

PERCEPTIONS OF FIRST-YEAR MEDICAL STUDENTS TOWARD THE IMPLEMENTATION OF THE OBJECTIVE STRUCTURED CLINICAL EXAMINATION (OSCE) AT UDAYANA UNIVERSITY

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ABSTRACT

Background: The Objective Structured Clinical Examination (OSCE) is a crucial method for assessing clinical skills in medical education. At the first-year level, students' adaptation to this practical format influences their learning experience and anxiety; therefore, evaluating their perceptions is important for improving OSCE implementation. This study aims to assess the perceptions of first-year medical students regarding the implementation of the OSCE at Udayana University.

Methods: This research employed a cross-sectional design using a validated and reliable questionnaire. The sample consisted of 108 students. The validity and reliability of the instrument were deemed adequate; Cronbach's alpha values for each assessed dimension were as follows: attributes $\alpha = 0.790$, structure $\alpha = 0.873$, organization $\alpha = 0.793$, and validity $\alpha = 0.863$. Descriptive analysis was used to describe respondent characteristics and response distribution. Of the 108 respondents, the majority were 19 years old (73.1%) and 61% were female. Overall, perceptions of the OSCE's attributes, structure, organization, and validity tended to be positive.

Results: Indicators with the highest mean scores included the statements that the OSCE assesses clinical skills (A2, mean = 4.42) and that the OSCE is educational (A12, mean = 4.36); exam-related anxiety was also noted (A3, mean = 4.28). The lowest indicator concerned compensation mechanisms for poor performance (A6, mean = 2.62), indicating disagreement toward compensation policies.

Conclusions: It can be concluded that first-year students' perceptions of OSCE implementation at Udayana University are generally positive; however, attention is needed regarding station timing and compensation policies to reduce anxiety and enhance the fairness of the assessment.

Keywords: medical education, OSCE, student perceptions, Udayana University, validity.

INTRODUCTION

Medical education involves an extensive period of study to prepare students to become competent physicians. To achieve this level of competence, students are required to undergo various types of examinations.¹ The Undergraduate Medical Education Program of the Faculty of Medicine at Udayana University employs several assessment methods, including Multiple Choice Questions (MCQs), Student Project examinations, Elective Study assessments, and the Objective Structured Clinical Examination (OSCE). The OSCE is one of the evaluation techniques used to assess medical skills and prepare students for clinical practice.²

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The aspects evaluated in this examination include cognitive, psychomotor, and professional behavior components.³

The OSCE poses a greater challenge for first-year medical students. A study on first-year medical students' adaptation showed that 63% of students experienced difficulties adapting to new learning methods and examinations.⁴ This may influence first-year students' perceptions of the OSCE implementation. Previous studies have shown that most medical students express positive views regarding several aspects of OSCE administration, including fairness of assessment, coverage of clinical knowledge and skills tested, scheduling, quality of implementation,

examination room conditions, and the quality of medical equipment used. On the other hand, students also reported anxiety and concerns caused by the high-pressure exam environment and the level of difficulty of the examination.⁵

A study conducted at the Faculty of Health Sciences, University of Ilorin, reported that 40.4% of students felt able to understand the written instructions at each OSCE station. Additionally, 70.2% of students considered the allocated time per station adequate, and 58.9% agreed that the OSCE serves as an accurate assessment tool for evaluating students' clinical competence.⁶ Based on a brief preliminary interview, first-year medical students at the Faculty of Medicine, Udayana University, expressed varied perceptions of OSCE implementation. These perceptions included the short delivery of Basic Clinical Skills (BCS) material, incomplete material checklists, incomplete equipment and supplies, and lack of feedback between students and examiners.⁷ Therefore, it is important to investigate first-year medical students' perceptions of the OSCE implementation at Udayana University to identify aspects that require improvement.

The aim of this study is to determine the perceptions of first-year medical students regarding the implementation of the Objective Structured Clinical Examination (OSCE) at Udayana University.

METHODS

This study is a descriptive observational study with a cross-sectional approach and utilizes a quantitative design. The research was conducted at the Faculty of Medicine, Udayana University, from January to December 2025. The study subjects were first-year medical students of the 2024 cohort who had completed the Objective Structured Clinical Examination (OSCE) and were willing to participate as respondents. Respondents were selected using a total sampling technique, in which all students who met the inclusion and exclusion criteria were included as the study sample. The minimum sample size obtained from the calculation was 108 respondents.

