

Evaluation of Süleyman Demirel University Faculty of Medicine Simulated Patient Applications within the Scope of "The ASPIH Standards 2023"

Giray KOLCU¹, Mukadder İnci BAŞER KOLCU^{1,2}

¹ Departments of Family Medicine & Medical Education and Informatics, Süleyman Demirel University Faculty of Medicine, Isparta, Türkiye

² Süleyman Demirel University Institute of Health Sciences, Isparta, Türkiye

Cite this article as: Kolcu G, Başer Kolcu Mİ. Evaluation of Süleyman Demirel University Faculty of Medicine Simulated Patient Applications within the Scope of "The ASPIH Standards 2023". Med J SDU 2025; 10.17343/sdutfd.1506549

Abstract

Objective

Simulated patient (SP) applications are the general name for educational activities in the field of health that are carried out through simulated patients playing the role of trained patients. This study aimed to evaluate the Simulated Patient Laboratory of Süleyman Demirel University within the scope of the Association for Simulated Practice in Healthcare (ASPIH) 2023 Accreditation Standards".

Material and Method

This study used a qualitative research design. "Süleyman Demirel University Faculty of Medicine Simulated Patient Laboratory" was determined as the study area. Based on the decision of the board of the Department of Medical Education and Informatics, medical faculty members who took an active role in every stage of the accreditation process in the evaluation of the subject of the study were selected as in-house evaluators, and two trainers who participated

in simulated patient applications and organized training in a different institution were selected as peer evaluators and invited to participate in the study. At the end of the laboratory evaluation, a report was prepared and presented to laboratory supervisors and medical faculty members.

Results

Within the scope of the study, the laboratory was evaluated over 17 standards for one day. The evaluation revealed that 15 (88%) items were fully met and two (12%) items were partially met.

Conclusion

The accreditation of our laboratory by an international organization is valuable for the quality processes of our faculty of medicine. As a result of this study, we believe that our laboratory can undergo international accreditation by conducting improvement studies in areas necessary for improvement.

Keywords: Accreditation, simulated patient applications, simulated patient laboratory

Correspondence: G.K. / giraykolcu@gmail.com

Received: 28.06.2024 • **Accepted:** 13.12.2024

ORCID IDs of the Authors: G.K: 0000-0001-8406-5941; M.i.B.K: 0000-0002-2996-7632

Introduction

Simulated patient (SP) applications are the general name for educational activities in the field of healthcare carried out through simulated patients playing the role of trained patients. (1). These applications involve the use of simulated patients who are specially trained to mimic diseases in a consistent and reproducible manner (2). Simulated patient applications are considered an important teaching tool in medical education and are frequently recommended to be included in modern medical education programs (1,3,4). These applications provide students with the opportunity to practice real and authentic patient-patient interactions and contribute to the development of their clinical skills (2). It also helps develop students' communication skills, patient care skills, and clinical thinking abilities (5–7). Simulated patient practice increases students' skills in providing safe and ethical patient care and makes future healthcare professionals more competent (8).

Simulated patients are specially trained to consistently mimic different disease states and symptoms. This structure offers students the chance to practice in situations and environments similar to the real world and provides students with the opportunity to learn by repeating, and the practices are carried out in environments that will not violate patient safety (1). Students both reinforce their positive behaviors and realize aspects that need improvement through the feedback they receive after the application and the analysis sessions they attend (6,9). In the literature, students stated that simulated patient practices were useful in improving their communication skills and preparing for real patient encounters (10). While real patient encounters are seen as important for learning clinical skills in the literature, simulated patient interactions are valuable in terms of receiving feedback and improving communication skills (10). These practices are considered an important androgogical tool in medical education and are widely used as part of modern medical education programs.

