



Assistance provided to people with non-suicidal self-injuries: creation and validation of a simulated scenario*


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Objective: to create and validate a simulated scenario for health assistance to people with non-suicidal self-injuries.

Methodology: a methodological study for creating and validating a high-fidelity simulated scenario. A script based on good practices in high-fidelity simulation and non-suicidal self-injuries subsidized creation of the scenario. Validation was in charge of eleven specialists. We assessed the simulated scenario with a three-point Likert scale (Good, Fair and Poor). We analyzed the data using a statistical software program and employed descriptive analysis, the Content Validity Index and the Gwet test. **Results:** the scenario obtained 97% overall agreement among the specialist judges and all individual items had Content Validity Index values over 0.80. The scenario presented high total reliability (Gwet test: 0.9438) and reliability on both topics of interest in the Gwet test. **Conclusion:** the non-suicidal self-injury simulated scenario developed has the potential to collaborate with the training of human resources in health for assisting people with non-suicidal self-injuries.

Descriptors: Self-Injurious Behavior; Non-suicidal Self-injury; Mental Health; High Fidelity Simulation Training; Health Education; Simulation Training.

* This study was financed in part by the Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES) - Finance Code 001, Brazil and the Universidade de São Paulo, Programa Unificado de Bolsas (PUB), Brazil.

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How to cite this article

Ramos AM, Silva AC, Pedrollo LFS, Vedana KGG. Assistance provided to people with non-suicidal self-injuries: creation and validation of a simulated scenario. SMAD, Rev Eletrônica Saúde Mental Álcool Drog. 2023;19:e-194282 [cited ____-____-____]. Available from: _____. <https://doi.org/10.11606/issn.1806-6976.smad.2023.194282>

year month day

URL

Assistência a pessoas com autolesão não suicida: construção e validação de um cenário simulado

Objetivo: construir e validar um cenário simulado para assistência à saúde de pessoas com autolesão não suicida. **Metodologia:** estudo metodológico de construção e validação de um cenário simulado de alta fidelidade. A construção do cenário foi baseada em um roteiro de boas práticas em simulação de alta fidelidade e autolesão não suicida. A validação foi realizada com onze especialistas. A validação do cenário simulado foi realizada com uso da escala Likert de três pontos (Bom, Regular e Ruim). Os dados obtidos foram analisados por meio de um *software* estatístico através de análise descritiva, Índice de Validade de Conteúdo e teste de Gwet. **Resultados:** o cenário obteve concordância geral de 97% entre os juízes especialistas e todos os itens individuais apresentaram Índice de Validade de Conteúdo acima de 0,80. O cenário obteve alta confiabilidade total (teste de Gwet: 0,9438) e confiabilidade em ambos os tópicos de interesse no teste de Gwet. **Conclusão:** o cenário simulado de autolesão não suicida desenvolvido tem potencial para contribuir com a formação de recursos humanos em saúde para atendimento de pessoas com autolesão não suicida.

Descritores: Comportamento Autodestrutivo; Autolesão Não Suicida; Saúde Mental; Treinamento com Simulação de Alta Fidelidade; Educação em Saúde; Treinamento por Simulação.

Asistencia a personas con lesiones no suicidas autoinfligidas: creación y validación de un escenario simulado

Objetivo: crear y validar un escenario simulado para la atención médica de personas con lesiones no suicidas autoinfligidas. **Método:** estudio metodológico para crear y validar un escenario simulado de alta fidelidad. La creación del escenario se basó en un guión de buenas prácticas en simulación de alta fidelidad y lesiones no suicidas autoinfligidas y la validación estuvo a cargo de once expertos. La validación del escenario simulado se realizó mediante una escala tipo Likert de tres puntos (Bueno, Regular y Deficiente). Los datos obtenidos se analizaron mediante *software* estadístico a través de análisis descriptivo, Índice de Validez de Contenido y prueba de Gwet. **Resultados:** el escenario obtuvo una concordancia global del 97% entre los jueces expertos y todos los ítems individuales alcanzaron un Índice de Validez de Contenido superior a 0.80. El escenario obtuvo alta confiabilidad total (prueba de Gwet: 0.9438) y confiabilidad en ambos temas de interés en la prueba de Gwet. **Conclusión:** el escenario simulado de lesiones no suicidas autoinfligidas que se desarrolló tiene el potencial de colaborar con la formación de recursos humanos en salud para la atención de personas con lesiones no suicidas autoinfligidas.

Descriptorios: Conducta Autodestructiva; Autolesión Sin Intención Suicida; Salud Mental; Enseñanza Mediante Simulación de Alta Fidelidad; Educación en Salud; Entrenamiento Simulado.

