

Learners as Teachers, Clinicians, and Patients: Preliminary Insights from a Student Initiated Mock OSCE

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INTRODUCTION

Since its inception, the Objective Structured Clinical Examination (OSCE) has become a standard method of assessing the clinical skills of medical students, residents, and physicians. Mock OSCEs are frequently used to aid in priming students for subsequent high-stakes OSCEs. However, the implementation of mock OSCEs is limited by the resource intensive nature of facilitating an OSCE.

The objective of this study is to investigate the feasibility, acceptability, and cost-effectiveness of a student-led mock OSCE as an alternative method of assessment and learning.

METHODS

- A mock OSCE for third year students was piloted with fourth year students as examiners and with first and second year students as standardized patients.
- Student examiners assessed examinees using a checklist and global rating scale while providing both written and verbal feedback.
- Stations and checklists were designed by students, reviewed by a content expert, and were subjected to validity and reliability analyses. Stations were representative of the specialties and objectives of the Medical Council of Canada Qualifying Examination (MCCQE).
- Survey questionnaires were given to participants to elucidate their perceptions of the roles they took during the mock OSCE.

RESULTS

- Data were collected from: 47 third year examinees, 22 fourth year examiners, and 51 first and second year standardized patients.
- Cronbach's alpha for the mock OSCE as a whole was 0.443 and was used as a general measure of reliability.
- Notable free text comments from participants included the opportunity for pre-clerkship students to collaborate and network with fourth year students and the valuable learning experience perceived by all students involved.
- Costs of organizing and implementing this mock OSCE with the capacity to accommodate 60 examinees totaled roughly \$600 in food and printing expenses.

DISCUSSION

- Comments regarding the learning benefits perceived by standardized patients and examiners highlight the potential utility of these roles as opportunities for learning in an OSCE.
- Although the reliability of this OSCE was relatively low, consideration of context specificity is important. At the time of implementation, third year students were had experienced varying subsets of the medical specialties represented by the stations. Station types in this OSCE were also novel to students at this level. Finally, because this OSCE was for practice purposes and participation was optional, a majority of the students did not prepare beforehand, potentially affecting the observed scores in each station.

TABLES AND FIGURES

TABLE 1. Correlation coefficients between total checklist completion scores for each station, indicating the degree to which an examinee's performance in one station predicted their performance in each of the other stations. Stations 1 (history), Station 2 (basic management), and Station 3 (physical exam) covaried with each other to some degree. Stations 4 (counselling) and 5 (complex management) showed minimal or even negative correlation with each other and with the other three stations.

TABLE 1. Mock OSCE Inter-Station Correlation Matrix

	Station 1	Station 2	Station 3	Station 4	Station 5
Station 1	1.000	.537	.316	-.072	.065
Station 2	.537	1.000	.338	.101	.244
Station 3	.316	.338	1.000	.151	-.159
Station 4	-.072	.101	.151	1.000	-.132
Station 5	.065	.244	-.159	-.132	1.000

