Contributions of Clinical Simulation with Standardized Patients in the Subject of OT intervention in Mental Health

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clinical simulation, patients, mental health.

ABSTRACT
The paper discusses the contributions of clinical simulation with standardized patients in the teaching of occupational therapy at the Universidad Andrés Bello, highlighting its importance in the formation of practical skills, the improvement in the understanding of the empathic aspects of care, and its relevance of its use in mental health. The study was carried out using a quantitative methodology with a cross-sectional analytical design of local validation. The universe was made up of 60 students of the VIII semester of the Occupational Therapy career of the Andrés Bello University, Viña del Mar campus. Among the main results, it is inferred that clinical simulation offers a safe learning environment that allows students to practice skills before interacting with real users; facilitates the development of empathy and effective communication in a therapeutic context; contributes to a better understanding of emerging dynamics and challenges in mental health; It improves students' competencies to apply theories in practical situations. In conclusion, it promotes critical reflection on behavior and decisions in the context of the intervention, helping to evaluate performance in real attention situations, encouraging active and collaborative learning among students.

1. Introduction

The Andrés Bello University has historically carried out simulations in the facilities of the simulation hospital. This learning methodology is mainly used by health careers, where it is necessary to simulate a clinical context of care.

When the COVID-19 pandemic arrived, the School of Occupational Therapy of the Andrés Bello University considered clinical simulation (CS) as a valid and efficient strategy, while implementing simulation projects with hyflex technology.

In November 2020, the Network of Occupational Therapy Schools (RETOCH) held conferences on the experience of Chilean schools in CS and simulated patients. Thus reaching the conclusion that in the context of virtuality, the SC methodology would facilitate learning processes.

During 2022, the first pilot experiences begin at the OT School, specifically on the 2022 update day. Evaluation of this experience is carried out to measure the impact, considering the results as necessary contributions to improve the experience, later in the third year in the subject OT intervention in health II.

This last experience was carried out in the three venues (Santiago, Viña del Mar and Concepción), with a school budget at the national level. Thus, after this experience, simulation is left with a budget for the year 2024 in the update days of the three venues, as well as in the subjects of OT I processes (first semester) and health intervention II, corresponding to the second semester.

Clinical simulation in Mental Health

Historically, in technical and professional education in Chile, the identification and development of competencies necessary for the therapeutic relationship was carried out in real contexts, exposing both the student and the user to errors that could negatively affect their health processes. Faced with this situation, simulation appears as an effective learning strategy, where competencies can be identified and developed without exposing people, through a systematized training of situations that the future professional can find in his disciplinary practice. This repetitive and systematized training makes it possible to make evident the development of certain elements that make up professional competencies. Clinical simulation is therefore a pedagogical tool that not only favors the competencies included in the technical/cognitive processes of disciplinary practice, but also impacts the development of professional competencies.

The skills necessary for clinical reasoning (capacity for analysis, synthesis, proposition and decision-making),

as well as communication, attitude and teamwork, can be developed through clinical simulation (Amaya, 2010).

Within the experiences in higher education, the Autonomous University of Mexico, in its simulation experiences, resulted in students positively valuing what was developed in communication, teamwork and adaptability, where 88% considered the experience positive. (Morales Franco, 2021). A similar situation to the previous one is described in the study by Montijo-Arriola et al. (2020) where it is evident that 75.1% of the students considered clinical simulation a useful learning method. In addition, 51.6% perceived that this tool contributed to developing their theoretical and practical skills in a safe and controlled environment.

Over time, various authors and theories have influenced the evolution and application of CS in this field. For example, Bandura, recognized for his theory of social learning, stresses the importance of observation and imitation in the educational process. Her concept of "vicarious learning" has left a significant mark on CS in SM, as it allows students and mental health professionals to learn by observing others by practicing skills and then mimicking those behaviors in simulated environments. This highlights the need for the simulation environment to be as realistic as possible, with standardized patient interacting authentically, so that participants can internalize and effectively apply the skills acquired.

On the other hand, David Kolb (Rodríguez, 2018) developed the Experiential Learning Model, which emphasizes the importance of concrete and active experience as the foundation of meaningful learning. In the context of CS, this implies that MS professionals learn best by practicing skills in simulated scenarios, reflecting on those experiences, and applying what they have learned in future real clinical practices.

