

REFLEXION

Clinical simulation in nursing education for the care of women with psychoactive substance use

HIGHLIGHTS

1. Clinical simulation as a pedagogical strategy in nursing education.
2. Transformative learning and humanized, stigma-free care.
3. Care for women with problematic psychoactive substance use.
4. Meaningful learning occurs through students' active engagement in the experience.

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ABSTRACT

Objective: To reflect on the contributions of clinical simulation to the education of nursing students in the care of women with problematic psychoactive substance use.

Method: This is a reflective study developed based on theoretical and empirical approaches and available evidence retrieved from the United States National Library of Medicine National Institutes of Health, the Scientific Electronic Library Online, and the Latin American and Caribbean Health Sciences Literature, selected between June and August 2025. The material was read, interpreted, and reflected upon based on Kolb's Experiential Learning Theory. **Results:** The following category was developed: Training to Care: clinical simulation as a teaching strategy for the care of women with problematic psychoactive substance use. **Final Considerations:** By experiencing complex situations through clinical simulation, students reflect on stigma and develop an empathetic and welcoming approach to caring for women with problematic psychoactive substance use.

DESCRIPTORS: Nursing; Education, Nursing; Women; Simulation Training; Substance-Related Disorders.

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INTRODUCTION

Problematic psychoactive substance use among women is a multifaceted phenomenon shaped by biological, social, cultural, and gender-related factors. Women who use psychoactive substances face specific barriers to accessing healthcare services and often experience violence, discrimination, and social stigma.¹ This scenario highlights the need for educational strategies that prepare healthcare professionals, particularly nurses, to provide comprehensive, empathetic, and nonjudgmental care.

In Brazil, an increase in psychoactive substance use among women has been observed, accompanied by consequences such as psychiatric comorbidities, social vulnerability, and weakened family relationships. A study conducted at a Psychosocial Care Center for Alcohol and Drugs found that women undergoing treatment reported concurrent use of multiple substances, depressive symptoms, and a history of domestic violence², findings that underscore the importance of nursing education in developing technical skills as well as relational and ethical competencies.

International guidelines also reinforce this perspective. The World Health Organization (WHO) recommends that care for pregnant and postpartum women with problematic substance use should be comprehensive, non-punitive, and integrated with psychosocial support¹. In the United States, the Substance Abuse and Mental Health Services Administration (SAMHSA) emphasizes the need for treatment programs tailored to women's specific needs, taking into account issues such as trauma, motherhood, and gender inequalities³.

Within nursing education, clinical simulation has become established as a teaching methodology that integrates theory and practice in a safe learning environment, enabling students to experience complex care situations. This strategy promotes the development of technical, cognitive, and affective competencies while fostering critical reflection on professional values and attitudes⁴.

Recent literature indicates that clinical simulation is particularly valuable for preparing students to care for individuals with substance-related disorders, as it allows them to safely experience scenarios involving suffering, resistance, relapse, and social vulnerability. In this context, one study demonstrated that simulation using virtual patients helped reduce stigmatizing attitudes and improve nurses' communication skills when caring for people who use substances⁵.

Similarly, one study developed an online simulation using a standardized patient portraying a pregnant woman who used psychoactive substances and reported significant improvements in nursing students' empathy and motivational interviewing skills⁶. Likewise, another study found that healthcare students who participated in an interprofessional simulation involving a pregnant woman who used substances demonstrated a greater understanding of trauma-informed care and the importance of avoiding re-traumatization⁷. These findings reinforce the potential of clinical simulation as a pedagogical resource for dismantling stigma and fostering the communication, ethical, and humanistic competencies required to provide gender-sensitive care.

Despite its potential, the literature indicates that transferring learning from clinical simulation to real-world practice continues to face challenges. These include differences between the simulated environment and healthcare settings, fear of judgment, insufficient pedagogical support, and an institutional culture marked by stigma⁸.

From this perspective, debriefing plays a central role by providing an opportunity for critical analysis of students' performance, recognition of emotions, and the reframing of values. This stage enables students to identify their own biases and reflect on their attitudes in situations involving vulnerability and suffering⁴. To maximize its effectiveness, clinical simulation scenarios should be intentionally designed from a pedagogical

perspective, incorporating elements that reflect the realities experienced by these women, such as weakened support networks, experiences of violence, motherhood, and contexts of social exclusion. Only then will it be possible to prepare professionals capable of delivering comprehensive, sensitive, and ethically grounded care.

In light of this context, this study is expected to contribute to the education of nursing students through clinical simulation by promoting the technical-scientific, ethical, and social knowledge required to provide appropriate reception and care for these women.

This study aimed to reflect on the contributions of clinical simulation to the education of nursing students in the care of women with problematic psychoactive substance use.

METHOD

This is a theoretical reflection study developed from a set of theoretical and empirical data and evidence selected by convenience, which provided the basis for understanding the issue under investigation, namely, teaching strategies to support the education of nursing students in the care of women with problematic psychoactive substance use. The study was guided by the following research question: how can clinical simulation contribute to the education of nursing students in the care of women with problematic psychoactive substance use?

