

Physical Therapy students' perception of the Objective Structured Clinical Examination: a mixed methods approach

Percepção dos estudantes de fisioterapia sobre o Exame Clínico Objetivo Estruturado: uma abordagem de métodos mistos

Percepción de los estudiantes de Fisioterapia sobre el examen clínico objetivo estructurado: un enfoque de métodos mixtos

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ABSTRACT | The objective structured clinical examination (OSCE) has become a popular approach for assessing clinical competence in health programs. Although OSCE is widely acknowledged for its validity and reproducibility in assessing clinical skills, Physical Therapy students' perceptions of this approach remain underexplored. This study aims to analyze the views of Physical Therapy students on the educational efficacy of OSCE, evaluating its strengths and weaknesses. This descriptive study with mixed method approach surveyed students about OSCE, combining quantitative and qualitative analysis. OSCE in Respiratory Physical Therapy was conducted as part of the course assessment. Physical Therapy students were invited to complete a survey addressing their perceptions of exam relevance, logistics, and impact. The instrument comprised 17 closed-ended and five open-ended questions. Quantitative data were analyzed using descriptive statistics, while qualitative data were subjected to content analysis, performed independently by two investigators. In total, 63 students (87% women, 22.5±1.76 years) completed the survey. Overall, 73% of participants found the exam to be both relevant and effective, while 74.6% acknowledged its

contribution to their learning. Additionally, 68.3% believed that the experience aided in their preparation for clinical practice. Positive and negative themes have emerged from the content analysis. For instance, positive aspects include immediate feedback at the end of the exam and simulated clinical experiences, while negative aspects encompass anxiety, time constraints, and a stressful environment. This study demonstrated that Physical Therapy students perceive OSCE as a valuable learning method. They appreciated the training it provided in human relationships for clinical practice, while simultaneously identifying stress as a notable negative aspect.

Keywords | Active Learning; Educational Assessment; Perception.

RESUMO | O exame clínico objetivo estruturado (OSCE) tornou-se um método popular para avaliação de competências clínicas em programas de saúde. Embora o OSCE seja amplamente reconhecido por sua validade e reprodutibilidade na avaliação de habilidades clínicas, as percepções dos estudantes de fisioterapia sobre esse método ainda são pouco exploradas. O objetivo deste

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estudo é analisar as opiniões dos estudantes de fisioterapia sobre a eficácia educacional do OSCE, avaliando suas vantagens e desvantagens. Este estudo descritivo com abordagem de método misto investigou a percepção de estudantes sobre o OSCE, combinando análise quanti-qualitativa. O exame foi realizado na disciplina de Fisioterapia Respiratória como parte da avaliação do curso. Os estudantes de fisioterapia foram convidados a preencher uma pesquisa abordando suas percepções sobre a relevância, logística e impacto do exame. O instrumento incluiu 17 perguntas fechadas e cinco perguntas abertas. Os dados quantitativos foram analisados utilizando estatísticas descritivas, enquanto os dados qualitativos foram submetidos à metodologia de análise de conteúdo, realizada de forma independente por dois avaliadores. Sessenta e três estudantes (87% mulheres, idade $22,5 \pm 1,76$ anos) participaram do estudo. Setenta e três por cento dos participantes consideraram o exame relevante e eficaz, enquanto 74,6% reconheceram sua contribuição para a aprendizagem. Ainda, 68,3% acreditavam que a experiência ajudava na preparação para a prática clínica. Temas positivos e negativos emergiram da análise de conteúdo. Aspectos positivos incluíram feedback imediato ao final do exame e experiências clínicas simuladas, enquanto ansiedade, restrições de tempo e ambiente estressante foram descritos negativamente. Este estudo demonstrou que os estudantes de fisioterapia percebem o OSCE como um método de aprendizado valioso. Eles valorizaram o treinamento fornecido em relações humanas para a prática clínica, ao mesmo tempo que identificaram o estresse como um aspecto negativo significativo.

Descritores | Aprendizado Ativo; Avaliação Educacional; Percepção.