Jeffries (2005) and Woolf (2015), prominent figures in the development of CS in nursing, have contributed significantly to its application in MS. Its focus is on the use of specific simulations and detailed scenarios, allowing students and professionals to practice specific skills and face complex clinical challenges in a safe environment.

Implementing clinical simulation in OT

In the context of competent clinical practice, satisfaction is based on three relevant elements: "debriefing and reflection", "clinical reasoning" and "clinical learning" (Astudillo, 2017). Debriefing, as a crucial phase of simulation, involves detailed analysis of the scenario to evaluate what was done well and what was not. During this stage, the teacher guides the participants in self-reflection and offers complementary comments. It is highlighted that not only procedural skills and knowledge are needed, but also clinical reasoning skills, which encompass the ability to analyze, synthesize, and make decisions effectively in the face of proposed cases.

Clinical simulation provides students with the opportunity to put these elements into practice through experience with a simulated clinical case. This approach facilitates meaningful and transcendental learning, which is defined as "the quintessential human mechanism for acquiring and retaining the large amount of ideas and information represented in any field of knowledge" (Smith & Johnson, 2018). This process is carried out by relating the information previously acquired by the student with the new information assimilated, which allows knowledge to be readjusted and reconstructed effectively.

The OT career during the second semester presents within the mesh in the VIII semester, the subject of OT intervention in mental health. This subject covers the individual and collective intervention of the population throughout the life cycle with various MS disorders, such as schizophrenia, bipolar disorder, depression, among others.

This means a challenge for teachers in the SM line in the OT career, who have the responsibility of preparing students with the necessary competencies for the complex scenarios that SM implies today.

Due to the unpredictability of the area and the Human Rights Convention, which from the beginning pro-person mandates the non-instrumentalization of people, it is currently unethical to work directly in the undergraduate stage with users with mental health disorders; On the other hand, emotional dysregulation could also mean a risk to the integrity of the student body, because they do not have all the skills for mental health containment.

General Objective:

To systematize the contributions of CS with PE in the OT career to promote confidence, excellence and critical thinking during intervention in the area of MS.

Specific Objective 1:

To evaluate the progress of competencies and skills of students in the Health Intervention II subject during the implementation of CS with PE in mental health.

Specific Objective 2: To know how the use of clinical simulation with PE influences the development of critical thinking and self-confidence of occupational therapy students in psychiatric settings.

Specific Objective 3: To determine the satisfaction of the Occupational Therapy student after being exposed to the innovation of clinical simulation with PE in the subject of Health Intervention.

2. Material and Methods

A quantitative study, with a cross-sectional analytical design of local validation. The universe was made up of 60 students of the VIII semester of the Occupational Therapy career of the Andrés Bello University, Viña del Mar campus, Chile. For the selection of the sample, the following inclusion criteria was applied: Students enrolled in one of the 3 sections of the Health Intervention subject corresponding to the VIII semester, whose educational techniques have been homogeneous to the Viña del Mar campus.

For data collection, the "Clinical simulation quality and satisfaction survey" was applied [1] , adapted according to the Chilean cultural reality, of 15 to 12 items in a Google Form, later reviewed by expert judgment (3) with a degree corresponding to Doctor. The form also included an item to make a suggestion, comment, opinion, recommendation to improve experiences of this type in the future. These opinions were incorporated into the results that were then interpreted in graphs according to the form.

Ethical considerations:

The study was authorized by the academic committee of the School of Occupational Therapy of the Andrés Bello University. The 60 participants gave their informed consent following the ethical principles for biomedical research according to the WMA Declaration of Helsinki regarding the principles for medical research on human beings and the legislation in force in Chile corresponding to Law No. 20,120, decree 114. Participation in the study was voluntary, confidential. Under no circumstances was the research conditioned by any academic evaluation.

The data collection was carried out in the classrooms between August and September 2023. The survey was initially self-applied after the exposure of the QR code with input to the Google Form with the aim of standardizing the procedure without the risk of influencing the responses of the sample. The average application time of the instrument was 20 min.

3. Presentation of Results

The study participants were predominantly women (54/6) residing entirely in the V region. The age range was between 20 and 24 years old. The scores of the 12 items of the Clinical Simulation Quality and Satisfaction Survey are described below."