The accreditation process for pre-graduate medical education programs in our country is carried out by the "Association for Evaluation and Accreditation of Medical Education Programs (TEPDAD)," which is authorized by the Council of Higher Education (YÖK) and recognized by the World Federation of Medical Education (WFME). According to the current accreditation standards of the association, "Development Standard 7.1.2. Faculty of Medicine; it must offer training and evaluation opportunities with simulated/standardized patients." Based on this

article, the need to develop training and evaluation opportunities for simulated/standardized patients has emerged in medical faculties wishing to be accredited. To meet this need and carry out planned training activities with simulated patient applications, it is recommended to establish simulated patient laboratories. (11). These laboratories simulated outpatient clinic rooms and offered audio and video recording opportunities to enable feedback and self-evaluation simultaneously. Twelve recommendations were listed by Ker to establish simulated patient laboratories (12). These recommendations should consider the training level and experience of the simulated patients. The management and organization of simulated patients should be ensured. Simulated patient feedback and self-evaluation skills should be improved. Regular time should be devoted to training the simulated patients. An environment in which simulated patients are used for training must be suitable. The scenarios to be used in training simulated patients should be carefully designed. The training process for the simulated patients should be continuously evaluated. Resources and materials for training the simulated patients should be provided. The success and challenges in training simulated patients should be documented. Guidance and mentoring programs should be established to educate simulated patients. Simulated patient laboratories must be effectively managed.

For simulated patient applications to have national and international validity, these laboratories and applications must comply with accreditation standards. (13). The Association for Simulated Practice in Healthcare (ASPIH) was founded in 2008 and set accreditation standards for current simulated patient practices and laboratories in 2023. (13). These standards were established to promote best practices and improve the quality of simulated patient education. Thus, it aims to increase the practical skills and competencies of graduating health professionals in patient care by ensuring the effectiveness and quality of simulated patient applications in medical education.

In 2019, a simulated patient laboratory consisting of three interview rooms was established at Süleyman Demirel University Faculty of Medicine (14). After the pandemic, four simulated patients were employed as part-time temporary workers, and the simulated patients were certified with a 15-day training program developed by the Department of Medical Education and Informatics. By 2023, practices were included in the education program by the National Core Education Program-2020, and active student meetings are still

ongoing (14). For the sustainable development of the laboratory, there is a need to evaluate it within the scope of international standards.

This study aimed to evaluate the Süleyman Demirel University Simulated Patient Laboratory within the scope of ASPIH 2023 Accreditation Standards".

Material and Method

This study used a qualitative research design. "Süleyman Demirel University Faculty of Medicine Simulated Patient Laboratory" was determined as the study area. Ethics committee approval was received from the Süleyman Demirel University Health Sciences Ethics Committee, dated 29.05.2024 and numbered 76/9, and written approval was received from the Süleyman Demirel University Faculty of Medicine Dean's Office. Based on the decision of the Board of the Department of Medical Education and Informatics, medical faculty members who played an active role in the evaluation of the subject of the study at every stage of the accreditation process were selected as in-house evaluators, and two educators who participated in simulated patient applications and organized training in a different institution were selected as peer evaluators and invited to participate in the study. Before the study, evaluators were provided with the opportunity to examine standards in detail. Within the scope of accreditation standards, the "Süleyman Demirel University Faculty of Medicine Simulated Patient Laboratory" was evaluated for one day. The process was completed with a book, which is a self-evaluation report written for laboratories and applications, on-site evaluation, and interviews. In the consensus of the evaluators, a decision was made regarding the meeting status of each standard and suggestions were made for the development process. At the end of the laboratory evaluation, a report was prepared and presented to laboratory managers and medical faculty administrations.

Results

Within the scope of the study, the laboratory was evaluated according to 17 standards for one day. As a result of the evaluation, it was determined that 15 (88%) items were fully met and 2 (12%) items were partially met.

Although the psychological safety standard is partially met within the basic values standards, it is recommended to make an official correspondence/protocol with the Department of Psychiatry for a more formal management of the process. It has

been concluded that, although the equality, diversity, and inclusion (ECC) standard is naturally achieved, there is no effort in this regard, and this inclusion is met informally. In this regard, it has been suggested that the feedback of experts in the field of Equality, Diversity, and Cultural Competency (ECD) may be useful and that formal support should be obtained on this issue. Although the employment process of simulated patients has been completed according to the sustainability standard, it is recommended to make a maintenance contract for laboratory equipment. For the standard of excellence, it is recommended to prepare and implement a laboratory "improvement form" while ensuring that the institution's total quality management policy is secured in the context of the approaches of the Faculty of Medicine Management and Department of Medical Education and Informatics and national accreditation standards. It was determined that all training and application standards were met. Although many items are met in the resource management standards, it is recommended to prepare a directive, inspection form, and calendar to move the process to the formal basis for the standards related to inspection. Explanations of the items that were met and suggestions for the items that were partially met are shown in detail in the table below (Table 1).

