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Oral Health Education for Medical Students in Ob/Gyn Rotation

Medical students showed significant changes in all four measures: knowledge, comfort of oral health knowledge, confidence in counseling patients, and likelihood to ask patients about oral health.

Background

Oral health (OH) is integral to overall and pregnancy health.

- Nearly 60-75% of pregnant people have gum disease.[1] Gum disease and periodontitis are associated with pregnancy complications (low birth weight and preterm birth).[2,3,4]
- Children of mothers with poor oral health are **3x more likely** to miss school due to dental pain.[1]

Low usage of oral health services during pregnancy:

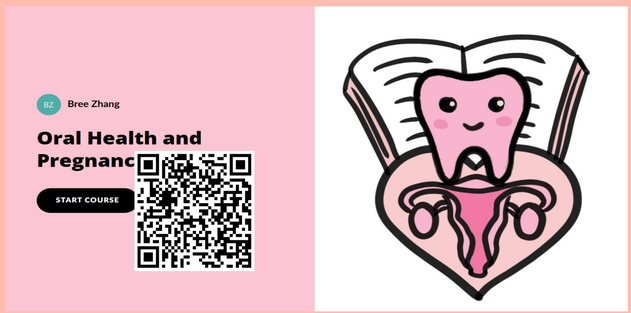
- According to postpartum survey data, 56% of mothers did not receive any dental care and 60% did not have their teeth cleaned during their most recent pregnancy.[2]

Medical students and Ob/Gyn residents do not receive focused education on OH in pregnancy.

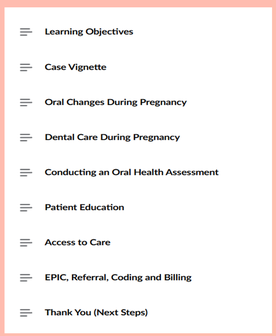
- A recent survey of gynecologists found that they often mistakenly believed that dental x-rays (73%) and local anesthesia (59%) were unsafe for pregnant women.[5]

Methods

An interactive asynchronous OH educational module was developed following American College of Obstetricians and Gynecologists guidelines and piloted on the last two groups of medical students rotating through the 2024 OB/GYN clerkship.



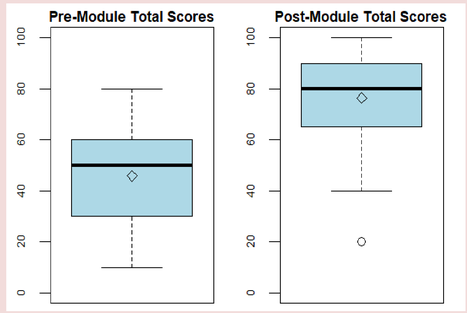
- **Means and standard deviations (SD)** were used to summarize the continuous variables
- **Medians and interquartile ranges (IQR)** were used to summarize the ordinal variables.
- **Paired t-tests or exact Wilcoxon-Pratt signed-rank tests** were used to compare pre and post survey results for continuous and ordinal variables.



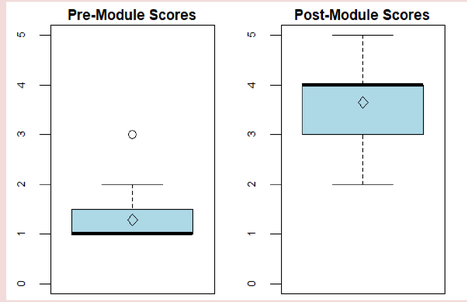
Results

34 medical students in the pilot study (N = 34).

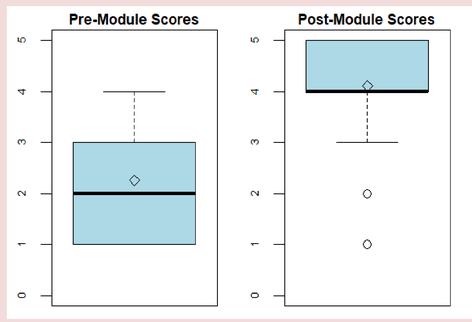
Knowledge: A significant change in the means of the knowledge-based question scores was found between the pre-module and post-module questionnaire ($p < 0.001$).



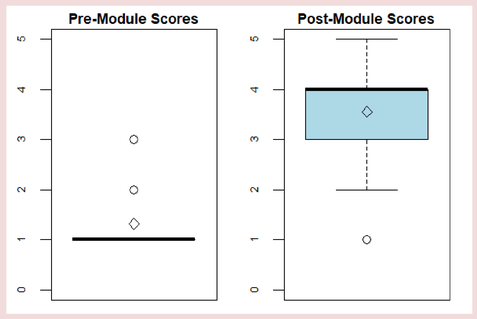
Comfort of OH Knowledge: In the post-assessment, students reported greater comfort with their OH knowledge, compared to the pre-assessment ($p < 0.001$).



Confidence in Counseling Patients: In the post-assessment, students reported greater confidence in counseling patients about OH, compared to the pre-assessment ($p < 0.001$).



Likelihood to Ask Patients About Oral health: In the post assessment, students were more likely to ask patients about OH, compared to the pre-assessment ($p = 0.002$).



Discussion

- **This pilot provides an asynchronous model** for integrating OH education into the medical student OB/GYN clerkship curriculum and suggests it effectively enhances students' knowledge, comfort, and confidence in counseling patients about OH.
- **Limitations may include** a small sample size, potential selection bias, and reliance on self-reported measures, and limited generalizability to other medical schools.

Next Steps

This study is part of a larger ongoing study:

Residents: This module was piloted on Ob/Gyn residents in their didactic teaching section.

- No significant changes in knowledge, confidence, and likelihood to ask patients about OH were found due to low retention rate, and low sample size.

Medical students: All Columbia medical students will be required to complete this educational module during their MCY clerkship in Obstetrics and Gynecology in 2025.

Future research should assess long-term retention of knowledge, whether improved confidence translates into clinical practice, and additional strategies to further enhance oral health education in medical training.

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