

Title

A HEADS-UP Project: Early Intervention in Immigrant and Refugee Youth Populations Increases Medical Knowledge and Interest in the Medical Field

Authors

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Abstract Body (250 words)**Background**

The lack of diversity in medicine compromises patient access, safety, and the quality of care received. Enriching the pipeline of underrepresented minorities in medicine is a proposed strategy to improve healthcare workforce diversity. Addressing a need for engaging immigrants and refugees (affectionately known as New Americans) in medical careers, OSUCOM students designed a program, HEADS-UP, to provide health education to youth ages 6-14 with a goal of increasing medical knowledge, interest in higher education and health careers, and exposure to a diverse cadre of health professionals.

Description

Students were separated by age and received 16 lessons over 8 weeks on medical knowledge. Comprehension was evaluated with pre- and post-testing and data was analyzed using average increase in score per subject. Feedback regarding interest in medicine and higher education was elicited.

Outcome

Ages 6-7 showed significant increases in total test, first aid/substance abuse, and musculoskeletal. Ages 8-10 showed significant increases in total test, musculoskeletal, cardiology, neurology, and careers. Age 11+ showed significant increase in nutrition. Qualitative feedback suggested increased interest in medically related education, confidence in achieving mastery of medical knowledge, and desire for program continuance.

Conclusion

Early intervention in New American youth increases medical knowledge. Our program was most effective for ages 8-10. Increasing interest in medicine in New American youth will potentially create more diverse and culturally competent health professionals. Next steps include program expansion to include more students and involving the College of Education in lesson planning. A longitudinal component extending the program throughout the school year is underway.

Figures and Tables

Effect of HEADS-UP Curriculum on medical knowledge and medical career interest (Table 1)

Subject Age (years)	Combined Topics		Nutrition		First Aid & Substance Abuse		Musculoskeletal		Cardiology		Neurology		Careers	
	Percent change	p-value	Percent change	p-value	Percent change	p-value	Percent change	p-value	Percent change	p-value	Percent change	p-value	Percent change	p-value
6 to 7 (n=8)	13%	0.05	3%	0.342	38%	0.04	23%	0.01	10%	0.108	13%	0.175	16%	0.201
8 to 10 (n=28)	12%	0.0001	5%	0.123	0%	0.5	18%	0.001	12%	0.005	15%	0.02	17%	0.0002
≥11 (n=12)	4%	0.222	10%	0.027	-3%	0.252	5%	0.279	4%	0.426	0%	0.428	12%	0.107

Table 1: Effect of HEADS-UP curriculum on medical knowledge and medical career interest. Average percent change between pre- and post-test scores are shown, with corresponding p-values. Bold font indicates statistical significance at the p<0.05 level.