Examinee Perceptions

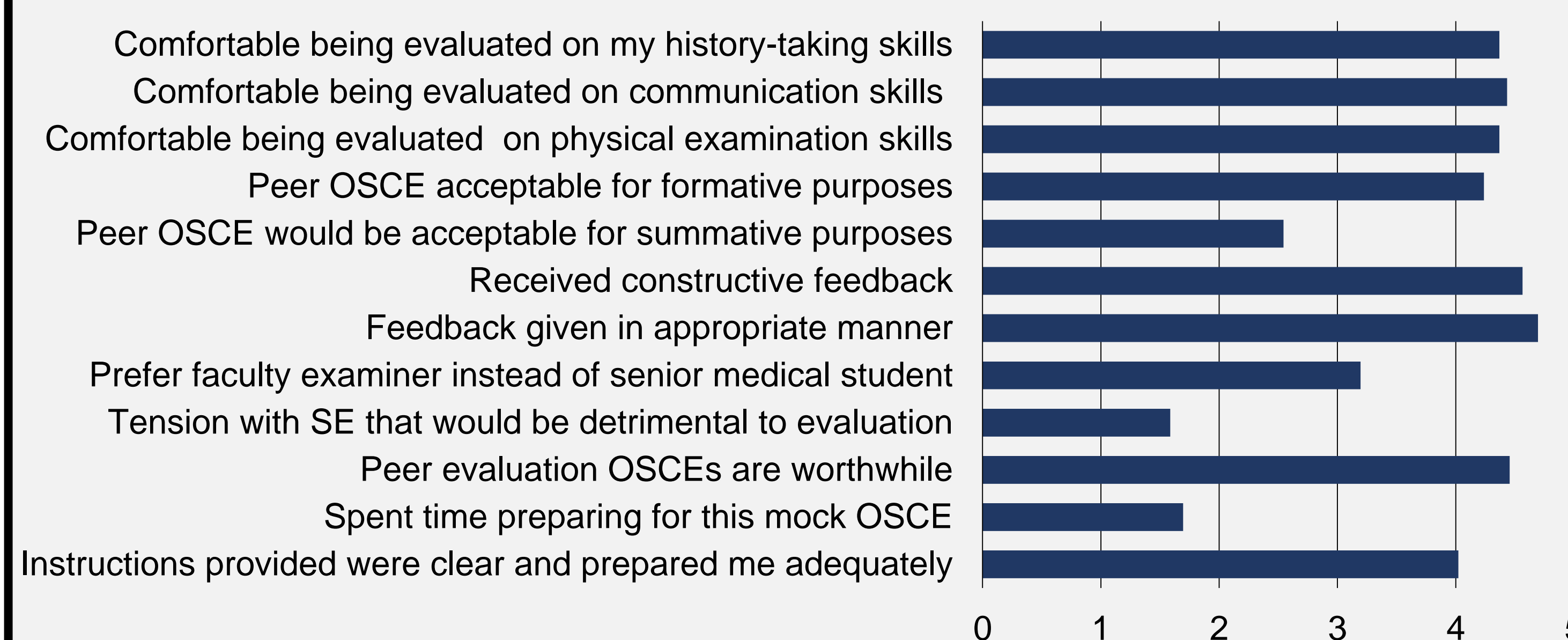


FIGURE 1. Mean survey results from examinees on a 5-point Likert scale ranging from 1=Strongly Disagree to 5=Strongly Agree. For the majority of positively-worded questions, most participants were in agreement or strong agreement. However, many participants disagreed that peer-evaluated OSCEs would be acceptable for summative purposes, and most participants felt that they had not spent time preparing for the mock OSCE. Most participants did not perceive any tension between themselves and the student examiner.