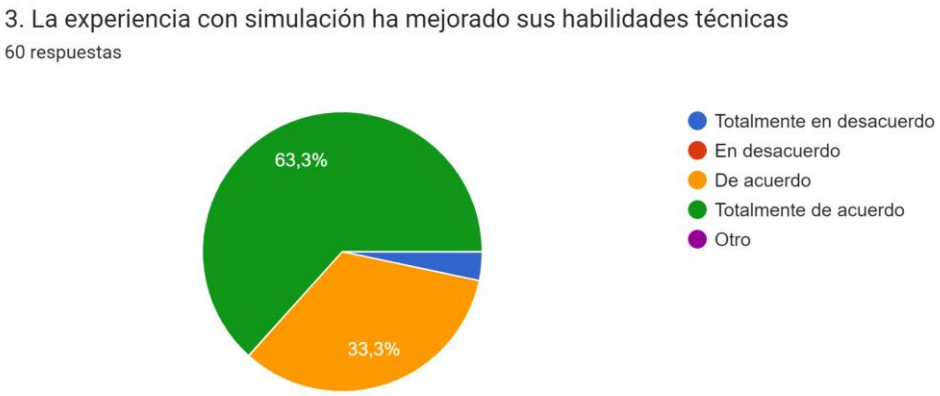
In original language: Spanish

[1] Cádiz Medina V. Satisfaction with clinical simulation as a teaching tool for learning in nursing students from the Universities of Alicante (Spain) and Bio-Bio (Chile). [Nursing final degree thesis]. Chillán, Chile: Universidad del Bio Bio; 2014. p.102

Out of a total of 60 responses, 58 students consider CS to be a useful method for learning. In contrast, 2 students responded that they strongly disagree that it is a useful method for learning, detailing in the open-ended question item "that they prefer traditional learning methods, and relate later in practice with real patients".

In original language: Spanish

Out of 60 responses, 30 agreed that the scenario where the SC activity took place was realistic. In the open question regarding the experience, 25% consider that it was a "very good experience", "that they liked", "full of knowledge", that "it brought them quite close to reality". However, they consider that simulation should always be carried out in spaces that provide realism, such as the simulation hospital and not a room, for example.



In original language: Spanish

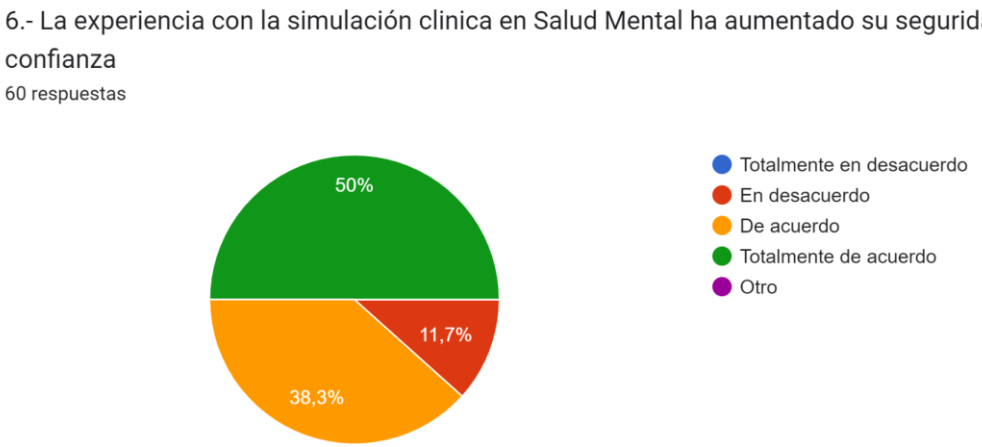
Out of 60 responses, 58 agreed that SC's experience contributes to the development and improvement of their technical skills to be able to intervene in MS scenarios. In the open question regarding the experience, for those who answered to "totally agree" or "agree", the simulation has been of great contribution to the development of their knowledge and skills as future occupational therapists. They consider in their entirety that it is necessary to continue promoting instances of CS taught in more sessions for greater learning of this intervention, since according to their perception, it would allow them to know how in the future, the work as occupational therapists in MS would be.

