

Associations between lifetime racial segregation, skin tone and situational racial discrimination: the biosocial impacts on Black babies (BIBB) study

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I have no financial disclosures.

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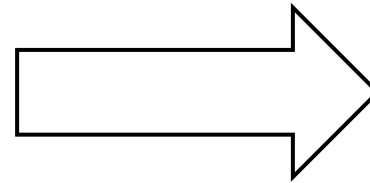
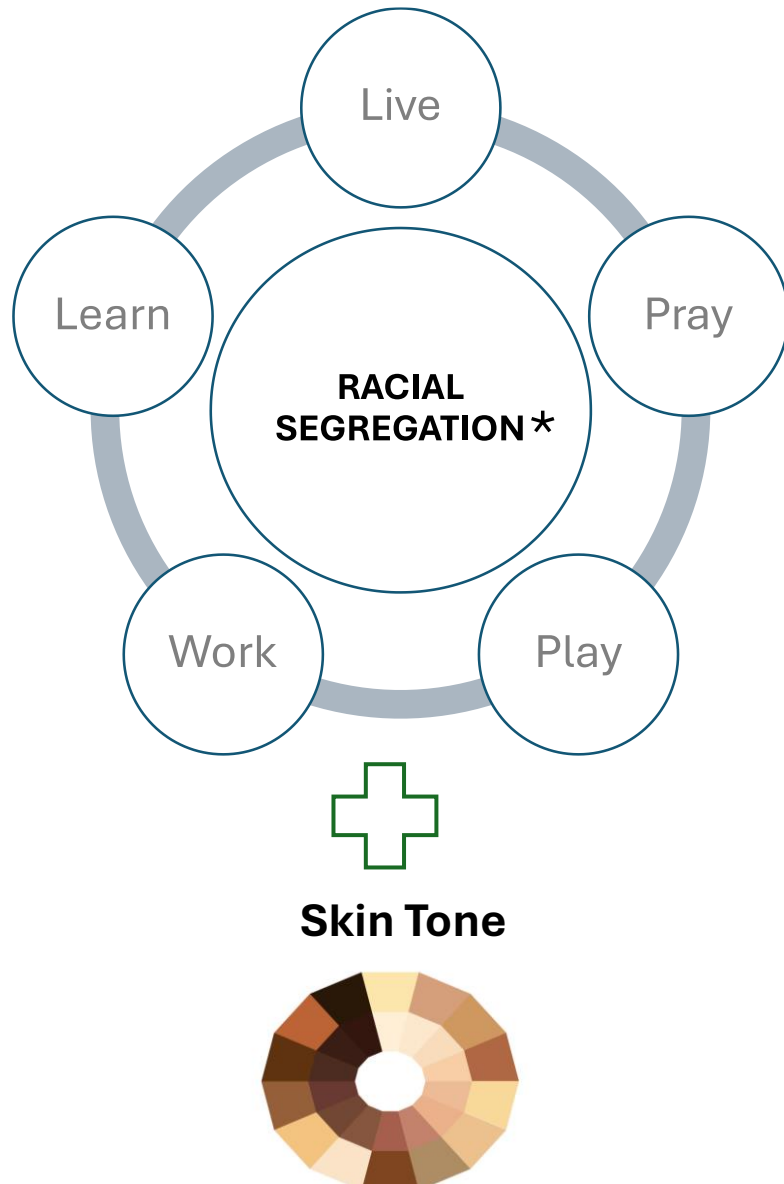
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Background

- Little research has demonstrated how individual and structural racism operate together to impact maternal health for Black women.
 - Studies mostly focused on racial discrimination at the individual level.
- Studies on racial segregation primarily focus on residential racial segregation.

Objective



**Experiences of
Discrimination
(EoD)**

***Racial Isolation**, a dimension of racial segregation, describing the extent to which individuals inhabit physical spaces or geographical areas populated by their own racial group, across multiple life domains.



