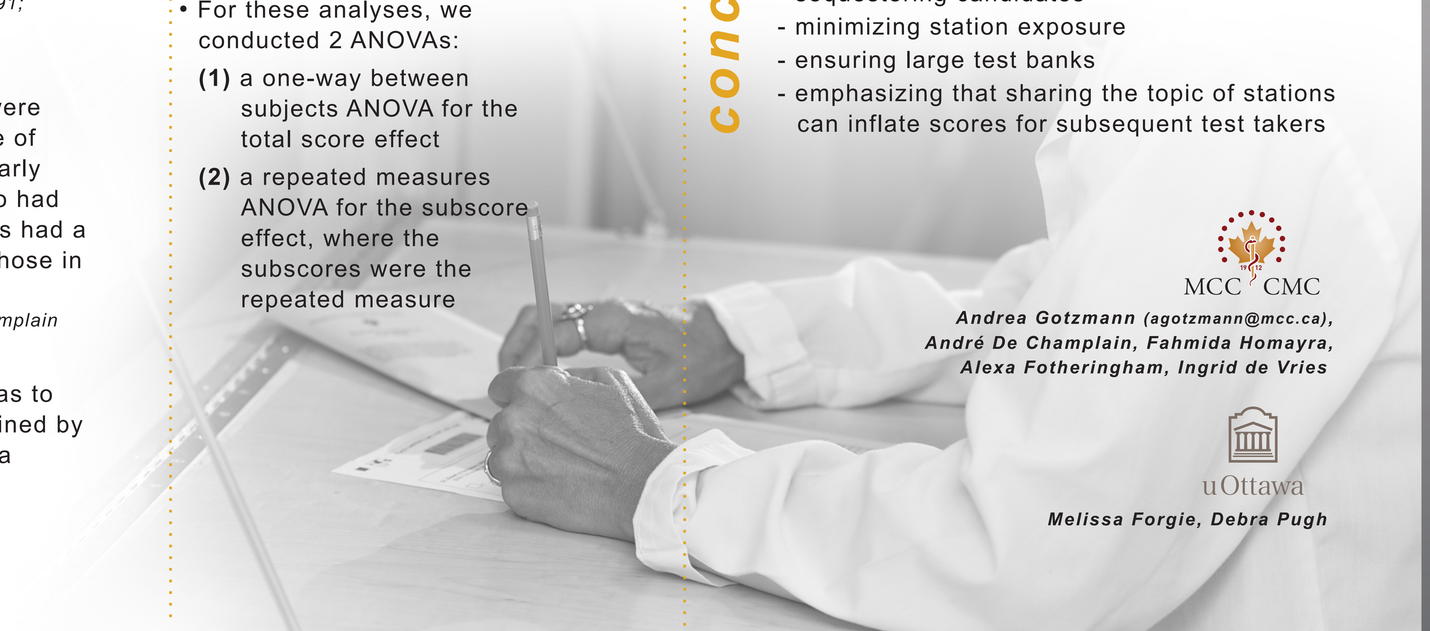
EVIDENCE-BASED CHEATING:
The impact of simulated security breaches on OSCE performance

background 1

- Disclosure of testing materials and dubious test preparation activities could negatively affect the validity of test results inferences and valid score interpretations
  (Cohen & Wollack, 2006; Crooks, Kane, & Cohen, 1996)
- Previous research has evaluated the impact of test security breaches by comparing results on repeated stations over time and found that potential sharing of information did not significantly increase station or total scores
  (Boulet, McKinley, & Whelan 2003; Niehaus, DaRosa, Markwell, & Folse 1996; Rutala, Witzke, Leko, Fulginiti, & Taylor 1991; Wilkinson, Fontain, & Egan, 2003)
- In contrast, 2 studies where outright security breaches were modeled (i.e., the disclosure of OSCE materials) results clearly suggested that students who had prior access to test materials had a significant advantage over those in a control group
  (De Champlain et al. 1999; De Champlain et al. 2000)
- The purpose of this study was to compare OSCE scores obtained by students assigned to either a control condition or 1 of 2 simulated security breaches

methods 2

- Third year medical students who volunteered to participate in this study were randomly assigned to 1 of 3 test conditions:
  (1) Control (i.e., no information provided in advance)
  (2) Grapevine (i.e., list of station topics provided in advance)
  (3) Security Breach (i.e., scoring sheets, answers, content information provided in advance)
- For these analyses, we conducted 2 ANOVAs:
  (1) a one-way between subjects ANOVA for the total score effect
  (2) a repeated measures ANOVA for the subscore effect, where the subscores were the repeated measure



results 3

- There was a main effect between the 3 study conditions, where the largest total score differences were found between the control and the security breach conditions
- The repeated measures effect was different based on the type of subscores, where the highest values were rating scale subscores, followed by the checklist and then oral questions subscores, with the exception of the oral questions for the security breach condition

conclusion 4

- The results of this study indicate that cheating provides a significant advantage to those that engage in this behaviour.
- To minimize the effects of breaches of test security might include:
  - sequestering candidates
  - minimizing station exposure
  - ensuring large test banks
  - emphasizing that sharing the topic of stations can inflate scores for subsequent test takers

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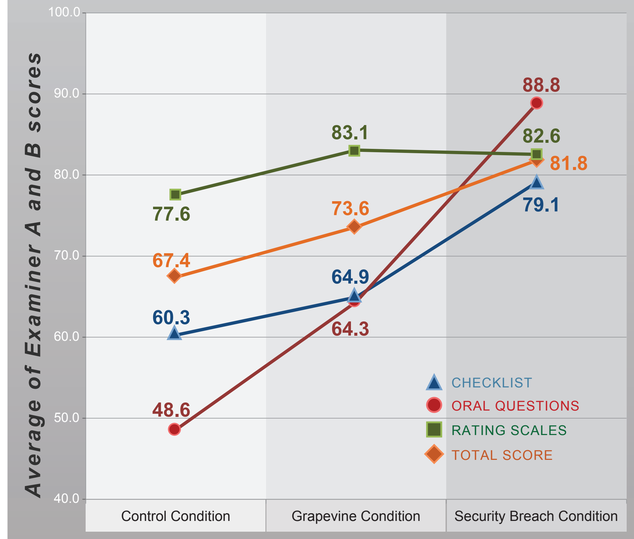
graph

Mean scores for the 3 study conditions



references

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