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VIRTUAL OSCE: A REVIEW

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Abstratc: INTRODUCTION: The OSCE (Objective Structured Clinical Examination) is an assessment methodology that simulates clinical situations to test clinical and communication skills (Smee S, Coetzee K, Bartman I, Roy M, Monteiro S, 2022), and the virtual modality is important due to its flexibility and accessibility, especially in challenging contexts; however, the lack of literature and standardization of the virtual OSCE represents an obstacle to its widespread implementation and consistent evaluation (Saad SL, et al, 2022). **OBJECTIVE:** Find articles and studies in the literature on the use, effectiveness and validity of the virtual OSCE in Brazil and around the world, through a literature review, using the PUBMED and SCIELO databases. **METHODS:** This study carried out a literature review using the prism methodology, using the PUBMED and SCIELO databases. **RESULTS:** The results were based on the analysis of criteria such as number of patients, platforms used and professional classes in the health sector. The articles showed positive feedback from the virtual OSCE in students and teachers, and also addressed heterogeneous difficulties and their impact on implementation. **CONCLUSION**: The virtual OSCE is an effective and valid approach to clinical competency training and assessment, offering benefits such as flexibility and multimedia capabilities. However, it is necessary to overcome challenges such as lack of standardization, online fatigue and ensure adequate onboarding and training. Implementation of the virtual OSCE with guidelines and standards is recommended, as well as additional research to strengthen the evidence and guide its sustainable implementation.

Keywords: Education, Simulation Training, Medical Informatics.

The OSCE (Objective Structured Clinical Examination) is an assessment methodology that simulates clinical situations to test clinical and communication skills (Smee S, Coetzee K, Bartman I, Roy M, Monteiro S, 2022), and the virtual modality is important due to its flexibility and accessibility, especially in challenging contexts; however, the lack of literature and standardization of the virtual OSCE represents an obstacle to its widespread implementation and consistent evaluation (Saad SL, et al, 2022). This work aims to find articles and studies in the literature on the use, effectiveness and validity of the virtual OSCE in Brazil and around the world, through a literature review.

The Objective Structured Clinical Examination (OSCE) is an assessment methodology that simulates clinical situations to test clinical and communication skills (Smee et al., 2022). The virtual modality of the OSCE is considered important due to its flexibility and accessibility, especially in challenging contexts. However, the lack of literature and lack of standardization of the virtual OSCE represent obstacles to its widespread implementation and consistent evaluation (Saad et al., 2022).

Currently, the in-person OSCE faces problems and difficulties, such as time constraints and high costs. Therefore, the adoption of virtual OSCE appears as a solution to overcome these challenges. This literature review aims to search for articles and studies that address the use, effectiveness and validity of the virtual OSCE.

METHOD

A literature review was carried out using the prism methodology, using the PUBMED and SCIELO databases. The inclusion criteria were primary studies, excluding literature reviews (systematic or not) and conceptual articles. The descriptors were "OSCE" and "VIRTUAL" and the Boolean used was "AND". The search was carried out using articles in English and Portuguese, which were published from 2018 onwards.

RESULTS

The results were based on the analysis of the main criteria addressed in the articles, such as the number of patients, which exceeded 3,500 involved, platforms such as Zoom and Moodle, and different professional classes within the health area. Furthermore, the factors evaluated in the group analyses, the difficulties experienced by the interviewees and the repercussions on the implementation of the platform were also aspects observed. All articles demonstrated that there was positive feedback from the use of the virtual OSCE, both among students and teachers. The difficulties encountered were heterogeneous and, like the other factors discussed, can be seen in Table 1.

DISCUSSION

The studies analyzed indicate that the virtual OSCE is comparable to the traditional OSCE in terms of accuracy and reliability in assessing clinical skills (Saad et al., 2022; Sarmiento et al., 2022; Sartori et al., 2020).

Student feedback was consistently positive across all assessed articles. However, some challenges must be overcome for the broader implementation of virtual OSCE, such as the lack of standardization across institutions, online fatigue, and the need for adequate onboarding and training (Saad et al., 2022; Sarmiento et al., 2022; Sartori et al., 2020).

