



First-year Medical Student Clinical Confidence on Global Health Immersion Trip

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Introduction

There is insufficient literature describing the impact of global health immersion trips on first year medical students or how prepared they are clinically to be undertaking such trips. Abedini et al demonstrated that 85% of first-year students at the University of Michigan Medical School who participated in one-week international service-learning trips perceived some improvement in clinical or language skills and/or knowledge of the health care system in the countries visited (1). This is one of the only reports of benefits of first-year medical student global health trips specifically. There is no specific information regarding what clinical knowledge shows improvement and to what extent.

Research Question

The purpose of this research is to add to the body of literature on first-year medical student education in a global health setting. The specific aim is to examine how confidence evolves in first year medical students over the course of a global health immersion trip and to extract what diagnoses specifically first-year medical students are equipped to make. An aim is also to identify which diagnoses are lacking confidence to better train University of Arizona College of Medicine- Phoenix medical students leading up to their annual trip.

Materials and Methods

This study was a survey involving confidence ratings in diagnoses provided by University of Arizona College of Medicine- Phoenix first year medical students who participated in a week-long medical trip to bateyes (rural communities of sugar cane workers) surrounding Santo Domingo, Dominican Republic in 2019. This study received IRB approval. Confidence in diagnosis was determined by a five-point Likert scale. Diagnoses were separated into categories by body system.

Results

15 students participated in completing charts. There were no significant differences in student confidence ratings over time when including all time points. There was a statistically significant increase in confidence from 5/28 and beyond ($p=0.001$). There were no significant differences in student confidence ratings amongst category of diagnosis.

The first day of clinic was the time point with the highest mean confidence of $4.23 \pm .84$. The most extreme decrease in confidence occurred between the first and second time points ($4.23 \pm .84$ to $3.63 \pm .97$). The second and third time points were the lowest reported student confidence level ($3.63 \pm .97$ and $3.62 \pm .73$) and confidence increased over the sequential three time points ($3.65 \pm .79$, $3.78 \pm .67$, $4.16 \pm .95$).

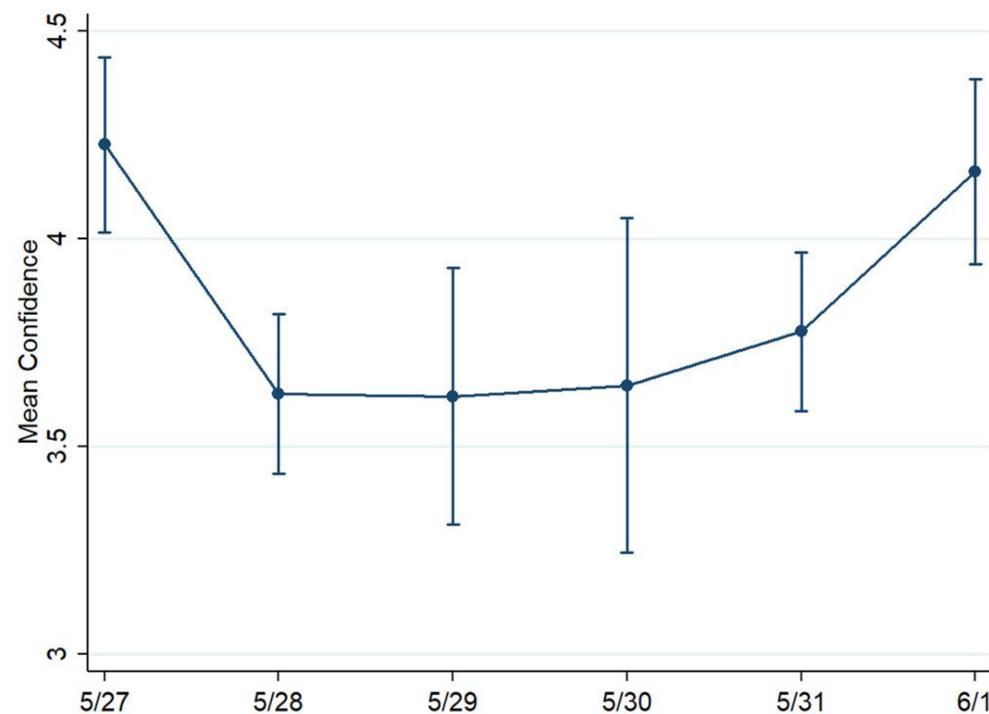


Figure 1: 2019 mean student confidence over time. 5/27 included 62 student confidence rating-diagnosis pairs, 5/28 (75), 5/29 (29), 5/30 (17), 5/31 (76), 6/1 (56) . Brackets represent standard deviation.

Likert scale:

- 5- very confident
- 4- confident (would love a test)
- 3- neutral
- 2- not so sure
- 1- not sure at all (need to refer to a specialist)



Conclusion

The results demonstrated that overall, students reported similar confidence throughout the trip. There was a large decrease in confidence level from the first to the second time point and this is likely attributable to being redirected by attending supervision. Confidence then gradually increased throughout the trip. Unfortunately, weaknesses in certain subject areas were not able to be elicited as students reported similar confidence for all categories. A future direction of this study would be to follow these patients and obtain data on whether diagnoses were in fact correct and correlate this with student confidence.

Summary

- Overall, students reported similar confidence throughout the trip
- There was a large decrease in confidence level from the first to the second time point, followed by increasing confidence
- Weaknesses in certain subject areas were not able to be elicited as students reported similar confidence for all categories

References

1. Abedini NC, Gruppen LD, Kolars JC, Kumagai AK. Understanding the effects of short-term international service-learning trips on medical students. Acad Med. 2012 Jun;87(6):820-8. doi: 10.1097/ACM.0b013e31825396d8. PMID: 22534591.

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