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THE USE OF *MOULAGE* IN CLINICAL SIMULATION: MULTIPLE CASE STUDIES

Mateus Meska[1], Raphael Raniere de Oliveira Costa[2], Leandro Mano[3], Elaine Cristina Negri Santos[4], Barbara Casarin Henrique-Sanches[1,*], Alessandra Mazzo[5]

ABSTRACT

Objective: identify how and why to use *moulage* within clinical simulation practices. **Method:** it is a multiple, inclusive, descriptive and exploratory case study with a qualitative approach. The cases were selected through an intentional sample. After applying the eligibility criteria, four cases of simulated scenarios that used *moulage* were included and analyzed. **Results:** all the cases analyzed were developed in extracurricular simulated clinical activities by facilitators with experience in clinical practices, teaching and simulation. The *moulage*s used different techniques, promoting greater interaction with the learner through the use of stimulants of different sense organs, sharpening clinical reasoning, the development of skills, competences, among others. In the four cases, the *moulage* was performed on a simulated patient, in simulated scenarios and simulated video. The reasons described for *moulage* were: to provide realism, fidelity, easy application and low cost. **Conclusion:** it was possible to identify that the *moulage* is an adequate resource in clinical simulation and that when built with rigor and method, it influences the fidelity and realism of the simulated scenario.

DESCRIPTORS: Anatomical models. Simulation. Health education. College education. Stomatherapy.

O USO DA *MOULAGE* NA SIMULAÇÃO CLÍNICA: ESTUDO DE CASOS MÚLTIPLOS

RESUMO

Objetivo: identificar como e porque utilizar a *moulage* dentro das práticas de simulação clínica. **Método:** trata-se de estudo de casos múltiplos, inclusivo, de caráter descritivo e exploratório com abordagem qualitativa. Os casos foram selecionados por meio de uma amostra intencional. Após aplicação dos critérios de elegibilidade, foram incluídos e analisados quatro casos de cenários simulados que utilizaram *moulage*. **Resultados:** todos os casos analisados foram desenvolvidos em atividades clínicas simuladas extracurriculares por facilitadores com experiência em práticas clínicas, na docência e na área de simulação. As *moulages* utilizaram técnicas diferentes, promovendo maior interação com o aprendiz pelo uso de estimulantes de diferentes órgãos do sentido, aguçando o raciocínio clínico, o desenvolvimento de habilidades, competências, entre outros. Nos quatro casos, a *moulage* foi realizada em paciente simulado, em cenários simulados e vídeo simulado. Os motivos descritos para *moulage* foram: prover realismo, fidelidade, fácil aplicação e baixo custo. **Conclusão:** foi possível identificar que a *moulage* é um recurso adequando em simulação clínica e que quando construída com rigor e método, influencia na fidelidade e no realismo do cenário simulado.

DESCRITORES: Modelos anatômicos. Simulação. Educação em saúde. Educação superior. Estomaterapia.

1. Universidade de São Paulo − Escola de Enfermagem – Ribeirão Preto (SP), Brazil.
2. Universidade Federal do Rio Grande do Norte − Escola Multicampi de Ciências Médicas − Caicó (RN), Brazil.
3. Universidade Estadual do Rio de Janeiro – Telemedicina e Telessaúde – Rio de Janeiro (RJ), Brazil.
4. Universidade do Oeste Paulista − Departamento de Enfermagem – Presidente Prudente (SP), Brazil.
5. Universidade de São Paulo − Faculdade de Odontologia − Bauru (SP), Brazil.
*Correspondence authore: barbara.henrique@gmail.com
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EL USO DEL *MOULAGE* EN LA SIMULACIÓN CLÍNICA: ESTUDIO DE CASOS MÚLTIPLES

