

Demographic differences between nurses who provide a gut microbiome sample for research and those who do not

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Background

- Over 60% of 4.1 million United States (U.S.) nurses work in hospitals
- U.S. nurses predominately female, Caucasian, with median age 49 years old
- Only 60% hold a bachelor's degree or higher
- Nurses have higher rates of obesity and metabolic disease compared to other licensed healthcare professionals
- Gut microbiome is important mediator of metabolic diseases
- Research including stool samples of nurses needed

Purpose

- Quantify proportion of acute care nurses providing an optional stool sample for research
- Test for demographic differences between those who provided versus declined sample provision

Methods

- Secondary analysis of two observational studies
- Acute care nurse participants able to provide stool samples
- Participants self-reported demographics and compared using t-tests or chi-square (gave versus did not give a sample)

Results

- Out of 152 nurses, 56 provided a sample (36.8%)
- No significant differences in demographics noted between groups ($p > 0.05$).
- Most nurses who provided a sample had a bachelor's or higher (78.3%) and were 40 years or younger

Discussion

- Few nurses provided stool samples for a research study when given the option
- Nurses participating in both studies were younger and had higher education compared to the U.S. workforce

Implications for Practice

- Strategies should be tested to increase nurse workforce representation in gut microbiome studies
- Mapping the nurse gut microbiome may inform targeted treatments for metabolic illnesses

Acknowledgments

I am grateful to my co-PIs, Dr. Lois James and Dr. Marian Wilson, and the funders (AHRQ, Selinger Shone Foundation, Providence INWA Foundation).



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