

Abstract

Introduction

Colorado contains some of the highest elevation terrain in the lower 48 states with many ski resorts and peaks over 10,000 feet. The geography coupled with Colorado's booming tourism industry has lead to increased incidents of altitude illnesses in rural towns. As more people visit Colorado's high altitude terrain, the necessity of altitude medicine curriculum for future rural physicians is necessary.

Purpose

The altitude medicine curriculum is meant to introduce physiology, pathophysiology, differential diagnoses, and treatment of common altitude illnesses. Furthermore, the survey used will help gauge first year medical student interest in wilderness medicine as well as the effectiveness of the lecture curriculum.

Methods

The curriculum itself was developed into an hour and fifteen minute lecture followed by a hands on activity of transportation in the backcountry. The survey was done pre and post lecture with five questions. Each of the questions rated the students' answer on a scale of 1-5 with 5 being the most comfortable or confident. The pre and post lecture results were compared against each other using a t- test to determine the effectiveness of the lecture as well as the students' interest in wilderness medicine and their perceived importance of wilderness medicine.

Results

The survey question of comfort explaining the pathophysiology of altitude illness increased from an average comfort of 1.41 pre lecture to an average of 4.06 post lecture. The p value was >0.001 . Furthermore, the question assessing confidence in diagnosing and treating altitude illness increased from 1.24 to 3.76 with a p value of >0.001 . These showed significant increases. The question about student interest in learning more about wilderness medicine increased from 4.24 to 4.65 with a p value of 0.049. Finally, the question of importance of knowing wilderness medicine for rural providers increased from 4.65 to 4.71 but had a p value of 0.750.

Conclusion

The survey results showed statistically significant increases in student comfort diagnosing and treating altitude illnesses and explaining the pathophysiology. The student interest in wilderness medicine also had a significant increase. However, the students' perceived importance of wilderness medicine knowledge for rural physicians was not significantly increased. The lecture and curriculum was successful in teaching an introduction to high altitude medicine and fostering interest in wilderness medicine among first year rural program medical students.

