

INTRODUCTION

- Escape rooms are increasingly being used in academic settings to create a new and engaging learning experience.¹
- Escape rooms have been implemented in nursing education to improve patient safety and overall clinical outcomes as well as increase student recruitment.^{2,3}
- In pharmacy education, escape rooms have been used to teach clinical information and for preceptor development.^{4,5}
- In 2013, pharmacy school applications reached an all time high after rapid expansions in the number of pharmacy schools in the early 2000s. Since 2017, the annual number of pharmacy school applications has dropped by 20%.⁶
- This steady decline in applications has mandated a need for innovative methods to increase student engagement in interactions to highlight the changing field of pharmacy. Early exposure is key to attracting students to healthcare professions.⁷
- Programs targeting education of early-pipeline students about healthcare careers are effective in increasing career awareness and promoting more diverse applicant pools in healthcare.⁸
- Shenandoah University School of Pharmacy designed an educational virtual escape quest with the objective of increasing high school student knowledge of and interest in pharmacy careers. The activity was piloted in Spring 2023 and launched for the 2023-2024 academic year.

OBJECTIVES

- To create and implement an innovative method to increase engagement in interactions with potential pharmacy school applicants.
- To evaluate the impact of a virtual escape quest on high school student perceptions and knowledge of pharmacy careers.

