

The Effect of Instagram Usage and Race on the Loss of Control of Eating

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Background

Instagram Usage, Loss of Control of Eating, and Race

- Positive associations between social media usage and negative body dissatisfaction (Sidani, 2016)
- Social media behaviors (avoidance of posting selfies, photo investment, photo manipulation, and investment in others' selfies) have been associated with a greater likelihood of having at least one eating disorder (Loneragan, 2020)
- Black women report less body dissatisfaction and disordered eating than White women (M.Quicka, 2013)
- Black women are more satisfied with their weight and shape (Howard, 2017)

Hypotheses

1. At times when adolescents **use instagram more than their average amount**, they will report more loss of control of eating.
2. Increased Instagram usage will have **less of a negative effect of non-White adolescents'** loss of control of eating than White adolescents.

Methods

- PANDA data set: data collected at Connecticut Children's Medical Center in 2016
- 853 adolescents (ages 11-14 at T1) who participated in 3+ time-points

Instagram Usage

- Technology Use Questionnaire (Ohannessian, 2009)
 - How often teen's use social media sites
 - Assessed as a **within-person** variable

Race

- Comparing White to non-White adolescents (Black, Hispanic, Multi-racial)
- Assessed as a **between-person** variable

Loss of Control of Eating

- Loss of Control of Eating Scale (Latner, Mond, Kelly, Haynes, & Hay, 2014)
 - "I felt helpless about controlling my eating"

Race Demographics

| | # of participants |
|-----------------|-------------------|
| White | 527 |
| Black | 72 |
| Hispanic | 143 |
| Asian | 26 |
| Hawaiian | 0 |
| American Indian | 3 |
| Other | 8 |
| Multi-racial | 124 |

Results

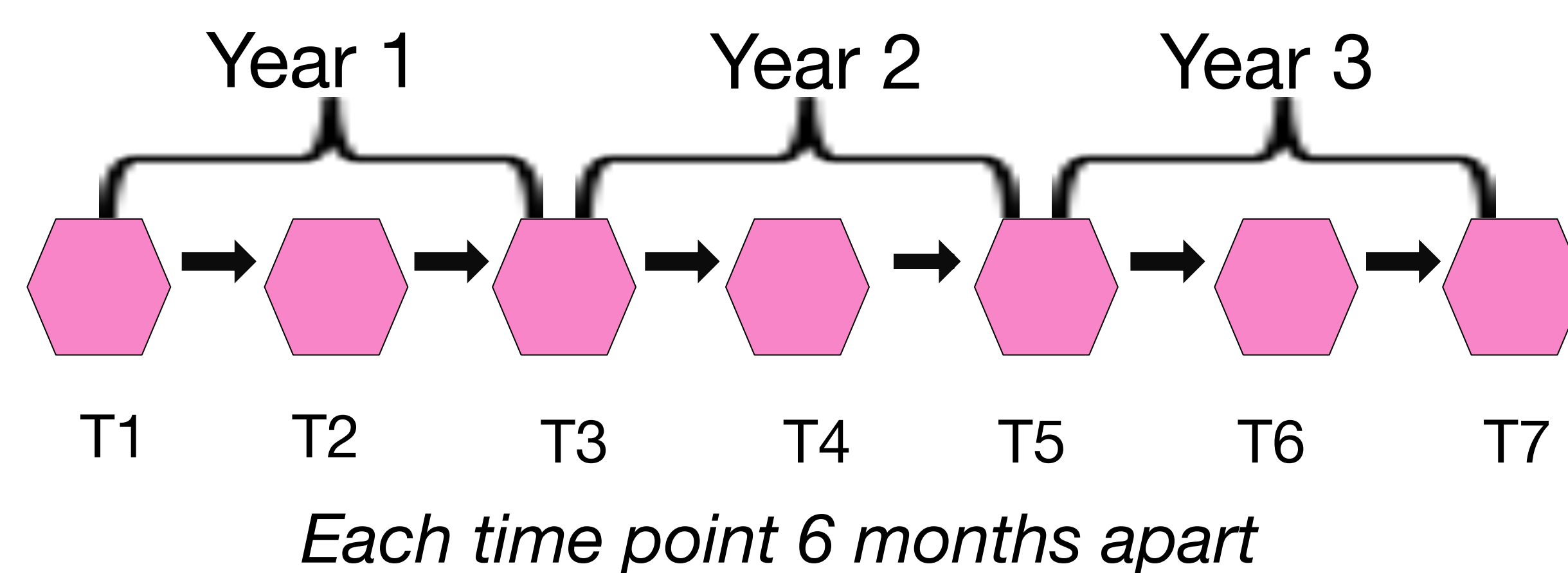
Multilevel Model Results:

Instagram Usage (measured within-person) on Loss of Control of Eating with race as a moderator

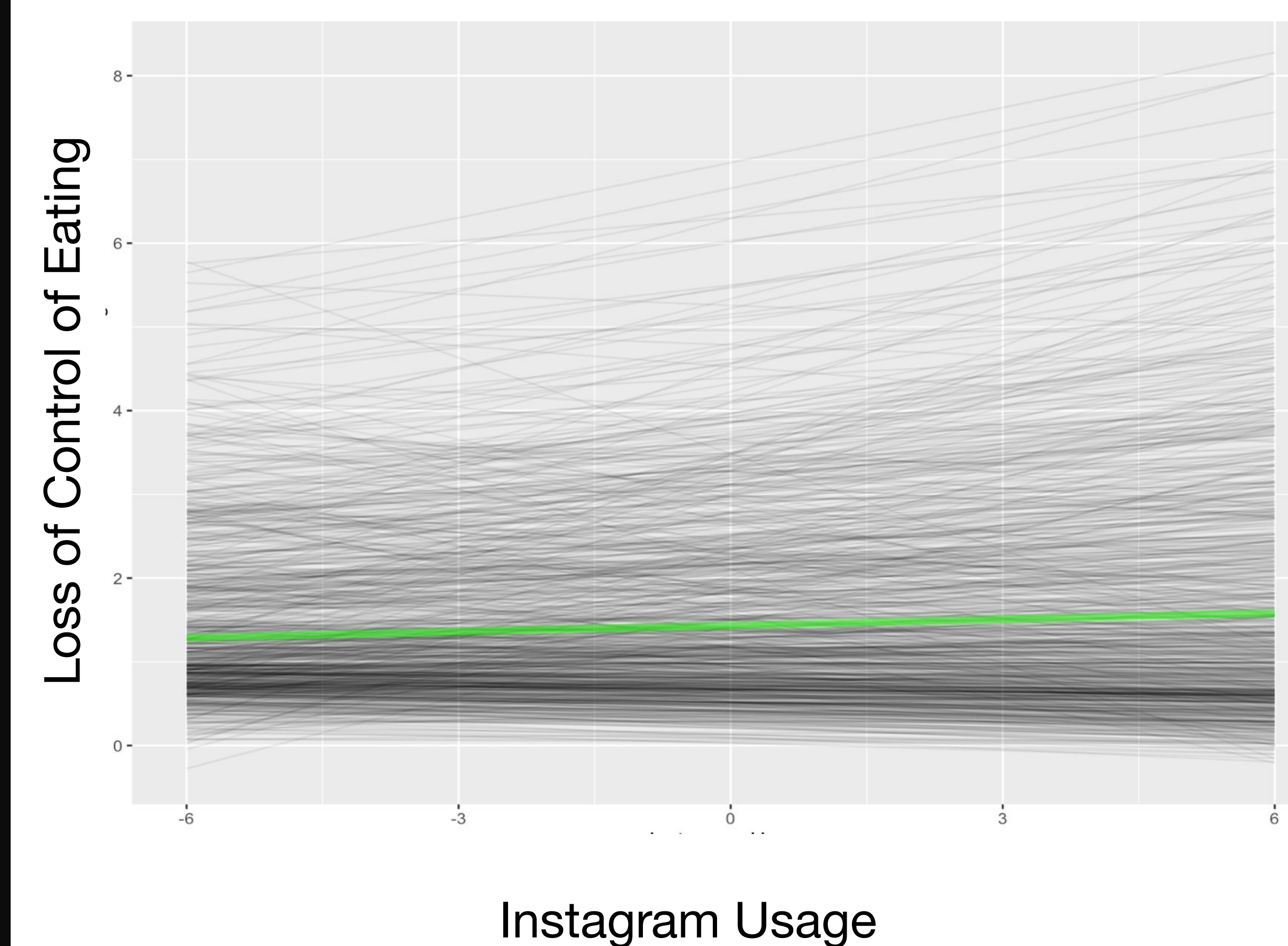
| Fixed effects | | | | |
|-----------------|----------|------------|----------|----------|
| | Estimate | Est. Error | I-95% CI | u-95% CI |
| Intercept | 1.44 | 0.07 | 1.31 | 1.57 |
| Time | 0.07 | 0.01 | 0.04 | 0.1 |
| Gender | 0.21 | 0.11 | -0.02 | 0.42 |
| Instagram | 0.02 | 0.02 | -0.01 | 0.06 |
| Race | 0.31 | 0.11 | 0.09 | 0.53 |
| Instagram: Race | -0.05 | 0.03 | -0.11 | 0.02 |