RESUMEN | El examen clínico objetivo estructurado (OSCE) se ha vuelto muy extendido en la evaluación de competencias clínicas en los programas de salud. Aunque el OSCE es ampliamente

reconocido por su validez y reproducibilidad en la evaluación de habilidades clínicas, las percepciones de los estudiantes de Fisioterapia sobre este método siguen siendo poco exploradas. El objetivo de este estudio fue analizar las opiniones de los estudiantes de Fisioterapia sobre la eficacia educativa del OSCE al examinar sus fortalezas y debilidades. Se trata de un estudio descriptivo, con enfoque mixto, realizado con estudiantes sobre el OSCE mediante la combinación del análisis cuantitativo-cualitativo. El examen se realizó en la materia de Fisioterapia Respiratoria como parte de la evaluación del curso. Se invitó a los estudiantes de Fisioterapia a completar una encuesta que abordaba sus percepciones sobre la relevancia del examen, la logística y el impacto. El instrumento incluyó 17 preguntas cerradas y 5 preguntas abiertas. Los datos cuantitativos se sometieron a análisis descriptivo, mientras que los datos cualitativos se sometieron a una metodología de análisis de contenido, realizada de forma independiente por dos investigadores. Los resultados revelan que 73 estudiantes (87% mujeres, edad $22,5 \pm 1,76$ años) completaron la encuesta. El 73% de los participantes encontraron que el examen era relevante y efectivo, mientras que el 74,6% reconocieron su contribución a su aprendizaje. Además, el 68,3% creía que la experiencia les ayudaba en su preparación para la práctica clínica. Han surgido temas positivos y negativos del análisis de contenido. Por ejemplo, los aspectos positivos incluyen la retroalimentación inmediata al final del examen y las experiencias clínicas simuladas, mientras que los aspectos negativos fueron la ansiedad, las restricciones de tiempo y un ambiente estresante. Se concluye que los estudiantes de Fisioterapia consideran el OSCE como un método valioso de aprendizaje, apreciaron el entrenamiento que les proporcionó en relaciones humanas para la práctica clínica, al mismo tiempo que identificaron el estrés como un aspecto negativo notable.

Palabras clave | Aprendizaje Basado en Problemas; Evaluación Educacional; Percepción.

INTRODUCTION

The objective structured clinical examination (OSCE) originated from the framework of assessing the “shows how” level of the Miller pyramid¹. This method was first proposed by Harden et al. in 1975 and is designed to evaluate clinical competence by integrating cognitive, psychomotor, and attitudinal skills, such as communication and interpersonal relationships². The OSCE consists of a structured examination comprising specific clinical scenarios in which students undertake predetermined

tasks³. Station rotations are frequently employed, and each features distinct clinical scenarios and tasks⁴. The performance of the students is objectively assessed according to predetermined criteria by checklist with qualitative scores⁵.

OSCE is widely acknowledged as one of the most reliable, valid, and effective methods for assessing clinical skills⁶. The advantages include the ability to assess multiple skills within the same station. Examples include taking clinical histories, conducting physical examinations, demonstrating technical procedures, and

communicating bad news⁷. Disadvantages include the extensive preparation time, the need for a numerous team, the training of simulated patients (or the use of mannequins), the physical facilities required for rotating students between stations, and the associated costs⁶.

The evaluation of the instrument itself has also been a topic of discussion in the literature. To effectively outline the essential standards required for an assessment tool to accurately gauge students' abilities across cognitive, psychomotor, and attitudinal domains, a panel of experts delineated seven key elements that define a robust assessment instrument: 1) validity or coherence; 2) reproducibility, reliability, or consistency; 3) equivalence; 4) feasibility; 5) educational effect; 6) catalytic effect; and 7) acceptability⁸.

Acceptability is crucial, but not solely decisive, for the effectiveness of an assessment instrument. Successful implementation depends on the endorsement of the instrument by all parties, including teachers, assessors, students, and regulators. All stakeholders need to actively support the process, lend credibility to feedback, and remain committed to fostering positive learning outcomes. From the student's perspective, acceptability may arise in factors such as understanding the assessment purpose, transparency, evaluation quality, the scoring method, and receiving feedback upon completion^{9,10}.

Previous studies have indicated that students' unfamiliarity with the OSCE format and assessment procedures can lead to heightened levels of anxiety and stress, potentially impacting their performance and acceptance of the exam^{11,12}. Analyzing students' perceptions regarding the educational value of OSCE can help institutions gauge the exam validity in promoting expected health competence. While past research has explored health students' perspectives on OSCE¹³, to our knowledge, few studies have delved into the views of Physical Therapy students on OSCE as a pedagogical tool and their emotional experiences. It is conceivable that the challenges, resources, and emotional experiences encountered by them may differ from students of other courses. Therefore, this study aimed to investigate the perceptions of undergraduate Physical Therapy students regarding the educational value of the OSCE.

