

Effect of Surgical Council on Resident Education (SCORE) Curriculum Implementation on American Board of Surgery In-Training Examination (ABSITE) Scores



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Introduction

- ABSITE performance has been known to positively correlate with passing both the qualifying and certifying board exam. The Surgical Council on Resident Education (SCORE) curriculum was developed to provide a comprehensive, standardized online curriculum and has since gained subscription from over 97% of accredited general surgery residency programs. Subscription is associated with improvement in board exam pass rates.
- There has been no study on the effect of SCORE subscription on ABSITE performance. The General Surgery residency program at Spectrum Health has only recently implemented the SCORE portal in 2018 and this study will look at the effect of SCORE curriculum and portal usage on ABSITE performance.

Methods

- Individual ABSITE performance and SCORE portal usage were de-identified and collected with REDCap.
- Statistical analysis was performed using mixed effects regression, with ABSITE performance as the dependent variable and status of SCORE curriculum implementation and post-graduate year (PGY) level as the independent variable. The random variable was the resident.
- Secondary analysis was performed to compare ABSITE performance in respect to actual SCORE curriculum portal usage (either as minutes spent online or number of visits to the SCORE portal) and PGY level of the resident.
- The analyses were performed using negative binomial mixed effects regression. The ABSITE percentile in 2019 was the outcome variable in two separate analyses. Time duration or number of visits, along with the 2018 ABSITE percentile scores, were the independent variables, and the resident was the random variable. Due to their non-normal distributions, time duration and number of visits were modified using the inverse hyperbolic sine transformation prior to the analyses.