| Random Effects | | | | |
|-------------------|----------|------------|----------|----------|
| | Estimate | Est. Error | I-95% CI | u-95% CI |
| sd(Intercept) | 1.38 | 0.04 | 1.3 | 1.47 |
| sd(Instagram) | 0.21 | 0.02 | 0.17 | 0.25 |
| cor(Intercept, In | 0.24 | 0.09 | 0.06 | 0.42 |

Longitudinal Design



Multilevel Model Visual: Fixed and Random effects of WithinPerson Instagram Usage and Loss of Control of Eating



The green line represents the fixed effect of instagram usage on LOCE, and the thin black lines indicate each teen's individual slope of instagram usage on LOCE. The spread of lines show the heterogeneity in the effect of instagram usage on binge eating behavior.

Discussion

Conclusions and Significance

- Time and race are the only significant variables
 - Over time, there is an increase of loss of control of eating
 - Non-White adolescents show higher rates of loss of control of eating as compared to White adolescents
- No significant effect of increased within-person instagram usage on LOCE
- No significant interaction of race and instagram usage on LOCE
- There is significant heterogeneity in the effect of instagram usage on LOCE
 - About 95% of the population have slopes that range from -0.4 to .44

Future Directions

- Past work shows effects of instagram usage on eating behavior, but current findings fail to reveal the same patterns
 - replicate research to find if different social media networks have a more significant effect on LOCE instead
- Current findings point to more disordered eating behavior in non-White teens, which is inconsistent with past work
 - emphasize increasing awareness for eating disorders in non-White communities (school counselors, assemblies, education)
- Significant heterogeneity was found in the effect of instagram usage on LOCE
 - explore possible moderations besides race

References

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2. M.Quicka, V., A. Carol Byrd-Bredbenner B, B, . . . Eating, A. S. (2013, October 21). Disordered eating, socio-cultural media influencers, body image, and psychological factors among a racially/ethnically diverse population of college women.
3. Loneragan, A. R., Bussey, K., Fardouly, J., Griffiths, S., Murray, S. B., Hay, P., . . . Mitchison, D. (2020, April 07). Protect me from my selfie: Examining the association between photo-based social media behaviors and self-reported eating disorders in adolescence.
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5. Technology Use Questionnaire (TUUQ; Ohannessian, 2009b)
6. The Loss of Control Eating Scale, Brief Version (LOCES; Latner, Mond, Kelly, Haynes, & Hay, 2014)