Medical faculty members in medical education and informatics lead the design of simulated patient applications, with medical educators having received doctoral-level training. Simulated patient training was conducted using a program developed by the medical educators. The simulated patients were certified after 15 days of training. Medical educators collaborate with term coordinators and education management boards to create content that is in line with the National Core Education Program-2020. Simulated patients worked with medical educators to prepare scenarios and undergo preliminary preparation for their roles (Table 2).

All practices were aligned with the feedback, learning outcomes, and core training programs. Undergraduate education scenarios comply with the National Core Education Program-2020, and the "Breaking Bad News" training in Term 6 was added based on student feedback. Specialist training was conducted as a CPD activity, following assistant feedback. Simulated patient applications were designed in accordance with the learning outcomes. Evaluation and research were incorporated during the planning stage, and measurements were performed. Students evaluated the simulated patients and the laboratory, and this feedback was used in continuous improvement mechanisms (Table 3).

Table 1

Evaluation of core values of Süleyman Demirel University simulated patient laboratory with the ASPIH 2023 accreditation standards

| Core Values | SDÜTF applications and approaches | Evaluation | Evaluation status |
|--|---|------------|---|
| 1. All individuals involved in the design, delivery, evaluation, and translation of simulated practice should adhere to the ASPIH core values: | | | |
| i. Safety | In our laboratory, the psychological safety of simulated patients and students is prioritized. Within the scope of training on giving bad news, a training program was designed in consultation with the Department of Psychiatry. Medical educators are present as observers in all interviews. They can intervene themselves when necessary and even receive support from the Department of Psychiatry. | xx | Partially covers It is recommended to correspond with the Department of Psychiatry for all applications, determine a protocol, and expand this protocol to include not only students but also simulated patients. |
| ii. Equity, diversity, and inclusion | The principles and rules established for all people involved in the design and delivery of simulation-based activities in our laboratory, students, faculty, staff, patients, service users, carers, families, and communities, are carried out with an approach that includes the principles of equality, diversity, and inclusion. As per the recruitment criteria, it is aimed to reach all students based on talent and knowledge criteria. In this respect, although there is natural compliance with the EÇK principles, there is no structured approach to this issue. All individuals participating in the simulation behave in a way that adheres to the four principles of biomedical ethics (autonomy, beneficence, nonmaleficence, and justice). | xx | Partially covered Feedback can be obtained from Equity, Diversity, and Inclusion (EDI) experts. Training on EDI can be planned. Structuring can be provided in a way that takes into account EDI principles, and a separate policy can be determined for disadvantaged groups. |
| iii. Sustainability | Support for technical equipment is available in our laboratory. Our simulated patients work as part-time temporary workers. | xx | Partially covered A regular maintenance contract can be made. |
| iv. Excellence. | Our laboratory is constantly monitored and evaluated by our department. All processes in the application are being developed. Continuous improvements are made with constant feedback. In addition, scientific studies and scientific production are constantly carried out in different patterns. | xx | Partially covered A laboratory improvement form can be prepared. A framework directive, control mechanism, and work schedule can be created to ensure continuity. |

xxx is covered, xx is partially covered, x is not covered

Table 2

Evaluation of core values of Süleyman Demirel University simulated patient laboratory with the ASPIH 2023 accreditation standards

| Faculty | | | |
|--|---|-----|---------------|
| 2. All individuals involved in the design, delivery, evaluation, and translation of simulated practice should be trained and committed to continuous professional development. | The entire design of our simulated patient applications was carried out by faculty members of the Department of Medical Education and Informatics. Medical educators have received doctoral level training in their field. Simulated patient training was carried out with the training program developed by medical educators. | xxx | It is covered |
| 3. Simulation technicians should have received training for the simulation activity they support. Required to undertake. | Our simulated patients were certified after receiving 15 days of training. | xxx | It is covered |
| 4. Simulation educators and trainers must possess competence in simulation as well as appropriate content knowledge. | Our medical educators produce UÇEP-2020 compatible content in cooperation with term coordinators and education management boards. | xxx | It is covered |
| 5. Simulated participant. | Our simulated patients prepare scenarios with medical educators. Preliminary preparation and study are carried out for their roles. | xxx | It is covered |