In original language: Spanish

Out of 60 responses, 57 agreed that the SC experience contributes to the development of critical reasoning and confidence for future decision-making, thus allowing students and professionals to practice procedures and make clinical decisions without the risk of harming real users. This fosters a safe, complex, and realistic learning environment where mistakes can be made and learned from.

In original language: Spanish

Out of 60 responses, 58 agreed that the SC experience helped them to integrate theory and practice, since it is usually very complex in early training stages to relate the contents to the praxis of the occupational therapist in MS.



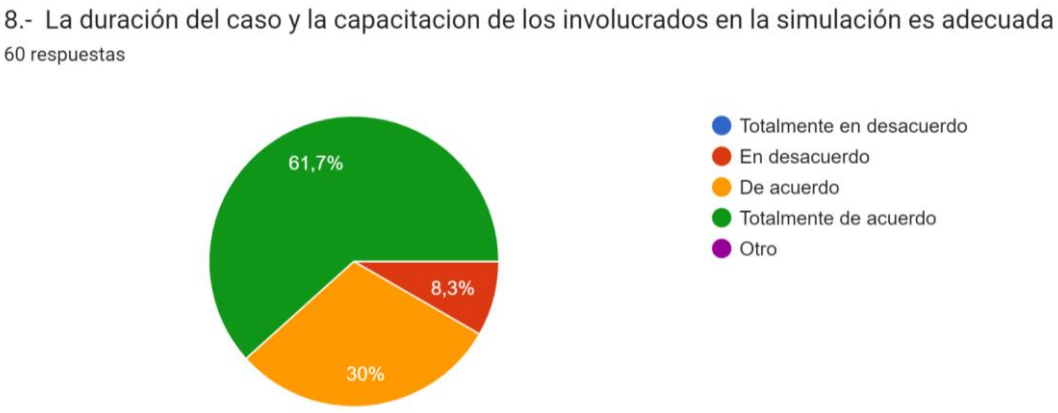
In original language: Spanish

Out of 60 responses, 53 agreed that the SC experience favored increased security and confidence in mental health praxis. 7 participants disagreed on this item, alluding to the fact that in order to increase confidence it is necessary to teach them what type of questions to ask when taking the mental exam, since despite feeling prior security, at the time of applying it to the user it is very different and they feel distrust in the application.

In original language: Spanish

Out of 60 responses, 57 agreed that the SC experience has motivated them to learn more about mental health. 7 participants disagreed on this item, alluding that in order to increase confidence it is necessary to prepare and teach them about the type of questions they should ask when taking the mental exam, since despite feeling prior security, at the time of applying it to the user it is very different and they feel distrust in the application.

For the participants it is an excellent initiative on the part of the teachers and a great opportunity to apply the theory, taking it to the closest thing such as a clinical situation, where these experiences serve to strengthen their security, since if one day they face complex mental health situations, they consider that they will have a basis to be able to face problematic situations. It is a great opportunity for the teaching of this branch of our career and we are very grateful for this opportunity.

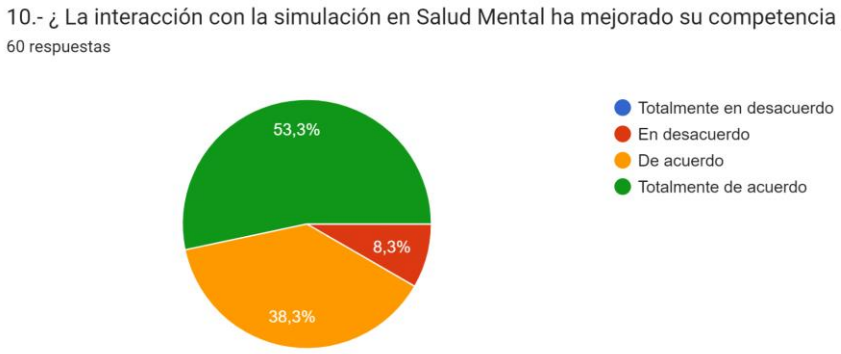


In original language: Spanish

Out of 60 responses, 55 agreed that the SC experience was adequate in terms of the extent, complexity of the case and training of those involved. 5 participants disagreed on this item, alluding that the time was insufficient for learning and applying knowledge, so more simulation sessions should be integrated. and in more subjects to get closer to real situations with users. They report that the "time factor and the end of the semester" were factors that affected the organization of these activities and my suggestion is aimed at the same, perhaps a better organization and delivery of information from teachers to us as students in order to perform in the best way. As a recommendation, they suggest that the instance lasts longer and be applied in other subjects.