RESUMEN

Objetivo: identificar cómo y por qué utilizar el *moulage* dentro de las prácticas de simulación clínica. **Método:** se trata de estudio de casos múltiples, inclusivo, de carácter descriptivo y exploratorio con abordaje cualitativo. Los casos fueron seleccionados por medio de una muestra intencional. Luego de aplicar los criterios de elegibilidad, se incluyeron y analizaron cuatro casos de escenarios simulados que utilizaron *moulage*. **Resultados:** todos los casos analizados fueron desarrollados en actividades clínicas simuladas extracurriculares por facilitadores con experiencia en prácticas clínicas, en la docencia y en el área de simulación. Los *moulages* utilizaron técnicas diferentes, favoreciendo una mayor interacción con el aprendiz por el uso de estimulantes de diferentes órganos del sentido, aguzando el raciocinio clínico, el desarrollo de habilidades, capacidades, entre otros. En los cuatro casos, el *moulage* se realizó en paciente simulado, en escenarios simulados y video simulado. Los motivos descritos para el *moulage* fueron: proveer realismo, fidelidad, fácil aplicación y bajo costo. **Conclusión:** fue posible identificar que el *moulage* es un recurso adecuado en simulación clínica y que cuando se construye con rigurosidad y método, influye en la fidelidad y en el realismo del escenario simulado.

DESCRIPTORES: Modelos anatómicos. Simulación. Educación para la salud. Educación superior. Estomaterapia.

INTRODUCTION

In clinical simulation, professors and instructors have increasingly invested in a higher level of fidelity, in simulated scenarios, with the objective of providing the learner with simulated clinical experiences that are as close as possible to the real thing, which excludes the "make believe" and incorporates the creation and/or replication of rich and attractive environments, with the aim of motivating – in a direct way – the learner, making learning more meaningful[1]. It is known that the more real the simulation, the higher the level of learning and the higher the level of student satisfaction[2].

The fidelity of a simulated scenario is often assessed through face and content. How realistic the simulated scenario is made validates it in the face. On the other hand, the validity of the content observes its suitability for the learning objectives[3,4].The fidelity of simulated practices has been equated to how much these activities can imitate clinical reality, being even classified as high, medium and/or low fidelity.[4,5], baseando-se, geralmente, na complexidade da simulação.

The concept of fidelity is increasingly associated with realism, considering the physical, conceptual and attitudinal dimensions[1]. The physical dimension can vary from low to high fidelity, according to the technology of the simulator and the amount that the environment replicates the real environment, incorporating the presence of sounds, smells and props that represent the clinical situation. It is in this dimension of realism that *moulage* is inserted, since it has resources that can confer visual characteristics, textures and odors, which can contribute to sharpen emotions, feelings, clinical reasoning and other skills to be developed in students.

The definition of *moulage* is associated with the use of special effects makeup, which simulate illness, concussions, wounds, blood, incisions, bruises, patient age, clinical features, and/or other effects to a dummy/simulator or simulated patient[6]. This addition of special effects, in simulators and/or simulated patients, provides clues that generally should not be passively provided, through the reading of the clinical case and/or the information provided by the facilitator during the pre-briefing or briefing of the scenario, which allows facilitators to bridge the gap that often occurs between a real clinical case and a simulated clinical case[7].

The benefits of using *moulage* in clinical simulation are discussed in the scientific literature. Several studies discuss its potential as a tool that makes it possible to increase the confidence of professionals in the most diverse scenarios, indicating the presence of burns, melanomas, among many other signs that can be evaluated in a clinical examination[8].

When used properly, *moulage* assists the learner in confirming clinical signs that support the diagnosis. Other studies have also shown that the use of *moulage* in simulators or simulated patients allows the training of skills, such as the stabilization of a penetrating trauma[9,10], performing the debridement technique on wounds5, palpation and visualization of tissues, drainage of simulated abscess, among many others[10].In addition, it increases knowledge, decreasing the response time for an intervention, stimulates critical thinking, realism, sensory engagement, which minimizes disbelief in the realism of the simulated scenario[9].

Despite the research available in the scientific literature, it is still not possible to find theories that guide the levels of fidelity of the *moulage* for use in simulation. In this context, we suggest that in the simulated clinical scenario, the *moulage* can be evaluated and classified into Low, Medium and High Fidelity *Moulage*, considering, above all, the realism provided by means of visual, aesthetic, tactile stimulus, odor production, number of clues provided to clinical reasoning and skill training opportunity.

The Low Fidelity *Moulage*, no less important, but executed with few material resources, is carried out in a more simplistic, two-dimensional (2D) way, with width and length. It is intended to provide clues for the development of the simulated scenario, such as bruises, jaundice, pallor, excoriations, sweating, bleeding, various types of injuries, characterization of elderly patients, among others[11].