Introduction

Non-suicidal self-injuries can be defined as self-harm, without conscious intentionality of suicide and not socially accepted. The most common method is cuts, but there are other means, such as hitting one's head and self-burns, among others⁽¹⁾. The harms caused have the purpose of obtaining relief of a negative feeling, solving interpersonal difficulties or inducing a positive feeling⁽²⁾.

Although it can be present at any moment of life, this behavior is predominant during adolescence, from eleven to fifteen years old⁽³⁾. It is estimated that from 7% to 14% of the adolescents engage in non-suicidal self-injuries at least once in their lives⁽⁴⁻⁵⁾. A number of studies suggest that adolescence is a period that requires skills to deal with unknown contexts, causing people in this age group to be vulnerable to self-injurious behaviors⁽²⁻³⁾.

Non-suicidal self-injuries have short-term and long-term psychological, physical and social consequences. These consequences may vary among pain, bruises, scars, infection, guilt and frailty, in addition to vulnerabilities regarding a person's activities and social relationships⁽²⁾. It is emphasized that there is greater susceptibility to long-term suicidal behaviors and/or suicide attempts among those who present non-suicidal self-injurious behaviors⁽⁶⁾.

A number of studies point out that negative reactions from adults regarding self-injuries can lead adolescents to avoid seeking help in the future⁽⁴⁾. In this sense, welcoming and management regarding the behavior should be based on trust, confidentiality and empathy. Health professionals are an essential pillar in welcoming, assessing and monitoring adolescents with non-suicidal self-injuries and their family members, along with strategies for the destigmatization, identification and prevention of self-injuries⁽⁷⁾.

However, some studies highlight that health professionals and students feel the need to enhance their skills for the identification, risk assessment and assistance of people with non-suicidal self-injuries^(3,6). They also emphasize that the professionals' lack of qualification and training is associated with negative feelings and attitudes in welcoming victims of self-inflicted violence⁽⁷⁻⁸⁾.

In this sense, the need for professional training from innovative and safe learning methods that promote an approach to reality is highlighted⁽⁹⁾. High-fidelity clinical simulation has been gaining significant space in the teaching context, especially in the mental health field, for presenting characteristics that involve greater complexity in its elaboration and development⁽¹⁰⁻¹¹⁾.

The first development step of a clinical simulation involves elaborating the simulated scenario⁽¹¹⁾. Creation of a scenario in a judicious and planned manner allows performing the simulation to provide more realistic

experiences and more effective learning opportunities for all involved⁽¹¹⁻¹⁴⁾. In the scientific literature, several studies and international recommendations substantiate and structure the components required to create a scenario so as to especially consider aspects related to the involved needs, theoretical basis, goals and targets to be reached, the target audience, fidelity and the entire planning and development of the simulation, even performing the debriefing and the assessment⁽¹⁴⁻¹⁵⁾.

The creation process is followed by validation of the scenario, which is an important step that enables defining reliability and enhancing the scenario developed, primarily considering validity of the objectives proposed for learning through the simulation^(11,16). Recent studies on the creation and validation of simulation scenarios highlight the potentials of such processes, with the possibility of enhancements and of proposing simulations that contribute more effectively to the teaching-learning processes of those involved⁽¹¹⁻¹³⁾.

It is worth stressing that clinical simulation is a teaching strategy related to promising experiences with positive results⁽¹⁷⁾. Recent studies have emphasized the guarantee of training and prior work in experiences close to the clinical-professional practice through the simulated activities, in addition to the possibility of developing interventions strategically focused on defined objectives and on the enhancement of actions related to decision-making, communication, motivation and teamwork, which are factors that promote greater patient safety in health care⁽¹¹⁻¹³⁾.

The need for professional training through innovative strategies for welcoming people with non-suicidal self-injuries converges with the search for teaching methods and practices that are current and stimulating in health care. Hence, high-fidelity clinical simulation structures itself as an important strategy that collaborates for developing competencies in health students and professionals to provide humanized care to people who are victims of self-inflicted violence. Therefore, the current study aims at creating and validating a simulated scenario for the health care to be provided to people with non-suicidal self-injuries.

Methodology

Study design

This is a methodological study on the development and validation of a simulated scenario for the health care to be provided to people with non-suicidal self-injuries. Methodological studies are increasingly present in health, especially in Nursing, due to the possibility of creating reliable tools that involve methods elaborated from research and that collaborate with educational and assistance actions⁽¹⁸⁾.

Creation of the simulated scenario

To assist in creating the simulation scenario, a script based on the scientific literature and guidelines on high-fidelity simulation was devised. The script sought to address clear objectives, an approach to reality, student support, structured clinical assessment and debriefing with reflections about the staged assistance⁽¹⁴⁾.

