

# The Impact of Technical Difficulties on Virtual Multiple Mini-Interviews

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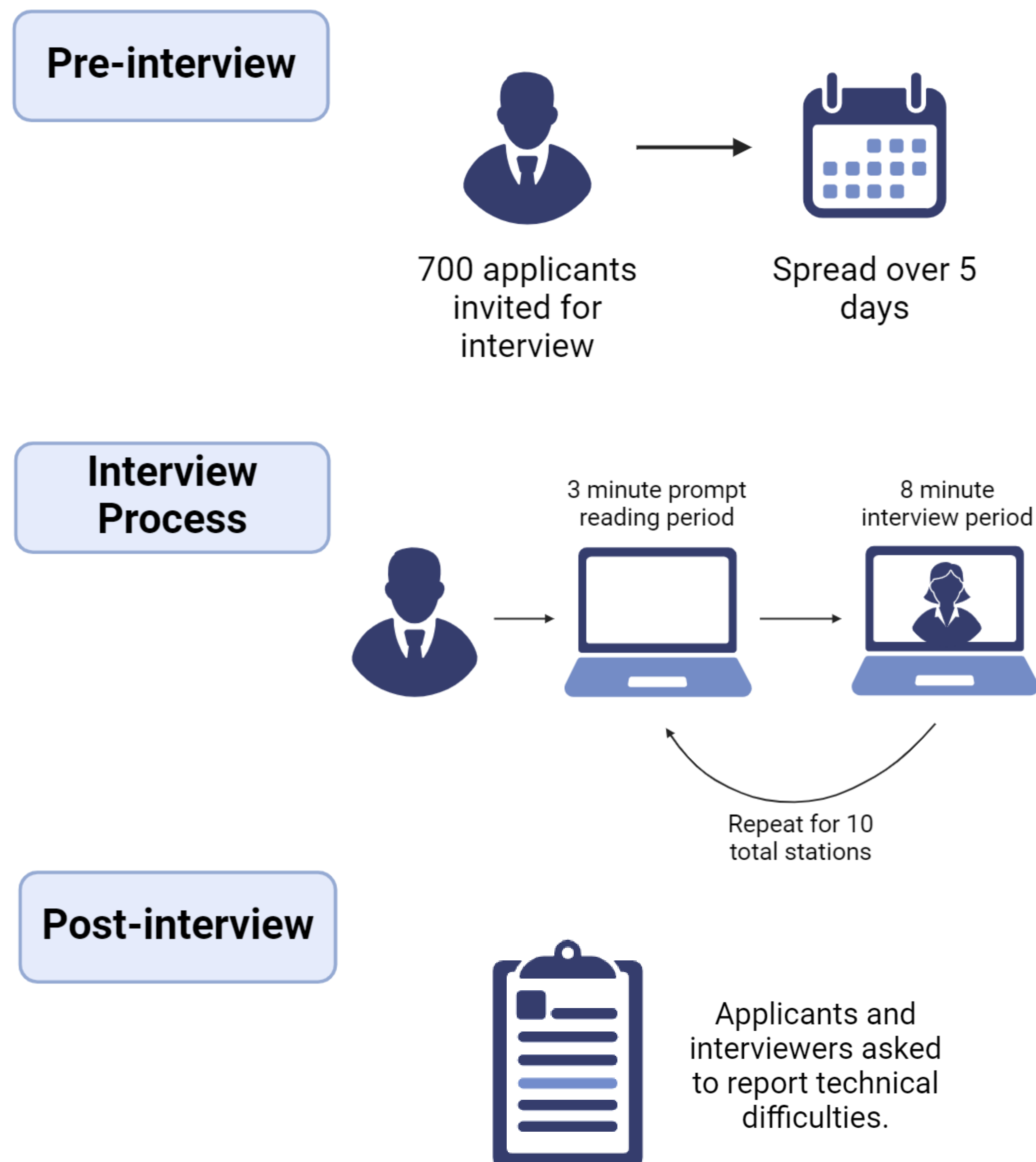
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## Background

- Due to the pandemic and equity issues, many medical school admissions interviews are now conducted virtually.<sup>1-4</sup>
- The risk of technical difficulty negatively impacting selection processes may be particularly great for Multiple Mini-Interviews, which involve large numbers of people.
- To ensure fairness and validity we must determine the impact such problems have on applicant performance and interview reliability.

## Methods

Interviews for admission to the UBC MD Program were conducted virtually in March 2020 for the 2020-2021 application cycle.

