholic preparation or liquid soap) is one of the actions to minimize the spread of pathogens (organisms capable of causing diseases), including the new coronavirus.<sup>(5)</sup>

In this sense, it is emphasized that hand HH is one of the main precautions related to patient safety and the quality of nursing care. In this scenario, the reduction of Health care-associated infections (HAIs) stands out for the lowest admissible incidence rate and the low risk or expendable damage associated with health care.<sup>(6)</sup>

In view of these findings, the Pan American Health Organization (PAHO) suggests that HH be employed by any health facility, regardless of available resources. For this, the five moments for HH are proposed: (I) before contact with the patient; (II) before performing an aseptic procedure (such as insertion of catheters or administration of intravenous drugs); (III) after risk of exposure to body fluids (such as blood, saliva or sweat); (IV) after contact with the patient and/or (V) after contact with the areas close to the patient (furniture, handles, continuous infusion pumps or any surface in the vicinity of the patient).<sup>(7)</sup>

In this scenario, the study is justified because it is a strategic theme within health organizations and is committed to raising awareness and promoting awareness of the seriousness of hand hygiene correctly by all professionals involved in health care, from administrative employees to those who provide direct assistance to the patient, highlighting the role of the nurse as a permanent educator, prima-



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rily at the time of the pandemic.

In addition, the research brings up the discussion about the possibility of amortizing the dissemination of Covid-19 and health problems for patients and staff who are facing the pandemic.

From the above, the present research aimed to describe the experience of a playful activity for reflecting on the hand hygiene technique among nursing professionals regarding the care of patients with Coronavirus.

#### METHOD

This is a descriptive, reflective, qualitative study, of the experience report type, about the knowledge experienced from a permanent education activity. This activity was performed for nursing professionals who are at the forefront of care provided to confirmed or suspected patients with COVID-19.

The study scenario was an emergency care service of a medium-sized hospital, located in the Vale do Paraíba region, in the interior of the state of São Paulo - Brazil. The site has a total of 156 beds, 56 of which are intended for the care of victims of the Coronavirus pandemic. The hospital offers private assistance for medical plans and the Unified Health System (SUS). This service is a reference for the treatment of COVID-19 in the adjacent region.

As for the temporal issue, the professional experience from March to June of 2020 is delimited, with recreational activities that lasted between 40 and 50 minutes.

A permanent education action was carried out in the form of a practical workshop, with 25 employees working in the COVID-19 service sector, being: 10 nursing technicians; 5 nurses; 5 receptionists; and 5 professionals from the janitorial service. Of this total, 4 are male and 21 female, aged between 23 and 45 years. All have operated in this sector since April 2020.

The report was based on the expe-

rience of nurses with knowledge about assistance in the face of the COVID-19 pandemic, as well as their practices associated with carrying out permanent health education.

The data reported here demonstrate the experience that emerged from the reports and observations made during the implementation of playful actions in health education, with studies and discussions among nursing profes-

sionals in the internal structure of the institution where the activities were developed.

As this is an experience report, it was not necessary to submit it to the Research Ethics Committee. Even in the case of this type of study, all ethical principles were followed, in accordance with national and international research recommendations. It is also worth mentioning that the institution's

consent to disseminate the experience was obtained.

## RESULT

To carry out the activity, at first, a wooden box was made, known as Medium Density Fiberboard (MDF), made with fibers and synthetic resin, so the result is a uniform material. In that box, there was, on the front, an opening for insertion of the hands, on the upper part a beam for internal viewing, and, inside, a black light. The compartment was painted in a matte black color to intensify the internal light.

The second phase, according to (Figure 1), contemplated the use of neon gouache paint, with the purpose of replacing the liquid soap, applied in the hands of the participants, who were instructed to perform the hand hygiene technique (with the friction movements) properly. Soon after, regions that were not properly cleaned during the procedure were observed.

In the third phase, according to (Figure 2), the professionals cleaned their hands with running water and then inserted their hands again into the play box. The objective was to get them to observe the residues of the gouache paint, mainly in the areas of the upper back of the hands, thumbs and around the cuticles, because the neon gouache paint highlights the places where the friction was not effective.

Subsequently, with the visualization of their own hands, the participants realized the flaws during the cleaning technique and were clarified about the main doubts regarding the correct sequence for the procedure, the average friction time and the amount of liquid soap to be applied, causing their practices to be put to the test.

In general, the activity, in addition to showing dirt on the hands, promoted interaction between the team, strengthening joint work and effective communication.

