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Multidimensional assessment of the elderly: use of realistic clinical scenario

Evaluación multidimensional de las personas mayores: uso de un escenario clínico realista

Avaliação multidimensional da pessoa idosa: uso do cenário clínico realístico

Naila Albertina de Oliveira[1]*
ORCID: 0000-0001-8340-5334
Diego Ximendes da Silva[1]
ORCID: 0000-0002-2623-285X
Danila Cristina Paquier Sala[1]
ORCID: 0000-0003-3723-6706
Amanda Curiel Trentin Corral[1]
ORCID: 0000-0002-3138-3927
Carla Roberta Monteiro Miura[1]
ORCID: 0000-0003-3528-3568
Meiry Fernanda Pinto Okuno[1]
ORCID: 0000-0003-4200-1186

[1]Universidade Federal de São Paulo. São Paulo, Brazil.

*Corresponding author:
nailaa.oliveira@gmail.com

Abstract

This work constructed and tested a medium-fidelity clinical simulation scenario to apply the multidimensional assessment of the elderly (AMPI) by nursing students. To assess competencies, a student satisfaction questionnaire was used and AMPI was applied as an instrument to assess the health conditions of elderly people. The simulation included 16 students from the 5th semester of the Nursing Course, divided into 3 students in attendance and 13 students in the anteroom during the simulation. After the scenario ended, the students were gathered in the anteroom to carry out the debriefing with the teaching facilitators. The students carefully discussed the care provided, connecting a nurse's practice of care and application of AMPI with the theoretical context of primary health care. Knowledge was assessed during the service, using a skills and abilities assessment instrument. The simulated scenario proved to be a health technology tool of great relevance in teaching nursing in public health, and the preparation must be largely planned so that time is sufficient, and the learning objectives are covered. The simulation allowed students to connect with light technologies and the standardized patient, favoring cognitive, metacognitive, motivational and affective processes.

Descriptors: Health of the Elderly; Simulated Practice, Nursing; Patient Simulation; Education, Nursing; Comprehensive Health Care.

Resumén

Este trabajo construyó y probó un escenario de simulación clínica de fidelidad media para la aplicación de la evaluación multidimensional del anciano (AMPI) por estudiantes de enfermería. Para evaluar las competencias se utilizó un cuestionario de satisfacción de los estudiantes y se aplicó AMPI como instrumento para evaluar las condiciones de salud de las personas mayores. La simulación incluyó a 16 estudiantes del 5º semestre de la Carrera de Enfermería, divididos en 3 estudiantes presenciales y 13 estudiantes en la antesala durante la simulación. Una vez finalizado el escenario, los estudiantes se reunieron en la antesala para realizar el debriefing con los facilitadores docentes. Los estudiantes discutieron cuidadosamente los cuidados brindados, conectando la práctica del cuidado y la aplicación del AMPI por parte de un enfermero con el contexto teórico de la atención primaria de salud. Se evaluaron los conocimientos durante el servicio, mediante un instrumento de evaluación de habilidades y destrezas. El escenario simulado demostró ser una herramienta de tecnología sanitaria de gran relevancia en la enseñanza de enfermería en salud pública, y la preparación debe planificarse en gran medida para que el tiempo sea suficiente y los objetivos de aprendizaje estén cubiertos. La simulación posibilitó que los estudiantes se conectaran con las tecnologías de la luz y con el paciente estandarizado, favoreciendo procesos cognitivos, metacognitivos, motivacionales y afectivos.

Descriptores: Salud de los Ancianos; Práctica Simulada, Enfermería; Simulación de Paciente, Educación en Enfermería; Atención Integral de Salud.

Resumo

Este trabalho construiu e testou um cenário de simulação clínica de média fidelidade para aplicação da avaliação multidimensional da pessoa idosa (AMPI) por estudantes de enfermagem. Para avaliar competências foi usado questionário de satisfação do discente e foi aplicada AMPI como instrumento para avaliar as condições de saúde das pessoas idosas. A simulação contou com 16 discentes do 5º semestre do Curso de Enfermagem, separados em 3 alunos no atendimento e 13 alunos na antessala durante a simulação. Encerrado o cenário, os discentes foram reunidos na antessala para realizar o debriefing com os facilitadores docentes. Os discentes criteriosamente discutiram o atendimento realizado, conectando a prática do atendimento e aplicação da AMPI por um enfermeiro com o contexto teórico sobre atenção primária à saúde. O conhecimento foi avaliado durante a realização do atendimento, utilizando-se um instrumento de avaliação de competências e habilidades. O cenário simulado mostrou-se ferramenta de tecnologia em saúde de grande relevância no ensino em enfermagem na saúde coletiva, devendo a elaboração ser largamente planejada para que o tempo seja suficiente e os objetivos de aprendizagem sejam abarcados. A simulação disponibilizou a vinculação dos estudantes com tecnologias leves e com o paciente padronizado, favorecendo processos cognitivos, metacognitivos, motivacionais e afetivos.