METHODS

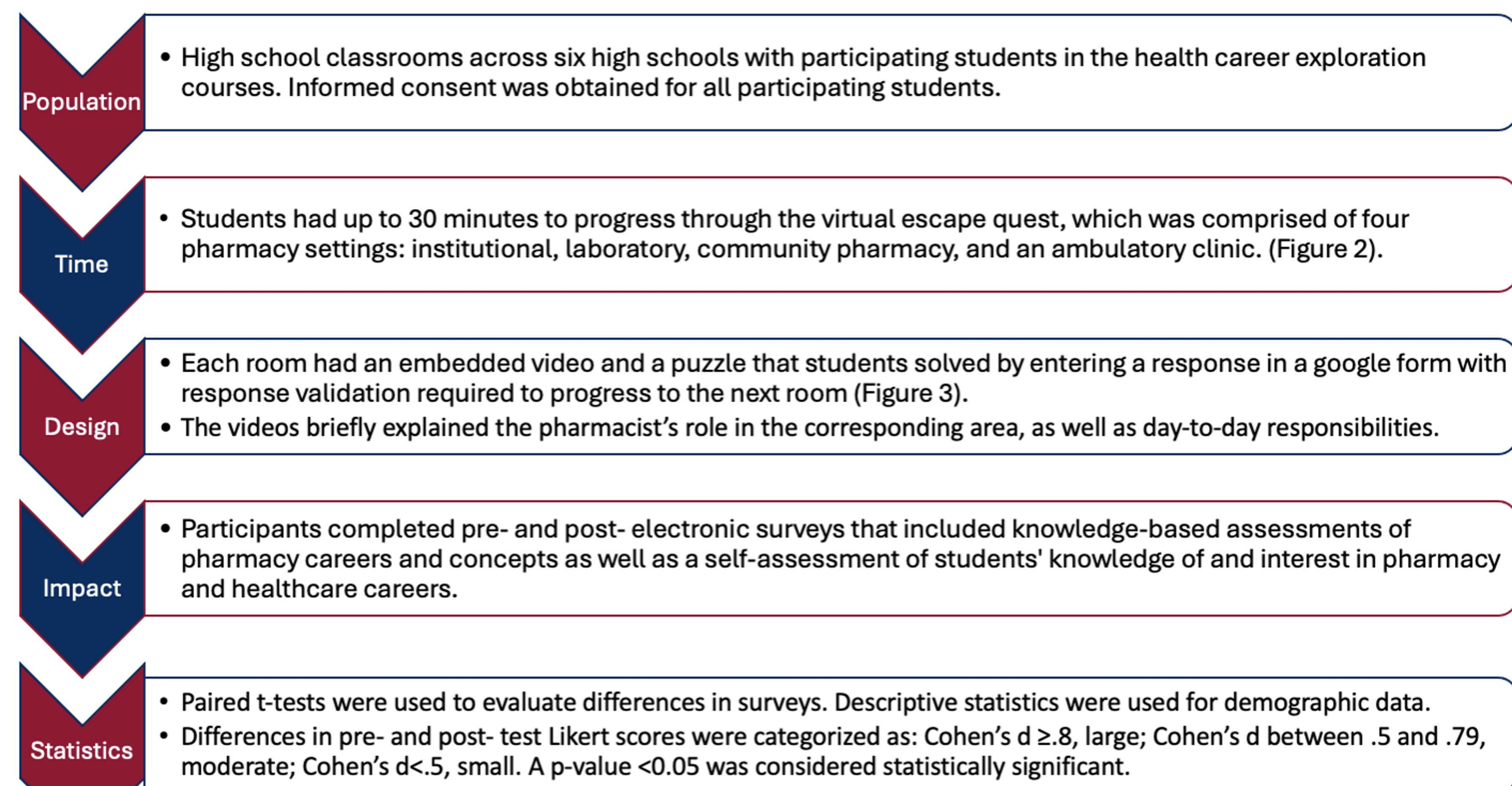


Figure 1. Overview of methods design and implementation

METHODS (CONTINUED)



Figure 2. Homepage of pharmacy escape quest

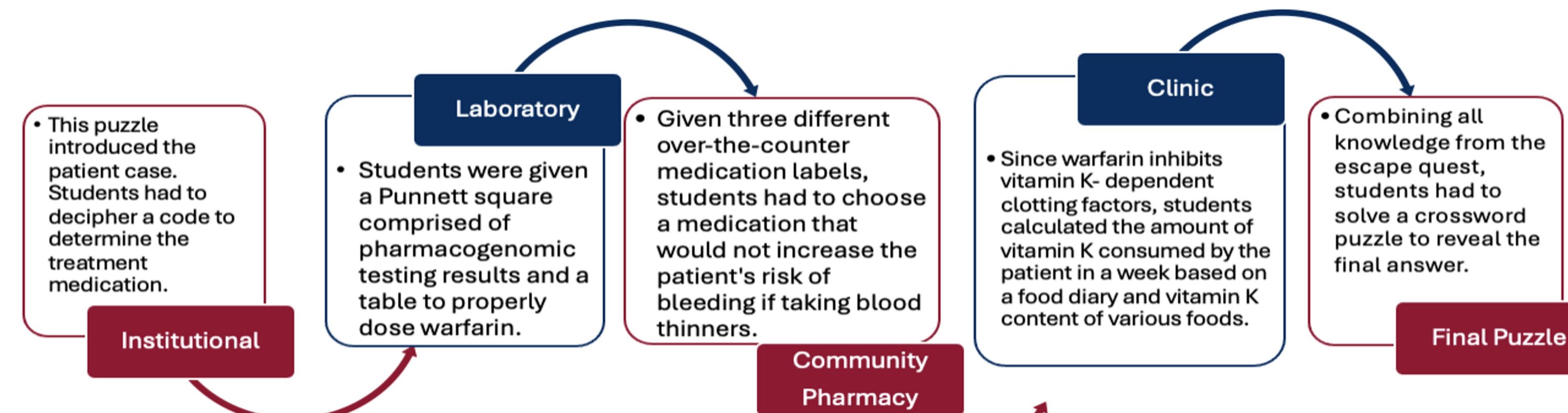


Figure 3. Escape quest rooms' content and flow

RESULTS

Table 1. Demographic data of student participants

	Variable	N	Percent
Student Respondents= 183			
Grade	9	8	4.4%
	10	71	38.8%
	11	75	41.0%
	12	29	15.8%
Age (Years)	14	8	4.4%
	15	48	26.2%
	16	80	43.7%
	17	41	22.4%
	18	6	3.3%

Table 2. Pre- and post-activity Likert ratings of participant knowledge and consideration of healthcare careers

Domain	Pre-	Post-	p-value*	Cohen's d	Difference
Knowledge of Healthcare Career Options	3.10	3.50	<0.001	0.544	Moderate
Knowledge of Pharmacy Careers	1.92	2.95	<0.001	1.102	Large
Knowledge of Education Avenues	1.90	2.86	<0.001	0.982	Large
Consideration of Career in Healthcare	4.33	4.35	0.593	0.042	Small
Consideration of Career in Pharmacy	2.20	2.54	<0.001	0.391	Small

*p-values from two-sided Chi square tests with significance level of 0.05

RESULTS (CONTINUED)

