Standardized Multi-Institutional Mock Oral Examination: A Feasible and Valuable Educational Experience for General Surgery Residents

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INTRODUCTION

• The American Board of Surgery Certifying Exam (ABSCE) is the final step in obtaining General Surgery board certification.

• Due to the high-stake nature of the ABSCE, many general surgery residency programs use mock oral examinations (MOE) as a tool to prepare residents and assess their readiness for the ABSCE.

• Numerous prior studies have demonstrated a positive correlation between trainee participation in MOEs and first-time pass rates on the oral boards.

• The lack of faculty to serve as examiners and a paucity of standardized test scenarios make administering MOEs labor intensive, expensive, and time-consuming.

• Delivery of MOEs varies by institution and previous studies have demonstrated significant implementation barriers such as availability of faculty examiners and exam scenarios.

• Overall, there remains a lack of evidence on how to feasibly and effectively conduct a standardized multi-institutional MOE to help trainees prepare for the ABSCE.

OBJECTIVES

• In this study, we aimed to assess the value of administering a standardized multi-institutional mock oral examination program, and the resident and faculty-perceived satisfaction of this exam format.

METHODS

• Development of Pre-scripted Exam Scenarios
  • The study investigators developed a list of high yield topics within general surgery based on the 5 broad categories represented on the ABSCE.
• Mock Oral Examinations
  • A regional MOE was administered to 33 general surgery residents and 37 faculty members from 3 academic institutions.
  • Residents were examined in 3 20-minute sessions.
• Analytical Methods
  • Descriptive statistics
  • Two-tailed paired t-test
  • Percent agreement
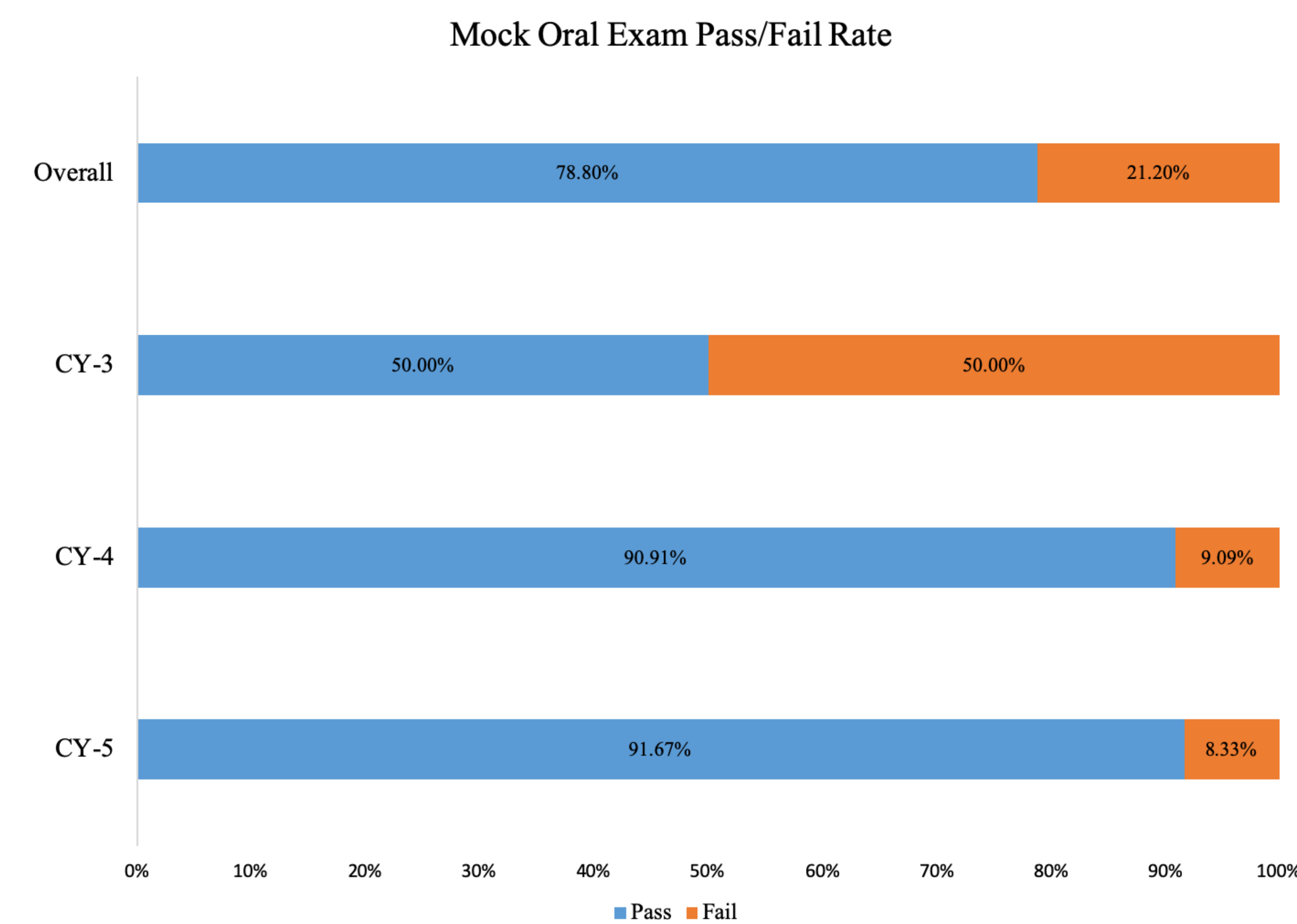 • Kappa statistics

