



# Progress Towards Ethical Practices in Medical Student Participation in Global Surgery Projects: A Qualitative Analysis



School of Medicine  
UNIVERSITY OF COLORADO  
ANSCHUTZ MEDICAL CAMPUS

Rachel Graham, MPH, Angela Sauaia, MD, PhD  
University of Colorado School of Medicine

## Background

- Medical student interest in global surgery has grown rapidly in the past decade.<sup>1</sup>
- Preparation for projects is critical.<sup>2,3</sup>
- Ensures they contribute to long-term partnerships with, and sustainable development of, partner communities.<sup>4,5</sup>
- Short-term global surgery projects pose unique risks to students and international hosts.<sup>6</sup>
- Literature focuses on graduate medical trainees' preparation, not medical students.<sup>7</sup>
- There is a need to explore the role of preparation in supporting positive global surgery experiences for medical students.

## Aims

- 1) To evaluate the role of formal pre-departure preparation/training for global surgery projects and experiences.
- 2) To explore how formal preparation can aid medical students in enjoying an enriching experience while contributing positively to the destination communities during international projects.

## Methods

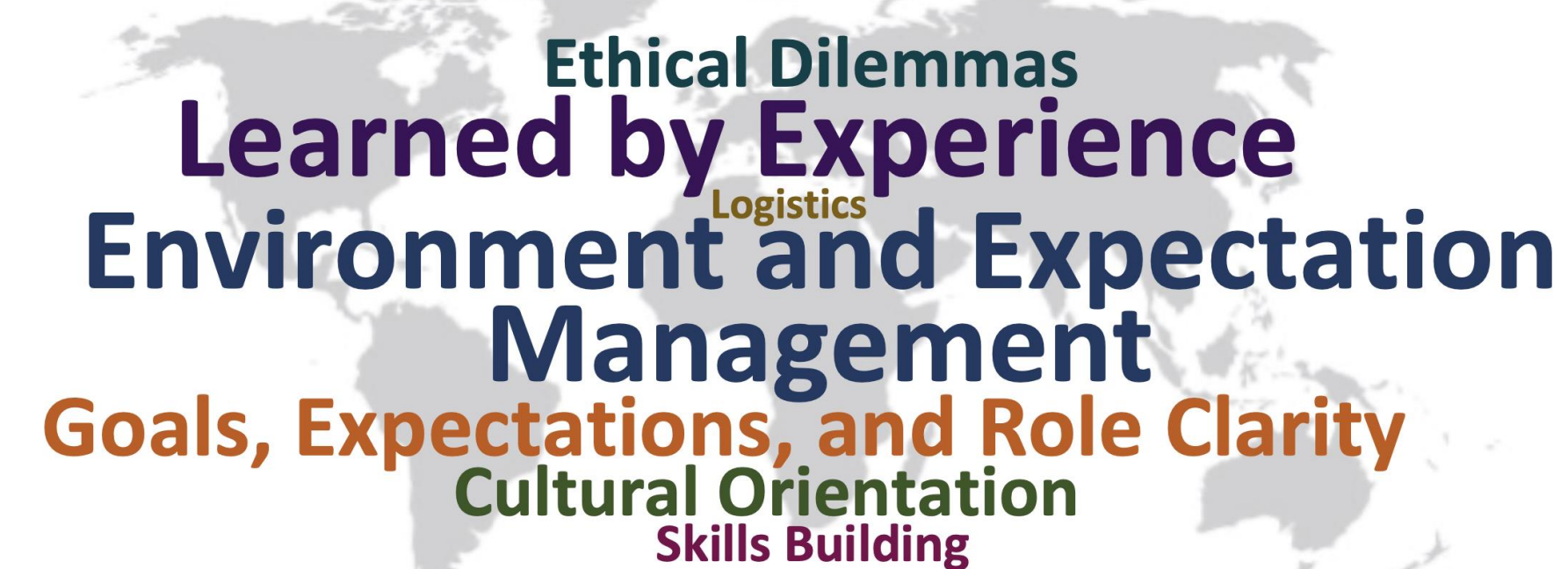
- Population: students who participated in an international project during medical school related to surgery/procedural specialty.
- Semi-structured phone interviews of 9 key informants.
- Inductive approach to thematic content analysis addressing
  1. Prior experiences and education.
  2. Training during medical school related to ethics, community engagement, and cultural competency.
  3. Experience in global surgery and contributing factors to their preparedness.
  4. Mastery of and perception of the importance of ethics training, community engagement skills, and cultural competency.
- Projects took place in Kenya (n=1), Rwanda (n=1), Ghana (n=3), South Africa (n=2), Malawi (n=1), and Colombia (n=1).