METHODOLOGY

Study design and setting

This study employs a descriptive approach with a mixed methodology¹⁴. A convergent design was employed, in which both quantitative and qualitative approaches were implemented simultaneously with equal emphasis, enabling the convergence of results from the two datasets¹⁵. Written informed consent was obtained from all participants, and the examination was conducted at the facilities of the Physical Therapy Department of the *Universidade Federal do Triângulo Mineiro* (UFTM).

Participants

Students enrolled in the seventh -semester of the Physical Therapy bachelor's program at UFTM, Uberaba, Brazil, were recruited. This is a 10-semester program, of which the final three are dedicated to supervised internships. By the end of the seventh semester, students had completed coursework covering basic core topics and most theoretical-practical professional development disciplines, except for the supervised internships. This marked the students' inaugural encounter with OSCE, and convenience sampling was employed for data collection.

The students were invited to participate if they were ≥18 years and had been enrolled in the Respiratory Physical Therapy discipline from August 2017 to December 2018 (in consecutive classes). OSCE was performed as a component of the discipline.

The objective structured clinical examination

The objective structured clinical examination (OSCE) comprised three stations, each addressing specific content areas: respiratory system assessment, airway clearance therapy, and lung expansion techniques. Each station lasted for eight minutes, of which one minute was allocated for reading the clinical case and task description, five minutes for performing the clinical task, and two minutes for feedback. The clinical cases were crafted to simulate real-world professional scenarios. Chart 1 outlines a station example.

Chart 1. Objective structured clinical examination station example

A 55-year-old woman is hospitalized in a medical care unit for fever, productive cough, and chest pain. Medical diagnosis: Right lobar pneumonia. Currently, the patient is oriented and collaborative. She has an ineffective cough and lung sounds: rhonchi were noted in all inferior lobes. Based on the clinical case, demonstrate one appropriate airway clearance technique for this patient.

The students were expected to select the most appropriate technique to address the given scenario for each station. To ensure objectivity, we established response standards, outlining the possible techniques that could be applied at each station, considering their indications, contraindications, side effects, and particularities. These factors were incorporated into the assessment checklist. Additionally, a checklist was developed to assess students' attitudinal, cognitive, and psychomotor abilities, adapted from Silva et al.¹⁶ The checklist items were scored on a scale of 2 (satisfactory), 1 (partially satisfactory), or 0 (unsatisfactory).

There were two examiners during the session, both were previously trained on the checklist and response patterns for each scenario. One examiner had extensive experience, boasting over 10 years of teaching experience, while the other was a senior Physical Therapy student. The final numerical score was computed as the average of all items assessed by the two examiners. Then, students received feedback from the experienced examiner and were encouraged to engage in self-assessment, as well as to express any doubts or anxieties regarding the OSCE.

Several measures were implemented to ensure the internal validity of the OSCE stations: 1) skill to be assessed were defined in advance using the blueprint method; 2) clear learning objectives were established for all stations; 3) the OSCE stations were standardized to ensure uniform conditions for all examinees, including consistent scenarios, instructions, and evaluation criteria; 4) a detailed assessment checklist was developed to support the validity of the evaluation process. Examiners were trained to consistently apply the checklist and scoring, thereby reducing bias and subjectivity in evaluations, which strengthen internal validity. Additionally, the content of the stations was aligned with the competence required in real clinical settings, thus supporting content validity¹⁷.

Students' perception survey

After the OSCE and feedback session, students were approached by a researcher who had not served as an

OSCE examiner and invited to participate in the study. To assess their perceptions of the OSCE, a semi-structured survey in paper format was used, comprising three domains containing both quantitative and qualitative questions. Domains 1 and 2 employed a Likert scale ranging from 1 to 5 (from "completely disagree" to "completely agree"; quantitative approach), while the third domain consisted of five open-ended questions (qualitative approach).