It was assumed that, throughout their educational process, nursing students need to develop theoretical knowledge, communication skills, and positive ethical attitudes so that, as future professionals, they can perform nursing interventions at both the subjective and clinically concrete levels, resulting in care that is sensitive to gender issues and the specific needs of women. The scientific literature that supported this study's development was identified between June and August 2025 within the context of a project aimed at developing a clinical simulation scenario for biopsychosocial interventions for women who use psychoactive substances at a public university located in southeastern Brazil.

During the development of the project, the scarcity of studies addressing this topic was identified, highlighting the need to reflect on and critically examine this field, thereby reinforcing the importance of expanding discussions and pedagogical practices in this context. The development of this reflective study was based on the search and analysis of publications available in the PubMed/MEDLINE, Scientific Electronic Library Online (SciELO), and Latin American and Caribbean Health Sciences Literature (LILACS) databases. The studies were selected by convenience, considering their relevance to the topic, alignment with the study object, and potential contribution to the proposed reflection, using the descriptors: Nursing; Simulation Training; Women; Substance-Related Disorders; Nursing Education, combined with the Boolean operator AND.

Publications available in full text in Portuguese, English, and Spanish that addressed clinical simulation in nursing education, with an interface to the care of women experiencing problematic psychoactive substance use, were included. Editorials, conference abstracts, and publications not aligned with the proposed reflective focus were excluded. A total of 10 articles were included in the final sample.

Following study selection, the publications were read, analytically annotated, interpreted, and reflected upon based on David Kolb's Experiential Learning Theory⁹. This theoretical framework provides a solid basis for understanding the educational potential of clinical simulation in nursing education. According to the author, the learning process occurs cyclically through four interdependent stages: concrete experience, reflective observation, abstract conceptualization, and active experimentation.

Although approval by a Research Ethics Committee (REC) was not required, the authors declare that good research practices were followed throughout this study's development, ensuring an ethical approach to the use of research sources and preserving the scientific integrity of the theoretical, empirical, and evidence-based findings.

RESULTS

Authors' Reflective Starting Point

Clinical simulation provides situations that closely resemble real-world clinical practice, allowing students to become immersed in contexts that replicate the realities of professional practice. This enables them to engage in meaningful experiences, reflect on their actions, and construct knowledge through practice. This pedagogical resource not only recreates the care setting but also serves as a space for transformation and the development of new knowledge.

In this context, concerning the care of women experiencing problematic psychoactive substance use, this approach promotes the integration of theory, practice, and ethical reflection, all of which are essential dimensions for developing technical-scientific, relational, and communication competencies. As a teaching strategy, it enables students to encounter complex situations characterized by prejudice, vulnerability, and the emotional challenges faced by this population, thereby fostering empathy, sensitive listening, and clinical judgment.

In addition to developing technical skills, this method contributes to the critical and humanistic education of future nurses, in accordance with the principles of the Brazilian Unified Health System (SUS). Thus, Kolb's theoretical framework emphasizes that meaningful learning results from students' active engagement in the learning experience. To better understand how this educational tool supports the learning process regarding the care of women in this context, a category was developed to present the potential and challenges of clinical simulation in caring for this population.

Training to Care: clinical simulation as a teaching strategy for the care of women with problematic psychoactive substance use

The education of nurses to provide care for women who use psychoactive substances requires a pedagogical approach that extends beyond the transmission of technical knowledge to encompass ethical, communicative, and affective dimensions. Traditional teaching methods, centered on memorization and passive observation, have proven insufficient for situations that require empathy, qualified listening, and a nonjudgmental approach. In this context, clinical simulation emerges as a strategy that promotes experiential learning and critical reflection on professional practice¹⁴.

According to Kolb's Experiential Learning Theory⁹, knowledge is constructed through practical experience, which is subsequently analyzed, conceptualized, and actively tested. This cyclical process integrates four stages: concrete experience, reflective observation, abstract conceptualization, and active experimentation, which provide the foundation for understanding the pedagogical potential of clinical simulation in nursing education.

In nursing education, this methodology is frequently employed in clinical simulations that recreate real-world care scenarios. Such experiences enable students to connect theory with practice in a controlled environment while fostering the development of technical, cognitive, and affective competencies. In this way, clinical simulation

contributes to deep learning, the development of critical thinking, and professional autonomy, all of which are essential elements in nursing education⁹.

By realistically reproducing the care environment, clinical simulation enables students to experience the emotions, dilemmas, and challenges inherent in clinical practice. In the care of women with problematic psychoactive substance use, this experience is particularly relevant because it brings personal beliefs, biases, and ethical dilemmas to the forefront. The simulated scenario therefore becomes a space for self-awareness, where future nurses can make mistakes, reflect on their experiences, and reframe their attitudes⁸. In this regard, the simulation scenario represents the concrete experience stage proposed by Kolb, allowing students to engage directly with complex situations that require technical, emotional, and ethical competencies.