Medium Fidelity *Moulage* uses techniques and material resources with greater increment for its manufacture. It is presented in three-dimensional (3D) form, with width, length and height[12]. It may also include the use of pre-molded 3D silicone prostheses[13] or artifacts that mimic them, such as chicken bones in an open fracture. It provides more information and/or clues for the development of the scenario, such as open injuries, pressure injuries, venous ulcers, bleeding cuts, trauma, open fractures, which leads the learner to the need to evaluate and reflect in order to make decisions.

High Fidelity *Moulage*, on the other hand, is one that provides stimuli to the students' senses, such as touch and smell. It may contain 3D format, as well as the addition of other multisensory and four-dimensional (4D) stimuli. They may have a higher cost in their manufacture and require a longer preparation time. The definition of 4D is seen as a resource that aims to immerse the viewer in the experience, using vibrations, movements, odors, and other impulses for other sense organs[14]. By checking these characteristics, the 4D *moulage* allows greater student interaction with the simulated clinical scenario and can be exemplified through the analysis of odor in a lesion made, for example, with provolone cheese. Wound bed injuries that allow debridement, abscess drainage, escharotomy, among others[5,10,15].

Unlike simulators that require the use of robotic technologies to give it a level of fidelity, the *moulage* incorporates in the different levels of complexity proposed here, creativity, the use of alternative materials and different techniques for its manufacture and depending on the learning objectives outlined, when associated with simulators and/or simulated patients, they can lead to a very favorable outcome.

In this sense, this study aimed to identify how and why to use *moulage* within clinical simulation practices.

METHOD

This is a multiple case study[16], inclusive, descriptive and exploratory with a qualitative approach. The following research question was used: "How and why to use *moulage* within clinical simulation practices?"

Therefore, the following proposition was made: "The *moulage*, when built with rigor and method, and in accordance with the simulated scenario, influences the clinical evaluation of the patient - by health students - and, consequently, in the realism simulation" (visual, aesthetic, tactile stimulus, odor production, number of clues provided for clinical reasoning and opportunity for skills training).

The cases were selected through an intentional sample, since they were typical or special cases, studied from real contexts. For data collection, experts in the area of health education or simulation experts, who developed the simulated cases, were then invited - via email - by the research team. The purpose of the contact was to present the research objectives and clarify the following steps. Attached, they received the *Termo de Consentimento Livre e Esclarecido -TCLE* (Free and Informed Consent Term) and the Authorization Term of the images for research purposes. After accepting and filling out the Terms,

the experts were directed to an online Google Forms page where they answered a pre-established questionnaire regarding the simulated scenario they developed using *moulage*.

The questionnaire was created based on Fabri[17] and highlights the following elements: the objectives of the scenario; the target audience; the teaching method; the types of simulators used; the description of the clinical case; the description of the *moulage*; the reason for choosing the *moulage*; human resources (responsible for making the *moulage*); the time to prepare the *moulage*; material resources and costs. In addition, experts were asked to attach photos of the *moulage* made. It was also clarified that the photo should be cropped, in order to emphasize only the *moulage* and contain color and resolution characteristics. A period of 20 days was stipulated for the acceptance of responses. With the instrument filled in and sent by the respondents, data analysis was carried out.

After searching and selecting the researchers' files and the cases of simulated scenarios that used *moulage*, six cases were selected that occurred in different teaching-learning contexts (simulated scenarios and simulated videos), namely: 1) Interprofessional assistance to respiratory emergencies: tracheostomy care; 2) Nursing care for patients with wounds; 3) Trauma of extremities; 4) Evaluation of leprosy wounds; 5) Pressure injury assessment ebook; 6) Nursing care for patients with oncological wounds.

For the analysis of the questionnaire sent to the experts, a protocol entitled "*Moulage* data analysis protocol in a simulated clinical scenario" was prepared by the researchers, based on the same criteria as shown in Fig. 1[18].

