Exploring Predictors of Medical Career Motivation Among Hawai‘i High School Students

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Background

- Hawai‘i faces a significant physician shortage–seen more drastically on the outer Hawaiian islands
- It is relative to explore why not as many students from outer islands go to JABSOM, or do not go on to practice within Neighbor Island communities
- Self-reported factors of high school students relative to the intention to pursue medical careers for Oahu and Neighbor Island High School Students

Premedical Values & Ethics | **Academic Confidence** | **Medical Career Intentions**

Study Purpose

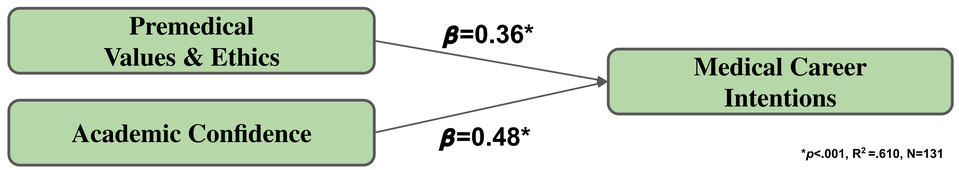
The purpose of this study was to examine differences between Oahu and Neighbor Island students in their medical career intentions, academic confidence, and professional values, and to determine whether confidence and professional values predict students' intentions to pursue medical careers.

Research Questions

Q1: Do Oahu and Neighbor Island students differ in their medical career intentions, academic and professional confidence, and pre-professional values and ethics?

Q2: To what extent do academic and professional confidence and pre-professional values predict students' medical career intentions?

Findings Intercorrelations among the examined variables



*p<.001, R^2 =.610, N=131

- **Neighbor Island** students scored **significantly higher** on **Medical Career Intentions**, t(117.90) = 2.89, p = .005; **Academic Confidence,** t(125) = 2.52, p = .013; and **Pre-Medical Values & Ethics**, t(107.21) = 4.53, p < .001.
  - ➢ These findings suggest large and meaningful differences, with Neighbor Island students expressing stronger medical motivation, academic confidence, and professional value orientation than their Oahu counterparts.
- Students who reported greater confidence in their academic and professional abilities and stronger professional values also reported higher intentions to pursue a career in medicine.
- Limitations: Results may have been influenced by differences in participant backgrounds. Specifically, Neighbor Island students' were enrolled in health career pathway courses, while O‘ahu students' students participated in a combination of STEM programs and health career pathways. As well, there is potential for sampling bias as the responses to each of the survey constructs is self-reported by students and reflects intention as opposed to outcomes.

Demographics 122 Participants (59 Neighbor Island, 63 O‘ahu)

Procedure

High school students across Hawai‘i participated in a 4-hr pre-medical outreach workshop activity. After finishing the activity, participants completed a survey of self-reported questions, which were used to assess three measures: *Medical Career Intentions* *Academic Confidence*, and *Pre-Medical Values & Ethics*. Independent-sample t-tests were conducted to explore comparisons between Oahu and Neighbor Island students on these measures, and multiple regression analyses examined whether *Academic Confidence* and *Pre-Medical Values & Ethics* predicted *Medical Career Intentions.*

Premedical Values & Ethics , Reliability: α=.85, N of Items=4

Item	Correlated Item Total Correlation	Cronbach's Alpha
How important do you think honesty, ethics, and professionalism are in becoming a medical doctor?	.54	.87
How likely are you to advocate for patients and their well-being in the future?	.78	.78
How likely are you to work collaboratively with other healthcare professionals in a future medical career?	.78	.77
How likely are you to pursue lifelong learning to stay current with medical advancements?	.71	.81

Academic Confidence Reliability=.83, N of Items=4

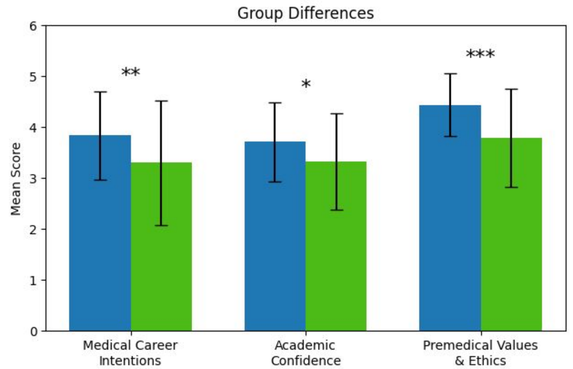
Item	Correlated Item Total Correlation	Cronbach's Alpha
How confident are you in your ability to succeed in a pre-medical college program?	.73	.74
How confident are you in your ability to handle the academic challenges of medical schoo⁄?	.65	.78
How likely are you to continue developing skills in science, critical thinking, and problem-solving to prepare for a medical career?	.67	.77
How likely are you to engage in volunteer work or community service related to healthcare?	.56	.82

Medical Career Intentions , Reliability: α=, N of Items=4

Item	Correlated Item Total Correlation	Cronbach's Alpha
After participating in this medical activity, how likely are you to pursue a career in medicine?	.85	.85
How likely are you to apply to medical school in the future?	.81	.87
How interested are you in exploring different medical specialties?	.68	.91
How likely are you to seek mentorship from medical professionals after this activity?	.80	.87

59 Neighbor Island Participants

63 O‘ahu Participants



Group Differences. Neighbor Island students scored significantly higher than O‘ahu students on medical career intentions, academic confidence, and premedical values and ethics. Error bars represent standard deviations. p < .05 = *; p < .01 = **; p < .001 = ***.

Conclusions & Study Implications

- Neighbor Island high school students self-reported significantly higher Medical Career Intentions, Academic Confidence, and Pre-medical Values & Ethics than Oahu high school students.
- Regression analysis suggests academic confidence and pre-medical values jointly account for substantial variance in students' intentions to pursue medical careers

References

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