

Sex and Gender Health: A Pilot study of a Sex and Gender Specific Medical Curriculum for High School students interested in STEMM (Science, Technology, Engineering, Mathematics and Medicine) Careers

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BACKGROUND

Sex and Gender Based Education (SGBE) is a topic students in medicine and allied health fields are interested in. However, it is often not included in formal education curriculum. Introducing these concepts early and often in the education pipeline may encourage students to engage more meaningfully in science, technology, engineering, math, and medicine (STEMM) education and careers.

OBJECTIVE

Assess student's baseline knowledge on sex/gender (SG) topics and increase education/awareness SG differences in biology and medicine in high school biology students through an interdisciplinary virtual course on gender-based medicine.

METHODS

5 week summer program was delivered through Zoom (3 x 1-hour meetings/week)

Activities included:

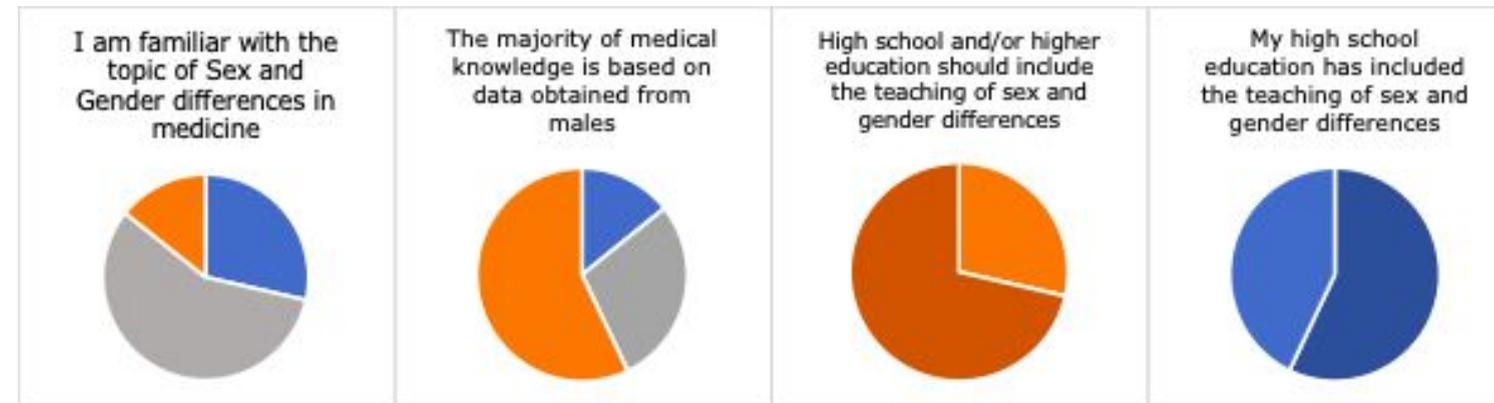
- Group sessions with faculty focusing on sex differences in Cerebrovascular, Cardiovascular and Alzheimer's Disease, and Pain, with an supplementary emphasis on the impact of COVID infection and racial/ethnic considerations.
- Online case-based SG Specific Health modules
- Group mentoring with career mentors in STEMM.

Students completed:

- Pre-survey covering educational background and current understanding of SG considerations/topics in biology and medicine.
- A research presentation on a topic of their choice
- Post-survey assessing perceptions of SGBM impact on clinical outcomes with curriculum feasibility/feedback.

RESULTS + ANALYSIS

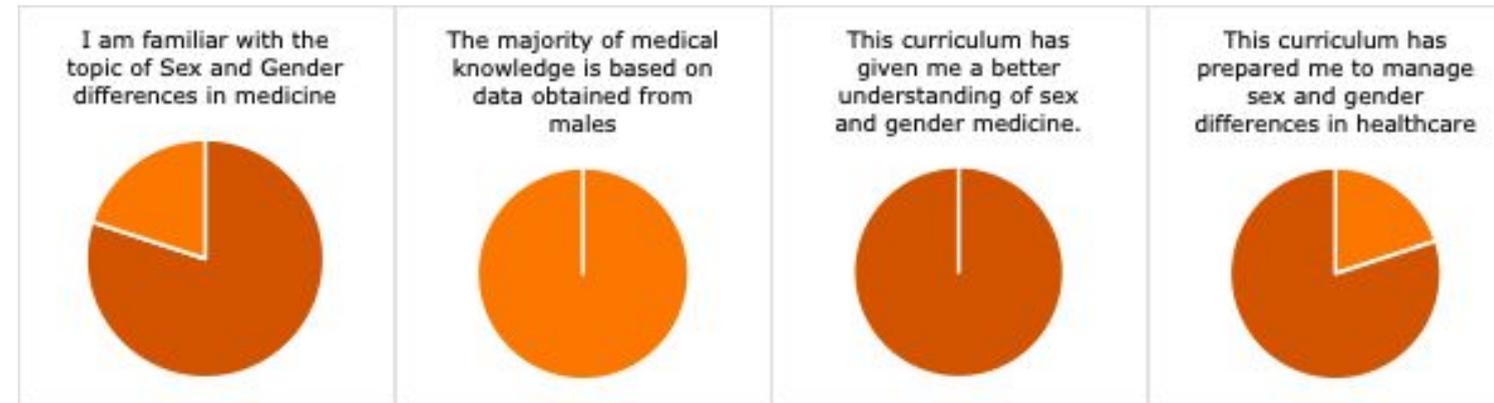
Results from Pre-Course Survey:



Majority of the students were:

- Female (4/7)
- Indicated that they were interested in a career involved in STEMM (4/7)
- Third year in High School (6/7) (1/7 = fourth year)

Results from Post-Course Survey:



- Pre-course survey results show that students are not familiar SG topics, believe they are important to learn, but do not have access to it at school

-Post-course survey results showed clear increase in students' knowledge.



CONCLUSIONS

This study showed that SG considerations as they relate to biology and medicine, in combination with high school education program, was well received, and that incorporating this programming with online curricula is feasible

REFERENCES

1. Virginia M. Miller, et. al. "Embedding Concepts of Sex and Gender Health Differences into Medical Curricula" *Journal of Women's Health*. Mar 2013.194-202. <http://doi.org/10.1089/jwh.2012.4193>