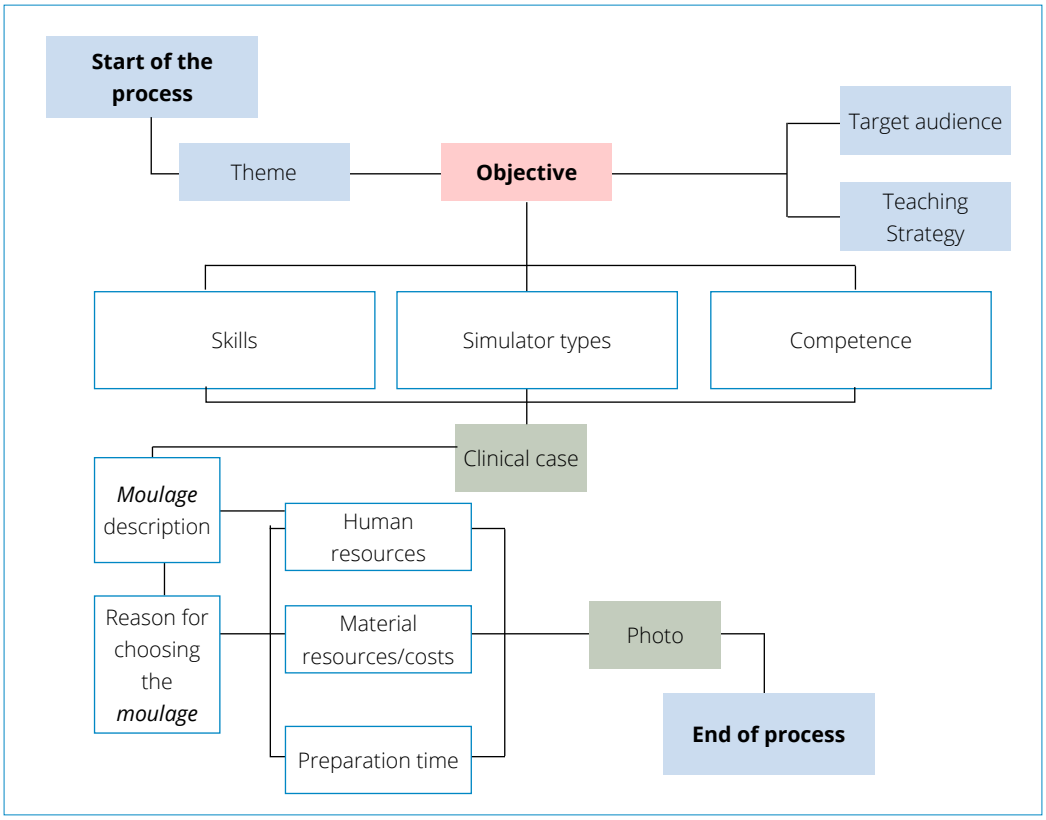

Figure 1. *Moulage* data analysis protocol in a simulated clinical scenario, developed by the researchers. Ribeirão Preto (SP) – 2019.

After checking and initial analysis of the answers contained in the form, the cases sent by the experts that contained photos and description of the *moulage* were included in the study, following the requirements listed by the researchers and the questionnaire answered fully and in the determined time. Questionnaires filled in incorrectly and cases in which the photos contained a company logo or that could identify the simulated patient or the simulator's brand were excluded. After applying the eligibility criteria, four cases were analyzed.

The data were analyzed through the items of the stages of construction of the simulated scenario and through the description and photo of the *moulage* made in each case. The cases were presented in the form of a flowchart, tables and discursive texts for better analysis and comparison. After this step, they were analyzed following the theoretical propositions and objectives of the study based on the literature review. Initially, they were analyzed individually, and later the crossing was carried out in their entirety.[16].

This study was approved by the Research Ethics Committee of the Escola de Enfermagem de Ribeirão Preto of the Universidade de São Paulo, under CAAE Opinion No. 21241219.5.0000.5393.

RESULTS

The four cases analyzed were developed in extracurricular simulated clinical activities, by facilitators with experience in clinical practices, teaching and in the simulation area: case 1) Interprofessional assistance in respiratory emergencies: tracheostomy care; case 2) Nursing care for the patient with a wound; case 3) Evaluation of leprosy wounds; and case 4) Extremity trauma[18].

All cases were structured in the flowchart of the *moulage* data analysis protocol in a simulated clinical scenario, prepared by the researchers.

Table 1. Simulated cases. Ribeirão Preto (SP) – 2021.