Examiner Perceptions

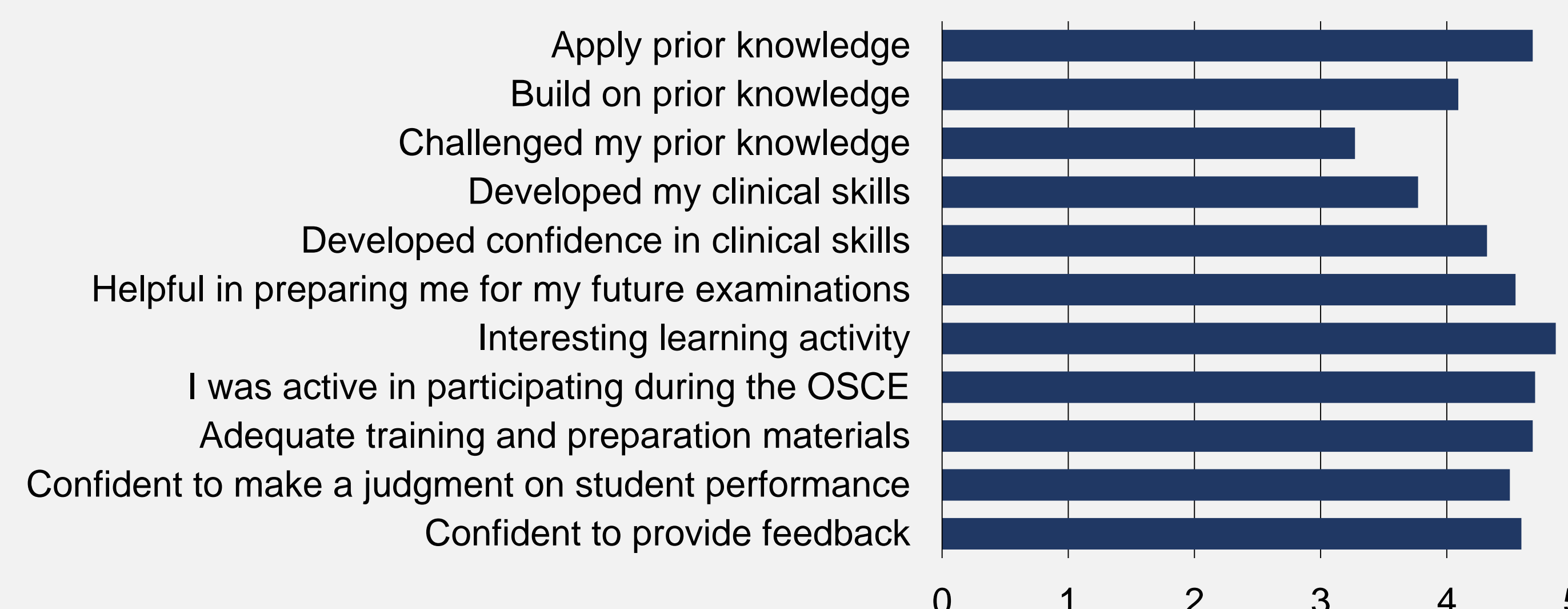


FIGURE 2. Mean survey results from examiners on a 5-point Likert scale ranging from 1=Strongly Disagree to 5=Strongly Agree. All questions were worded positively and examiners were generally in agreement to strong agreement; however, there was relatively milder agreement with items relating to challenging prior knowledge and clinical skill development.

Standardized Patient Perceptions

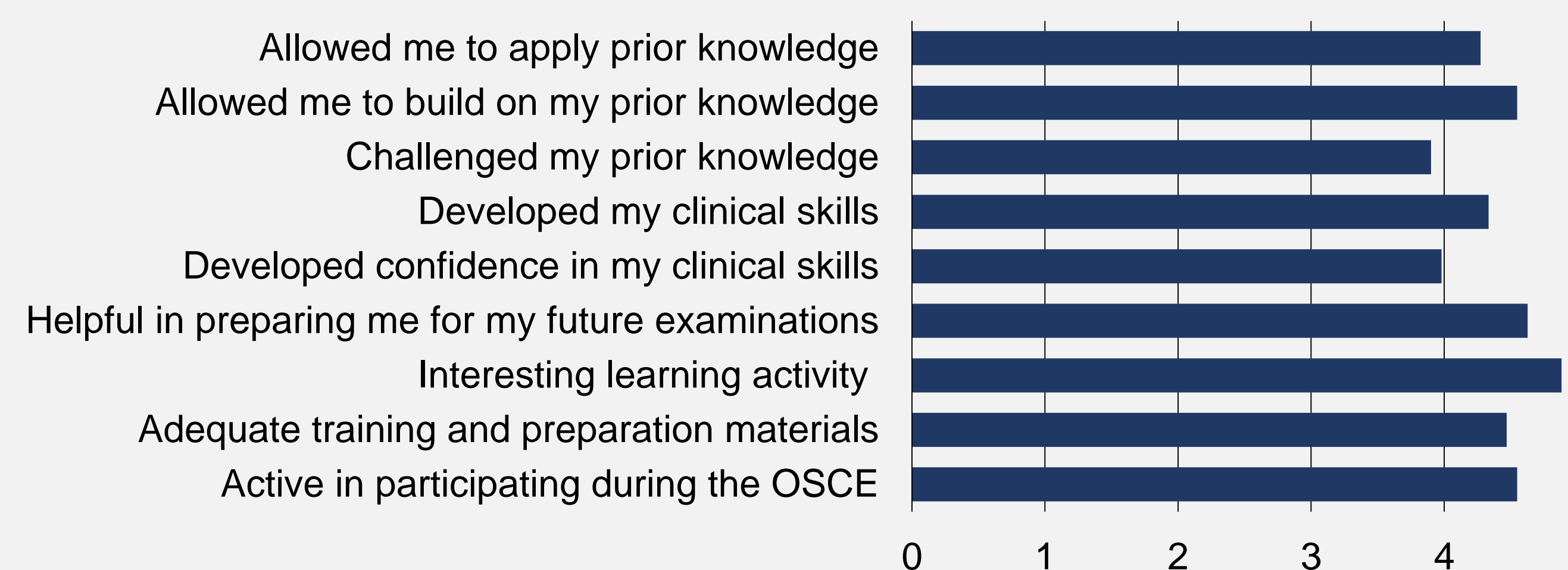


FIGURE 3. Mean survey results from standardized patients on a 5-point Likert scale ranging from 1=Strongly Disagree to 5=Strongly Agree. All questions were worded positively and standardized patients were generally in agreement to strong agreement.

CONCLUSIONS

This student-initiated mock OSCE was highly accepted among third year examinees, fourth year examiners, and first and second year standardized patients. This innovation serves as a unique learning and mentorship opportunity for all students in the MD program and may represent a cost-effective means of preparing third year students for higher stakes clerkship OSCEs. Student participation in future iterations of this OSCE could be correlated with performance in summative OSCEs in order to better determine its efficacy as a preparatory activity.

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