Biosocial Impact on Black
Births Study
(2017-2022)

- Prospective cohort study
- Sample (N=1120)
 - Singleton pregnancy, gestational age <30 weeks
 - Self-identified Black or African American
 - 18-45 years old
 - Recruited from prenatal care clinics in three metropolitan areas in the United State:
 - Detroit, Michigan
 - Columbus, Ohio
 - Orlando, Florida
- Excluded 95 participants with missing data

Outcome

Number of EoD Situations – Lifetime discrimination attributed to race, ethnicity or color across nine different settings.

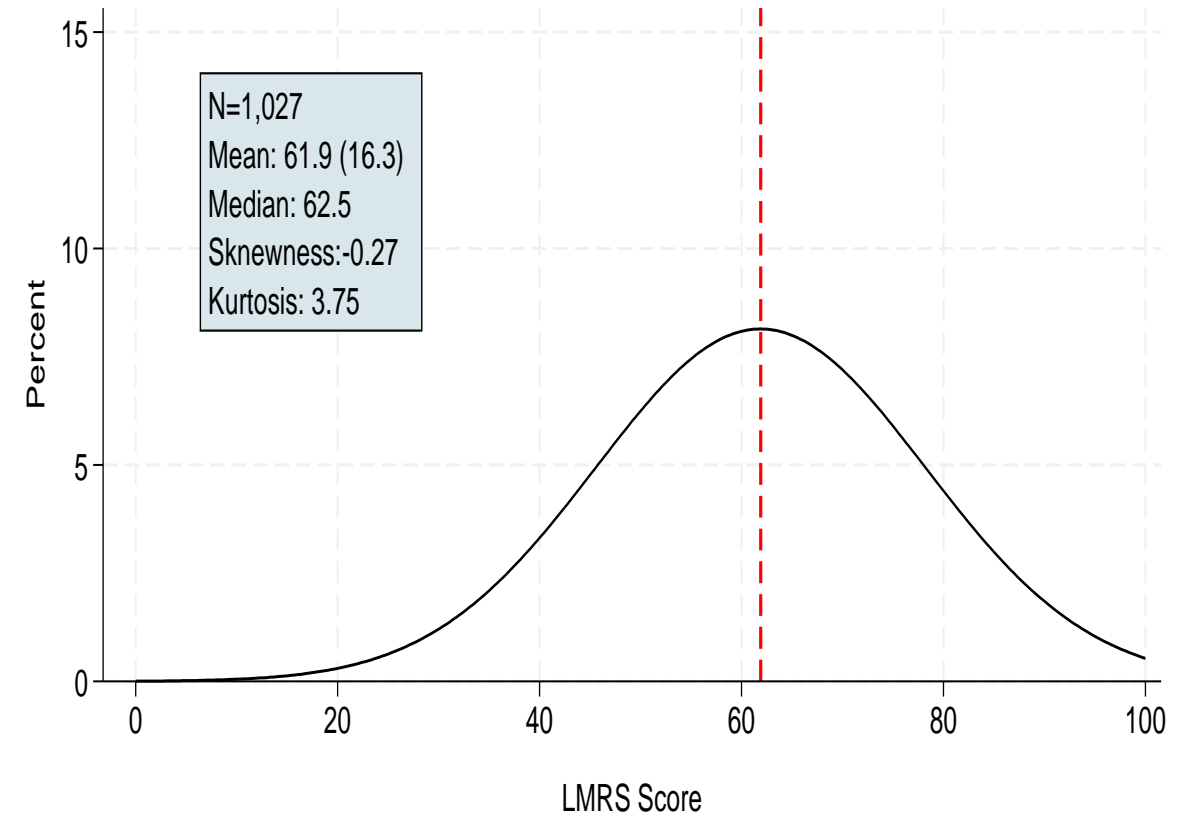
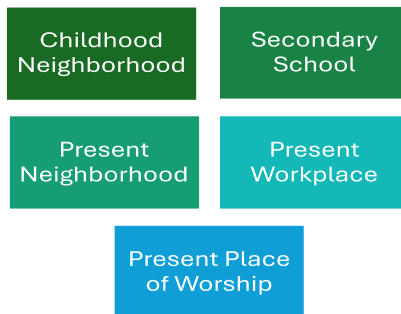
- Range 0-9 situations
- Cronbach $\alpha = 0.83$
- At school
- At work
- Getting a job
- Getting credit or bank loan
- Medical care
- Store service
- Police or court system
- Getting Housing