Case 1	ME.HS, male, 48 years old, with laryngeal cancer, on room air (via metallic tracheostomy), is hospitalized in the postoperative period of total laryngectomy, During a physical examination by the nurse, the patient begins to show signs of respiratory distress, with adventitious sounds (snoring-like) on pulmonary auscultation. If, by chance, airway aspiration is performed, local resistance will be encountered. Saturation should drop after aspiration to 83% and the patient should show cyanosis in the extremities. If other professionals (physiotherapist and/or physician) are called in and supplemental oxygen is offered by one of the professionals, the saturation should rise to 90%. After reasoning, the team should choose to change the internal tracheostomy cannula, after changing the cannula, the saturation should normalize (97%), as well as the general condition of the patient.
Objective	Perform metal tracheostomy cannula replacement.
***Moulage* Description**	*Moulage* in the anterior cervical region of the simulated patient with the presence of a metallic tracheostomy cannula inserted/coupled to the moulage.
Case 2	M.S., 62 years old, female, elementary school teacher, was admitted to the ward of the surgical clinic of the General Hospital, yesterday, at 10 am. She has a lesion in the right lower limb, in the malleolar region. She reports being a smoker for over 20 years, hypertensive, has varicose veins in her lower limbs. She doesn't do physical activity because she doesn't have time, and even less now, because she feels pain and is afraid of "hurting" the wound. She takes Captopril 25 mg and Hydrochlorothiazide 25mg once a day. The lesion appeared 2 years ago, and during that time she has been treated with 4% papain. As she is not having a good evolution, the (vascular) doctor decided to hospitalize her to do some tests and start treatment with another coverage. She awaits the evaluation of the sector nurse.
Objective	Identify the chronic ulcer of vasculogenic etiology through the nursing consultation.
***Moulage* Description**	In the simulated patient's lower limbs, trophic changes, edema, varicose veins, hyperpigmentation, lipodermatosclerosis, venous eczema, peripheral pulse without change are present. In the clinical history represented, the pain is manifested as intense, in the history it becomes stronger at the end of the day and at night. The shape of the lesion is irregular, extensive, exudative, with a large amount of yellowish exudate, granulation tissue, slough and an unpleasant odor.

continue...

Tabela 1. Continuação...

Case 3	J.S., 30 years old, male, rural producer. He has a medical diagnosis of multibacillary leprosy. In regular treatment with polychemotherapy for six months. No other comorbidities. He sought service for the administration of the monthly supervised dose of medication and for a nursing consultation. He reports having a wound in the plantar region of his right foot and complains of losing her flip-flops when walking, without realizing when this occurs. He also reports going barefoot frequently and wearing boots to work. When asked about the care of the wound, he mentions washing it with soap and water during the bath and covering it with gauze. In the neurological evaluation of the lower limbs, thickening of the common peroneal nerve on the right and bilateral posterior tibial nerves is observed, with a complaint of shock on palpation of the posterior tibial nerve on the right. Typical coloring of the skin on the feet, with dryness, good capillary perfusion, normal pulses, presence of calluses and absence of edema. He has a plantar neuropathic ulcer (plantar perforating disease).
Objective	Assess neuropathic ulcer in leprosy patients.
***Moulage* Description**	Neuropathic ulcer located in the plantar region, 2.3 cm long, predominantly granulation tissue and circular edges with hyperkeratosis around it.
Case 4	M.A.M., 19 years old, male, motorcyclist, victim of a traffic accident involving a collision between motorcycle and car. At the time of the accident he was wearing a helmet. He was brought to the hospital emergency department by people. He is on the stretcher, headboard at zero degrees, absence of rigid board and cervical collar, in dorsal decubitus, breathes spontaneously in ambient air, spontaneous eye opening, communicates verbally and obeys commands. He has bruises all over his body. Absence of deep wounds in the chest and abdomen. Absence of traumatic brain injury. Presence of an open fracture in the right tibia. HR = 110bpm, BP = 128 x 86 mmHg, RR = 18 rpm, SO2 = 98%, T = 36.0º.
Objective	Assess neuropathic ulcer in leprosy patients.
***Moulage* Description**	The simulated patient has an open fracture of the right tibia with a small amount of bleeding and perilesional edema.

FHR = Heart rate; bpm = Beats per minute; BP = Blood pressure; mmHg =millimeters of mercury; RR = Respiratory rate; rpm =raids per minute; SO2 = Oxygen saturation; T = Temperature.

