

# Impact evaluation of patient-centered, community-engaged health modules for homeless pregnant women

Shelby Nelipovich, Nayanika Kotagiri, Esha Afreen, Morgan Ashley Craft, Sara E. Allen, Caroline C. Davitt, Leslie Ruffalo, PhD, Sabina Diehr, MD  
Medical College of Wisconsin  
Department of Family & Community Medicine

## Background

- The infant mortality rate (IMR) for Milwaukee's black population is nearly three times greater than the national IMR<sup>1</sup>
- Homeless women are a particularly vulnerable population<sup>2</sup>
- Psychosocial factors that influence birth outcomes and complications are ethnicity, SES, access to prenatal care, education level, and increased stress<sup>4</sup>
- HAPI's needs assessment identified five frequent needs: pregnancy education, access, baby care, advocacy, and material necessities<sup>5</sup>

## Objectives

- Based on a prior needs assessment survey, address unmet pregnancy and childcare-related educational needs through student-led service learning modules at the Milwaukee Women's Center
- Qualitatively identify the impact of these modules on Milwaukee Women's Center residents

## Methods

- **Format:** Medical students led 60-minute sessions weekly discussing healthy cooking, mental health, nutrition, infant care and safety, breastfeeding, and contraception
- **Materials:** Sessions included a PowerPoint, handouts, pre/post quizzes, small subject related incentives, anonymous comment cards, and verbal debriefing form
- **Data collection:** Included data from comment cards and debriefing forms
- **Data analysis:** Involved preliminary coding by 4 students followed by two rounds of additional coding and editing to confirm accuracy.
- **Secondary findings:** Analyzed participant satisfaction

## Results

- 42 sessions, attended by 141 adult female participants
- 3 central and intersectional themes identified as knowledge, intention to change and empowerment, representative quotes by module below

Module	Number of Sessions, Total Participants	Knowledge	Intention to Change	Empowerment
Breastfeeding	7 sessions 30 participants	"taught [me] what is not taught well in the hospital"	"try to breastfeed in the future"; "feeling more confident about breastfeeding, especially in public"; "educate other mothers about breastfeeding"	"empowers women to breastfeed"; "engaged them in conversation"
Infant Care & Safety	8 sessions 20 participants	"tips on scenarios [were] easy to relate to real life."	"read labels"; "take toys out of [the] crib"; "will babyproof more"	"knew a lot of it already, but will be more confident that [I am] doing it right."
Mental Health	11 sessions 25 participants	"helpful tips," "felt informed about symptoms," "good to have [a conversation] about mental health signs and symptoms."	"be aware next pregnancy," "voice stress," "change how I parent."	"offer to help women that might be having postpartum depression," "contacting a doctor for help with depression," "enjoyed talking to one another about what relaxes me and relating to others about struggles/stress."
Cooking	2 sessions 8 participants	"Educational"; "taught me something new"; "I really learned a lot"	"add some more different seasonings"	"I tried foods I've never heard of"; "the session was very uplifting"; "inspiring"
Healthy Eating for Mom & Baby	7 sessions 36 participants	"learned about seasonal veggies and how to prepare them for babies"; "very direct on information containing different food to feed babies"; "learned a lot of fun facts about fruit"; "learning what the baby can eat"	"taking prenatal vitamins"; "not eating soft cheeses"; "prep own fruits and vegetables for self and kids"; "purchase blender"	"learning the proteins helped me for things to make to feed my baby"
Contraception	7 sessions 22 participants	"explained a lot of things about hormones"; "I learned which ones [contraception] can be used for breastfeeding"; "I learned a little more about the different options for birth control"; "handouts were smart, to the point but with details"; "IUD education"; "new ways of birth control"	"was going to get my tubes tied, now getting Nexplanon"; "now will use birth control while breastfeeding"; "[going to] try different birth control"; "going to get on birth control after pregnancy".	"It was well taught and plan to use the resources"; "talk to...daughters and grandkids about various birth controls and encourage them to be on one"

## Discussion

- Themes were universal across session topics with potential interplay
- Positive engagement may have created foundation for deeper level of learning, reflecting adult learning theory<sup>6</sup>
- Program sought to address social determinants of health that contribute to infant mortality
- **Limitations:** small sample size, lack of metric to measure baseline knowledge, switch to virtual format during pandemic

## Future Directions

Additional investigation into interplay of identified themes

Quantitative assessment of knowledge and skills gained

Impact of other HAPI initiatives, e.g. partnership program

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## References

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