Measures

Lifetime exposure to multidimensional racial segregation (LMRS)

- Composite index measure of exposure to racial isolation across five life domains.
 - Aligns with the spatial exposure measure, Index of Racial Isolation
 - Cronbach alpha = 0.76

When you think about the places where you have lived, gone to school, worship or worked -- **were they mostly Blacks or mostly Whites there?**



0 - All White, 100% - All Black

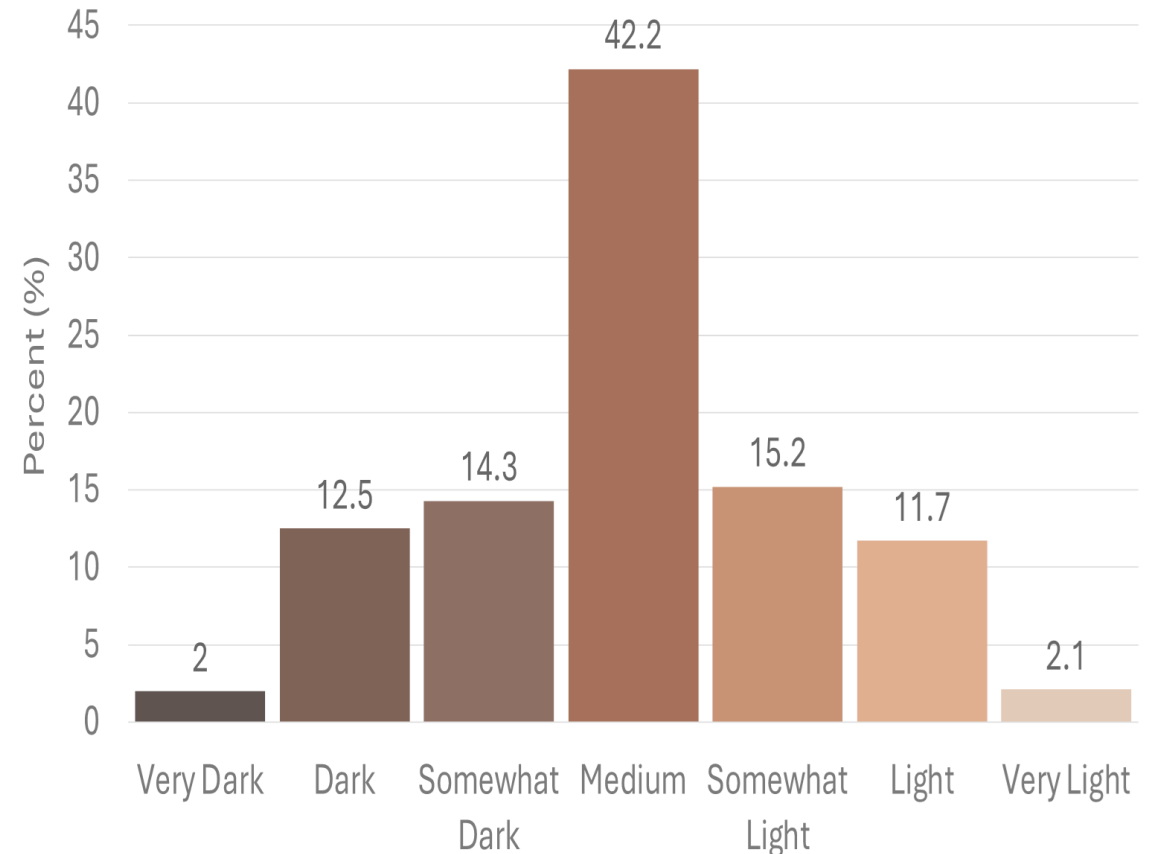
Measures

Maternal Skin tone



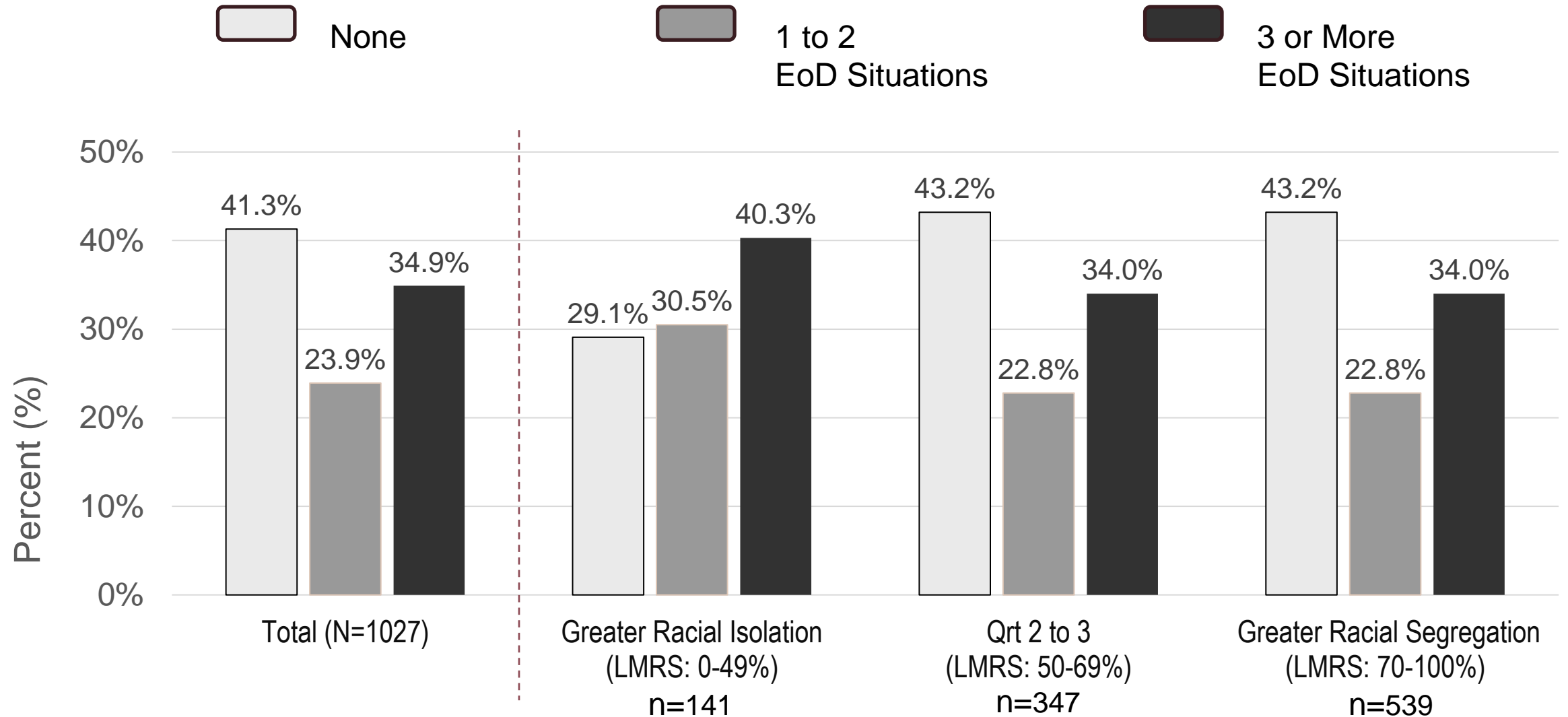
- Self-reported shades of skin color
- 7-pt Likert scale: 1-very dark brown to 7-very light brown
- Recoded:
 - Dark (28.9%)
 - Medium (42.1%)
 - Light (29.1%)

