## An Evaluation of Continuing Education Programming on The Role of Infection in Maternal/Infant Mortality and Morbidity

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### Background

- A knowledge gap exists in the current disparities of maternal/infant mortality and morbidity along racial, socioeconomic, and geographical lines. Infection plays a significant factor in mortality and morbidity, as the 7<sup>th</sup> leading cause of infant mortality.
- Educational programming serves as a means for care providers to continue their education beyond completion of their degree to best serve the ever-changing needs of the population
- Hypothesis: Educational programming on the role of infection in maternal/infant morbidity and mortality will increase provider knowledge, and improve provider attitudes and practices as it pertains to infection screening and treatment in pregnant women and neonates.

#### Methods

- Course/survey research and development took place from April 2019 to August 2019
- Literature search on current maternal/infant mortailty and morbidity statistics, current recommendations on infection screening and treatment, and research outlining potential modifiers of disparate health outcomes guided course development
- Modules created using Microsoft PowerPoint and Adobe Premiere Pro CC 2019
- Multi-methodological survey created with Qualtrics Survey Software using Knowledge, Attitude, Practices (KAP) framework with both qualitative and quantitative questions, as well as focus group/directed interview follow-up
- IRB approval for survey collection obtained August 27, 2019
   Applied for CME, CNE, and CE credit through Lifespan CME office

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#### Results

- Literature review identified significant racial and geographical disparities in maternal/infant mortality/morbidity, as well as racial disparities in morbidity due to infectious transmission. Robust guidelines on screening and treatment for common vertically transmissible/teratogenic infections were also identified.
- Development yielded a complete course outline pending secondary review, as well as four 15-minute modules:
  - Describing current statistics as they relate to maternal/infant mortality and morbidity as well as infection
  - Screening and treatment guidelines for pregnant women at risk of infection
  - Screening and tratment guidelines for neweborns with increased risk of vertical transmission
  - Walk-through of a neonatal GBS case, with discussion of the role of individual and systemic discrimination in perpetuating health outcomes disparities in mothers and infants





Patient R is a 36-week G1P1 pregnant women expecting twins. She comes into your office for a prenatal checkup, and so far has had no complications in her pregnancy. Which of the following are appropriate step(s) in managing the patient's care?

A. Conduct a thorough sexual history if you have not done so already.

B. Test patient for Group B streptococcus colonization.

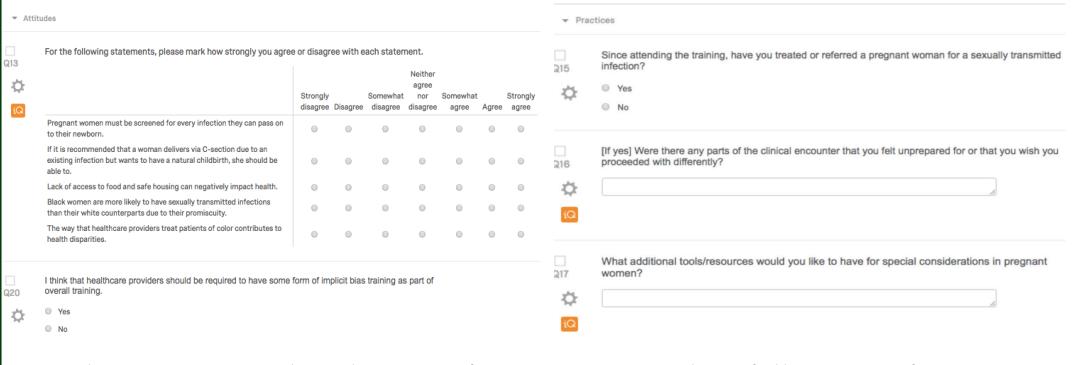
C. Shame patient for her sexual practices during pregnancy.

D. Do nothing.

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Case Study

 Survey development yielded three mixed quantitative/qualitative surveys with potential for follow up focused interviews. Pre-training survey consists of nineteen questions, post-training survey consists of fourteen questions, and six-month follow up survey consists of eight questions



- Implementation and evaluation of program is pending following Lifespan CME approval

#### Conclusion

- Addressing the existing knowledge gap on how to reduce existing health outcomes disparities in maternal/infant mortality and morbidity through educational programming may change provider knowledge, attitude, and practices to positively impact the care of patients, particularly those from marginalized backgrounds.
- It is important to consider the role that individual and systemic biases play in disparate health outcomes among women and infants in the United States, and confront these biases to reduce them.

#### **Future Directions**

- Fully implementing continuing education programs through the Miriam Hospital STD Clinic's online CME platform.
- Applying to national CME platforms for credit in recognition of course completion to expand area of impact.
- Collecting survey data from physicians who complete the training to assess changes in care provided immediately following course and long-term.
- Conducting long-term follow up in-person interviews to assess changes in care provided following training completion.

#### **Additional Information**

References can be found using the QR code:



Funding: This work was funded in part by the Summer Assistanship program at the Warren Alpert Medical School of Brown University.

Acknowledgments: Development and implementation of programming made possible by collaboration with the research team at the Miriam Hospital.



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