RESULTS

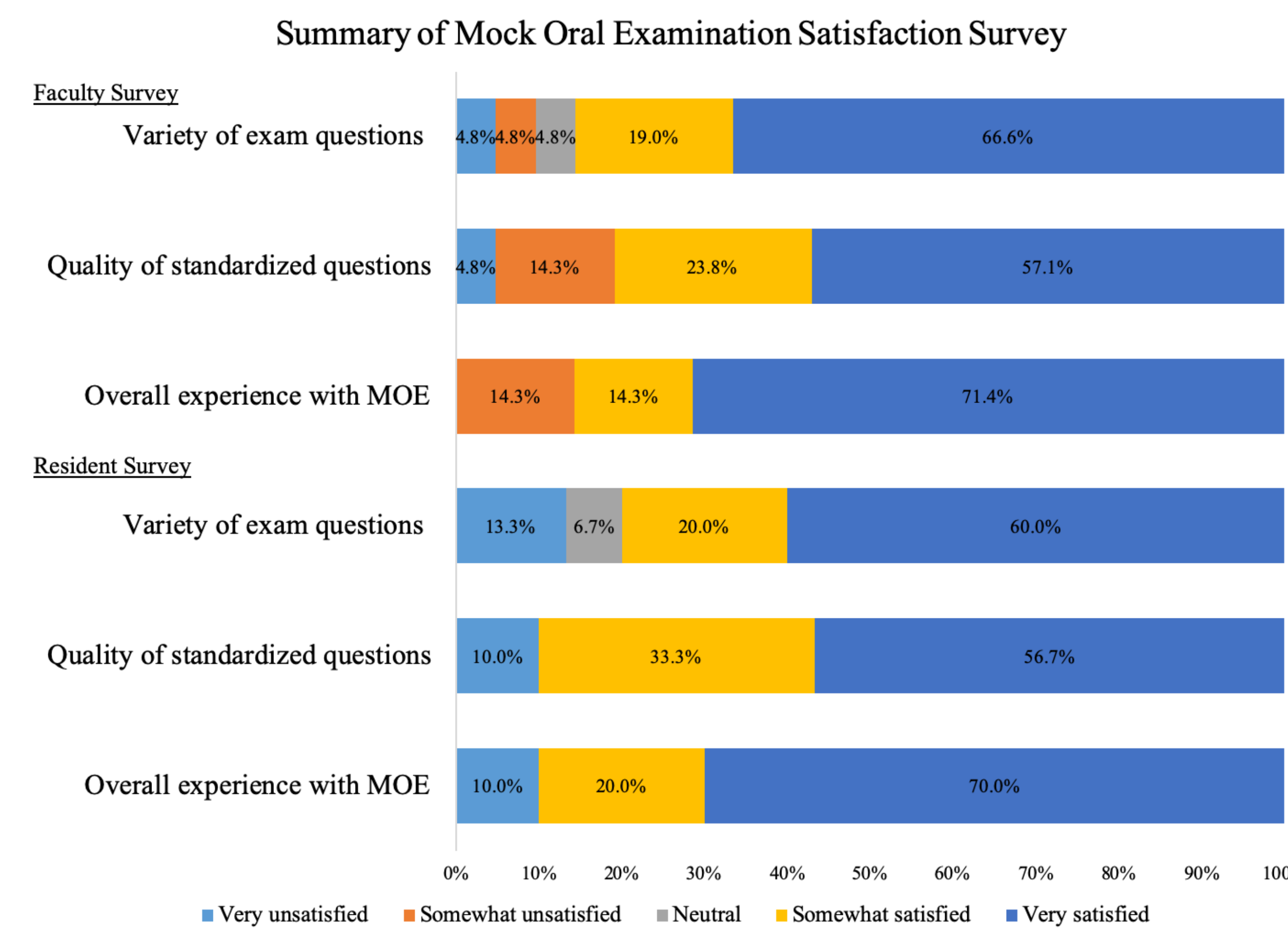FIGURE 1. Resident seniority correlated with higher overall pass rates on the mock oral examination.