Histogram of Maternal Skin Tone



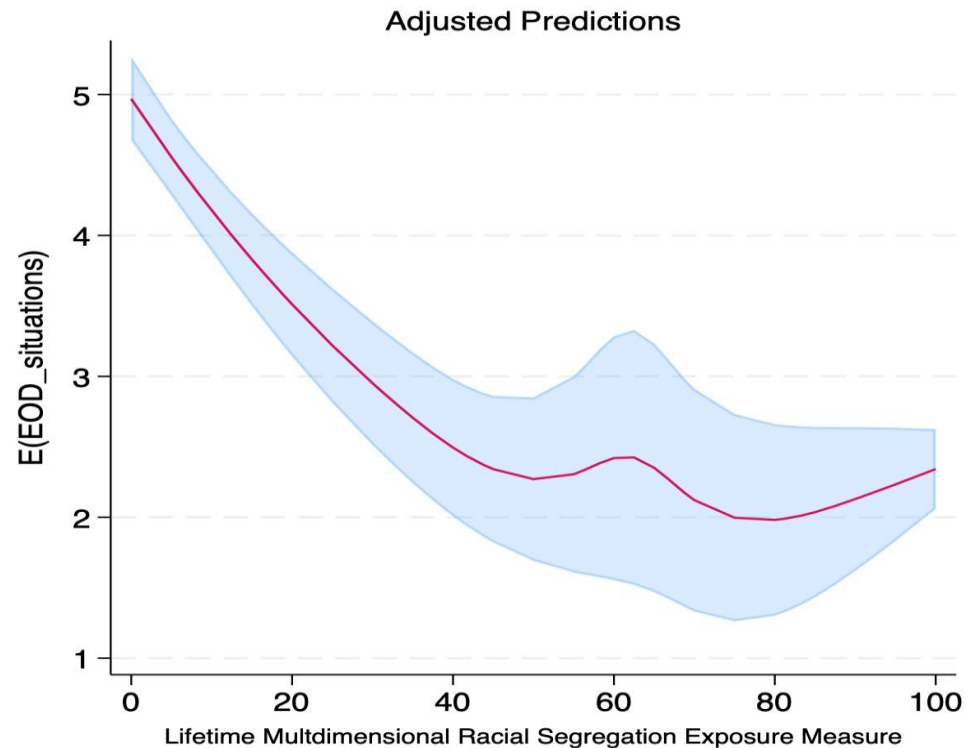
Number of EoD Situations

Overall & Stratified by LMRS score

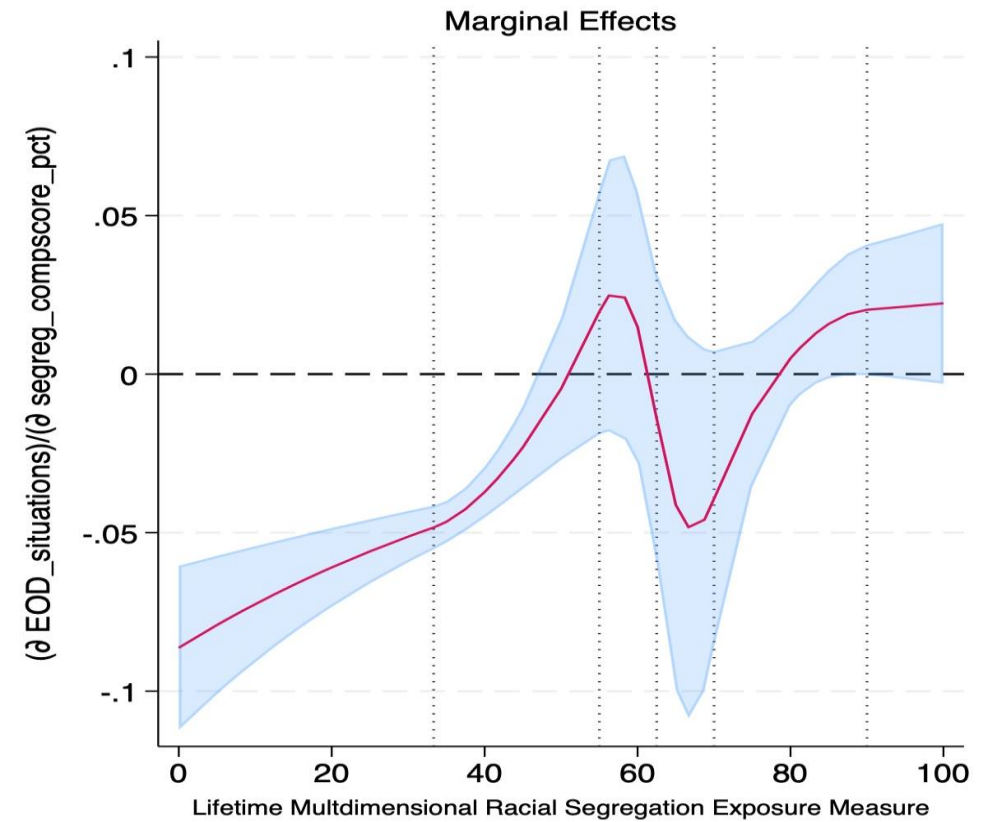


Adjusted predictions for the number of experiences of discrimination settings as a function of LMRS

Figure 1. Adjusted Predictions for # of Experiences of Discrimination Settings as a function of Lifetime exposure to Multidimensional Racial Segregation

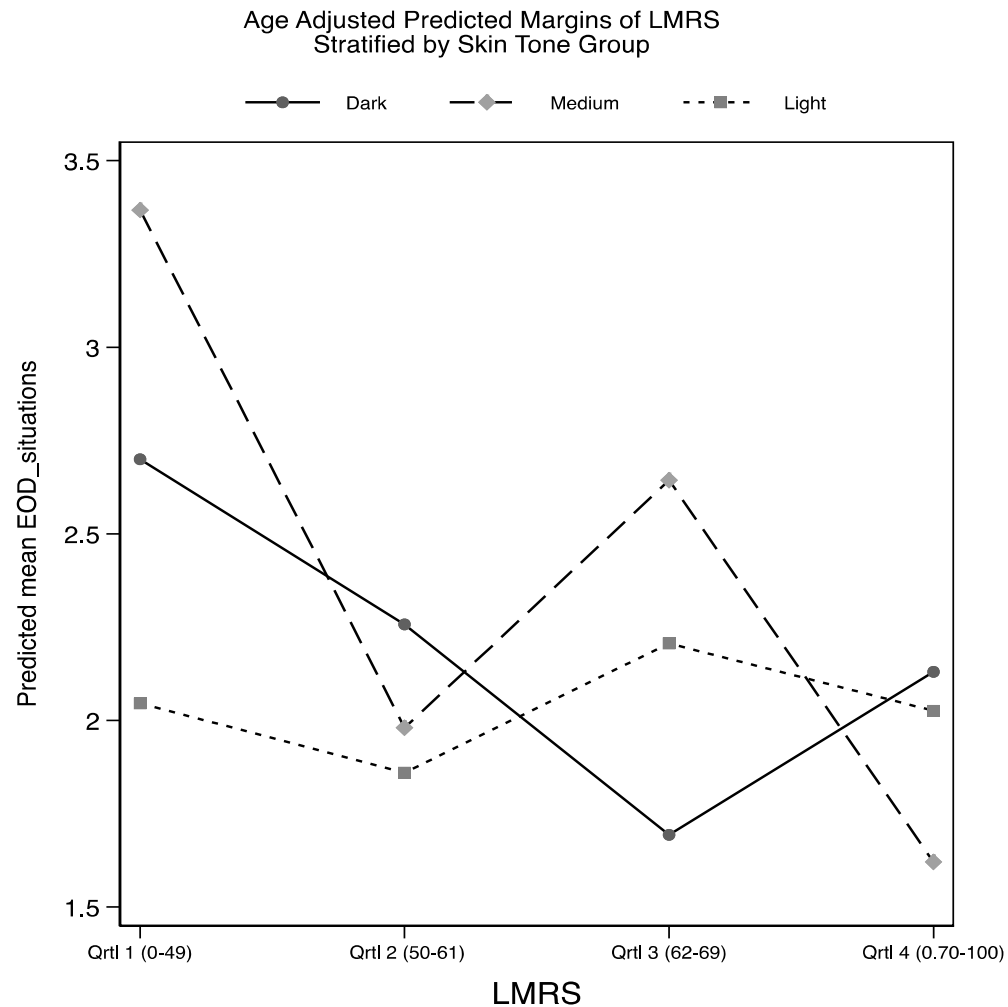
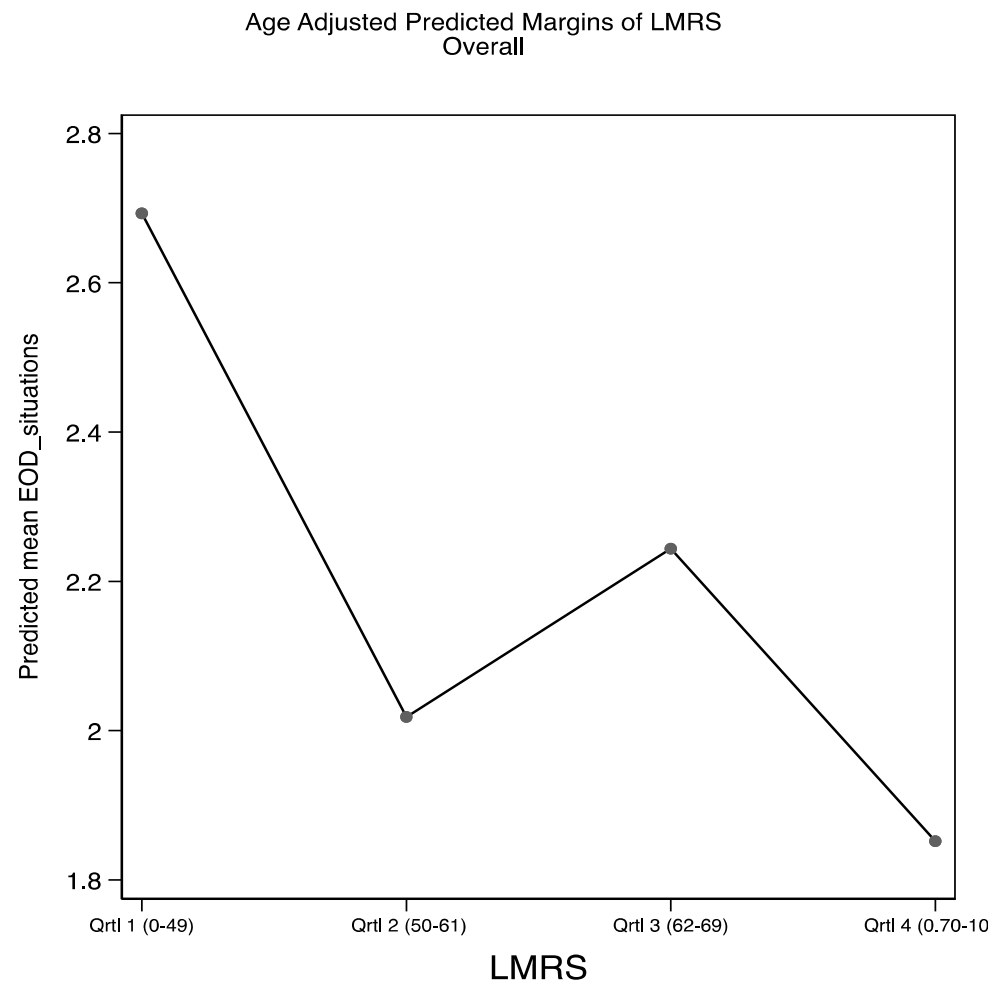


Note: Wald Test for Spline: $\chi^2(2) = 14.75$, p -value = 0.001
Test for nonlinearity: $p=0.0002$



Lifetime exposure to Multidimensional Racial Segregation: 0(all white) to 100 (all Black)
Model adjusted for maternal skin tone, age, insurance, employment status

Age adjusted predictions for the number of EoD settings as a function of LMRS and skin tone.



LMRS, Lifetime exposure to Multidimensional Racial Segregation
Score Range: 0% (All White) to 100% (All Black)

Conclusion

- The toll of racism on Black Americans is not distributed uniformly.
- It varies by proximity to whiteness and the racial composition of the spaces in which Black expectant mothers grow up, learn, live, pray, and work.
- Need to consider multiple levels of racism and their interconnections.
- Need to acknowledge colorism plays an important role in shaping lived experience and creating and maintaining inequity in maternal health.

Acknowledgements

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