Based on the proposed themes, learning objectives and stipulated clinical cases, the materials for making the *moulage* were defined. These materials had characteristics of easy access and were low cost, being restricted to professional theatrical latex (80 mL – R$35.50), artistic putty for special effects (60 g – R$19.50), red makeup pigments, yellow, purple, brown (10 g – R$9.00 each), artificial theatrical blood (120 mg – R$32.90), brush (R$6.00), PVC pipe (1m x 20mm - R$4 .90), wood sandpaper (nº120 – R$ 1.20), saw bow (R$ 29.90), square file (nº8 – R$ 21.90), kit with makeup sponges (R$ 4, 90), double crochet hook (R$2.90), in addition to a 1,000 W hair dryer (R$34.90) and fermented food scraps that provided odor to the wounds made. The *moulage*s were made by a graduate student (case 1, 2 and 3) and a trained facilitator (case 4), and took from 40 minutes (cases 2 and 4) minutes to 2 hours (case 1) to be made. Making the *moulage* for case 3 took 1 hour. In Fig. 2 the results of the *moulage*s in the simulated patients are shown.

To demonstrate the use of the evaluation protocol proposed and used by the researchers for the description and analysis of each case, Fig. 3 presents the information of the case 3) Evaluation of wounds in leprosy.

Case 1- Interprofessional assistance in respiratory emergencies; tracheostomy care.

Case 2- Nursing care for the patient with a wound.

Case 3- Evaluation of leprosy wounds.

Case 4- Extremity trauma.

Figure 2. Result of making the *moulage*s in the simulated patients of cases 1, 2, 3 and 4. Ribeirão Preto (SP) – 2020.

DISCUSSION

The diversification of teaching strategies has been a fundamental component within the curricular organization and training of health professionals[2]. In the dynamic teaching-learning process that is currently established, educators must use more comprehensive and participatory didactic resources, which involves, among many other strategies, the construction of structured simulated clinical scenarios, with clear and well-defined objectives, skills and competences[17].

The *moulage* can be used in different educational resources, such as educational video, simulated scenario, flipchart, booklets and/or others, even when there is a shortage of photographic collection of real images of structures, tissues and clinical conditions. In the cases analyzed, it was possible to identify its use in higher education, in the teaching of Nursing, Medicine and Physiotherapy, characterizing patients and simulators in activities with learning objectives, competences and different abilities, bringing the learner closer to the clinical field with realism.

The fidelity and authenticity of the setting enhances participant engagement. The *moulage* expands the possibilities of the simulator, allowing the development of skills that go beyond the static standards of these equipment. This association of the *moulage* and the simulator is still quite useful in situations in which it is necessary to add the sensory perception of smell, sight or others (provided through the *moulage*) to invasive procedures, such as the drainage of an abscess.

In simulation, the practice of clinical problems experienced in real clinical practice is carried out, not only using imagination. With the use of *moulage*, clinical scenarios can be brought closer to the real characteristics of patients, providing elements to the learners to identify, evaluate, make decisions and develop competences in the face of the problems encountered. In this sense, *moulage* has been shown to be a widely used resource to work on attitudinal and communication skills with simulated patients. However, when used in part-task trainers or low-fidelity simulators,

moulage makes it possible to increase the training of skills with a greater degree of difficulty and, consequently, realism, such as the use of odors and secretions in female pelvises to perform the specular exam.