Figure 2. The majority of faculty and resident participants reported high satisfaction with the mock oral examination.
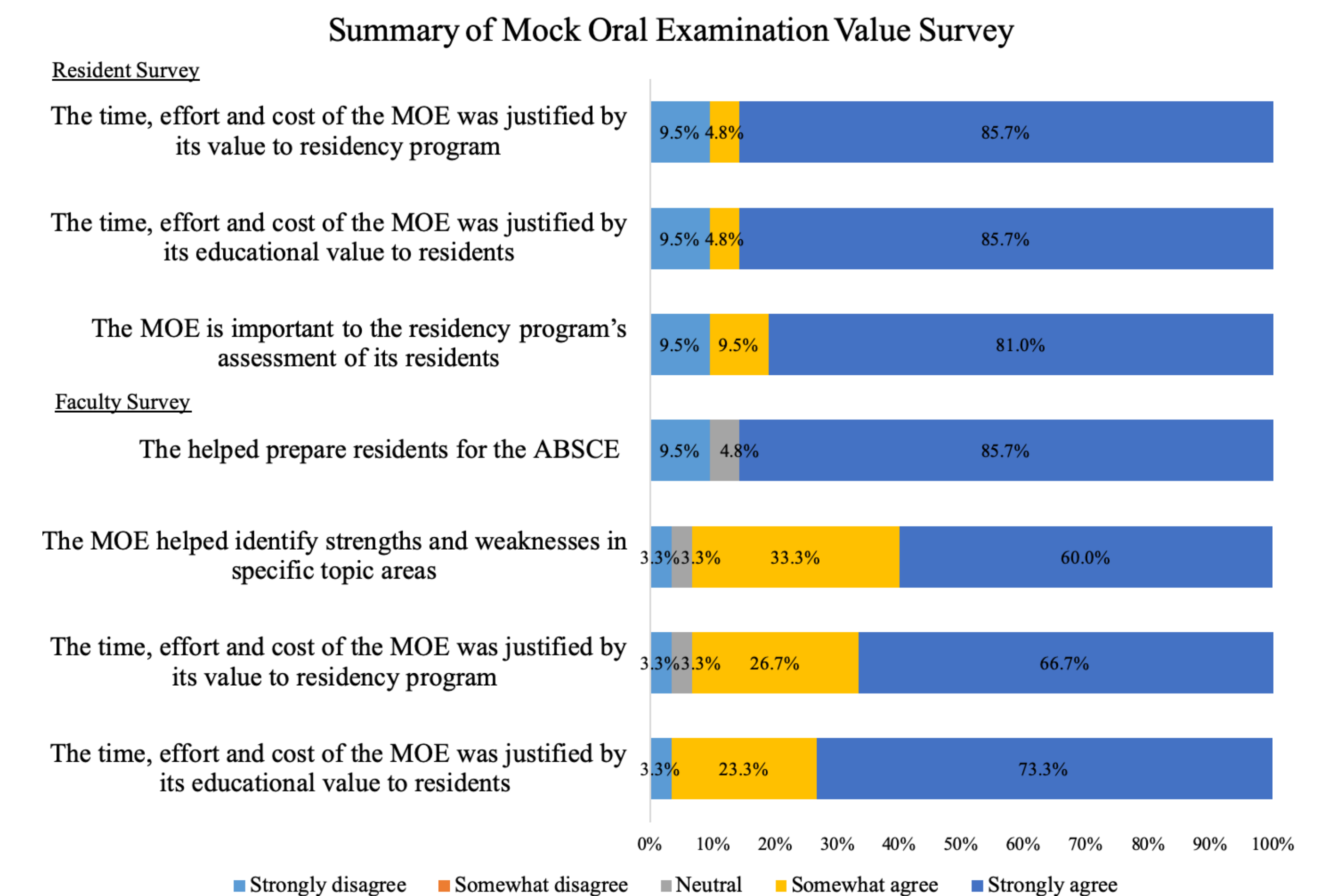
Standardized grading rubrics allowed for moderate inter-rater reliability

70.6, 0.47
(percentage agreement and Kappa)

Higher medical knowledge ratings correlated with stronger trainee performance

0.48
(β, 95% CI 0.29-0.66)

RESULTS

Figure 3. Faculty and residents perceive the mock oral examination experience to be a valuable educational and assessment tool.

CONCLUSION

• The vast majority of faculty and residents agreed that the MOE was a satisfactory educational experience for trainees and a valuable assessment tool for residency programs.

• Our exam afforded moderate inter-rater reliability and demonstrated some evidence to support its construct validity as we found a positive association between a trainee's exam performance and level of training.

• The development of pre-scripted clinical scenarios and standardized grading rubrics enabled the study investigators to build a bank of exam scenarios that can be continually updated and reused for future MOE.

• Standardizing grading rubrics created a consistent exam experience across participants, allowing residents to be compared across clinical years, programs, and longitudinally over the course of their training.

LIMITATIONS

• Examiners were not blinded by resident program and clinical year therefore, there may be some component of examiner bias.

• The post exam resident and faculty survey evaluations were optional and thus, subject to responder bias.

• The study was primarily descriptive in nature and not designed to identify whether multi-institution MOE may be correlated with outcomes such as ABSCE pass rates or trainee performance on clinical rotations.