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Addressing Disparity: A Waiting Room Intervention for Preeclampsia Prevention in African Americans

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INTRODUCTION

- Maternal mortality rate (MMR) in the United States is more than 2x the MMR in other developed countries (CIA, 2020)
- African Americans are 3-4x more likely to die in maternity, regardless of income, education, or geographical location (McLemore, 2019)
- Leading contributor to MMR in African American women is preeclampsia (MacDorman et al., 2021)
- Preeclampsia is a pregnancy complication with persistent high blood pressure and organ damage (Preeclampsia Foundation, 2023)
- The use of low-dose (75-162 mg) aspirin decreases preeclampsia incidence (Huai et al., 2021)

HYPOTHESIS

- A nurse-led preeclampsia and aspirin effectiveness educational intervention will increase knowledge and lower incidence of preeclampsia among African American women

METHOD

- **Design:** Prospective quasi-experimental cohort with 128 total participants recruited by convenience sampling at a single prenatal clinic
- **Inclusion criteria:** African American women in the 12-24 week period of pregnancy
- **Intervention:** While waiting to see their doctor, patients meet with a registered nurse (RN) who shows a 2-minute video about preeclampsia detection, prevention, and treatment, including the use of low-dose aspirin. The RN fields questions and provide an education bundle about preeclampsia (Fig. 1)
- **Control:** Standard prenatal care
- **Evaluation:** A pre-intervention and post-intervention questionnaire of preeclampsia knowledge, developed and validated by the Preeclampsia Foundation, is administered
- Three months postpartum, researchers review health records for presence of preeclampsia, intake of aspirin, and overall health

ANALYSIS

- **Descriptive statistics:** Used to find the mean, standard deviations, frequencies, and percentages of pre/post-test differences, aspirin usage, and preeclampsia incidence
- **Inferential statistics:** Chi-square tests and t-tests will be used to determine if the differences are statistically significant

CONCLUSION

- With preeclampsia affecting 1 in 25 pregnancies and presenting a 60% higher risk in African Americans (ACOG, 2013), RNs providing healthcare are likely to encounter this condition. Through education and advocacy of low-dose aspirin therapy and collaboration, RNs can positively alter the trajectory of these women's lives
- This nurse-led intervention is crucial step in reducing the disproportionately high MMR among African American women in the US
- Future research should include multi-center studies across diverse racial groups and larger sample sizes for further insight

REFERENCES

1. American College of Obstetricians and Gynecologists, Task Force on Hypertension in Pregnancy. Hypertension in pregnancy. *Report of the American College of Obstetricians and Gynecologists' Task Force on Hypertension in Pregnancy*. *Obstet Gynecol*. 2013;122(5):1122-31.
2. Central Intelligence Agency. (2020). *Maternal Mortality Ratio - Country Comparison*. <https://www.cia.gov/the-world-factbook/fields/maternal-mortality-ratio/country-comparison/>
3. Huai, J., et al. (2021). *Preventive effect of aspirin on preeclampsia in high-risk pregnant women with stage 1 hypertension*. *Journal of clinical hypertension (Greenwich, Conn.)*, 23(5), 1060-1067. <https://doi.org/10.1111/jch.14149>
4. MacDorman, M. F., Thomas, M., Declercq, E., & Howell, E. A. (2021). *Racial and Ethnic Disparities in Maternal Mortality in the United States Using Enhanced Vital Records, 2016-2017*. *American Journal of Public Health*, 111, 1673-1681. <https://doi.org/10.2105/AJPH.2021.306375>
5. McLemore, M. R. (2019). *How to Reduce Maternal Mortality*. *Scientific American*, 320(5). Environment Complete database.
6. Preeclampsia Foundation. (2023, May 31). *What is Preeclampsia*. <https://www.preeclampsia.org/what-is-preeclampsia>

IRB

- Personal and identifying information will be left out for the protection of participants. Will be IRB approved at Dominican University of CA



Fig. 1: Patient Education Bundle
Published by Preeclampsia Foundation

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