

Comprehensive Analysis of Racial Differences in Comorbidities and Prenatal Care Among Pregnant Women

Ryian Owusu¹, Kurt R. Wharton M.D.²

¹Oakland University William Beaumont School of Medicine, Rochester, MI

²Department of Obstetrics and Gynecology, Corewell Health, Royal Oak, MI

Introduction

- Research highlights that women of color face significantly higher risks of pregnancy-related morbidity and mortality.¹
- Factors contributing to these disparities include:^{2,3}
 - Access to healthcare
 - Health literacy
 - Education level
 - Community support
- Prenatal care plays a pivotal role in mitigating these risks by educating women on healthy lifestyles and identifying those at high risk for complications.⁴
- Determining patient satisfaction with their prenatal care could greatly contribute in defining a link between prenatal care services and maternal-fetal outcomes.⁴

Aims and Objectives

I: Conduct a comprehensive review of participants by examining demographics, mental and physical health.

II: Identify and compare the prevalence of comorbidities during/after pregnancy between women of different races and ethnicities.

III: Evaluate adequacy and access to prenatal care.

Methods

This cross-sectional study recruited postpartum women using clinically relevant codes who received obstetric and gynecologic care at five Corewell Health William Beaumont University Hospital locations. Eligible participants completed a 42-question Qualtrics survey assessing demographics, physical health, healthcare access, and provider interactions. Data were analyzed using Fisher's Exact Test.

Results

The study included 63 pregnant women, categorized as White (n=57) or Other (n=6), with the latter group including Black, Asian, and Hispanic individuals.

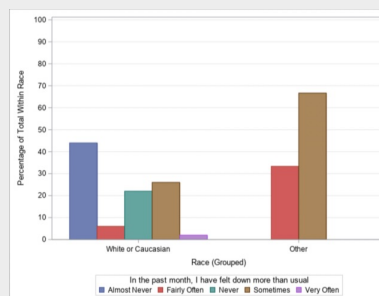


Figure 1: Frequency of feeling down in the past month categorized by race.

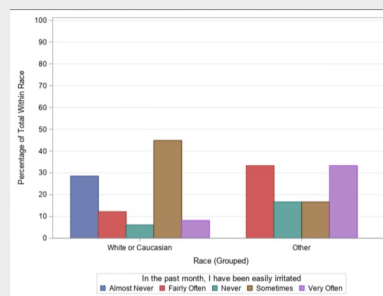


Figure 2: Frequency of being easily irritated in the past month categorized by race.

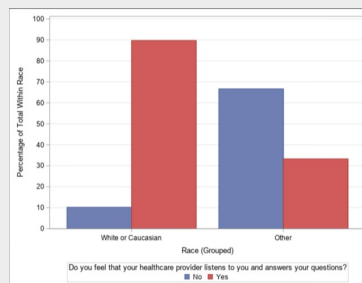


Figure 3: Perceived provider attentiveness categorized by race.

Three survey questions yielded statistically significant responses:

- "In the past month, I have felt down more than usual."
- "In the past month, I have been easily irritated."
- "Do you feel that your healthcare provider listens to you and answers your questions?"

Conclusion

- This study highlights racial disparities in comorbidities, mental health, and prenatal care experiences among pregnant women.
- Women of color reported higher rates of postpartum mental health challenges and dissatisfaction with provider communication.
- These findings emphasize the influence of social determinants of health, including access to care and trust in providers, on pregnancy outcomes.
- Small sample size limits generalizability.
- Future research should focus on larger, more diverse cohorts and explore systemic barriers to equitable care.

References

- Girardi G, Longo M, Bremer AA. Social determinants of health in pregnant individuals from underrepresented, understudied, and underreported populations in the United States. *Int J Equity Health*. 2023;22(1):186. Published 2023 Sep 6. doi:10.1186/s12939-023-01963-x
- Shahid R, Shoker M, Chu LM, Frehlick R, Ward H, Pahwa P. Impact of low health literacy on patients' health outcomes: a multicenter cohort study. *BMC Health Serv Res*. 2022;22(1):1148. Published 2022 Sep 12. doi:10.1186/s12913-022-08527-9
- Yee LM, Silver R, Haas DM, et al. Association of Health Literacy Among Nulliparous Individuals and Maternal and Neonatal Outcomes. *JAMA Netw Open*. 2021;4(9):e2122576. Published 2021 Sep 1. doi:10.1001/jamanetworkopen.2021.22576
- Gadson A, Akpovi E, Mehta PK. Exploring the social determinants of racial/ethnic disparities in prenatal care utilization and maternal outcome. *Semin Perinatol*. 2017;41(5):308-317. doi:10.1053/j.semperi.2017.04.008

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