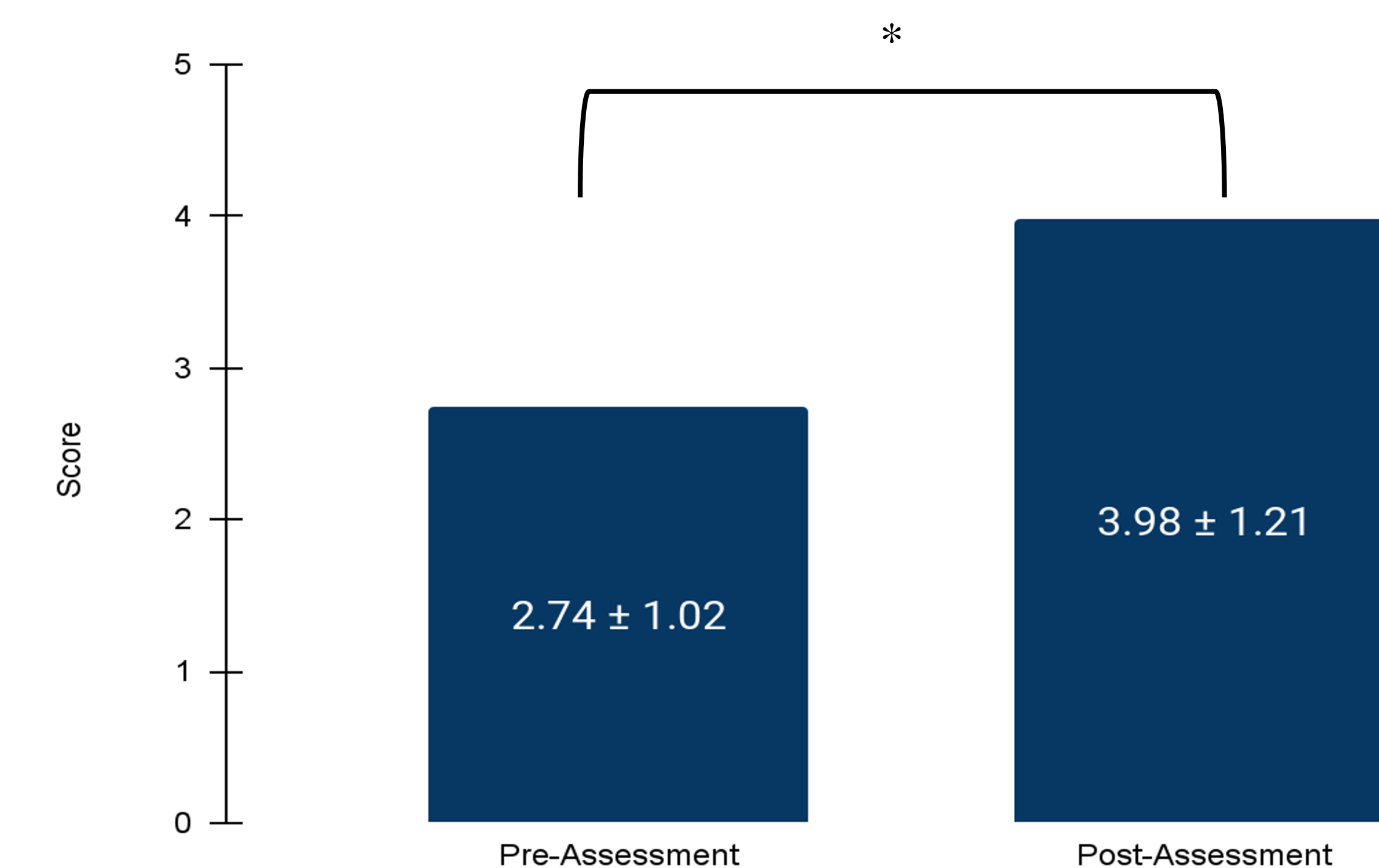


Figure 3. Average pre- and post-activity knowledge assessment scores with a maximum possible score of 5. *P < 0.001, Cohen's d = 0.97

23.4%

increase in pre-/post- knowledge based assessments.

CONCLUSIONS

- Completion of the virtual pharmacy escape quest had a large impact on knowledge of pharmacy education avenues and of pharmacy careers, a moderate increase in knowledge of healthcare careers, and a small impact on interest in pharmacy careers. There was no impact on interest in healthcare careers. This could be due to the targeted population already having a baseline interest in healthcare.
- Increasing knowledge of pharmacy careers and education pathways is the first essential to expanding the pipeline.
- The impact of the activity may be limited due to its single-session nature.
- Given that the targeted students are early in the pipeline, the actualized impact on pharmacy admissions, more specifically matriculation, will be significantly delayed.
- Targeting students with a baseline interest in a specific healthcare career may have a more limited impact than students who are undecided on career.
- Further study is needed to assess how the activity impacts interest in the long-term. Additionally, more studies could be conducted in students that did are younger and earlier in education.

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