Research data were collected using a perception questionnaire on OSCE implementation adapted from Pierre et al. (2024), which has been proven valid and reliable with a Cronbach's alpha value greater than 0.6. The questionnaire was translated into Indonesian using the Cambridge Dictionary and distributed online through Google Forms. Respondents were asked to complete the questionnaire, which comprised four assessment dimensions: OSCE attributes, OSCE structure, OSCE organization, and OSCE validity. All submitted data were checked for completeness before being included in the analysis.

The collected data were analyzed using SPSS version 30.0. Descriptive univariate analysis was performed to describe respondent characteristics and the distribution of perception scores for each assessment dimension, including mean, median, standard deviation, as well as maximum and minimum values. This study underwent an ethical review process and received approval from the Ethics Committee of the Faculty of Medicine, Udayana University, under Protocol Number: 2025.01.1.0056. This approval confirms that the study met ethical research principles, including respect for respondent autonomy, data confidentiality, and the assurance that participants were not exposed to harmful risks.

RESULT

This study involved 108 first-year students of the 2024 cohort from the Undergraduate Medical Study Program, Faculty of Medicine, Udayana University, as respondents. Based on age distribution, most respondents were 19 years old, totaling 79 students (73.1%), followed by those aged ≤19 years with 23 students (21.3%), while only 6 students (5.6%) were >19 years old. In terms of gender, the respondents were predominantly female, comprising 66 students (61%), whereas males accounted for 42 students (39%). Thus, the characteristics of the respondents indicate that the majority of participants in this study were 19 years old and female.

Table 1. Characteristics of Questionnaire Respondents

Characteristics	n	%
Age (year)		
≤19	23	21,3
19	79	73,1
>19	6	5.6
Gender		
Female	66	61
Male	42	39

Based on Table 2, the majority of respondents stated that the OSCE is able to assess a wide range of knowledge, with 49 respondents (45.4%) agreeing and 44 respondents (40.7%) strongly agreeing. Most respondents also indicated that the OSCE can assess various clinical skills, with 52 respondents (48.1%) agreeing and 43 respondents (39.8%) strongly agreeing. Regarding their experience in taking the OSCE, 43 respondents (39.8%) felt that the examination was tense, categorized as agree, while 42 respondents (38.9%) strongly agreed.

For the statement that the OSCE has a minimal likelihood of failure, the largest proportion of respondents selected neutral, totaling 63 respondents (58.3%), whereas 23 respondents (21.3%) agreed. Regarding the statement that the OSCE provides compensation if students perform poorly in a station, most respondents disagreed, totaling 39 respondents (36.1%), and 43 respondents (39.8%) chose neutral.

A total of 44 respondents (40.7%) strongly agreed that the OSCE can identify the strengths and weaknesses of examinees,

and 51 respondents (47.2%) agreed that feedback on performance during the examination could be used to improve skills.

Furthermore, most respondents agreed that the OSCE reflects the requirements of the medical profession, with 57 respondents (52.8%) agreeing and 33 respondents (30.6%) strongly agreeing. For the statement that the OSCE achieves the main competency objectives of the course, 57 respondents

(52.8%) agreed and 33 respondents (30.6%) strongly agreed. Regarding whether the OSCE reflects real clinical scenarios, 39 respondents (36.1%) agreed and 28 respondents (25.9%) strongly agreed. Lastly, most respondents considered the OSCE to be educational, with 48 respondents (44.4%) agreeing and 51 respondents (47.2%) strongly agreeing.

Table 2. Descriptive Statistical Analysis of Students' Perceptions of OSCE Attributes

No	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
n (%)						
A1	It assessed a wide range of knowledge	0 (0)	1 (0,9)	14 (13)	49 (45,4)	44 (40,7)
A2	It assessed a wide range of clinical skills	0 (0)	1 (0,9)	5 (4,6)	50 (46,3)	52 (48,1)
A3	Examination was stressful	0 (0)	0 (0)	13 (12)	52 (48,1)	43 (39,8)
A4	Examination was intimidating	2 (1,9)	5 (4,6)	30 (27,8)	48 (44,4)	23 (21,3)
A5	Examination minimized chances of failing	3 (2,8)	28 (25,9)	60 (55,6)	14 (13)	3 (2,8)
A6	Allows for compensation of poor performance in other stations and/or other exams	10 (9,3)	39 (36,1)	43 (39,8)	14 (13)	2 (1,9)
A7	Reveals areas of strengths and weaknesses	2 (1,9)	6 (5,6)	22 (20,4)	64 (59,3)	14 (13)
A8	It gives feedback on performance that can be used for selfimprovement	0 (0)	2 (1,9)	11 (10,2)	51 (47,2)	44 (40,7)
A9	It reflects requirements of medical profession	0 (0)	1 (0,9)	10 (9,3)	62 (57,4)	35 (32,4)
A10	Stations sufficiently covered the major areas of course/attachment competencies	0 (0)	4 (3,7)	14 (13)	57 (52,8)	33 (30,6)
A11	The stations reflected real clinical scenario	2 (1,9)	6 (5,6)	19 (17,6)	53 (49,1)	28 (25,9)
A12	The examination was also educational	0 (0)	3 (2,8)	6 (5,6)	48 (44,4)	51 (47,2)