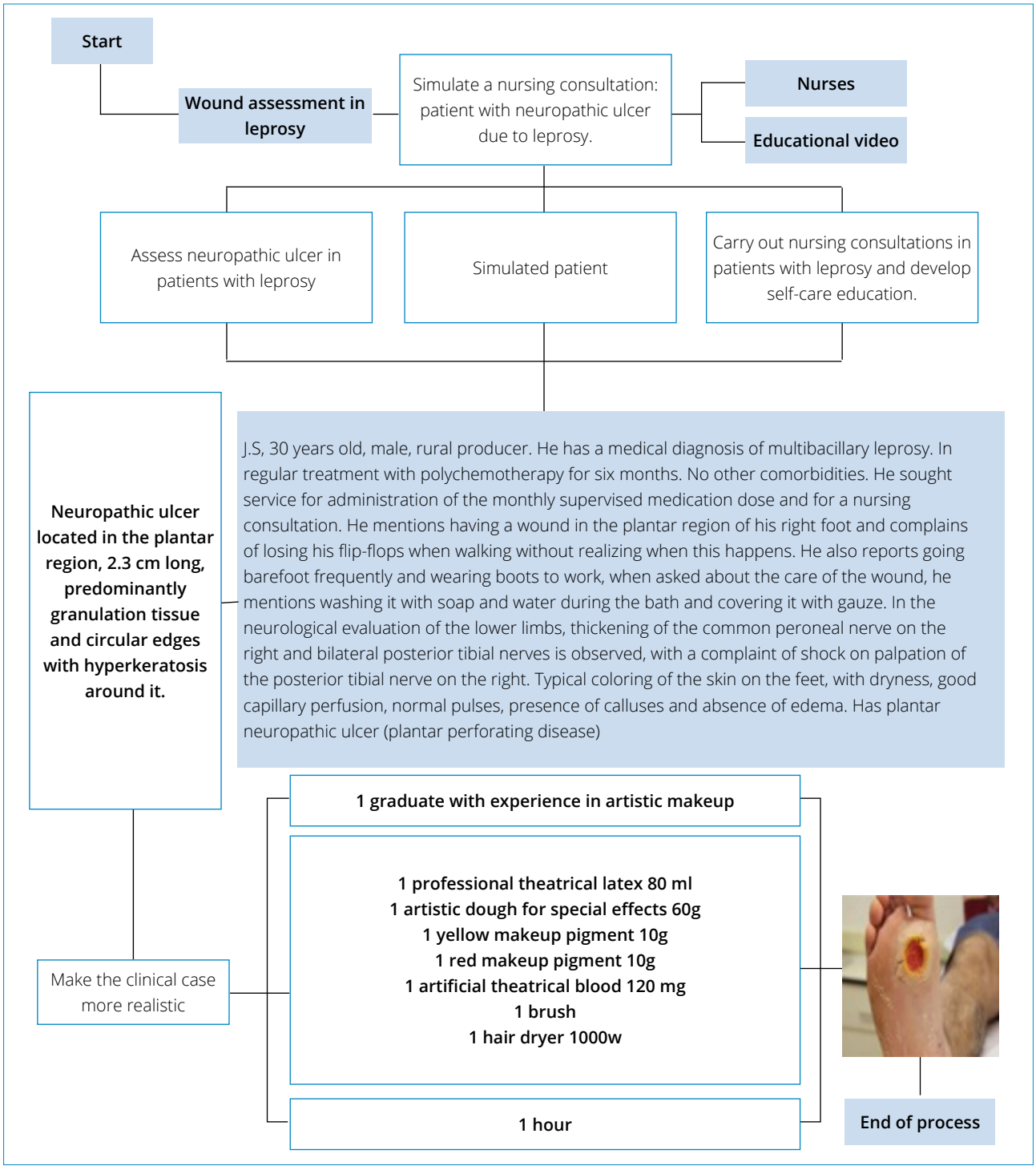

Figure 3. ***Moulage*** **analysis protocol in a simulated case scenario 3) Wound assessment in leprosy. Ribeirão Preto (SP) – 2020.**

Simulated clinical environments and experiences should be as close to the real thing as possible. Exposing learners to simulated scenarios that involve higher levels of fidelity, associated with the legitimate context, materializes learning and has a positive effect on training[2,4,8,19,20]. In addition, high-fidelity scenarios also promote higher learning satisfaction and self-confidence scores[20]. The *moulage*s presented in the analyzed case studies, in addition to providing fidelity to the

simulated scenario, were able to provide elements to the students that helped the clinical evaluation and decision making through visual, tactile and olfactory characteristics.

During clinical evaluation, observation is the step described as the attentive use of the senses (sight, hearing, touch and smell) to collect attributes or information directed to body structures, in the general and specific plane[21]. In simulated scenarios with the use of *moulage*, the student can improve his observation and, with that, his sense organs, identifying with vision characteristics such as shape, area, relief, symmetry, color, venous network, aspects and skin conditions; with touch, through palpation, characteristics such as size, texture, shape, consistency and relief; and with the sense of smell, odors characteristic of physiological processes and/or unpleasant odors, infectious exudate, blood, ketone odor, among others[18].