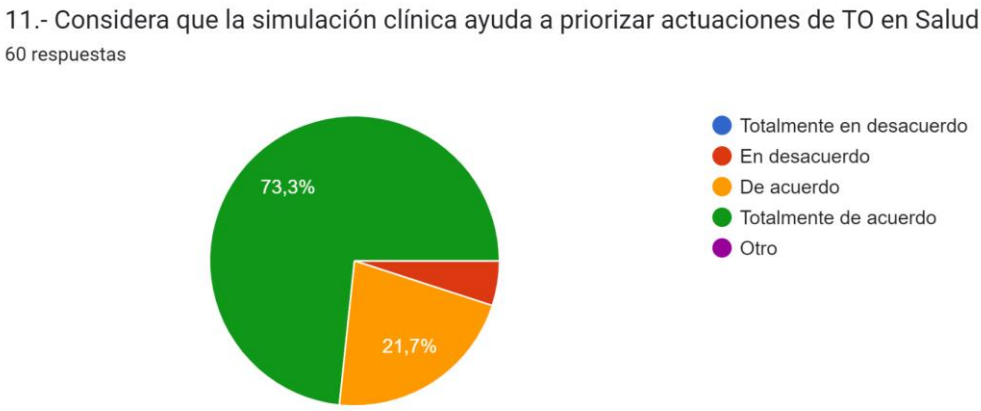
In original language: Spanish

Out of a total of 60 responses, 56 participants agreed that the SC experience significantly facilitated communication between team members. However, 4 participants expressed their disagreement with this item, arguing that the duration of the instance was too short to allow effective interaction between the participants. This feedback suggests the need to consider a longer duration in future experiences to optimize communication and team cohesion. In this sense, clinical simulation not only focuses on technical aspects, but also on communication and interpersonal skills where students must interact with standardized patients and other members of the health team, which improves their ability to work in a team and communicate effectively.



In original language: Spanish

Out of 60 responses, 55 agreed that the CS experience contributed to the development of clinical competence. In the open question regarding the experience, those who did not agree point out that the students should be more involved to acquire the clinical competence in its entirety, since although they learned how to handle certain situations, more cases, pairs shifts could be implemented in the simulation hospital, etc.



In original language: Spanish

Out of 60 responses, 57 agreed that the CS experience helped prioritize mental health actions. In the open question, they point out that experience mostly contributes to having a more realistic vision of the professional action experienced in a mental health situation. Most of them consider that it is a good instance that contributes to the reaffirmation of knowledge for mental health practice. In general, they recommend that on future occasions there should be greater intervention by relatives of users.

In original language: Spanish

Out of 60 responses, 58 agreed that the SC experience was satisfactory. The two people who did not consider the experience satisfactory, propose that there be fewer students per physical space, since it is very difficult to concentrate with only one user and so many students around.

4. Analysis of the Results

Specific Objective 1:

To evaluate the progress of competencies and skills of the students of the Health Intervention II subject during the implementation of the clinical simulation with PE in mental health.

Activity Name: Application of the Clinical Simulation Survey During the Clinical Simulation Experience with PE

Main results obtained for this specific objective:

- 91% of respondents consider CS to be a useful method for learning, which implies progress in terms of skills and competencies in the area of mental health.
- 97% feel that the SC experience has improved their technical skills.
- 96.7% consider that CS has helped them to integrate theory and practice of the SM subject.
- 98.3% consider that interaction with CS has improved their clinical competence.

Specific Objective 2: To know how the use of clinical simulation with PE influences the development of critical thinking and self-confidence of occupational therapy students in psychiatric settings.

Activity Name: Application of Instruments and Initiation of Experience Analysis of Clinical Simulation with PE

- 96.6% consider that simulation helps to develop critical reasoning and autonomous decision-making.
- 88% consider that the experience with CS has increased their confidence and confidence.

Specific Objective 3: To determine the satisfaction of the Occupational Therapy student after being exposed to the innovation of clinical simulation with PE in the subject of Health Intervention.