Based on Table 3, the majority of respondents agreed with nearly all statements. Regarding the item stating that the checklist was structured and sequential, most respondents agreed (41.7%) and strongly agreed (18.5%), indicating that the OSCE assessment mechanism was perceived as systematic. For the statement concerning the adequacy of time allocated at each station, a variety of perceptions emerged. While most respondents agreed (42.6%), some disagreed (13.0%) or strongly disagreed (1.9%). This suggests that station timing remains an important issue that needs evaluation.

The statement that Basic Clinical Skills (BCS) sessions should continue received strong support, with responses dominated by agree (46.2%) and strongly agree (48.1%). Similarly, the aspect related to examiners' polite, professional,

and helpful behavior was rated very positively, with 55.0% agreeing and 36.1% strongly agreeing. Furthermore, the clarity and lack of ambiguity in station instructions were also rated favorably, with 56.5% agreeing and 25% strongly agreeing, indicating that OSCE instructions were generally well-formulated.

Regarding the logical and appropriate sequence of stations, most respondents agreed (44.4%) and strongly agreed (23.1%), although a small proportion remained neutral. Meanwhile, the statement that the presence of standardized patients made the scenarios more realistic also received positive responses, with 51.9% agreeing and 36.1% strongly agreeing. Overall, the distribution of responses demonstrates that the majority of students held positive perceptions of the OSCE structure, particularly regarding the continuation of BCS sessions, the

professionalism of examiners, and the use of standardized patients. However, aspects related to time allocation warrant further attention.

Table 3. Descriptive Statistical Analysis of Students' Perceptions of OSCE Structure

NO	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
n (%)						
B1	Examination was well structured and sequenced	0 (0)	8 (7,4)	35 (32,4)	45 (41,7)	20 (18,5)
B2	The time allocated at the stations was adequate	2 (1,9)	14 (13)	34 (31,5)	46 (42,6)	12 (11,1)
B3	The time allocated at the stations was adequate	0 (0)	0 (0)	10 (9,3)	46 (42,6)	52 (48,1)
B4	Examiners were polite, professional and helpful	0 (0)	0 (0)	14 (13)	55 (50,9)	39 (36,1)
B5	Instructions were clear and unambiguous	0 (0)	1 (0,9)	19 (17,6)	61 (56,5)	27 (25)
B6	Sequence of stations was logical and appropriate	0 (0)	3 (2,8)	31 (28,7)	49 (45,4)	25 (23,1)
B7	Standardized patients, if they were included, resembled a real patient scenario	1 (0,9)	1 (0,9)	11 (10,2)	56 (51,9)	39 (36,1)

Based on Table 4, regarding the statement that the Technical Meeting conducted prior to the examination was informative, most respondents agreed (51.9%) and strongly agreed (35.2%), indicating that the pre-OSCE briefing was considered beneficial. For the statement that the locations of the stations and their rotation were clear, the majority of respondents also agreed (57.4%) and strongly agreed (38.0%), suggesting that the technical aspects related to examination logistics were well organized.

The statement that the organizing committee assisted in directing participants during station rotation received positive support, with 46.3% agreeing and 34.3% strongly agreeing. This indicates that the committee was perceived as responsive in facilitating the OSCE process.

Furthermore, in response to the statement that the organizing committee was prepared to answer participants' questions, most respondents agreed (50.9%) and strongly agreed (27.8%). This finding reinforces the perception that the committee was communicative and responsive to participants' needs.

For the statement that the environment was calm and conducive to the examination with minimal disturbances, the majority of respondents agreed (52.8%) and strongly agreed (21.3%), although some remained neutral (23.1%) or disagreed (6.5%). Lastly, the statement that the equipment including simulators, medical instruments, and imaging materials, was available and of good quality received agreement from 51.9% of respondents and strong agreement from 21.3%, despite 23.1% expressing a neutral response.