## Characteristics of Key Informants (n = 9)

Key Informant	Age	Gender	Race	Languages Spoken	Prior International Experience (Y/N)	Prior Research Experience (Y/N)
A	25	M	Asian/Pacific Islander	English, Vietnamese	Yes	Yes
B	27	M	White Non-Latinx	English	Yes	Yes
C	27	F	Asian/Pacific Islander	English, Marathi	Yes	Yes
D	25	M	White Non-Latinx	English	Yes	Yes
E	26	F	White Non-Latinx	English, Basic Italian	Yes	Yes
F	29	F	White Non-Latinx	English	Yes	Yes
G	26	F	White Non-Latinx	English	Yes	Yes
H	26	F	Asian/Pacific Islander	English, Mandarin	No	Yes
I	30	M	Asian/Pacific Islander	English, Mandarin	Yes	Yes

## Results

### Participant Methods of Preparation (n = 9)



"Global surgery is never done in a silo. You will have partners, understanding what their expectations are, of this research work what your expectations are, having clear lines of communication so that you're able to plan together. And how can you continue to plan for if something changes."

### Navigating Challenges During Projects (n = 9)

#### Theme 1: Conflicting Values and Practices in the Clinical Space



"I think we are well prepared for just like being able to make that line...and just having to say like, I've never done this. Can you do it with me."

"I was super self-conscious of like not taking opportunities away from Ghanaian med students."

"There's just not a lot of procedures done as sterile, not enough equipment, patients stayed in the waiting room for a long time...just compared to how we did it here... they treat the patient as well as they could I think for the circumstances."

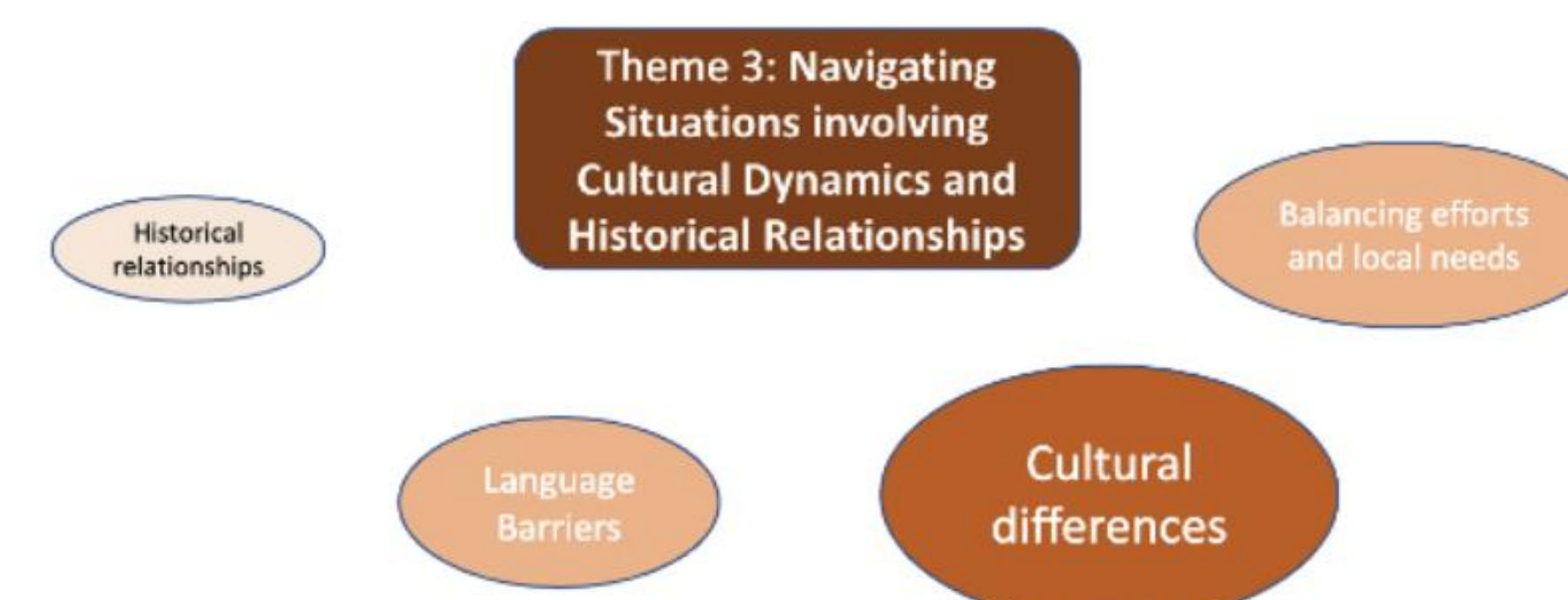
#### Theme 2: Ethical Challenges in Research