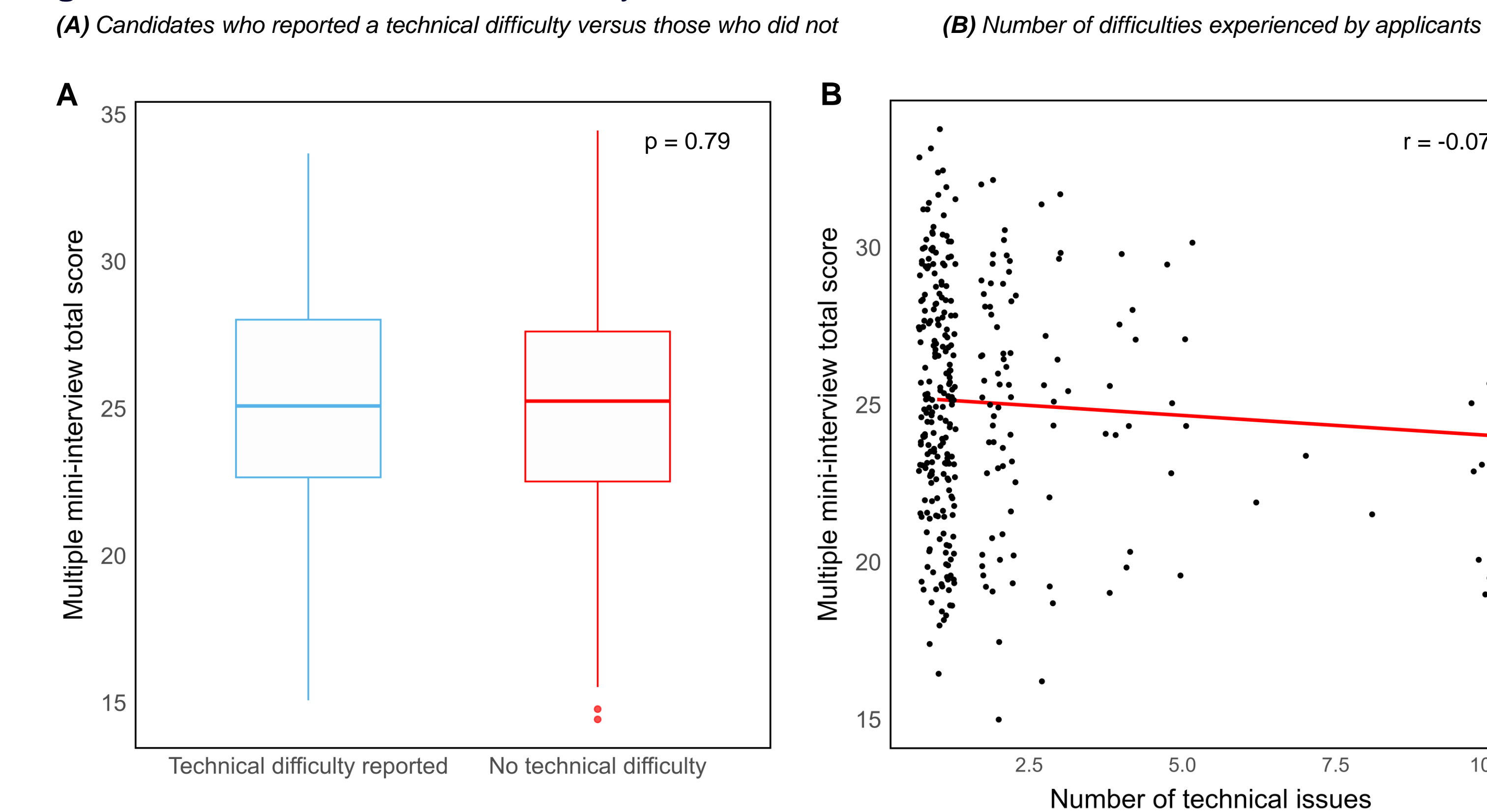


## Results

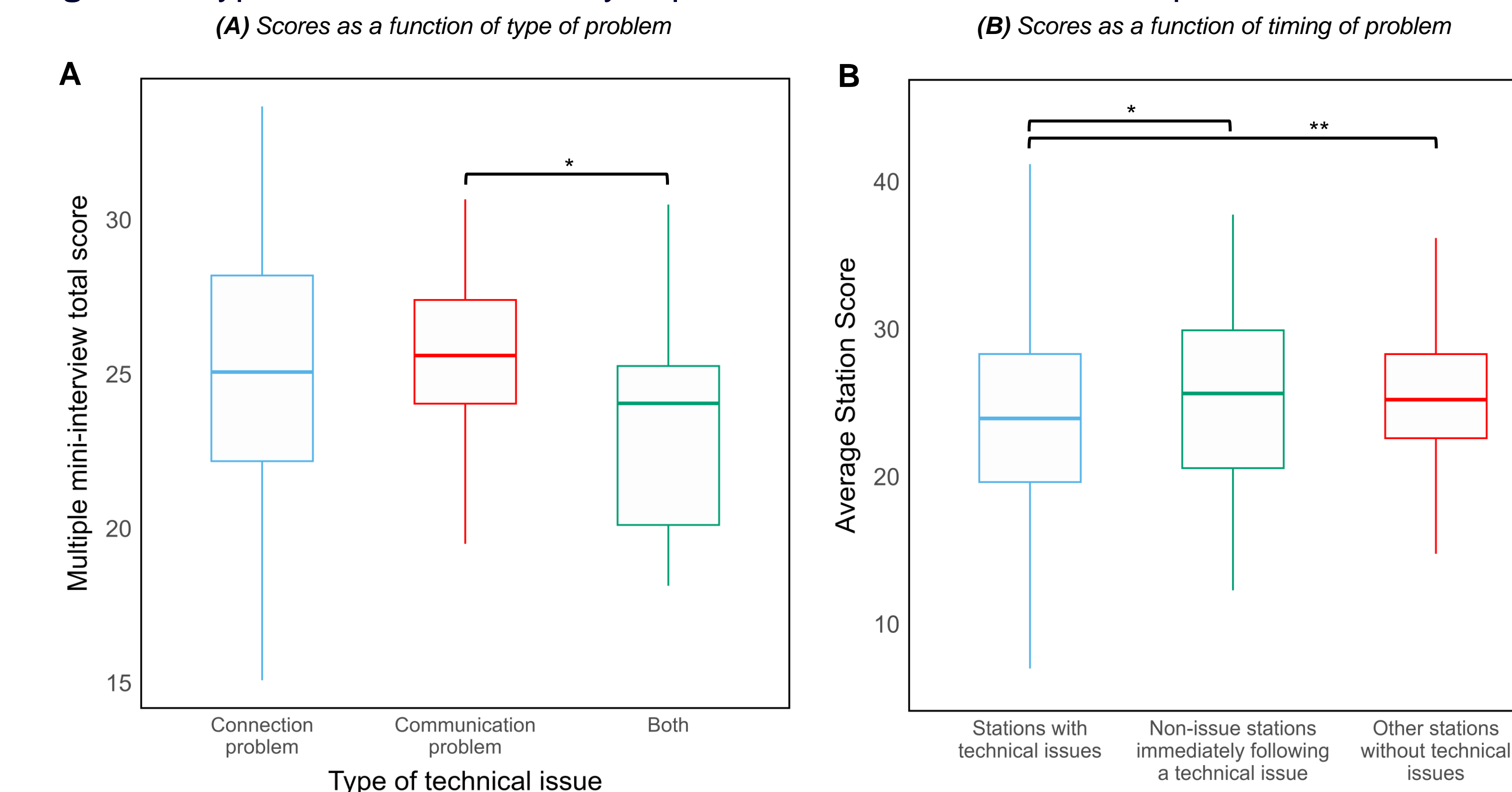
**Table 1:** Incidence and impact of technical difficulties in virtual MMIs

Number of applicants	700
Number who reported a technical issue	324 (46.3%)
Number of technical issues for those who reported at least one problem	Mean=1.9; Inter-Quartile Range=1 to 2
Number of minutes lost per station with reported issue	Mean=2.4; Inter-Quartile Range=0 to 3.5
Number of issues reported by type of problem	
Connection problem	254 (78.4%)
Communication problem	53 (16.4%)
Both	17 (5.2%)