The self-injury scenario content was based on the scientific literature and guidelines about professional assistance related to non-suicidal self-injuries. The scenario was created to represent aspects that are frequent in real situations and with objectives that are commonly necessary in the assistance to be provided^(14,19-20). Once finished, the material underwent an internal assessment by the research group and proceeded to the phase of validation by specialists.

Participants of the validation process

Validation corresponds to the process of observing whether the material created corresponds to the objective proposed, having two main aspects: content validation, where the specialists assess each item to ensure reliability and face; and assessment of the structure of the material⁽¹⁸⁾.

To participate in the study, the specialists had to meet at least one of the following selection criteria: holding a PhD degree with papers on the topic, advising academic papers on the topic, authorship of scientific articles on the topic in high-impact journals, and being a speaker at national or international scientific events on the subject matter.

Instruments

After accepting to take part in the study, the participants were sent a sociodemographic characterization questionnaire (gender, age, undergraduate area, geographical location, and professional work), the simulated scenario and a questionnaire for assessing each item in the scenario on a three-point Likert scale (Good, Fair, Poor) with space for suggestions. The materials were sent for assessment with a thirty-day response deadline, sending reminder email messages about as the final assessment deadline approached. The judges who did not answer before the stipulated deadline were considered as having withdrawn from the study.

Data collection

The scenario validation process took place from January to March 2020. Selection of the judges was through the Lattes Platform (a Brazilian virtual *curriculum vitae* database), by entering keywords related to the topics of interest (non-suicidal self-injury and high-fidelity simulation), and through the snowball

technique, a probability sampling modality in which a respondent names other potential individuals with the profile required to participate in the research⁽²¹⁾. The contacts were made via e-mail with an invitation letter and the free and informed consent form in electronic format (Google Forms).

Data treatment and analysis

All the data were organized in a Microsoft Excel 10 spreadsheet and typed and validated twice. The data were analyzed in the STATA program, version 14.0, with the support of a statistician. The characterization data were analyzed descriptively and, to assess the scenario, we opted for using the Content Validity Index (CVI) and the First-order Agreement Coefficient (AC1) from the Gwet test. The CVI measures the percentage of judges who agree about a specific aspect of the instrument and its items, with a cutoff point of 0.8 (80%) accepted in the data mean values⁽¹⁸⁾. The Gwet test is performed through the Kappa coefficient and measures reliability of the agreement among the judges through the agreement level⁽²²⁾. The main advantage is its robustness, as the result is less sensitive to the occurrence of ill-behaved values. For reliability classification, the parameters described by Altman in 1991 were used, in which poor reliability is observed with results below 0.20; fair between 0.21 and 0.40; moderate between 0.41 and 0.60; good between 0.61 and 0.80 and very good above 0.81⁽²³⁾.

Ethical aspects

This study was submitted to and approved by the Ethics Committee of the Ribeirão Preto Nursing School at the University of São Paulo (*Escola de Enfermagem de Ribeirão Preto/Universidade de São Paulo*, EERP/USP; Opinion 4.608.709). All of the study stages followed the recommendations set forth in Resolution No. 466 of December 12th, 2012, and in the Declaration of Helsinki.

Results

Eleven specialists participated in the study: six (54.5%) specialized in high-fidelity simulation and another six (54.5%) in non-suicidal self-injuries, given that one of the judges was a specialist in both topics. Of the eleven judges, 63.6% were women, with a mean age of 40.1 years old (minimum of 31, maximum of 54, median of 36, and SD of 8.1). The specialists were Psychology (36.4%), Nursing (36.4%), Medicine (18.2%) and Biomedicine (9.1%) graduates.

The scenario obtained 97% overall agreement among the expert judges and achieved the suitability cutoff value for each item of the scenario, given that all items had CVI values over 0.80 (Table 1). The Good and Fair options were used in a single way for both analyses.

Table 1 - Acceptance and agreement by specialist judges on the items of a simulation scenario about the assistance to be provided to people with non-suicidal self-injuries (n*=11). Ribeirão Preto, SP, Brazil, 2020