Descritores: Saúde do Idoso; Prática Simulada, Enfermagem; Simulação de Paciente; Educação em Enfermagem; Atenção Integral à Saúde.

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Introduction

Nursing educators are faced with the challenge of preparing future nurses to care for the growing number of elderly people. Such users are those who need care in community environments, especially in Primary Health Care (PHC). A promising approach to transforming the education of new nurses is the use of advanced high-fidelity mannequins in realistic and safe learning experiences. Higher education institutions are increasingly adopting clinical simulation in their courses, including the use of standardized human patients in simulation scenarios[1,2].

Clinical-realistic simulation with a standardized patient (SP) is a robust teaching-learning tool that has demonstrated evidence of positive results, such as knowledge transfer, critical thinking and self-confidence[4,5]. Furthermore, this methodological instrument can improve communication skills, self-efficacy, clinical competence, and problem-solving skills of nursing students[1-3].

Nursing students analyze scenarios, provide care and talk to faculty facilitators based on interactions with simulated patients[6-8].

Realistic clinical scenarios with SPs and activities such as interventions and agreement on care goals materialize health education practices in the training of nurses, both at the beginning of their careers and for senior nurses. Such practices help them to develop the use of soft and soft-hard technologies in care, thus providing complex situations of care for the elderly population and their respective social insertion scenario[7,10,11].

The SPs provide students with opportunities to experience different situations that nurses will encounter in the practice scenario with the possibility of implementing educational actions, regardless of time. Furthermore, SP provides immediate responses and feedback. Experiencing real-time communication with patients while objectively monitoring their health condition improves students' clinical adaptability and responsiveness more than simulation practice with high-fidelity mannequins alone[12-15].

When using the simulation technique, there are different types employed, namely: low-fidelity simulations (simulations such as case studies and task trainers that are not programmed externally), high-fidelity simulations (simulations with high interactivity between the student and the mannequin realistic), SP simulations and virtual simulations (simulations in which there is a computer-generated reproduction of reality). This technique, in its different types, can create a positive learning environment for undergraduate nursing students[13,16-25].

Low or high-fidelity simulations using mannequins and simulators to develop specific tasks, such as the specific simulator for training chest compression skills, are used in common simulations and are useful for developing technical skills. In turn, SP simulations can be an encouraging method to improve the development of knowledge, skills and attitudes[21,25]. The SPs are people trained to act like real patients; to do so, they receive background preparation to simulate a disease in a standardized way[16,22,25,26].

Considering the learning gaps of nursing students after the pandemic scenario, the main objective of this study is to present and emphasize the use of simulated practice with standardized patients to future nurses.

Through the use of this teaching strategy, the report of this experience enables the qualification of the nursing team in the development of care for elderly people, based on a safe, non-judgmental learning environment and with the main purpose of providing a space for training, development of effective communication skills, active and welcoming listening and improvement of the application of AMPI by students of the undergraduate nursing course at a public higher education institution in São Paulo (capital).

Methodology

The experience report was adopted about the teaching activities developed in the curricular unit (UC) 'Nursing in Public Health', with a workload of 144 hours in a federal and public educational institution in the city of São Paulo. The pre-simulation activity was promoted from January to March 2023 and consisted of 04 meetings between subject teachers and their students in collaboration with the UC coordination, aiming at technical preparation for the simulated activity.

In these meetings, themes were worked on that served to support the simulated practice, together with students in the fifth semester (third year) of the undergraduate nursing course (full bachelor's degree).

The UC aims to provide students with the opportunity to develop the logical model[17,18,26], aiming to develop health actions offered to individuals, families and communities assisted in PHC. Graduates' skills are developed in the following activities: reception, educational groups, nursing consultation, home visit, therapeutic and diagnostic procedures, immunization and epidemiological surveillance actions.