**Figure 1:** Effects of technical difficulty on virtual MMI scores



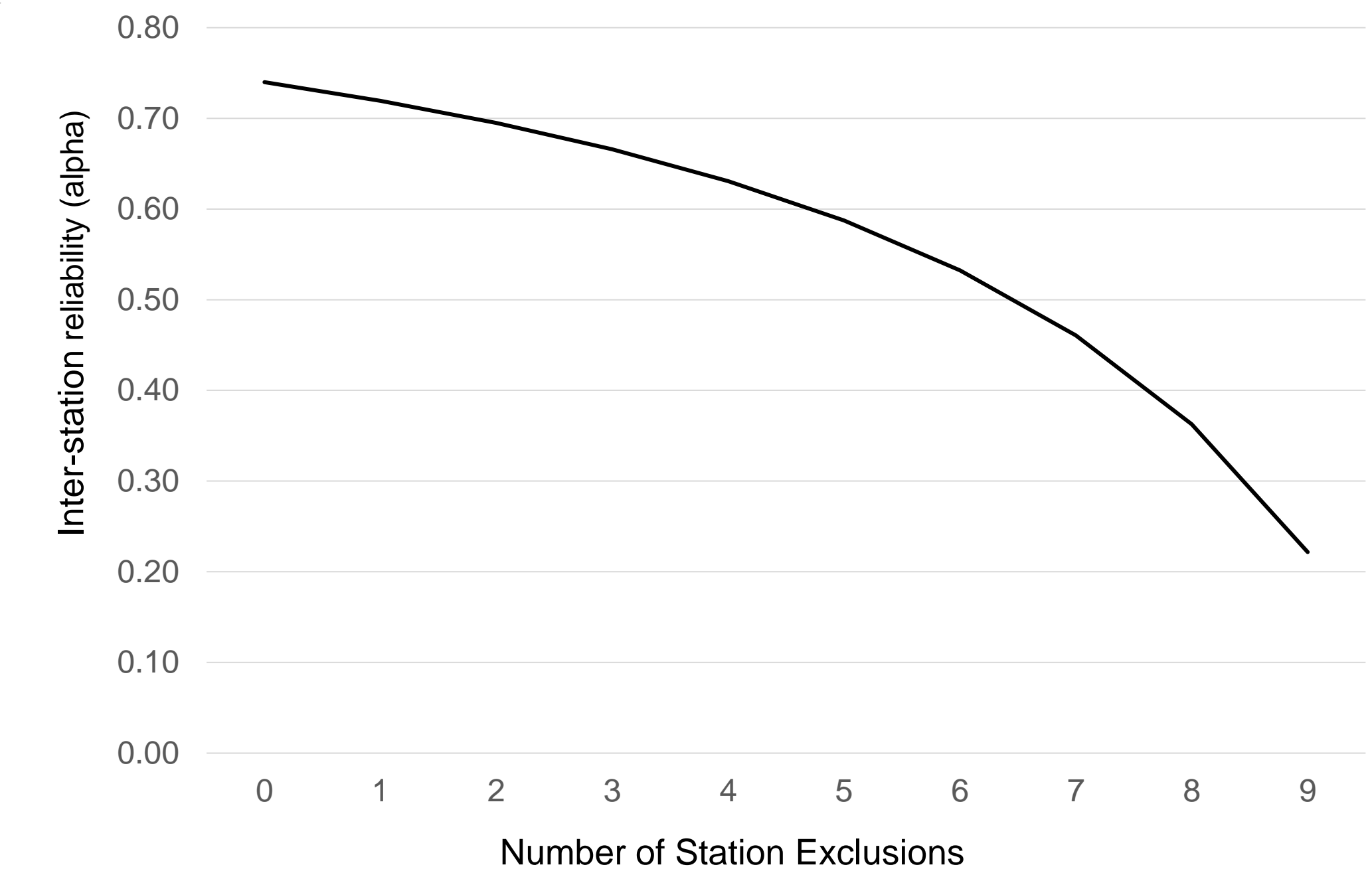
**Figure 2:** Type of technical difficulty experienced and downstream impact



**Table 2:** Reliability (and 95% CIs) of vMMIs for those with a complete data set

Interview date	All applicants (n=633)	Applicants who reported a technical difficulty (n=258)	Applicants who did not (n=375)
Day 1	0.75 (0.68–0.81)	0.72 (0.60–0.82)	0.77 (0.68–0.84)
Day 2	0.71 (0.63–0.78)	0.73 (0.59–0.84)	0.70 (0.60–0.78)
Day 3	0.67 (0.59–0.75)	0.66 (0.51–0.78)	0.68 (0.57–0.77)
Day 4	0.77 (0.71–0.82)	0.76 (0.65–0.85)	0.77 (0.70–0.83)
Day 5	0.79 (0.72–0.85)	0.79 (0.71–0.86)	0.81 (0.64–0.92)
<b>Overall reliability</b>	<b>0.74 (0.71–0.77)</b>	<b>0.74 (0.69–0.79)</b>	<b>0.74 (0.69–0.77)</b>

**Figure 3:** The impact of excluding stations from the 10-station vMMI, as determined using the Spearman-Brown prophecy formula



## Discussion

- Virtual interviews offer (a) cost savings,<sup>5</sup> (b) fewer human resources, (c) convenience,<sup>6</sup> and (d) sustainability.<sup>7</sup>
- Technical difficulties are inevitable, but appeared to impact station scores only when the difficulties were more substantial (i.e., entailed connectivity **and** communication problems).
- Such difficulties occurred only 5.2% of the time and, thus, were not detrimental enough to impact performance on the subsequent station, total score, or interview reliability.
- Whether the impact of other difficulties was minimal due to candidate resilience, interviewer adjustment or both remains to be investigated.
- To protect against lost stations, we encourage programs to maximize station number as a means to enable robust measurements even if a station or two needs to be abandoned due to technical difficulties.