xxx is covered, xx is partially covered, x is not covered

Table 3

Evaluation of preparation and planning of Süleyman Demirel University simulated patient laboratory with the aspih 2023 accreditation standards

| Activity | | | |
|---|--|-----|---------------|
| Preparation and planning | | | |
| 6. The intended learning outcomes must be relevant and aligned with learning needs. | All our practices are related to feedback, learning outcomes, and/or core training programs. The scenarios of our undergraduate education are compatible with UÇEP-2020. Term 6 "Breaking bad news" training was added in line with student feedback. The "Breaking bad news" training in our specialist training is implemented as a CPD activity in line with assistant feedback. | xxx | It is covered |
| 7. The simulation modality, fidelity, and activity design should be determined by the intended learning outcomes. | Simulated patient applications are carried out in line with the learning outcomes. | xxx | It is covered |
| 8. Evaluation and research should be considered during the planning stage. | In all our applications, measurements are made at the planning stage. All students evaluate simulated patients and the laboratory. The feedback obtained is evaluated as an active data source in continuous improvement mechanisms. | xxx | It is covered |

xxx is covered, xx is partially covered, x is not covered

Table 4

Evaluation of facilitation of Süleyman Demirel University simulated patient laboratory with the aspih 2023 accreditation standards

| Facilitation | | | |
|---|---|-----|---------------|
| 9. The individual or team facilitating the activity should have training and experience in facilitation, including establishing psychological safety and debriefing. | Medical educators are present in all training in our laboratory. When necessary, support is received from the Department of Psychiatry. | xxx | It is covered |
| 10. The activity must be initiated by a briefing or pre-briefing which helps create a safe environment where learning can take place. | All training in our laboratory starts with a briefing. | xxx | It is covered |
| 11. The purpose of the activity should be to ensure the achievement of the intended learning outcomes. Team and system performance. | The main purpose of all our applications is determined as learning outcomes. | xxx | It is covered |
| 12. The simulated experience must include a facilitated reflection or debriefing in which the participants should explore and develop strategies to improve individual, | In all our trainings, feedback is given and a debriefing session is held. | xxx | It is covered |
| 13. The use of simulation for summative assessments should prioritize validity, reliability, and psychological safety. | Feedback is given to students in all our applications. Scoring is done with the skill evaluation rubric. The entire process is observed by medical educators and psychological safety is prioritized. | xxx | It is covered |

xxx is covered, xx is partially covered, x is not covered

Medical educators facilitate all laboratory training and support from the psychiatry department is available when needed. Each session began with brief briefings to ensure a safe learning environment. The primary goal of all the applications is to achieve learning outcomes. Every training session included a debriefing session where participants received feedback and explored strategies for improvement. In simulation-based summative assessments, feedback is given, scoring is performed using a skill evaluation rubric, and the process is overseen by medical educators, with psychological safety as a priority (Table 4).

Feedback was collected from all participants during the laboratory training sessions. Ethical approval was obtained from all the research conducted in the laboratory. The laboratory has a clear vision and mission, aligns with organizational and stakeholder needs, and works in collaboration with the Interprofessional Applied Education Laboratory. It is open to internal and external stakeholders and supports individual research and postgraduate studies. Laboratory operations are informally overseen by the medical faculty administration, although formal directives, forms, and inspection calendars could enhance oversight. TEPDAD accreditation

standards, specifically “Development Standard 7.1.2”, ensure prioritization, quality assurance, and safety. Key performance indicators of the laboratory were established (Table 5).

Discussion

Simulated patient methodology is among the cornerstones of medical education and offers a structured and effective way to train future healthcare professionals (15,16). Developing skills such as communication skills and clinical reasoning with simulated patients before contact with a real patient is valuable in terms of patient safety (12,17). Students can hone their clinical skills and improve patient care outcomes through simulated patient practice (8,18,19). By adhering to established best practices and standards, educators can ensure the quality and consistency of simulated patient interactions, ultimately benefiting both students and patients in the healthcare system (8). Currently, simulated patient applications are included in many health professional training programs in our country (20–23). Simulated patients can take part in these trainings as training tools, trainers, and evaluators/raters (5–8,23,24).