Domain 1 focused on the students' self-assessment, aiming to prompt reflection on their performance, professional demeanor with the simulated patient, theoretical knowledge, practical skills, and decision-making abilities. Domains 2 and 3 addressed the OSCE itself, encompassing questions about the exam relevance, logistical aspects, allotted time, positive and negative facets, impact on the learning process, and emotions experienced before and during the OSCE. The survey to evaluate students' perceptions regarding the OSCE was administered shortly after the examination.

Data analysis

Domains 1 and 2 were analyzed using descriptive statistics, and the findings were reported as median and interquartile range (IQR), mean \pm standard deviation, or as frequencies and percentages. Distribution (Kolmogorov–Smirnov test) and data analyses were conducted using IBM SPSS version 26 software (SPSS Inc., Chicago, USA).

The qualitative content was evaluated using the content analysis method, which explores the subjectivity of a topic, acknowledging the bias of researchers, participants, and analyzed content¹⁸. The analysis was conducted following the steps outlined by Kleinheksel et al.¹⁹. Initially, the research team studied the data to gain familiarity with its nuances (all responses were copied into a unique chart to facilitate reading and re-reading them collectively). Then, the data were structured into meaningful units, each addressing a distinct concept, i.e., highlighting key words in each question. The responses were meticulously coded and organized into cohesive thematic categories (positive or negative feelings and diverse themes)¹⁹. Finally, themes were reviewed and named to reflect its essence.

Two investigators independently performed the analysis and reached a consensus.

RESULTS

Out of the 72 eligible students, 63 (88%) participated in the study, of which most were women ($n=55/87\%$) and were aged 20 to 27 (22.5 ± 1.76) years.

In the self-assessment, most students expressed confidence in meeting the attitudinal, cognitive, and psychomotor requirements during the simulated patient task. Approximately 55% of students reported uncertainties regarding the technique and/or resources employed in the clinical scenarios, while over 85% believed that exam-related anxiety and stress impacted their performance (Table 1).

Table 1. Perception of the students about the objective structured clinical examination

Domain 1: Self-assessment					
Item	CD	SD	N	SA	CA
	N=63 (%)				
I introduced myself to the simulated patient	9 (14,3)	2 (3,2)	5 (7,9)	6 (9,5)	41 (65,1)
I asked for consent and explained the procedures to be performed	1 (1,6)	3 (4,8)	3 (4,8)	26 (41,3)	30 (47,6)
I chose the most appropriate technique for the proposed scenario	3 (4,8)	5 (7,9)	4 (6,3)	21 (33,3)	30 (47,6)
I positioned the patient correctly to apply the chosen technique	0	12 (19)	4 (6,3)	14 (22,2)	33 (52,4)
I had questions about the resource/technique I used*	5 (7,9)	9 (14,3)	13 (20,6)	23 (36,5)	12 (19)
Anxiety, fear, or pressure during the exam hindered my performance	2 (3,2)	3 (4,8)	4 (6,3)	19 (30,2)	35 (55,6)
Domain 2: Perception of the OSCE					
The OSCE examination was relevant and effective in portraying aspects of the physical therapy approach	0	0	6 (9,5)	11 (17,5)	46 (73)
The time to perform the exam was adequate	2 (3,2)	5 (7,9)	10 (15,9)	19 (30,2)	27 (42,9)
The logistics of the exam were standardized and consistent	0	1 (1,6)	3 (4,8)	10 (15,9)	49 (77,8)
The OSCE contributed to learning	0	0	3 (4,8)	13 (20,6)	47 (74,6)
The exam format prepares for clinical reality/internship	0	0	4 (6,3)	16 (25,4)	43 (68,3)
I believe that the OSCE scenarios do not resemble real practice	44 (69,8)	7 (11,1)	5 (7,9)	5 (7,9)	2 (3,2)

Notes: CD: completely disagree; SD: somewhat disagree; N: neutral; SA: somewhat agree; CA: completely agree. The results are expressed as absolute and relative frequencies.

* One participant abstained from responding to this item, resulting in a total sample size of 62 respondents.

Domain 2 assessed participants' perceptions regarding the general aspects of the OSCE. Overall, they considered the OSCE positive, in which over 90% ($n=57$) affirmed its relevance and effectiveness (Table 1). The allocated times for each station and for the entire examination were deemed appropriate by 73% of participants in the quantitative analysis. Furthermore, most students (94%) considered the logistics of the OSCE to be adequate.