Items	Agreement		CVI [†]
	Yes N* (%)	No N* (%)	
Target audience	9 (81.8)	2 (18.2)	1.00
Pre-simulation	7 (63.6)	4 (36.4)	1.00
Pre-briefing	5 (45.5)	6 (54.5)	1.00
Additional information	10 (90.9)	1 (9.1)	0.82
Scenario objectives	6 (54.5)	5 (45.5)	1.00
OSCE [‡] 1: Listen to without judgment, criticism or prejudice	10 (90)	1 (10)	1.00
OSCE [‡] 2: Encourage the person to expose how they wish to be helped	9 (81.8)	2 (18.2)	1.00
OSCE [‡] 3: Encourage the expression of feelings, experiences and needs	10 (90.9)	1 (9.1)	0.91
OSCE [‡] 4: Identify the time since onset of the injuries	11 (100)	-	1.00
OSCE [‡] 5: Identify the stipulated frequency of the injuries	9 (81.8)	2 (18.2)	1.00
OSCE [‡] 6: Identify if they have care and support in case of injuries	7 (63.6)	4 (36.4)	1.00
OSCE [‡] 7: Identify if there is a responsible adult aware of the injuries and their support level	10 (90.9)	1 (9.1)	0.91
OSCE [‡] 8: Identify reasons/ motivations for the behavior	10 (90.9)	1 (9.1)	0.91
OSCE [‡] 9: Identify the presence of suicidal ideation	10 (90.9)	1 (9.1)	1.00
OSCE [‡] 10: Identify feelings for change	8 (72.7)	3 (27.3)	1.00
OSCE [‡] 11: Identify risk and protective factors	8 (72.7)	3 (27.3)	1.00
OSCE [‡] 12: Perform risk assessment for suicidal behavior	10 (90.1)	1 (9.1)	0.82
OSCE [‡] 13: Help the person to identify the support network	11 (100)	-	1.00
OSCE [‡] 14: Stimulate coping strategies	9 (81.8)	2 (18.2)	1.00
Duration	7 (63.6)	4 (36.4)	1.00
Human resources	6 (54.5)	5 (45.5)	1.00
Instructions for the actress	8 (72.7)	3 (27.3)	1.00
References	7 (63.6)	4 (36.4)	1.00
Debriefing – Descriptive Phase	11 (100)	-	1.00
Debriefing – Analytical Phase	11 (100)	-	1.00
Debriefing – Application Phase	11 (100)	-	1.00

[†]N = Number; [‡]CVI = Content Validity Index; [‡]OSCE = Objective Structured Clinical Examination

Regarding agreement reliability, the simulated scenario showed very good reliability in the general aspect (AC1: 0.9438; GWET: p≤0.001), in the theme of non-suicidal self-injuries (AC1: 0.9169; GWET: p≤0.001) and simulation fidelity (AC1: 0.9737; GWET: p≤0.001) (Table 2).

Table 2 - Agreement reliability corresponding to validation of the simulated scenario about the assistance to be provided to people with non-suicidal self-injuries by specialist judges (n*=11). Ribeirão Preto, SP, Brazil, 2020

	AC1 [†]	SD [‡]	95% CI [§]	p
General	0.9438	0.0229	(0.897, 0.991)	<0.0001
Non-suicidal self-injury	0.9169	0.0327	(0.85, 0.984)	<0.0001
High-fidelity simulation	0.9737	0.0187	(0.935, 1)	<0.0001

[†]N = Number; [†]AC1 = First-order Agreement Coefficient; [‡]SD = Standard Deviation; [§]CI = Confidence Interval; ^{||}p = p-value.

After the validation, small grammatical changes and content alterations were made according to the judges' suggestions and the scenario validation. The final version of the simulated scenario for the assistance

to be provided to people with non-suicidal self-injuries has the necessary information for the simulated practice and can be adapted to various educational contexts (Figure 1).