Recent studies indicate that simulated experiences involving virtual patients enhance nurses' interpersonal skills and reduce stigmatizing attitudes, owing to the immersive nature of simulation, which exposes students to complex and humanized narratives⁵. **In educational settings**, this resource helps students recognize the impact of stigma on the quality of care. In another study, nursing students who participated in an online simulation using a standardized patient portraying a pregnant woman who used psychoactive substances demonstrated improvements in empathy and motivational interviewing skills, reinforcing the potential of active learning methodologies to promote therapeutic communication.

Interprofessional simulations also enhance learning by highlighting the importance of teamwork and collaborative care. The participation of multidisciplinary teams in a simulation scenario involving a pregnant woman who used psychoactive substances demonstrated the relevance of trauma-informed care and nonviolent communication⁷.

Another key component is debriefing, considered the reflective core of clinical simulation. From Kolb's perspective, this stage embodies the phases of reflective observation and abstract conceptualization, during which students analyze their decisions, recognize their emotions, and reconstruct meanings, transforming practical experience into lasting learning. In teaching the care of women with problematic psychoactive substance use, this stage encourages students to confront prejudice and feelings of helplessness, transforming action into understanding⁴.

Despite its benefits, transferring simulated experiences to real-world practice remains a challenge. Many students reported difficulties in maintaining an empathetic approach when caring for real patients, particularly in work environments where stigma is normalized. This finding reinforces the need to align educational methodologies with the institutional culture of healthcare services by promoting active listening and welcoming practices⁵. This challenge reveals weaknesses in the active experimentation stage described by Kolb, as the consolidation of learning depends on the critical application of the knowledge developed throughout the experiential learning cycle in real care settings.

Another limitation identified is the scarcity of simulation scenarios specifically designed for women. Most simulations generically address psychoactive substance use, without considering gender-specific issues such as pregnancy, motherhood, experiences of violence, and emotional burden¹. However, simulations focused on women who use psychoactive substances can prepare professionals to become more aware of gender inequalities and the multiple vulnerabilities that characterize this reality, requiring a broader perspective that integrates biological, psychological, and social dimensions.

Some authors have also emphasized that simulations delivered through videos or digital platforms expand educational opportunities by allowing students to review interactions, analyze their performance, and identify areas for improvement, particularly in sensitive topics such as psychoactive substance use and stigma. In Brazil, these

strategies may also contribute to continuing health education, strengthening the integration between education and healthcare services within the SUS¹⁰⁻¹¹.

The development of realistic simulation scenarios should encompass not only technical content but also the symbolic and emotional dimensions of the care relationship. Reproducing the concerns and experiences of women who use psychoactive substances brings simulation closer to real-life practice and makes the learning experience more meaningful.

Reflecting on clinical simulation, therefore, also means reflecting on the role of nursing. By experiencing situations involving stigma, violence, or neglect, students are challenged to recognize their own limitations and values, becoming ethical practitioners in their professional practice. Clinical simulation thus transcends technical training and becomes an instrument for humanizing nursing education⁴.

Accordingly, pedagogical intentionality should guide the design of simulation scenarios, promoting not only technical skills but also critical and ethical competencies. The challenge lies in transforming technical learning into social commitment, making clinical simulation a space for citizenship-oriented education, particularly in the care of women experiencing situations of social exclusion and vulnerability.

In summary, the literature identifies clinical simulation as an effective strategy for promoting ethical and humanized education in the care of individuals with substance-related disorders. However, it also highlights the need to develop simulation scenarios tailored to women's specific needs, incorporate gender as an analytical category, and strengthen the connection between simulation and clinical practice in healthcare services. This transition represents one of the major challenges facing contemporary nursing education.

From the perspective of Experiential Learning Theory, this challenge lies in ensuring that the learning cycle is completed by transforming simulated experiences into critical, reflective, and socially committed clinical practice.

Among this study's limitations, it should be noted that, despite including multiple databases, relevant studies not indexed in these databases or published in other languages may have been missed. Furthermore, the limited number of studies addressing the use of clinical simulation in the care of women with problematic psychoactive substance use may have restricted broader reflections on other perspectives related to the topic.

FINAL CONSIDERATIONS

Clinical simulation, as a pedagogical strategy in nursing education, promotes the development of technical and interpersonal competencies in the care of women who use psychoactive substances. By experiencing complex situations, students are encouraged to reflect on stigma and adopt an empathetic and welcoming approach. However, its impact depends on the quality of the debriefing process and the pedagogical intentionality underlying the simulation, both of which should foster transformative learning and contribute to humanized, stigma-free care.

This reflection highlights the need to develop simulation scenarios that address women's specific needs and the multiple vulnerabilities associated with problematic psychoactive substance use to strengthen critical education that is sensitive to gender-related issues. In this sense, this study contributes to expanding reflections on the potential of clinical simulation as a strategy capable of enhancing nursing education and fostering ethically committed and socially responsive care practices.

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Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work - **de Melo Filho P, Nóbrega MPSS**. Drafting the work or revising it critically for important intellectual content - **de Melo Filho P, Nóbrega MPSS**. Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved - **Nóbrega MPSS**. All authors approved the final version of the text.

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