**Figure 1: Medium Density Fiber Box (MDF) and replacement of liquid soap by neon gouache paint in the hands of employees, São Paulo, Brazil, 2020.**



Source: Authors' file, 2020.

**Figure 2: Effect of light after hand hygiene with neon gouache paint, São Paulo, Brazil, 2020.**



Source: Authors' file, 2020.

We emphasize that, after this stage, the poster available in the manual of the National Health Surveillance Agency (ANVISA) was displayed, which illustrates the general guidelines for the implementation of patient safety practices in field hospitals and other provisional structures, during the COVID-19 pandemic. <sup>(8)</sup>

The same manual recommends the following steps for developing the simple hand hygiene technique: removing adornments; turn on the tap and wet your hands, avoiding touching the sink; avoid very hot or very cold water, in order to prevent dry skin; apply liquid soap on the palm of the hand in sufficient quantity to cover all surfaces (follow the amount recommended by the manufacturer). Then, all parts of the hands should be rubbed, including palms, back, interdigital spaces, back of fingers, thumbs, digital pulps and wrists; then, they must be rinsed, removing the soap residue, from the fingers to the wrists, avoiding direct contact of the soapy hands with the tap. Finally, the professional must proceed with drying with disposable paper towels, starting with the hands and moving towards the wrists; afterwards, you should discard the tissue paper in the trash for common waste. The duration of the procedure depends on the purpose, in the case of simple HH it is approximately 40 to 60 seconds.

#### DISCUSSION

Consequently, the absence of hand hygiene is part of the reality of the Brazilian population. It is known that outbreaks have already occurred due to the non-hygiene of the hands of health professionals, in which several microorganisms were identified. To combat these microorganisms, there are several antiseptics and soaps that can be used for hand hygiene during the patient care process. <sup>(9)</sup>

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It is also emphasized the importance of using playful strategies to facilitate learning among health professionals. This proposal must be inserted in the whole process of confronting the virus that causes Covid-19, as it will have an impact on the quality of care, on guaranteeing the right to health for the individual and on the acquisition of skills and confidence. These recreational activities tend to facilitate the fixation of the content covered, the knowledge of the triggering factors of infections and the ways of how to avoid them.

Thus, we understand that the use of playful strategies in permanent education activities is essential to mediate this relationship, corroborating several benefits for both the professional and the patient. <sup>(12)</sup>

The relevance of people's behavior is also emphasized, which has been a fundamental issue for the practice of the professionals involved. In this regard, it is important to remember adherence to preventive safety measures during the pandemic. In this perspective, it is essential that there is permanent education in health, so that changes and behavioral motivation occur, causing strategies to be created to increase adherence to the hand hygiene procedure. <sup>(13)</sup>

Studies on qualified assistance point out that hand hygiene is an extraordinary mechanism for removing sweat, dirt, oil, dead cells and microorganisms. The hands are known to harbor a considerable amount of low to high virulence pathogens, being a common means of cross-contamination. Thus, mechanical cleaning with soap and water is ideal for reducing the spread of infectious diseases. <sup>(14)</sup>

In this sense, our research has limits because it is an experience report, therefore, indicators that could show



measurable results, achieved with the playful strategy employed, were not analyzed.

On the other hand, the research contributed to the knowledge about the hand hygiene technique, to provide direct and indirect care to patients, in suspected or confirmed cases of coronavirus, providing patient and professional safety.

Thus, with the activities proposed and carried out, it was possible to contribute to the institution by taking care of its nursing team collaborators, who are at the forefront in fighting and facing this pandemic disease - COVID-19 - as well as the population served by these professionals, in general.

#### CONCLUSION

Bearing in mind that the virus was recently discovered and that there is still little research on the topic, the relevance of continuous technical and



## Ensuring that nursing professionals carry out the correct hand hygiene procedure



scientific modernization is emphasized. It is understood that it is essential to carry out permanent education actions in order to promote the appropriate technique for procedures to attend the public in hospitals, especially those that refer to barriers to exposure to the virus, as well as the adaptations of health services.

Ensuring that nursing professionals carry out the correct hand hygiene procedure, as well as the necessary quantity and inputs with recognized quality, are essential actions that allow professionals not to act with transmission microbial load in their hands, in addition to avoiding their absence due to the contamination of the disease.

Finally, it is reaffirmed that increasing the quality of hand hygiene requires investment in permanent education for health professionals, but also changes in aspects related to the beliefs and culture of these professionals. 🐦

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