Simulated Scenario Script: Assistance for adolescents with non-suicidal self-injuries
<i>General objective:</i> To welcome the adolescents, strengthening their bond with the health service, identifying the risk and protective factors for the behavior.
<i>Target audience:</i> Health undergraduates and professionals.
<i>Human resources:</i> - One simulation coordinator (responsible for developing the simulation). - Two participants (target audience), who will participate in the simulated activity. - One actress (who will simulate the person assisted in the scenario). Observers (other participants who exceed the number of participants predicted for the scenario).
<i>Physical and material resources:</i> Environment close to the reality of a care room of a Basic Health Unit (low-complexity unit).
<i>Estimated duration (minutes):</i> Pre-briefing- 15; Simulation- 20; Debriefing- 40
<i>Materials for the preliminary study by the participants and observers:</i> These materials will be made available by the scenario coordinators via e-mail for reading and preliminary preparation (weeks) by the participants and observers. - Specialist in non-suicidal self-injury post: https://inspiracao-leps.com.br/especialistas/autolesao-nao-suicida/ - Expository video on non-suicidal self-injuries: https://www.youtube.com/watch?v=HuNgItxLYhY&t=3557s
<i>Pre-briefing (Information on agreements and on conduction of the simulation)</i> Present the environment to the scenario participants. Discuss agreements on emotional security: secrecy, anonymity, respect, and the importance of participating in the discussion after the simulation. For this simulated case, the shift change, reading the user's medical chart, and presentation and/or use of the drug prescription are not anticipated. Julia's welcoming and evaluation should take approximately twenty minutes.
<i>Briefing (Presentation of the basic guidelines of the simulated case - They may be read, and no piece of information shall be omitted):</i> This will be a simulation with a simulated patient (actress). Two Elementary School students sought the History teacher of a public school for support to a peer with non-suicidal self-injuries. Upon observing the student, the teacher found that she isolated herself, was less participatory in the classroom, and that her grades were dropping. In addition, she has been arriving late, sleeping in class, is apathetic, and has been using clothes inadequate for the local temperature. After talking with the student, the teacher was authorized to contact those responsible for her, who were willing to seek health professionals for follow-up. The simulation laboratory will not undergo the intervention of people external to the activity and will be finalized upon conclusion of the assistance by the participants or at the end of the maximum predicted execution time. Question for the participants and observers: Do you have any doubts about the guidelines and preparation presented?
<i>Instructions for the actress (Instructions that comprise preparation of the actress to perform in the simulated case. This preparation must be carried out on the days that precede the simulation).</i> You will be Julia, 14 years old. She is going through some family problems, is bullied and cyberbullied about her body, and has been cutting herself for six months. She relates the cuts to the act of mitigating emotional pain. During the simulation, you shall address some feelings and sensations related to non-suicidal self-injuries in the form of clues. <i>Clues that you will necessarily address in the case</i> - You started self-injuring six months ago, and the frequency has been three to four times a month. - You have no desire to end your own life, i.e., have no suicidal ideation or plans. - After self-injuring, you take care of the cuts alone, always keeping them hidden. - You feel alone and insecure: "Most people around me can only judge me on account of my body and make me feel alone". - You injure yourself whenever you go through a very stressful time: "When I can't take what they do anymore, I cut myself as a way to mitigate emotional pain". - You participate in Internet groups about non-suicidal self-injuries, and sometimes this boosts the desire to cut yourself. - You wish to go back to who you were before: "I miss how I was before, people treated me like someone normal, and I would even primp myself. Now I feel ashamed because of the scars." - You have an affinity with your father, although he is not very present because of work, and with your maternal grandmother, who lives close to the house where you live. <i>Clues that you will address if you have the possibility/opportunity to</i> - Bullying and Cyberbullying. "They mock me during class and take hidden photos of me to then make montages on the Internet." - Lack of interest at school: "I don't feel well going to school; when I get there, it seems that everyone looks at me and makes comments about me." - Relationships with the friends who told the teacher: "I like my friends; they want what's best for me. But I have problems with the other classmates." <i>Observation:</i> the actress must know the "Objective Structured Clinical Examination" (following item) before her performance so that she can schedule her clues according to what is expected of the scenario.
<i>Objective Structured Clinical Examination (Items to be considered in the performance assessment of the scenario participants according to the simulation objective[s]). For each of the following items, assess if the action performed was executed properly using the YES or NO answer options.</i>

(continues on the next page...)

Simulated Scenario Script: Assistance for adolescents with non-suicidal self-injuries	
<i>Items assessed</i>	<i>Assessment</i>
Listen to without judgment, criticism or prejudice	() Yes () In part () No
Encourage the person to expose the need for help, if they want to be helped, and how they wish to be helped	() Yes () In part () No
Encourage the expression of feelings, experiences and needs	() Yes () In part () No
Identify the time since onset of the injuries	() Yes () In part () No
Identify the frequency of the injuries	() Yes () In part () No
Identify the existence of and the process of taking care of the injuries	() Yes () In part () No
Identify reasons/motivations for the self-injurious behavior	() Yes () In part () No
Assess suicide risk (history, attempts, ideation)	() Yes () In part () No
Assess risk and protective factors	() Yes () In part () No
Stimulate strategies for coping with the stressful agent and the non-suicidal self-injurious behavior	() Yes () In part () No
Help the person identify an appropriate support network	() Yes () In part () No
Debriefing* (Step developed after the scenario through three consecutive phases [described next]. At this moment, all scenario participants (participants and observers) will be invited to reflect and talk about the simulation and experiences, knowledge, feelings and learning involved in the simulated practice, emphasizing aspects listed and assessed in the items of the Objective Structured Clinical Examination). Debriefing based on the "The Diamond" model (Jaye, Thomas & Reedy, 2015).	
<i>Descriptive Phase</i> What happened during the initial welcoming of Julia? (Question directed to the scenario participants and observers).	
<i>Analytical Phase</i> How did you feel during the initial welcoming of Julia? (Question directed to the scenario participants and observers). Which positive actions were taken during the initial welcoming of Julia? (Question directed to the scenario participants and observers). How do you consider your performance in the group work during the initial welcoming of Julia? (Question posed to the scenario participants).	
<i>Application Phase</i> What would you do differently during the initial welcoming of Julia? (Question directed to the scenario participants). What may you take from this simulated experience into your professional practice? (Question directed to the scenario participants and observers).	

