

Gender and Longitudinal Relationships Between LOC Eating, Anxiety, and Depression in Adolescents

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INTRODUCTION

- Internalizing problems are theorized to be involved in the origins and outcomes of loss of control (LOC) eating, a robust risk factor for excess weight gain, especially for adolescent girls.
- Most research to date has focused on depression.
- More research is needed to examine gender differences in the temporal relationships among LOC, anxiety, and depression.

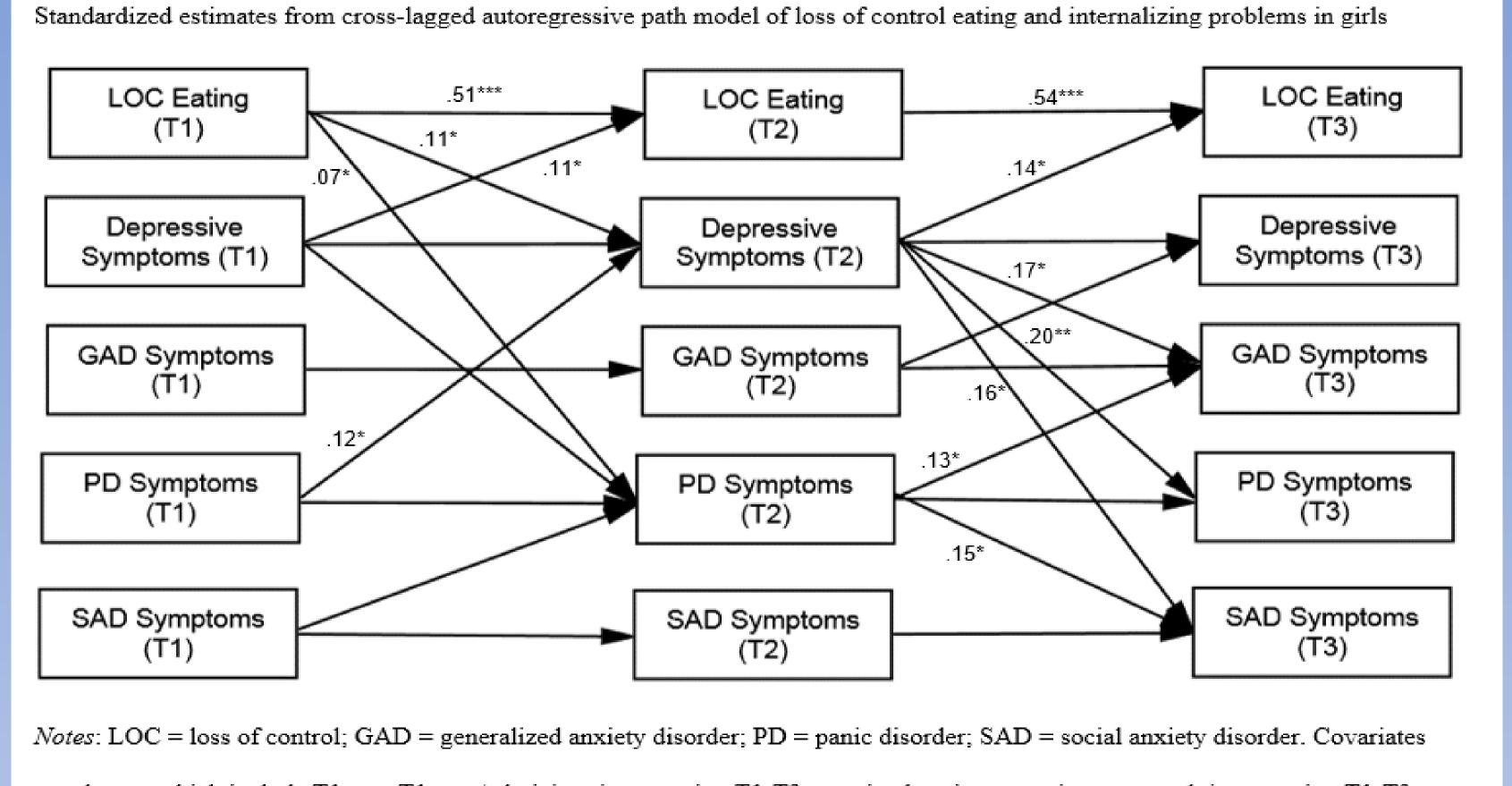
METHODS AND MATERIALS

- Participants were 1,344 U.S. adolescents (11-14 years; 51% girls; 51% non-Hispanic White).
- Validated questionnaires were administered during school in Fall 2016 (T1), Spring 2017 (T2), and Fall 2017 (T3)
- LOC eating (The Brief Loss of Control Eating Scale: αs=.93-.94)
- Anxiety (The Screen for Child Anxiety and Related Disorders: αs=.87-.91) and
- Depressive symptoms (The Center for Epidemiological Studies Depression Scale for Children: αs=.91-.93)

RESULTS

- Gender differences were found for all parameters in multiple group analyses of an autoregressive cross-lagged path model (ps<.001; CFI=.97; RMSEA=.03, 90% CI_{RMSEA}=.02-.04).
- Covariates included age, race/ethnicity, socioeconomic status, and BMI-z.
- Reciprocal longitudinal associations between LOC and depressive symptoms from T1 to T2 and T2 to T3 were found for girls (βs=.11-.14, ps<.05), but not boys (βs=.01-.04, ps>.05).
- Apart from LOC predicting increases in panic disorder symptoms from T1 to T2 (β =.07, p<.05), there were no direct relationships between LOC and anxiety in girls (ps>.05).
- Among boys, however, reciprocal longitudinal associations between LOC and generalized anxiety disorder symptoms were found from T1 to T2 and T2 to T3 (βs=.10-.11, ps<.05).
- Bidirectional associations between LOC and social anxiety disorder symptoms from T1 to T2 also were found for boys (βs=.09-.11, ps<.05).

RESULTS



Notes: LOC = loss of control; GAD = generalized anxiety disorder; PD = panic disorder; SAD = social anxiety disorder. Covariate not shown, which include T1 age, T1 race/ethnicity, time-varying T1-T3 perceived socioeconomic status, and time-varying T1-T3 body mass index standard scores adjusted for age and gender (BMI z-scores). Covariances and residual variances not shown.

Standardized estimates from cross-lagged autoregressive path model of loss of control eating and internalizing problems in boys LOC Eating LOC Eating LOC Eating Depressive Depressive Depressive Symptoms (T2) Symptoms (T3) Symptoms (T1) **GAD Symptoms** GAD Symptoms GAD Symptoms PD Symptoms PD Symptoms PD Symptoms SAD Symptoms SAD Symptoms SAD Symptoms Notes: Notes: LOC = loss of control; GAD = generalized anxiety disorder; PD = panic disorder; SAD = social anxiety disorder.

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CONCLUSIONS

- At baseline, gender differences were found for symptoms of depression and anxiety but not LOC.
- There was a bidirectional relationship between depressive symptoms and LOC for girls but not boys.
- A bidirectional relationship was found between anxiety and LOC for boys but not girls.

FUTURE RESEARCH

- These findings illuminate a relationship for boys as it relates to LOC that is not often reported upon, providing potential targets for intervention.
- Future research should further examine this relationship and whether intervention with one produces benefits in the other.
- Future research should also examine gender differences in youth identifying as transgender or gender diverse.

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