Concerning the learning potential associated with the OSCE, nearly all students ($n=60/95\%$) agreed that the exam facilitated their learning and comprehension of concepts. Moreover, 94% of students believed that the clinical case scenarios and the tasks shown bore some

resemblance to the real-life scenarios encountered during supervised internships.

The strengths and weaknesses of the OSCE in the academic training were also emphasized in the qualitative comments. Nine students did not answer the questions during the qualitative analysis, which resulted in a sample size of 54 students (Chart 2). The students expressed that OSCE enhanced their academic training, emphasizing elements such as simulated clinical experiences and feedback received at the conclusion of the exam. The negative themes that emerged were associated with time constraints, stress, and anxiety. Chart 2 shows the primary themes identified, accompanied by excerpts from student's reports.

Chart 2. Qualitative perception and comments of students regarding the objective structure clinical exam

Itens	Themes	Examples of students' responses
OSCE contribution to academic training	Positivo a. Association between theory and practice b. Better assimilation and training of the techniques c. Immediate feedback at the end of the exam d. Simulated clinical experiences e. Assistance for future actions in curricular internships	S5: "I absorbed the content taught with practice" S11: "I could imagine what it would be like in practice and think about the application of various techniques that we learned in clinical cases" S40: "Opportunity to see a clinical case, real or not, thinking about the resolution, and discussion with the examiner at the end" S2: "I dedicated myself to learning and performing the techniques, even though it was a drill" S4: "We could get an idea of what awaits us in clinical practice" S53: "I believe that more classes focused on the dynamics of the examination are necessary, such as solving clinical cases in a practical way, so that the evaluation is not the first moment for practical reasoning, which ends up overloading and causing greater tension at the time of the test" S50: "At first I was afraid to take the exam... which may have harmed my final grade"
	Negative a. OSCE preparation b. Feelings of stress and fear	S47: "The construction of logical reasoning, and the simulated patient contact" S46: "Decision-making for a clinical case and the assimilation of theory with practice" S63: "Learning during practice, improvement of the physical therapist-patient interaction, and timely provision of feedback" S53: "Feedback was beneficial, because I rectified and consolidated information correctly... Practice, for me, is always the easiest way to learn, because it enables logical reasoning and greater assimilation"
Positive aspects perceived by the students	a. Strengthening clinical reasoning b. Decision-making stimulation c. Simulation of patient-physical therapist interaction d. Feedback at the end of the exam	S41: "The negative points are pressure, short time, and nervousness" S29: "Nervousness gets in the way, so we stop showing what we really know" S24: "... it's a short time to take the exam"
Negative aspects perceived by the students	a. Stress b. Anxiety c. Time available	

DISCUSSION

This study aimed to assess the perceptions of a cohort of Physical Therapy students regarding the educational value of the OSCE, by examining its advantages and disadvantages. Via both quantitative and qualitative analyses, the findings indicated that the students generally endorsed OSCE as a valuable and constructive educational tool, facilitating meaningful learning experiences and bolstering their clinical proficiencies. However, feelings of anxiety and stress, stemming from the evaluation procedure, were commonly reported as detrimental factors.

The students reported several positive experiences, including the integration of theoretical knowledge with practical application, enhancement of clinical reasoning skills, stimulation of decision-making processes, and exposure to simulated clinical scenarios that closely mirrored their subsequent real-world internships. Quantitative analysis revealed that no student thought the OSCE was irrelevant, ineffective for learning, or

ill-suited to their educational needs. In line with Quigley and Regan (2014), undergraduate students in speech and language therapy similarly recognized the educational value of the OSCE, describing it as comprehensible, equitable, confidence-building, and offering a meaningful assessment of clinical competence. They also identified both strengths and areas for improvement within the OSCE framework²⁰. Similar positive perceptions have been documented among students in various other healthcare disciplines^{5,21}.

In this study, most students considered that the logistics of the OSCE were satisfactory. However, some qualitative comments suggested there was not enough time to complete the tasks. Majumder et al.²² showed that a significant portion of medical students (63–91%) were satisfied with the OSCE, highlighting positive aspects such as a fair examination process, coverage of required knowledge and competence, and effective logistics. Nonetheless, students unanimously reported that there was inadequate time provided to complete tasks at

the stations. Previous reviews have explored its efficacy in evaluating clinical skills among Physical Therapy and Nursing students^{7,13}, who perceived the allocated time for the OSCE as not enough, which potentially contributes to increased exam-related anxiety^{7,13}.