Table 4. Descriptive Statistical Analysis of Students' Perceptions of OSCE Organization

NO	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
n (%)						
C1	The orientation given before the examination was informative	0 (0)	2 (1,9)	12 (11,1)	56 (51,9)	38 (35,2)
C2	The location of stations and rotation was clear	0 (0)	0 (0)	5 (4,6)	62 (57,4)	41 (38)
C3	Organizers were facilitating the flow of students between stations	0 (0)	6 (5,6)	15 (13,9)	50 (46,3)	37 (34,3)
C4	Organizers were available to answer questions	0 (0)	2 (1,9)	20 (18,5)	56 (51,9)	30 (27,8)
C5	The environment was quiet	1 (0,9)	7 (6,5)	25 (23,1)	52 (48,1)	23 (21,3)

	and conducive for exam with little distractions					
C6	Equipment including simulators, medical instruments and imaging studies were available and had good quality	1 (0,9)	7 (6,5)	25 (23,1)	52 (48,1)	23 (21,3)

Based on Table 5, the majority of students demonstrated a positive perception of OSCE validity. For the statement that OSCE scores provide an accurate representation of students' clinical skills, most respondents answered "agree" (46.3%) and "strongly agree" (22.2%). This indicates that more than two-thirds of the participants believed that the OSCE results adequately reflected their clinical abilities.

In addition, most respondents (62%) agreed and 27.8% strongly agreed that the OSCE is a well-standardized examination. Regarding the statement that the test items and

case scenarios were the same for all participants, 56.5% responded "agree" and 26.9% responded "strongly agree," suggesting that students perceived the OSCE as a fair method for assessing competence.

Meanwhile, for the statement that personality, ethnicity, and gender do not influence OSCE outcomes, the majority also responded positively, with 45.4% agreeing and 42.6% strongly agreeing. These findings confirm that students viewed the OSCE as an objective evaluation method free from personal bias.

Table 5. Descriptive Statistical Analysis of Students' Perceptions of OSCE Validity

NO	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
n (%)						
D1	OSCE provides true measure of essential clinical skills	0 (0)	1 (0,9)	33 (30,6)	50 (46,3)	24 (22,2)
D2	OSCE is a well standardized examination	0 (0)	1 (0,9)	10 (9,3)	67 (62)	30 (27,8)
D3	Having similar questions and case scenario for all students is a good measure of competency	0 (0)	3 (2,8)	15 (13,9)	61 (56,5)	29 (26,9)
D4	Personality, ethnicity and gender will not affect OSCE scores	0 (0)	3 (2,8)	12 (11,1)	47 (43,5)	46 (42,6)

DISCUSSION

This study shows that first-year medical students at Udayana University generally have positive perceptions of the implementation of the OSCE. The students consider that the OSCE is able to assess the range of knowledge and clinical skills, provide an educational experience, reflect the objectives of the rotation or course, and offer useful feedback to improve weaknesses. At the same time, some students express concerns regarding the level of anxiety during the exam and technical aspects of the implementation, such as the limited time at each station and the perception that some stations do not provide opportunities to compensate for weaker performance.

These results are supported by previous studies that are also open-access. For example, surveys and reviews of student perceptions in the context of OSCE report general acceptance of the OSCE as a fairer and more educational assessment tool compared to traditional examinations, and they also acknowledge the important role of feedback. Other studies emphasize that the

emergence of anxiety or test anxiety and problems related to time or preparedness are recurring complaints from students.^{8,9}

These findings are consistent with results from studies that assess the perceptions of both participants and examiners toward OSCEs, as well as research on formative OSCE formats for early-year students, which show motivational benefits along with the challenges of stress or preparation.¹⁰ In this study, the positive perceptions regarding the coverage of knowledge, clinical ability, alignment of the questions with the objectives of the rotation, and the educational nature of the exam indicate that the OSCE at Udayana has fulfilled the attributes of content validity and learning relevance. The OSCE requires students to apply knowledge in clinical skills, which strengthens the transfer of learning from theory to practice. This approach is supported by the concept of clinical competence assessment (Miller) and the principles of experiential learning, in which structured experiences accompanied by feedback accelerate the mastery of clinical skills. Therefore, when students report that the OSCE is educational and reflects professional requirements, this is in line

with the role of the OSCE in assessing the “shows how” level of the clinical competence pyramid and providing real experiences that can be reflected upon.¹¹