Figure 1 - Simulated scenario for the assistance to be provided to people with non-suicidal self-injuries. Ribeirão Preto, SP, Brazil, 2020

Discussion

The creation and validation approach of a simulated scenario related to non-suicidal self-injuries has an innovative and potential character to promote learning on the subject matter for the scientific literature, considering the singularities present in the care and management to be performed by health professionals in relation to non-suicidal self-injuries^(1,4-5). For the result of this intervention to be effective, the simulation

structure must be based on elements standardized on good simulation practice criteria and submitted to an assessment by specialists⁽¹¹⁻¹³⁾.

The simulated scenario was structured by delimiting the target audience to professionals and/or students in health programs who had studied the academic discipline of Psychiatry. It is important to identify the target audience thinking of the previous general competencies for decision-making and the performance of the activities of the simulated scenarios with a focus on learning⁽¹³⁻¹⁴⁾.

Regarding the participation, we highlight the facilitator with experience on the topic of non-suicidal self-injuries and who went deeper into the educational strategy of simulation, two health students or professionals to actively participate in the simulated practice, and other students or professionals who will initially participate as observers but play an important role in discussing and constructing the knowledge in the debriefing (king and execution of the activities of the simulated scenarios with a focus on learning⁽¹⁴⁾).

Among the physical resources we can mention the simulation laboratory or practical teaching laboratory with structure and objects close to the reality of a basic health unit from the social and cultural context in which the scenario will be used. Composition of the scenario must allow creating the perception of reality, which exerts impacts on the participants' simulation experience⁽²⁴⁾. The main pieces of information about the clinical case and also the patient's characteristics are indicated in the scenario. All information must be related to the objectives proposed for the activity, with sharing of the Objective Structured Clinical Examination goals with the simulated actress being interesting⁽²⁵⁾. In this scenario, we also addressed clues necessary for the action and clues that may be used to collaborate with the simulated actress' understanding and approach to the reality of the topic.

To subsidize reflection and decision-making, preliminary educational materials are made available, with sending and access time to the materials compatible with the participants' need for study and reflection. All study materials contemplate the objectives specified for learning in simulated practice⁽¹⁴⁾. The time was established thinking about welcoming possible doubts in the pre-briefing, progression of the simulated activity to achieve the objectives proposed, and the final discussion on the lessons learned and experiences of the simulated practice⁽¹¹⁻¹⁴⁾.

For the beginning of the simulation, the use of pre-briefing is considered a good practice, in which basic guidelines of the simulation activity are presented to the participants. Among the diverse information are the ambiance, the material resources and the ethical agreement aiming to establish trust and communication, in addition to the instructions for the actress. All such information has a direct relationship with the best experience and progression of the simulated activity⁽¹³⁾. The scenario enables a reflection and approach of needs and strategies specific to care, in addition to favoring a reflection about welcoming of the adolescent and the family, as well as the need to strengthen the support network, offering training opportunities for their skills and communication techniques in a safe environment⁽²⁶⁾.

Diverse information on the patient and specificities of the clinical case (past history, current complaint, companions) that is important to understanding and

decision-making by the participants is presented in the pre-briefing⁽²⁷⁾. In this step, the participants are informed about what they may do during the simulation, in addition to reading the simulated case. It is worth noting that the simulated case has a direct connection with the objectives to be achieved by the participants, so as to guarantee that there will be clues to initiate the assistance.

In order to assess the participants' performance, the objectives are divided into general, related to organization, and specific. The objectives should be compatible with execution of the scenario^(13,28). In the paper in question, the so-called "Objective Structured Clinical Examination" is divided into objectives that the participant must address during the assistance provided, related to the competencies expected from learning with this high-fidelity simulation strategy. All the objectives are broadly associated with the content of the preliminary study material and the support material.

The last step of the simulation process is based on debriefing, considered a central component in this teaching strategy. The debriefing must be based on the learning objectives, encouraging the participants to express feelings, limitations and self-assessments, among other aspects. It is recommended that this step be conducted by a facilitator duly prepared in simulation and in the theme of the activity to contribute to the participants' learning⁽²⁹⁾. To carry out this step, the debriefing of this study was divided into three phases: Descriptive phase (it seeks to understand how the participants felt during the assistance); Analytical phase (an analysis is performed regarding the assistance provided together with the class, seeking to find strong and weak points); and Application phase (it investigates which aspects of the assistance provided may favor the participant in a future real moment)⁽³⁰⁾.