The objectives of the simulated activity were defined using Bloom's taxonomy, as it is widely disseminated and used in different areas of knowledge, including simulation[26]. The guiding factors of this taxonomy are defining specific, measurable, attainable, relevant and temporally feasible learning objectives. Educational objectives can be organized in a hierarchy from least complex (knowledge) to most advanced (assessment)[19].

The experience report is considered an instrument of descriptive research that highlights a certain activity or more activities experienced by the authors, composing the same theme. This study practice allows professionals to reflect on the scientific environment as well, highlighting peculiarities relating to professional practices[16].

Duly respecting research ethics, the present study does not identify the higher education institution nor the Nursing students making up the group of participants in which the observations were carried out. Classes were held for four groups with a total of 90 students, according to the full-time class schedule.

The planning for the construction of the AMPI application simulation scenario with a focus on identifying the risk of falls took place in eight stages, namely: (1) definition of learning objectives, (2) inventory of resources (environment in which the scenario was developed, position

occupied by the simulated patient (actor), props, diagnostic and therapeutic resources), (3) initial parameters and instructions for the actor, (4) supporting documentation (laboratory tests and AMPI application form - Secretariat of Health of the State of São Paulo), (5) context of the scenario (actor's script and the information that was offered to the participants), (6) teaching support tools (complementary study materials with the theme of the scenario, time of organization/briefing of students/scenario/debriefing, checklist of student/actor actions), student briefing, debriefing by analysis/understanding, description/reaction and synthesis/evaluation, (7) references, (8) observations of the instructor. Chart 1 presents the items considered in the construction of the scenario[19-21].

Chart 1. Guide for AMPI AB Application Simulation Scenario. São Paulo, SP, Brazil, 2023

Planning: survey of needs for building the scenario: literature review, definition of the target audience, determination of objectives; construction of the clinical situation; preparation of content, facilitator and location and planning of materials and resources necessary for the development of the activity.
Learning Objectives: **Primaries** Identify the risk of falls in elderly people. Carry out preventive interventions for falls in the elderly population. **Secondaries** Carry out the application of the Multidimensional Assessment of the Elderly in the context of primary health care. Communication.
Simulation structure and format: high-fidelity clinical simulation with simulated actor.
Materials and resources: Nursing care office with debriefing room. Bottle of alcohol gel. Stethoscope. Sphygmomanometer. Litter. Measuring tape. Signaling tape. Balance. Printed instrument for Multidimensional Assessment of the Elderly in Primary Care.
Case description: You, nursing student, applied AMPI to Mr. D.D.O. Mr. D.D.O. was called to carry out AMPI at the Basic Health Unit (UBS). During the AMPI application, you identified that he is 77 years old, was hospitalized for treatment of pneumonia and was discharged from hospital 20 days ago. Mr. D.D.O. reports being hypertensive, and says he suffered a fall 1 month ago and that the fall occurred because he was experiencing nighttime urination urgency. He mentions taking captopril, rosuvastatin, furosemide, alprazolam and acetylsalicylic acid. Walks with the aid of a cane. When asking about the home environment, Mr. D.D.O. says that in his residence there are carpets in the living room, bedroom and bathroom; loose television extension in the living room; the stairs he uses to go to his room have no handrails and he climbs on a "stool" to get the pans to cook. Physical examination: upon carrying out the physical examination, he was found to be in good general condition, height of 1.85 m, weight of 65 kg. Resting blood pressure was 160/90 mmHg and heart rate was 69 beats per minute. Normal cardiopulmonary auscultation. Absence of carotid bruits. Abdomen flaccid and painless on palpation, with liver and spleen not palpable. Extremities without changes; pulses present and symmetrical, absence of edema. The calf circumference measurement was 29 cm. The scenario must be interrupted when: at the end of the proposed activity or reaching the 15-minute time limit.
Briefing: before the start of the scenario, present the case, environment and resources available for care.
Debriefing [19, 20,21] Structured debriefing; duration: 25 minutes. How do you feel after completing the simulated activity? What were your perceptions about the service provided? What caught your attention the most about the service provided? Justify. Mention positive points in the development of the simulated activity. Mention points for improvement. What would you do differently and why? What did you learn from this simulated activity? What skills were developed during this activity? Was the assessment of the fall's parameter considered as a marker of frailty, death and dependence in the elderly? How many episodes of falls were identified and what are the actions to be taken by the nurse in response to the problem presented? What scales should be applied in care and why? What is the proposed action plan for this elderly person? The case of the elderly person mentioned above is likely to be discussed with the UBS multidisciplinary team for guidance[18].
Assessment: The scenario will be evaluated through a discussion circle at the end of the scenario.