However, students’ concerns regarding exam anxiety, the time allotted for each station, and the perception that some stations do not provide room for compensation indicate the presence of threats to the reliability and fairness of the assessment. In practical terms, if stress levels are high or instructions are not homogeneous, this may influence student scores through non-academic factors, thereby reducing the validity of exam decisions. Therefore, it is important to conduct pre-OSCE simulations or practice sessions to reduce initial anxiety. The duration of each station also needs to be reviewed to ensure it aligns with the given tasks, and standard procedures must be established to ensure consistency of instructions across stations.¹² Several open-access studies show that pre-OSCE simulations and structured feedback are effective in reducing anxiety and improving perceptions of fairness as well as the learning value of the OSCE.^{13,14}

The findings of this study also show that most students provided positive perceptions of the structural and organizational aspects of the OSCE, including the presence of structured checklists and logical station sequencing, time allocation that was generally considered adequate by many respondents, the continuity of Basic Clinical Skills (BCS) training, the professionalism of examiners, relatively clear station instructions, and its use. These results are supported by studies with similar patterns reporting that the majority of OSCE implementers namely students and examiners express positive responses to the structure of the OSCE. Examiners generally view the structure of the OSCE as an important component that makes the assessment more systematic and credible.¹⁵

Therefore, these conditions need to be managed through examiner training and calibration to maintain consistency in scoring. Thus, the positive perceptions of examiners at the Faculty of Medicine, Udayana University, strengthen the credibility of the OSCE structure, yet continuous supervision is still required to minimize inter-examiner variability.¹⁶ On the other hand, a study from Saudi Arabia also found recurring issues related to perceived station time inadequacy and stress levels, meaning that even when the structure is considered good, aspects of time and preparation remain frequent sources of dissatisfaction.¹⁷

Positive perceptions of the checklist and OSCE organizers reflect students’ trust in the reliability of the assessment, while perceptions of insufficient time indicate areas of instructional design that need to be standardized and adjusted.¹⁸ This approach can be explained through the principle of assessment drives learning and Biggs’ concept of constructive alignment, in which the assessed components must align with the learning objectives and be evaluated clearly so that students perceive the OSCE as a driver of relevant learning. However, when the cognitive

load at each station is too high, the effectiveness of the assessment and students’ perceptions decrease. This is also explained by Sweller’s Cognitive Load Theory, which warns that excessive cognitive workload impairs performance on skill-based tasks.¹⁹

The findings of this study indicate that the organization of OSCE implementation at Udayana University is perceived relatively well by students. These results illustrate that the organizational aspects have been carried out systematically, including the technical meeting, station flow, committee communication, environment, and equipment, all of which contribute to students’ positive perceptions of the smooth implementation of the OSCE. These findings are supported by other evaluative OSCE studies reporting that proper briefing/technical meetings, clear station layouts, and committee management improve student acceptance of the OSCE and reduce administrative confusion during the exam. However, these studies also report recurring issues, such as the need for better OSCE equipment in several institutions, indicating that findings are not always consistent across locations.²⁰ Comprehensive studies on OSCE design and implementation also show similar results to this study, emphasizing the importance of well-prepared technical meetings and station layouts for ensuring students’ readiness in undertaking the exam.²¹

The strength of organizational components in an OSCE directly influences the cognitive load and anxiety levels of students during the exam. This is because when students understand the flow, know where to enter and exit, and have committee members who are responsive to questions, the remaining cognitive time can be used to focus on the clinical tasks they will face during the exam, rather than worrying about administrative matters. This supports practical recommendations such as: (1) a concise yet comprehensive technical meeting for students and examiners; (2) clear room signage and rotation announcements; (3) trained backup committee members to answer and handle technical issues during the exam; and (4) checking equipment and simulators before the examination day.²² Literature on examiner training and student orientation also emphasizes that administrative and logistical preparation reduces disruptions during assessment and improves perceptions of fairness and exam quality.²³

In the theoretical context, these findings are consistent with the principles of constructive alignment and assessment design. The theory states that not only the content of the stations is important, but also the administrative context that supports the achievement of learning objectives. From the perspective of test administration and assessment utility, good organization can enhance participants’ performance by reducing disruptions when using the tools. Therefore, strengthening the technical meeting, rotation SOPs, and equipment availability checklists are logical and evidence-based interventions.¹²

The findings of this study indicate that students’ perceptions of the validity of the OSCE at Udayana

