



# Investigating pregnant patients' oral health knowledge, perspectives, and practices during prenatal care in Southern Illinois

Angela Whalen, PharmD Candidate, Deja Finley, PharmD, Abigail Eilerman, PharmD  
Safiya McNeese, M.D.

SOUTHERN ILLINOIS  
UNIVERSITY  
EDWARDSVILLE  
SCHOOL OF PHARMACY

## BACKGROUND

- Poor oral health during pregnancy has been linked to many adverse health outcomes, such as preeclampsia, low birth weight, and preterm births.<sup>1</sup>
- As hormone levels rise each trimester, the mother's chances of gingivitis and periodontal disease increases from collagen changes in the gingiva.
- The surge of estrogen and progesterone is vital for the fetus development.
- By the third trimester, estrogen and progesterone levels have peaked, which may induce an immune response, and amplify bacteria and inflammation.<sup>2</sup>
- Two mechanisms between oral bacteria and periodontal disease effects the immune system. Either causing adverse outcomes throughout 40 week gestational period or bacterial intrauterine inflammation.<sup>3</sup>
- Both theories justify implementation of a survey to determine the level of need of oral hygiene education for pregnant patients in Southern Illinois.

## OBJECTIVE

- To investigate the current oral health knowledge, perspectives, and practices in Alton Memorial (SIHF) pregnant patient base.
- To determine if the patient's demographics correlates with the patient's oral health knowledge.
- To use the information gathered to share the results with an interprofessional collaborative team at Southern Illinois Health Foundation.

## METHODS

### Study Design

- Cross-sectional survey study
- CAPSOM project investigated pregnant patients between the ages of 18-45 between September 2023 and March 2024.
  - CAPSOM is a validated instrument looking at the maternal oral health knowledge, attitudes, and practices of pregnant patients.
- Utilization of CAPSOM as a Learning Tool:
  - A paper questionnaire consisting of 18 questions was divided into two sections to be completed completely anonymous, completed voluntary and on their own with written consent on file.
  - The first part containing demographic data and the second section containing on oral health knowledge, perspective, and practices
  - One time survey will be administered to pregnant patients at SIHF at any point during their antenatal care.
  - Information gathered from the survey's findings will help provide data that can be assessed to determine the scope of this issue within this specific patient demographic and aid with developing and applying collaborative programs to address these needs.
  - With this information, all healthcare professionals can help reduce complications for the mother and the child and improve overall health and wellness.<sup>1</sup>

### Study Population

- The inclusion criteria will be pregnant patients aged 18-50 with written consent for participation.
- The exclusion criteria will be non-pregnant or pregnant women who have not been approved or lack written permission.
- The participants involved in this study were current patients of an interprofessional team at SIHF Alton Memorial ObGyn clinic.

### Study Measures

- The primary outcome of the study was to investigate the current oral health knowledge, perspectives, and practices of SIHF at Alton Memorial.

### Data Analysis

- Survey data were analyzed and summarized using frequencies/percentages

## RESULTS

### SIHF Survey Results

Table 1: Demographic Information

Highest Education Degree Earned?	SIHF Patient Response N = 11 N (%)
Jr. High/Middle School	9%
High School	55%
Associate's Degree	9%
Bachelor's Degree	0%
Master's Degree	27%

Table 2: Oral Health Knowledge

I know that issues with tooth decay (cavities) and bleeding gums can get worse during pregnancy	SIHF Patient Response N = 11 N (%)
True	91%
False	9%

Table 3: Oral Health Knowledge

I know that gum problems can affect my pregnancy and create problems with my baby's birth	SIHF Patient Response N = 11 N (%)
True	82%
False	18%

Table 4: Oral Health Knowledge

I know that it inevitable (unavoidable) to lose a tooth during pregnancy	SIHF Patient Response N = 11 N (%)
True	82%
False	18%

Table 5: Oral Health Knowledge

I know that my baby's development will extract (pull) calcium from the teeth	SIHF Patient Response N = 11 N (%)
True	73%
False	27%

## RESULTS

Table 6: Oral Perspectives

I consider that it is important to go the dentist before, during, and after the pregnancy	SIHF Patient Response N = 11 N (%)
Strongly Disagree	9%
Disagree	0%
Neutral	0%
Agree	45%
Strongly Agree	45%

Table 7: Oral Practices

Regarding my oral health, I have visited a dentist during my pregnancy	SIHF Patient Response N = 11 N (%)
Strongly Disagree	18%
Disagree	27%
Neutral	0%
Agree	18%
Strongly Agree	36%

## CONCLUSION

- Overall, this study revealed both positive and negative results in oral knowledge, perspectives, and practice levels during pregnancy.
- Until this survey, oral health education was not included or incorporated in the prenatal initial packet or anywhere throughout the pregnancy visits at SIHF.
- Ideally, it would be beneficial to continue this survey for future patients to measure if demographic determinates or lack of dental access is the root cause.
- The information and results will be shared with the staff SIHF at Alton Memorial.
- Further studies could be trialed to incorporate a brief educational video or presentation, oral hygiene products, and a list of providers for access to dental care.
- Additional studies related to oral health knowledge, perspective, and practices may be beneficial for future interprofessional collaborations.

## REFERENCES

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