The main limitations of this study are related to the absence of testing and to assessing the simulated scenario with the target audience, given that its effectiveness for attitude or knowledge changes was not evaluated. We recommend future studies investigating adaptation of the scenario to different contexts, the participants' satisfaction, and changes in knowledge or attitudes in the face of self-injuries after participating in the high-fidelity simulation.

Conclusion

This study allowed creating and validating a simulated scenario for the assistance to be provided to people with non-suicidal self-injuries. Creation of the scenario obtained a good assessment from the specialists, guaranteeing reliability of the information related to the objectives proposed. Even with advances in the clinical simulation area, few high-fidelity simulated scenarios focused on mental health have been developed and

validated, which highlights this study as an important and significant contribution to the care related to non-suicidal self-injuries. Therefore, we highlight the production of a reliable high-fidelity clinical simulation scenario with a good overall assessment with the purpose of promoting learning and trust in the assistance to be provided to people with non-suicidal self-injuries.

Acknowledgments

We thank Jonas Bodini Alonso for his collaboration in the statistical analysis of the research, as well as in the phases of analysis and interpretation of the study data.

References

1. Hepp J, Carpenter RW, Störkel LM, Schmitz SE, Schmahl C, Niedtfeld I. A systematic review of daily life studies on non-suicidal self-injury based on the four-function model. *Clin Psychol Rev.* 2020 Dec;82:101888. <https://doi.org/10.1016/j.cpr.2020.101888>
2. International Society for the Study of Self-Injury. Nonsuicidal self-injury: what is self-injury? [Internet]. 2021 [cited 2021 Mar 01]. Available from: <https://www.itriples.org/basic-facts>
3. Fonseca PHN, Silva AC, Araújo LMC, Botti NCL. Non-suicidal self-injury intent among adolescents. *Arq Bras Psicol* [Internet]. 2018 [cited 2021 Mar 01];70(3):246-58. Available from: http://pepsic.bvsalud.org/scielo.php?script=sci_arttext&pid=S1809-52672018000300017&lng=pt&tlng=
4. Brown RC, Plener PL. Non-suicidal self-injury in adolescence. *Curr Psychiatry Rep.* 2017;19(3):20. <https://doi.org/10.1007/s11920-017-0767-9>
5. Wu J, Liu H. Features of non-suicidal self-injury and relationships with coping methods among college students. *Iran J Public Health* [Internet]. 2019 [cited 2021 Mar 01];48(2):270-7. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6556203/pdf/IJPH-48-270.pdf>
6. Gutiérrez MLO, Rodríguez MFU, Moreno LMR. Autolesiones no suicidas en adolescentes: prevención y detección en la atención primaria. *Med Fam Semergen.* 2019;45(8):546-51. <https://doi.org/10.1016/j.semerg.2019.02.010>
7. Pintar-Balbic M, Bregar B, Radobuljac MD. The attitudes and feelings of mental health nurses towards adolescents and young adults with non-suicidal self-injuring behaviors. *J Child Adolesc Psychiatr Mental Health Nurs.* 2020;14:37. <https://doi.org/10.1186/s13034-020-00343-5>
8. Ngune I, Hasking P, McGough S, Wynaden D, Janerka C, Rees C. Perceptions of knowledge, attitude and skills about non-suicidal self-injury: a survey of emergency and mental health nurses. *Int J Ment Health Nurs.* 2021 Jun;30(3):635-42. <https://doi.org/10.1111/inm.12825>
9. La Cerra C, Dante A, Caponnetto V, Franconi I, Gaxhja E, Petrucci C, et al. Effects of high-fidelity simulation based on life-threatening clinical condition scenarios on learning outcomes of undergraduate and postgraduate nursing students: a systematic review and meta-analysis. *BMJ Open.* 2019 Feb 22;9(2):e025306. <https://doi.org/10.1136/bmjopen-2018-025306>
10. Skinner D, Kendall H, Skinner M, Campbell C. Mental health simulation: effects on students' anxiety and examination scores. *Clin Simul.* 2019;35:33-7. <https://doi.org/10.1016/j.ecns.2019.06.002>
11. Negri EC, Pereira GA Júnior, Cotta CK Filho, Franxon JC, Mazzo A. Construction and validation of simulated scenario for nursing care to colostomy patients. *Texto Contexto Enferm.* 2019;28:e20180199. <https://doi.org/10.1590/1980-265X-TCE-2018-0199>
12. Fabri RP, Mazzo A, Martins JCA, Fonseca AS, Pedersoli CE, Miranda FBG, et al. Development of a theoretical-practical script for clinical simulation. *Rev Esc Enferm USP.* 2017;51:e03218. <https://doi.org/10.1590/S1980-220X2016016403218>
13. Kaneko RMU, Lopes MHBM. Realistic health care simulation scenario: What is relevant for its design? *Rev Esc Enferm USP.* 2019;53:e03453. <https://doi.org/10.1590/s1980-220x2018015703453>
14. INACSL Standards Committee, Watts PI, McDermott DS, Alinier G, Charnetski M, Ludlow J, et al. Healthcare Simulation Standards of Best Practice™ Simulation Design. *Clin. Simul.* 2021;58:14-21. <https://doi.org/10.1016/j.ecns.2021.08.009>
15. Jeffries PR, Rogers KJ. Simulation in nursing education: from conceptualization to evaluation. 2. ed. New York, NY: National League for Nursing; 2012.
16. Andrade PON, Oliveira SC, Morais SCR, Guedes TG, Melo GP, Linhares FMP. Validation of a clinical simulation setting in the management of postpartum haemorrhage. *Rev Bras Enferm.* 2019 Jun 27;72(3):624-31. <https://doi.org/10.1590/0034-7167-2018-0065>
17. Rosa MEC, Pereira-Ávila FMV, Góes FGB, Pereira-Caldeira NMV, Sousa LRM, Goulart MCL. Positive and negative aspects of clinical simulation in nursing teaching. *Esc Anna Nery.* 2020;24(3):e20190353. <https://doi.org/10.1590/2177-9465-ean-2019-0353>
18. Polit DF, Beck CT. Fundamentos de pesquisa em enfermagem: Avaliação de evidências para a prática da enfermagem. 9. ed. Porto Alegre: ArtMed; 2019.
19. Lloyd-Richardson EE, Hasking P, Lewis S, Hamza C, McAllister M, Baetens I, et al. Addressing self-injury in schools, part 1: understanding nonsuicidal self-injury and the importance of respectful curiosity in supporting youth who engage in self-injury. *NASN Sch Nurse.* 2020 Mar;35(2):92-8. <https://doi.org/10.1177/1942602X19886381>
20. Lloyd-Richardson EE, Hasking P, Lewis S, Hamza C, McAllister M, Baetens I, et al. Addressing self-injury