University are generally positive. The majority of students believe that OSCE scores reflect their clinical skills, that the OSCE is implemented in a standardized manner, that the questions and scenarios are uniform and able to assess the intended competencies, and that personal factors such as personality (ethnicity and gender) do not appear to systematically influence the results. These findings are supported and balanced by evidence from the literature. Several evaluative studies state that students and examiners often view the OSCE as a valid tool for assessing clinical skills when stations are well designed, the sampling of stations is adequate, and scoring procedures are standardized.⁵ However, other studies have also shown that OSCE scores do not always fully assess participants' clinical abilities, and thus final scores often fail to represent students' actual clinical competence. Factors that may contribute to this include variation in questions across participants, inconsistencies among examiners in scoring, and uncooperative simulated patients.²⁴

Students' positive perceptions of OSCE validity also reflect the success of content- and response-process validity. For example, when the content consists of stations and instructions that are clear, this will create valid student responses in the form of performance during the examination. However, perception alone is not sufficient to confirm that the OSCE is fully valid in the institutional context. To ensure that scores truly reflect competence, institutions need to combine: (1) expert review of a clearly defined blueprint to ensure competency coverage; (2) reliability analysis through consistency of questions and examiner scoring to strengthen internal structure; and (3) examiner training to minimize bias (examiner effects) that may influence individual scores.¹⁴ In addition, regarding concerns about bias due to personal factors, several studies have found little to no systematic bias related to gender or ethnicity in OSCE implementation. Therefore, personality traits, ethnicity, and gender do not influence students' examination results.²⁵

First-year medical students are in the initial phase of adapting to a learning system that requires both theoretical understanding and mastery of basic clinical skills. This condition influences how they form perceptions regarding the implementation of the OSCE. The findings of this study show that, in general, first-year students' perceptions of the attributes, structure, organization, and validity of the OSCE are categorized as good. This can be explained by the fact that the OSCE is considered to provide a real experience that resembles clinical practice, although some students also find the examination quite stressful.²⁵

At the early stage of medical education, students do not yet have extensive experience in facing examinations based on clinical skills. Therefore, the OSCE is viewed as a new evaluation method capable of assessing their abilities more objectively compared to conventional examinations. The anxiety and pressure that arise are understandable, as students are still adjusting to an evaluation format that

requires concentration, communication skills, and good time management.²⁶ In addition, first-year students more readily accept the OSCE as a structured and fair method because they have not made many comparisons with other forms of evaluation. Moreover, the guidance provided by the committee, the presence of standardized patients, and the clear instructions help students understand the flow of the examination. This contributes to the development of positive perceptions of the organizational and validity aspects of the OSCE.¹⁵

Thus, it can be stated that the relationship between being in the first year of education and the resulting perceptions of OSCE implementation is influenced by the students' adaptation phase, their limited level of clinical experience, and their initial impressions of the OSCE as a comprehensive form of evaluation. These factors explain why the majority of students give positive assessments, even though some experience anxiety or pressure during the examination.

CONCLUSIONS AND SUGGESTIONS

Overall, first-year medical students at the Faculty of Medicine, Udayana University reported positive perceptions of the OSCE across attributes, structure, organization, and validity. Students considered the OSCE able to assess a broad range of knowledge and clinical skills, to reflect realistic and educational clinical scenarios, and to provide useful feedback. However, a minority reported exam-related anxiety and concerns about station timing and limited opportunities for compensation at certain stations, which may affect perceived fairness and reliability.

Practical recommendations are: institutions should maintain and improve facilities and ensure availability of standard medical equipment, and refine case scenarios to better match clinical practice. Organizers should review and equalize station durations, hold more detailed technical meetings, provide pre-OSCE Basic Clinical Skills practice to reduce anxiety, and standardize instructions and examiner training to preserve objectivity. For future research, recruit respondents more effectively (e.g., earlier coordination with the institution and use of e-learning), increase sample size for greater representativeness, and perform broader validity testing of the questionnaire before full deployment.

LIMITATIONS

The limitations of this study lie primarily in the data collection process, particularly the difficulty in obtaining respondents willing to complete the questionnaire, although the final sample size successfully met the research target. In addition, several questionnaire items were found to be invalid based on the validity test results. These limitations were addressed by considering the overall reliability of the instrument and re-evaluating the relevance of the affected items in capturing the components of students' perceptions of the OSCE. Therefore, the findings of this study are still able to provide meaningful insights.

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