"It would have been so easy to bring some resources to treat some of these skin conditions so easily....On the duffel bag medicine [trips] where you get immediate results...And so it wasn't really an ethical dilemma because a lot of us like knew exactly what we were doing, and so we knew we wouldn't see immediate results. But a lot of people complained about like not seeing the immediate results."



#### Theme 3: Navigating Situations Involving Cultural Dynamics

"I asked like nurses and medical students and patients like their thoughts on different questions and wording. And I think that made a tremendous difference in, you know, mitigating some of the other challenges that I do think would have been there."



"People are a lot more polite and a lot less straightforward, in the way they talk. You know, it's like expected that people said yes (but really they mean no?)...Being a white person, in a previously colonized African country, you know...remnants of, if we say yes enough, this white person will stop asking these questions."

\*For all figures above, size of text and/or depth of color represent the frequency that a theme arose.

## Discussion

- Demonstrated strong understanding of cultural humility, global health ethics, and self-reflection.
- Challenges faced often related to differences in cultural values/practices and desire to avoid imposing own values on hosts.
- Preparation was critical to preventing and navigating ethical dilemmas that arose.
  - Setting goals, expectations, and role clarity with mentors and international host partners ensured host agency and maximized benefits to host community.
- Individual characteristics (humility, flexibility, knowledge of global health ethics, self-awareness) important in navigating situations that they were not prepared for.
- Limitations:
  - Uses key informants, thus results are not generalizable.
  - No interviewees identified as Black or American Indian and Alaska Native, thus missing the perspectives of these important underrepresented minority groups.

## Conclusions

- Findings offer a hopeful perspective regarding progress made toward engaging in more ethical practices, particularly for trainees.
- Findings should serve as a model for how programs should approach preparation to global surgery projects.
- Future studies should assess the perspectives of host communities on efficacy of preparation methods.

## References

1. Meara JG, Leather AJ, Hagander L, et al. Global Surgery 2030: Evidence and solutions for achieving health, welfare, and economic development. 2015;158(1):3-6. doi:10.1016/j.surg.2015.04.011
2. Watson DA, Cooling N, Woolley JJ. Healthy, safe and effective international medical student electives: a systematic review and recommendations for program coordinators. *Trop Dis Travel Med Vaccines*. 2019;5:4. Published 2019 Apr 3. doi:10.1186/s40794-019-0081-0
3. Peluso MJ, Rodman A, Mata DA, Kellett AT, van Schaikwyk S, Rohrbaugh RM. A Comparison of the Expectations and Experiences of Medical Students From High-, Middle-, and Low-Income Countries Participating in Global Health Clinical Electives. *Teach Learn Med*. 2018;30(1):45-56. doi:10.1080/10401334.2017.1347510
4. Peluso MJ, Kallem S, Elansary M, Rabin TL. Ethical dilemmas during international clinical rotations in global health settings: Findings from a training and debriefing program. *Med Teach*. 2018;40(1):53-61. doi:10.1080/0142159X.2017.1391374
5. White MT, Satterfield CA, Blackard JT. Essential competencies in global health research for medical trainees: A narrative review. *Med Teach*. 2017;39(9):945-953. doi:10.1080/0142159X.2017.1324139
6. Leow JJ, Groen RS, Kingham TP, Casey KM, Hardy MA, Kushner AL. A preparation guide for surgical resident and student rotations to underserved regions. *Surgery*. 2012;151(6):770-778. doi:10.1016/j.surg.2012.03.002
7. Jayaram A, Pawlak N, Kahanu A, et al. Academic Global Surgery Curricula: Current Status and a Call for a More Equitable Approach. *J Surg Res*. 2021;267:732-744. doi:10.1016/j.jss.2021.03.061