Emotional stress, consistently reported in both qualitative and quantitative analyses, was predominantly perceived negatively, and most students believed that anxiety and fear adversely impacted their performance. Parallel investigations have demonstrated heightened anxiety levels among Nursing and Medicine students following participation in the OSCE^{11,12}. While Nursing, Medicine, and Physical Therapy students have distinct professional focuses, they may experience similar levels of stress due to the OSCE. However, there is a scarcity of studies specifically examining emotional stress in Physical Therapy students during the OSCE. In the study by Maloney et al.²³, only two out of 40 undergraduate Physical Therapy students reported stress related to OSCE. On the other hand, a recent study involving 32 Brazilian Physical Therapy students revealed high levels of state (37.5%) and trait (63.6%) anxiety prior to OSCE, which did not impact examination scores²⁴. Nevertheless, research indicates that self-efficacy can mitigate the effects of stress and anxiety on OSCE performance²⁴. The students who reported previous OSCE experience and skill acquisition described feeling more at ease, with self-efficacy showing a moderate correlation with higher performance²⁴. Lack of familiarity with the OSCE format and sequence has been proposed as a contributing factor to heightened anxiety levels among Nursing students¹³. Consequently, students with elevated anxiety levels may demonstrate poorer scores, as performance is influenced not only by knowledge and skills but also by confidence in their application^{24,25}. This was the first experience of the Physical Therapy students with the OSCE, which could explain the frequent reports of emotional stress in survey responses.

Mojarrab et al.¹² showed that Nursing students had increased anxiety levels after performing the OSCE and proposed a coping program to reduce stress prior to the examination. The program successfully decreased anxiety scores by approximately 11 points and yielded a positive impact on final OSCE scores. Johnston et al.¹³ emphasized the importance of adhering to guidelines for best practices in designing and conducting the OSCE. Such adherence could help alleviate assessment ambiguity, reduce anxiety and fear, and enhance student learning outcomes.¹³

Feedback is indispensable in the consolidation of learning within academic contexts. It serves to enhance the quality of the learning process and broaden the understanding of clinical skills, thereby mitigating the recurrence of errors²⁶. In this study, Physical Therapy students have emphasized the pivotal role of feedback in their academic training, which aligns with the findings by Jaiswal and Mehta, who noted that most students perceive post-examination feedback as both beneficial and constructive¹⁸. Similarly, Ferreira et al.²⁷ demonstrated that the most significant aspect perceived by Physical Therapy students during a cardiovascular discipline OSCE was the feedback, which assessed their performance and offered guidance for improvement. Personalized feedback holds particular significance in solidifying knowledge acquisition and fostering self-assurance among students. Moreover, it facilitates an open exchange of perspectives between examiners and students. Importantly, students' insights and suggestions can inform and enrich future assessment practices and curriculum refinement. Nevertheless, the provision of feedback immediately following examinations shows challenges for examiners, as factors such as large student cohorts, examiner inexperience, or students' apprehension towards receiving immediate criticism may hinder the process¹³.

This study has several limitations. Firstly, it was conducted at a single center, potentially hindering the extrapolation of findings to other Physical Therapy programs due to regional, social, and cultural characteristics. Nevertheless, the insights garnered from this cohort of students provide valuable contributions toward enhancing comprehension of the evaluation procedures in this context. Secondly, as the surveys were administered after OSCE feedback, student performance could have possibly influenced their responses to the questionnaire. Thirdly, the inquiry did not directly require feedback regarding OSCE fairness, however, note that no student spontaneously raised this concern in response to open-ended questions. Finally, this study relied on a customized questionnaire exclusively designed for this research, potentially limiting its reproducibility.

In summary, Physical Therapy undergraduate students showed clear satisfaction and positive attitudes towards the OSCE examination. They perceived it as conducive to enhancing the learning process, facilitating the integration of theoretical and practical knowledge, and providing valuable training in the

interpersonal aspects of clinical practice. However, many students indicated experiencing stress during OSCE, potentially impacting their performance. To mitigate this, sustained implementation of the OSCE, coupled with adequate preparation, clear guidelines, and constructive feedback, holds promise in alleviating student anxiety and fostering an optimal assessment environment conducive to evaluating the competence requisite for future physical therapists.

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