- in schools, part 2: how school nurses can help with supporting assessment, ongoing care, and referral for treatment. *NASN Sch Nurse*. 2020 Mar;35(2):99-103. <https://doi.org/10.1177/1942602X19887353>
21. Matos DAS. Confiabilidade e concordância entre juízes: aplicações na área educacional. *Estudos Aval Educ*. 2014;25(59):298-324. <https://doi.org/10.18222/ea255920142750>
22. Altman DG. *Practical statistics for medical research*. 1. ed. London: Chapman & Hall; 1991.
23. Naismith LM, Kowalski C, Soklaridis S, Kelly A, Walsh CM. Participant perspectives on the contributions of physical, psychological, and sociological fidelity to learning in interprofessional mental health simulation. *Simul Healthc*. 2020 Jun;15(3):141-6. <https://doi.org/10.1097/SIH.0000000000000425>
24. Coro-Montanet G, Diéguez-Pérez, Cerdán-Gómez F, García-Villalobos R, Gómez-Sánchez M, Pardo-Monedero MJ. Protocolo de entrenar actores para escenarios de alta fidelidad en educación médica. *Rev Latinoamer Simul Clin*. 2019;1(3):144-8. <https://doi.org/10.35366/RSC193E>
25. Castillo EG, Ijadi-Maghsoodi R, Shadravan S, Moore E, Mensah MO 3rd, Docherty M, et al. Community interventions to promote mental health and social equity. *Curr Psychiatry Rep*. 2019;21(5):35. <https://doi.org/10.1007/s11920-019-1017-0>
26. Stephenson E, Poore J. Tips for conducting the pre-brief for a simulation. *J Contin Educ Nurs*. 2016;47(8):353-5. <https://doi.org/10.3928/00220124-20160715-05>
27. Presado MHCV, Colaço S, Rafael H, Baixinho CL, Félix I, Saraiva C, et al. Learning with high fidelity simulation. *Ciênc Saúde Colet*. 2018;23(1):51-9. <https://doi.org/10.1590/1413-81232018231.23072017>
28. Bortolato-Major C, Mantovani MF, Felix JVC, Boostel R, Silva ATMD, Caravaca-Morera JA. Debriefing evaluation in nursing clinical simulation: a cross-sectional study. *Rev Bras Enferm*. 2019 Jun 27;72(3):788-94. <https://doi.org/10.1590/0034-7167-2018-0103>
29. Jaye P, Thomas L, Reedy G. 'The Diamond': A structure for simulation debrief. *Clin Teach*. 2015;12(3):171-5. <https://doi.org/10.1111/tct.12300>

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All authors approved the final version of the text.

Conflict of interest: the authors have declared that there is no conflict of interest.


Received: Jan 20th 2022

Accepted: Apr 20th 2023

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