Activity Name: Clinical Simulation Experience Analysis with PE

Main results obtained for this specific objective:

- 97.9% consider that the experience was satisfactory for their learning in the area.
- 85% consider that the scenarios where the CS was developed were realistic.
- 96.7% consider that CS in MS has been satisfactory during its development.
- 95% consider that the CS sessions have motivated them to learn more about Mental Health in order to be prepared for unexpected events and complex situations in the area.

5. Discussion

The CS method with PE in SM positions participants in a highly realistic clinical scenario, considering the series of distractions and stimuli that are usually present in high-pressure environments where mental health is worked.

CS as an educational technique used in the training of health professionals, specifically in Occupational Therapy, allows the interaction of students or professionals with actors who have been trained to realistically represent patients with specific medical conditions such as personality disorders, mood and consumption disorders, etc., in a controlled environment.

Among the strengths detected and surveyed by the students with respect to the experience in the last open question of the survey, the following are obtained:

- That the method allows students to practice clinical skills, such as communication, anamnesis, mental examination, and decision-making, in a safe environment before interacting with real users.
- SC helps future professionals develop not only technical skills, but also interpersonal skills, such as empathy, active listening, and emotion management, allowing them to be more prepared for real-world scenarios.
- Actors (standardized patients) provide feedback to students on their performance, which is invaluable for learning. They were also observed by the teachers of the subject, who carry out their own evaluation, allowing students to experience a range of potential situations that they could encounter in their professional practice.
- Clinical simulation is used both in teaching and in the assessment of competencies, so specific scenarios can be designed to evaluate how students handle complex MS problems.
- Clinical simulation allows students to make mistakes and learn from them without the risk of instrumentalizing and/or causing harm to real users, fostering a culture of learning and continuous improvement.
- The SC method is not only useful for students, but also for the continuing education of professionals, since it allows the updating of knowledge and skills, contributing to the training of health professionals who are more competent and prepared to face the challenges of real clinical care.

6. Conclusion

Among the main results of the research is that clinical simulation offers a safe and controlled learning environment, allowing Occupational Therapy students to practice and refine essential skills before interacting with real users. This approach not only favors the acquisition of technical skills, but also facilitates the development of empathy and effective communication in a therapeutic context, fundamental pillars in Mental Health care. In addition, simulation allows for a better understanding of the dynamics and complexities of emerging challenges in this area, resulting in a more thorough preparation for professional performance.

In conclusion, clinical simulation promotes critical reflection on behavior and decisions in the context of the intervention, allowing students to evaluate their performance in situations that mimic reality. It fosters active and collaborative learning among students, where interaction with Standardized Patients (EP) in a highly realistic clinical environment becomes a key tool for the development of their professionalism.

The systematic implementation of the Clinical Simulation (CS) method in the field of Mental Health has been confirmed as a critical educational strategy in the training of occupational therapists. This approach not only provides an environment where students can safely interact with trained actors representing various health conditions linked to occupational issues, but also allows them to strengthen communication and decision-making skills, as well as develop interpersonal competencies, such as trust, empathy, and emotional management.

The quality of education and training that health professionals receive has a direct impact on patient-centered care. An education based on simulation methodologies promotes a learning curve that improves student preparation and minimizes the risks associated with practicing in real environments. The literature review, such as the one presented by Moya et al. (2017), reinforces the idea that simulation-based education allows for safer and more effective practical activities for patient care.

The feedback provided by the actors and the observations of the teachers significantly enrich the learning process, helping future professionals to more confidently address the challenges of the real clinical environment. The possibility of making mistakes in a controlled environment not only promotes active learning, but also fosters a culture of continuous improvement, an essential component in the training of competent and prepared professionals.

In summary, Clinical Simulation stands as an invaluable tool not only for the initial training of students, but also in the continuing education of health professionals. By integrating this approach into academic preparation, quality care is ensured and the capacity of future occupational therapists to face contemporary challenges in the field of Mental Health is enhanced, thus contributing to more effective and sensitive care for users.

Among the main results, it is inferred that clinical simulation offers a safe learning environment that allows students to practice skills before interacting with real users; facilitates the development of empathy and effective communication in a therapeutic context; contributes to a better understanding of emerging dynamics and challenges in mental health; It improves students' competencies to apply theories in practical situations.

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