Results

Figure 1. Pre-SCORE vs. Post-SCORE ABSITE Percentiles

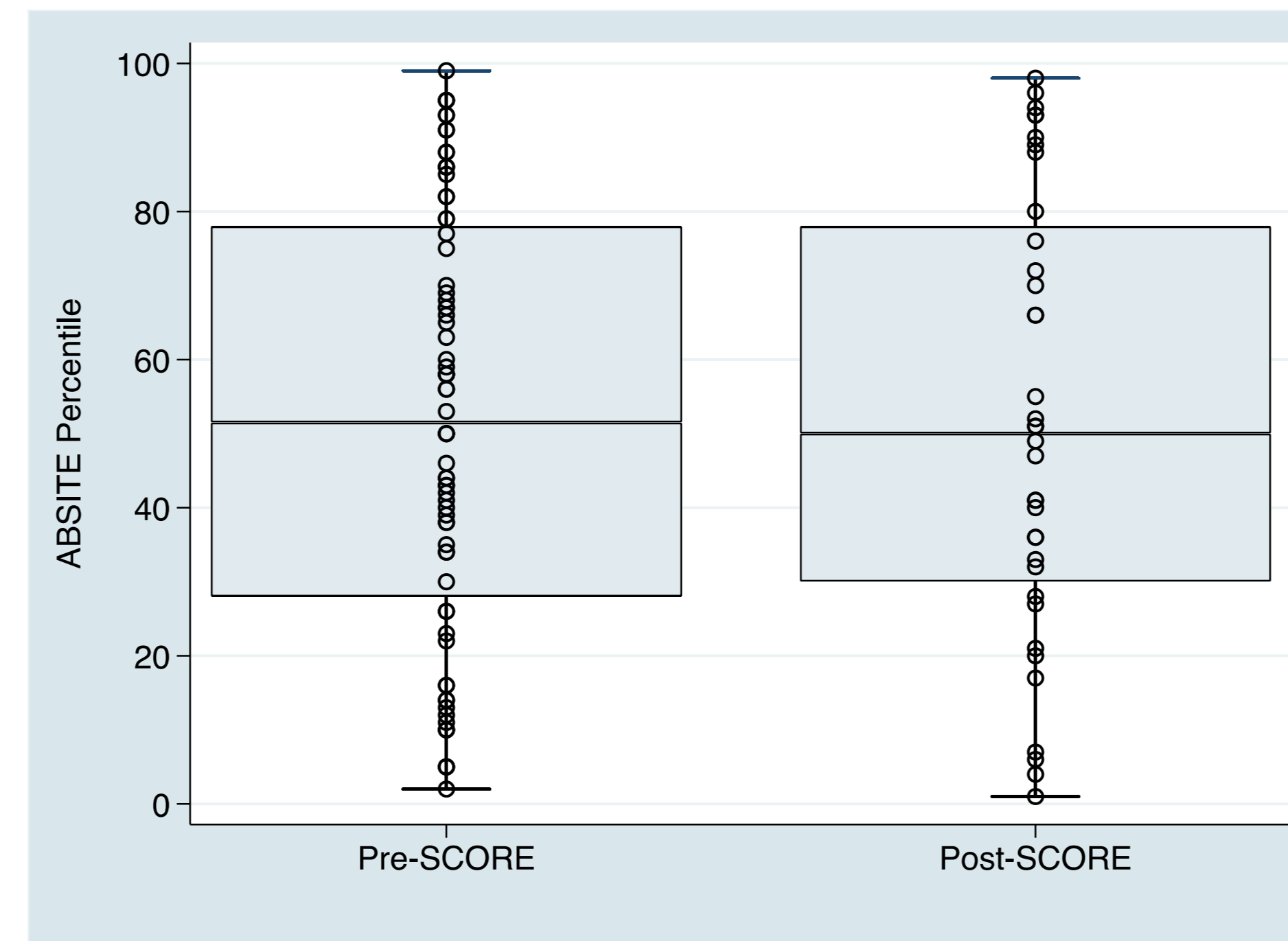
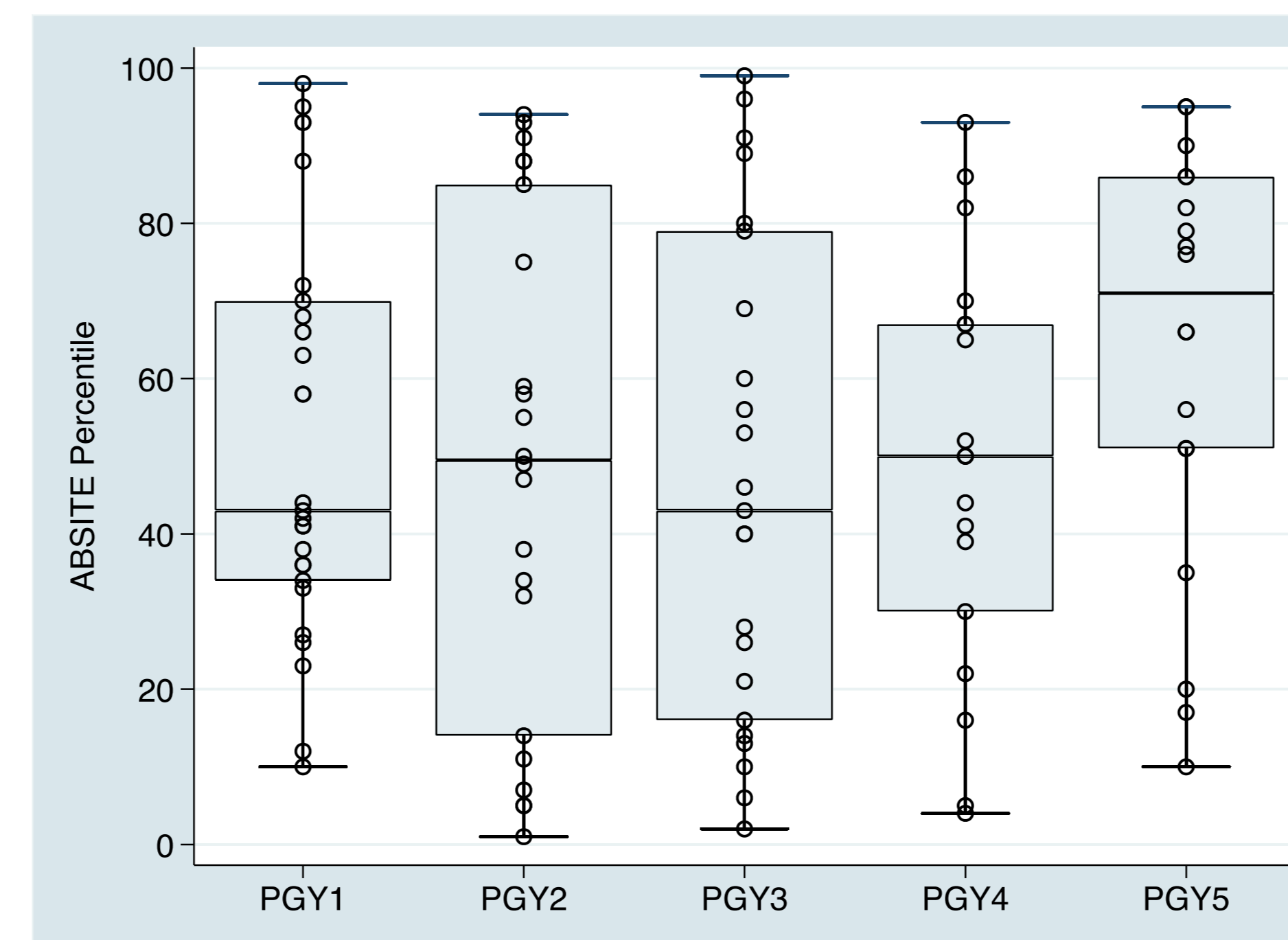


Figure 2. PGY ABSITE Percentiles



Results (continued)

Table 1. Relationship of Number of Visits to SCORE Portal to ABSITE 2019 Percentile Score

	Coefficient	Standard Error	p-value
ABSITE 2018	0.017	0.006	0.004
Number of Visits	-0.026	0.122	0.832

Table 2. Relationship of Duration of Visits to SCORE Portal to ABSITE 2019 Percentile Score

	Coefficient	Standard Error	p-value
ABSITE 2018	0.016	0.006	0.004
Duration of Visits	-0.027	0.084	0.740

- There were 32 to 36 general surgery residents who took the ABSITE examination from 2018 to 2019.
- Our analysis showed no statistically significant difference in ABSITE performance pre and post SCORE curriculum implementation (Fig 1: 58% vs. 51%, $p=0.68$).
- There was also no significant difference between PGY levels (Fig 2).
- The duration of time spent on SCORE curriculum in minutes (439-1635 minutes, $p=0.74$) or number of visits to the SCORE portal (32-91 times, $p=0.83$) were not predictors of ABSITE improvement (Tables 1 and 2).
- In both analyses, eight of the subjects had an increased, and the other eight had a decreased score.

Conclusion

- This study suggests SCORE subscription does not necessarily correlate with improved ABSITE performance and that general surgery residents in our program have been utilizing resources other than the SCORE portal to supplement their ABSITE preparation.
- Future study will include resident surveys on their usage of independent study resources and question banks to identify specific resources that may positively impact ABSITE performance.