Table 5

Evaluation of evaluation and research and resource management of Süleyman Demirel University simulated patient laboratory with the aspih 2023 accreditation standards

| Evaluation and research | | | |
|---|--|-----|---|
| 14. The activity should be evaluated by participants and faculty to inform future activities and, where applicable, system improvement. | Feedback is received from all participants who receive training in our laboratory. | xxx | It is covered |
| 15. Simulation-related research should be of high quality and carried out ethically. | Ethics committee approval is obtained for all studies carried out in our laboratory. | xxx | It is covered |
| Resource management | | | |
| 16. There should be a clear vision, mission, and strategy to sustain and grow simulation practice in alignment with wider organizational and stakeholders' needs. | The vision and mission of our laboratory have been defined. Our laboratory works in harmony with the Interprofessional Applied Education Laboratory. It is open to internal and external stakeholder use. Individual research and postgraduate thesis studies are also carried out. | xxx | It is covered |
| 17. Designated leads with organizational influence, appropriate expertise, and accountability should oversee the design and delivery of simulation activities and use of resources. | Our laboratory and practices are informally supervised by the faculty administration. | xx | Partially covered Directives, a form, and an inspection calendar can be created for the inspection of laboratories and applications. |
| 18. Robust policies should be in place to ensure prioritization, financial support, quality assurance, and safety. | Within TEPDAD accreditation standards; "GS.7.1.2. "Providing training and evaluation opportunities with simulated/standardized patients". This article is valuable for prioritization, quality assurance, and security in the faculty. The key performance indicators of our laboratory have been defined. | xxx | It is covered |

xxx is covered, xx is partially covered, x is not covered

Today, simulated patient laboratories have become an important part of medical education and health care (8,12,25). Establishing these laboratories and employing simulated patients is a labor-intensive process (17,26–28). Simulation of an outpatient clinic or inpatient room is recommended, especially for laboratories (1,29). After laboratory installation, the recruitment, training, and management/evaluation of simulated patients and evaluation of the impact begin (30). It is recommended to develop a structured training program, especially for the training of simulated patients (12,13,30).

According to the findings of this study, a more formal management process is needed in certain areas of the laboratory. This can enable laboratory activities to be managed more effectively and efficiently using resources (13). In particular, it has been suggested that regulations should be made on issues such as the employment of simulated patients and the maintenance of laboratory equipment. Implementing these recommendations can make the daily operation of the laboratory smoother and improve the overall quality of the educational programs. The study showed that all training and practice standards were

met (12). However, the evaluation recommends that the auditing process for resource management standards become more formal. These developments can make laboratory budget management more effective and help prevent unnecessary expenses. Such arrangements can increase the long-term sustainability and operational efficiency of laboratories.

Although the fact that this is an internal evaluation is among the limitations of this study, the evaluation of laboratories and applications according to international standards is valuable in terms of the vision of the faculty. In addition, laboratories and applications were developed using feedback obtained from the evaluation of these standards. In this context, a laboratory's internal evaluation process is considered a valuable resource for the official accreditation process. With comprehensive studies designed in the future, more scientific information will be obtained about simulated patient laboratories and simulated patient applications in our country.

Acknowledgment

We would like to thank Süleyman Demirel University for supporting our research.

Conflict of Interest Statement

The authors declare that there is no conflict of interest.

Ethical Approval

Written permission was obtained from the developer of the scale, and ethics committee approval was obtained from the Süleyman Demirel University Health Sciences Ethics Committee (dated 29.05.2024 and numbered 76/9). In the ethics committee approval, a commitment was made that there was no relationship between the data collection process of the participating students and the educational processes. Ethical approval indicates that the study adhered to ethical standards regarding human participants, including considerations of privacy, consent, fairness, and beneficence. This approval confirmed that the research was conducted in accordance with ethical principles and that the rights of the participants were protected.

This study was conducted in accordance with the principles outlined in the Declaration of Helsinki.

Consent to Participate and Publish

Written consent was obtained from all participants who expressed their opinions within the scope of the research.

Funding

The authors declare that they have not received any

financial support for this study.

Availability of Data and Materials

In this study, the authors assumed that if the requests are deemed appropriate, the data stored in the data warehouse can be easily accessed by others.

Authors Contributions

GK: Conceptualization; Data curation; Formal analysis; Investigation; Methodology; Validation; Visualization; Writing-original draft.

MİBK: Conceptualization; Formal analysis; Funding acquisition; Investigation; Methodology; Project administration; Resources; Supervision; Validation; Writing-review & editing.

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