On the other hand, the virtual OSCE offers advantageous opportunities, such as geographic flexibility and the use of multimedia resources, which can enhance the assessment experience and promote a more comprehensive learning environment (Sarmiento et al., 2022; Kharaba et al., 2020; Khan et al., 2021).

Results

	Author	Number of patients	Platform	Professional Class	Factors evaluated	Difficulties analyzed	Repercussion
1.	David Bergeron *et. al.* (2018)	206	GPHC App	Medical students	Series of case-related questions	Few students responded to the online questionnaire	
2.	Davis Boardman, *et al.* (2021)	23	WebEx	Medicine residents	Resident performance and technical skills	Physical exams and data collection	
3.	*Deville R.L. et al. (2021)*	90	Examsoft	Pharmacy students	Clinical and communicative skills	Carrying out the physical examination and familiarization with the platform	
4.	Faiza A. Khan, *et al.* (2021)	15	Zoom	Medicine residents	Resident performance and technical skills	SP training to ensure realism	
5.	García-Seoane J. J., *et al.* (2020)	2829	Moodle, sakai and Blackboard	Medical students	Anamnesis, clinical judgment, ethical aspects, interprofessional relationships, prevention and health promotion	Failure to assess technical skills during the physical exam	
6.	*Gortney J.S. et al. (2022)*	96	Examsoft and Microsoft teams	Pharmacy students	Clinical autonomy	Build a human relationship with the patient	
7.	*HYTÖNEN et al. (2021)*	179	Moodle on-line	Dental students	Dental clinical performance	Short time to take the exam	
8.	Saad, S. L. *et al.* (2022)	23	Zoom	Medical students	Students' self-assessment regarding VOSCE	Lack of integration between teachers and other students during teleconsultation.	
9.	Sarika Grover, *et al. (2022)*	85	Zoom	Doctors	Anamnesis, communication and data interpretation	Lack of practical activities and procedures	
10.	Sarmiento *et.al. (2022)*	115	Zoom	Health professionals	Team work	Fatigue with the online platform	
11.	Sartori, D. J., *et al.* (2020)	78	FaceTime	Medicine residents	Anamnesis, communication, physical examination and behavior during the consultation.	Lack of adequate training	
12.	Sheba Luke, *et al.* (2021)	108	Zoom	Nurses	Anamnesis, formulate diagnosis and develop an appropriate care plan	Difficulty analyzing physical examination and verbalization takes longer.	
13.	Zelal Kharaba., *et al.* (2020)	51	Microsoft teams + google meet	Pharmacists	Feasibility, stress, performance and satisfaction between in-person and virtual OSCE.	NR	

Table 1: Comparison between selected studies. Own authorship.

NR: not reported adults who have previously participated in other phase 1 to 3 clinical trials for moderate to severe AD. VOSCE: Virtual OSCE. SP: Standard Patient. GPHC: Clinical Skills Development Group (clinical skills improvement group)

CONCLUSIONS

From the analysis of the studies included in this review, it is evident that the virtual OSCE is an effective and valid approach for training and assessing clinical skills (Saad et al., 2022; Sarmiento et al., 2022; Sartori et al, 2020). The results obtained suggest that the virtual OSCE can be a viable alternative to the traditional OSCE, offering benefits such as flexibility, accessibility and multimedia resources. However, it is important to highlight that there are challenges to be overcome, such as the lack of standardization between institutions, online fatigue and the need for adequate integration and training.

It is therefore recommended to consider the implementation of the virtual OSCE in health education and evaluation institutions, with due attention to resolving the challenges mentioned above. It is essential that institutions adopt guidelines and standards to ensure the consistency and validity of virtual OSCE results. Furthermore, more research is needed to validate the findings obtained to date in different clinical contexts and in the long term. These additional studies can help strengthen the evidence and provide stronger guidance for effective and sustainable implementation of the virtual OSCE.

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