Visual cues in simulated clinical scenarios, as shown in cases 1 to 4, continuously guide the student through the simulation, providing instant feedback and indicating that there is something to be evaluated, interpreted and assisted, facilitating clinical reasoning and decision making. during the simulation[8]. By being prepared with colors, textures and odors and becoming 2D, 3D and 4Ds *moulage*s, they increase their fidelity, providing greater precision in the clinical evaluation.

The cases indicate that the *moulage* allows the training of technical skills as shown in case 1, in which a high-fidelity 4D *moulage* was made (color, texture, height, width, which also made it possible to perform tracheostomy aspiration and analyze the aspirated material) in the cervical region, and with it it was possible to perform aspiration of the airways and the exchange of the metallic tracheostomy cannula, as well as was offered in case 4, open fracture *moulage*, which provided the practice of trauma stabilization. In cases 2 and 3, although the respondent experts did not comment in the case description about the dressing, the use of wound *moulage*s can serve to train technical skills such as wound cleaning, assessment of the bed and tissues present, performing debridement, choice of optimal coverage, dressing change, among others[15].

The costs for this job are variable. The professor and/or the institution that intends to make use of this resource may have initial expenses in the acquisition of specific instruments, such as spatulas, molds, eyeshadow palettes, latex, among others. But once acquired, they can be reused in many activities. Costs vary according to the extent and characteristics of the makeup. In the cases analyzed, the costs varied between R$75.54 and R$182.77. When comparing the costs of silicone *moulage*s with the cost of *moulage*s made in this study, it is possible to observe that *moulage*s that are made with makeup have more affordable values. One of the benefits of silicone *moulage* is that it does not need a qualified person to make it, since it is acquired in the market and can be reused several times, in addition to being replicated in several cases, which makes it an efficient strategy in training. of skills and assessments in which the same scenario is repeated as in Objective Structured Clinical Exams.

The preparation time of lesions, tissues and structures is variable. In the cases studied, the time spent described was 40 minutes for less complex *moulage*s, and 2 hours for more complex *moulage*s. The time also varies according to the makeup artist's skill. In multiple case scenarios it is important that more than one makeup artist develops this activity. Makeup professionals capable of making and executing the *moulage* are limited in the market. In addition, the values practiced for hiring makeup professionals able to use *moulage* can extrapolate the resources of most simulation programs[22].

The cases described here demonstrate that the construction of *moulage*s does not necessarily require professionals, but trained human resources, which can be fulfilled by the facilitator himself. Previous studies have detailed low-cost *moulage* methods using apparatus accessible to education professionals and described how the facilitator can perform low-cost *moulage* mimicking real injuries,[23,24]. A recent study described that students who built their own *moulage*s perceived them to be quite real3. There are also experiences where students learn and develop peer *moulage*.

CONCLUSION

In this case study, it was possible to corroborate the proposition of the study, since the cases demonstrated that the *moulage*, when performed with rigor and method, following the simulated scenario, influences the clinical evaluation of the students during the simulation and, consequently, the realism of the clinical simulation.

Although it was carried out with four cases, which some authors may characterize as a limitation, the study contributes to the advancement of knowledge as it analyzes cases, shares a model/protocol for analyzing cases related to *moulage* and points to an initial discussion on the *moulage*'s categorization within the universe of cynical simulation.

The authors encourage professors, instructors and those interested in the simulation area to include, depending on the learning objectives, *moulage* in simulated clinical experiences and to assess the contributions and impacts of these resources on variables such as realism, student satisfaction and learning. In addition, the dissemination of new experiences can support the development of more robust studies and the wide use of this makeup technique in health and nursing education.

AUTHORS' CONTRIBUTION

Conceptualization: Meska M and Mazzo A; Methodology: Meska M, Costa RRO and Mazzo A; Research: Meska M, Mano L, Santos ECN and Mazzo A; Writing – First version: Meska M, Costa RRO, Mano L, Santos ECN, Henrique-Sanches BC and Mazzo A; Writing – Proofreading & Editing: Meska M, Henrique-Sanches BC and Mazzo A; Resources: Meska M; Supervision: Mazzo M.

DATA STATEMENT AVAILABILITY

Not applicable.

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