

ASSISTED REPRODUCTIVE TECHNOLOGY SUCCESS ACROSS ETHNICITIES: A COMPARATIVE STUDY OF ASIAN AND WHITE PATIENTS



Paxton Voigt MD MBA¹, Zoey McFarland BA¹, Jillian Pecoriello MD², Emily Weidenbaum MD², Jacquelyn Shaw MD², Jennifer K. Blakemore MD²

¹NYU Grossman School of Medicine Department of Obstetrics and Gynecology, New York, New York, USA; ²NYU Langone Fertility Center, New York, New York, USA

PURPOSE & OBJECTIVES

Assisted reproductive technology (ART) outcomes may differ by race and ethnicity, with Asian-identifying patients previously found to have lower success rates.¹

Objective: To compare demographic and cycle specific variables between Asian and White identifying patients and evaluate the impact on ART outcomes.

MATERIALS & METHODS

Design/Population: Retrospective cohort study of all patients' first cycle of in vitro fertilization (IVF), embryo banking (EB), or oocyte cryopreservation (OOF) at a high-volume academic fertility center from 2022 to 2024.

Exclusion criteria: Canceled, medically indicated and donor cycles.

Data analysis:

1. Mann-Whitney U test for group comparisons
2. Multivariable regression

Predictors: Race + age + AMH + gonadotropin (GnRH) dose + stimulation days + estradiol (E2) at trigger

Outcomes: Number of total and mature (M2) oocyte yield and maturity rate.

*Gaussian regression with log-transformation was used for count outcomes and binomial regression for maturity rate. Significance = p value < 0.05

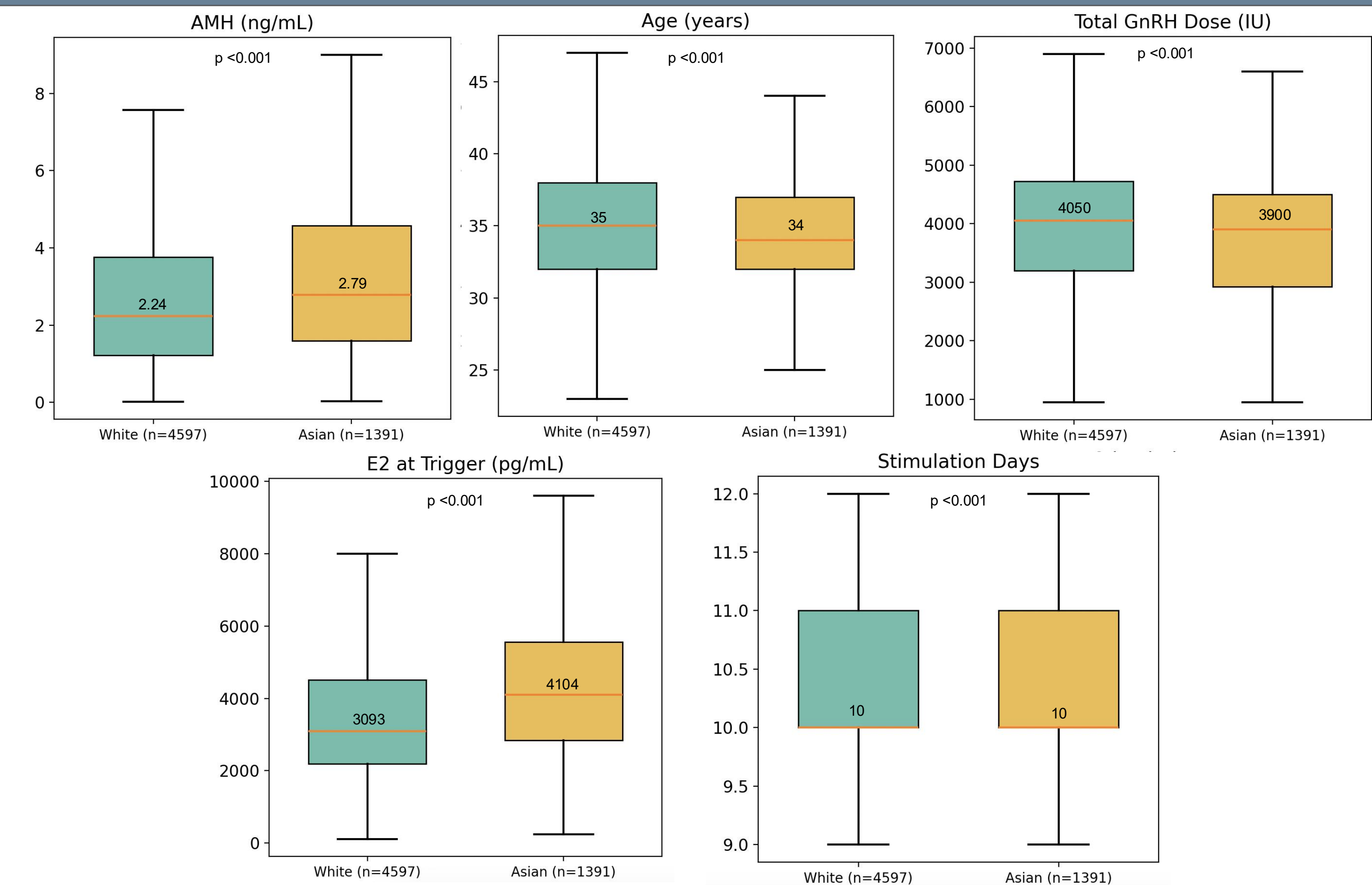
Subgroup Analyses:

1. Stratified by procedure type (using IVF as a proxy for infertility)
2. Effect modification by trigger type (dual vs Lupron-only) was evaluated using race-by-trigger interaction terms, limited to cycles using the antagonist protocol.

CONCLUSIONS

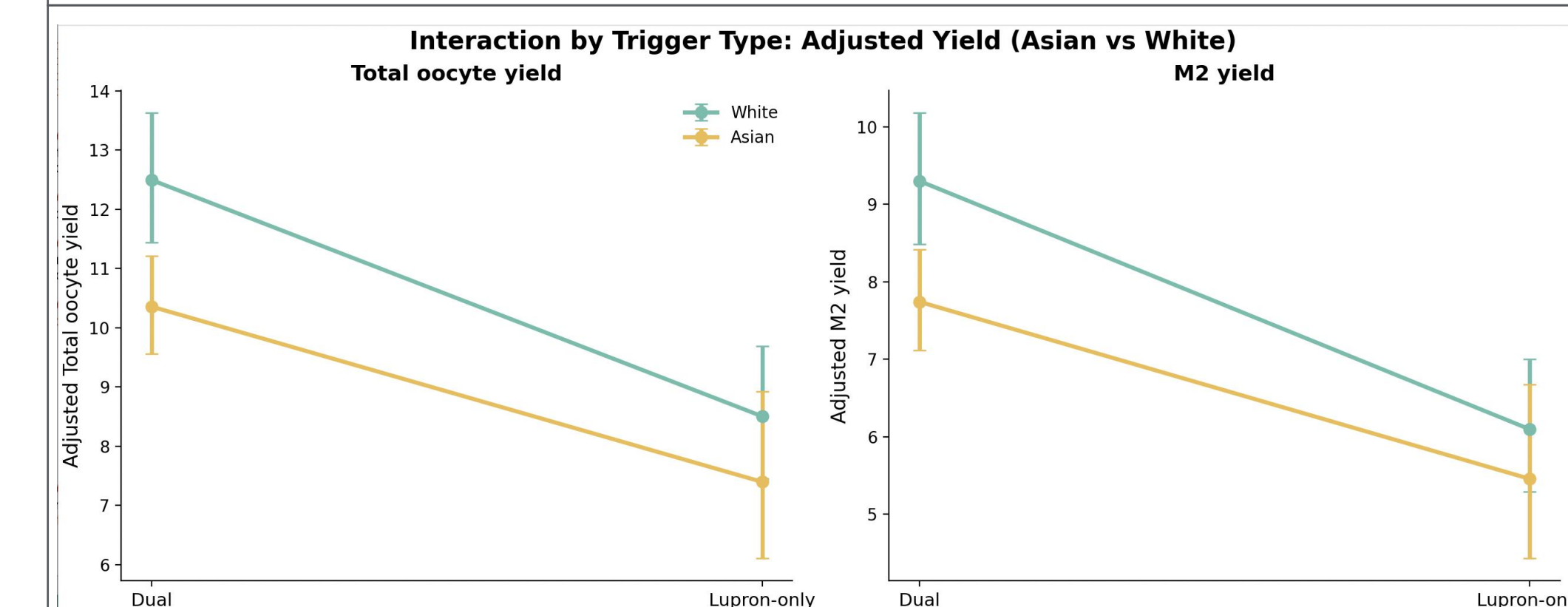
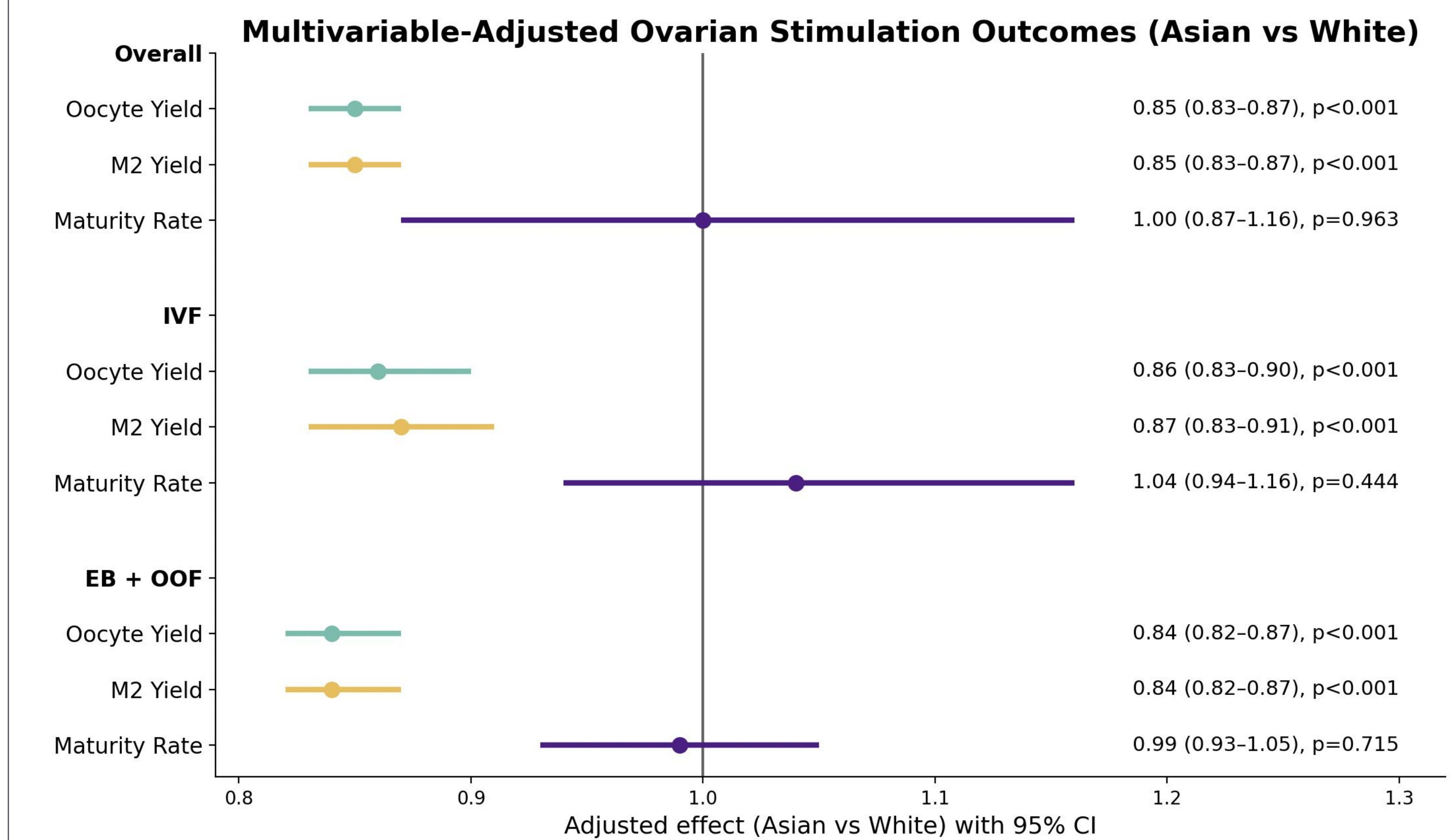
- Despite higher AMH and estradiol levels, Asian patients demonstrated lower total oocyte and M2 yield after adjustment for clinical factors.
- Subgroup analyses suggest that these disparities stem from underlying racial differences, rather than infertility diagnosis or trigger type alone.
- Our findings highlight the need for personalized, data-driven stimulation strategies that account for racial variability to promote more equitable ART outcomes.

RESULTS



- Despite higher AMH and E2 levels, Asian patients had 15% lower total oocyte and M2 yield, but no difference in maturity rate.
- White patients had greater benefit from dual trigger, suggesting racial differences beyond standard ART metrics.

RESULTS



- Dual Trigger improves yield across both races
- White patients have higher yields overall
- White patients gain more from Dual trigger than Asian patients
- Under Lupron-only, yields converge slightly

REFERENCES

1. Vu MH, Nguyen AA, Alur-Gupta S. Asian Americans and infertility: genetic susceptibilities, sociocultural stigma, and access to care. F S Rep. 2022;3(2 Suppl):40-5.