Experience Report and Discussion

The activities began with expository dialogue classes and the provision of prior material to equip students on how to carry out AMPI (one of the themes covered in the UC). This step was essential to provide input on the topic and, consequently, to equip the facilitator in the preparation of all items in the scenario. For the simulated scenario to be effective, it was necessary to plan each stage, with the availability of support materials and preparation to train student participants in the technical, behavioral and attitudinal components being important[19,20].

During scenario planning, elements such as the purpose of the scenario, alignment of expected results, definition of the target audience, selection and choice of the best evidence from clinical practice, survey of necessary resources, elaboration and definition of learning objectives, creation of the scenario, prior testing of the scenario, time and logistics with available resources, having facilitator training, piloting the scenario after final adjustments. Such elements were very important in this practical AMPI application scenario. When carrying out the simulated activity in the debriefing, elements such as the prior reception of students were used. Before this moment, all items in the scenario were checked and tested. The debriefing was conducted with attention and caution regarding the provision of a safe learning environment for participants in the simulated scenario.

At the end of the simulation, students were invited to make an anonymous assessment, providing feedback from the facilitator and listing positive points and opportunities for improving the scenario. This data was listed in the participant satisfaction form.

A 15-minute briefing was held to present the problem situations and learning objectives. Also presented were the entire scenario environment (nursing office at UBS - adapted into an office at the skills and simulation center), equipment, supplies, furniture and actor (elderly actor and volunteer) playing the role of SP. Furthermore, guidance was provided on the steps of the entire process[19-21].

For the realistic clinical simulation, a duration of 25 minutes was determined, in which the order of the stages of events was considered, starting with the student's presentation to the SP. Three students worked in the scenario as health professionals, one as a nurse and the other two as a nursing team. It was up to the student in the role of Nurse to conduct the care, leading the assessment and application of AMPI.

Thus, only three nursing students remained in the scenario (that is, inside the office), with the other students remaining in the anteroom, with the service being transmitted to them via filming. At the end of the scenario, the three team members (who completed the service) went to the debriefing room.

During the entire period of care for the simulated patient (elderly person), communication between professionals and welcoming the elderly person were of great importance in the clinical-realistic simulation, as they were able to promote care with active listening, assessment

of the risk of falls, communication and guidance on the outcome of the AMPI assessment.

The most frequent error was the use of technical terms that were difficult for older people and laypeople to understand. Another frequent error during care was the failure to perform other tests such as gait testing and assessment, as the SP had suffered an episode of falling in the last 12 months. The debriefing was carried out at the end of the scenario and lasted 50 minutes to extract contributions from the participants as well as reinforce positive points and opportunities for improvement that the scenario provided[20,21].

The mistakes made by the students were recognized by them and the solution with a collective outcome was discussed with the students regarding all the elements necessary for the application and evaluation of the AMPI. There was also a discussion about its outcomes and the appropriate tests and referrals that could be made to the patient treated in the simulation.

Students were allowed to reflect on the service provided and the teaching-learning process. The importance of a safe learning environment was also highlighted.

Scenario planning was based on the aim of operationalizing the student's learning with the experience of the simulation methodology. This rationale considered the context of the nurse in PHC evaluating the elderly person. The learning needs for building the scenario were addressed. Technical support was provided through a literature review, definition of the target audience, determination of learning objectives, construction of the clinical situation, preparation of content (made available in advance to the student), training of the facilitator, determination of the location where the activity, and planning the materials and resources necessary for the development of the activity[18-21].

Final Considerations

The results of the experience guided the use of clinical-realistic simulation in Nursing teaching in the training process of professional nurses, aiming to promote the use of the technique for the purposes of training and qualifying the nursing team in caring for elderly people, as well as in the developments that this type of service may have in the real service scenario. Scientific evidence on simulated clinical practice (such as the development of evidence-based nursing education through clinical simulation) are fundamental elements in nurse training.

To obtain successful results in the use of this active teaching methodology, it is extremely important that in the prior preparation of students, relevant information about the content of the service that will be carried out in simulated practice is addressed, so that students can understand, prevent and treat in advance issues related to the early recognition of episodes of falls in elderly people as well as the best care for this target audience. The facilitator must mediate the learning environment, prioritizing soft and soft-hard technologies, such as: effective communication, reception, recognition and correct application of AMPI and its respective complementary tests.

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