# Examining the Moderating Role of Social Media Use on the Associations Between Popularity and Psychological Adjustment in Adolescence

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# INTRODUCTION

Popularity can serve as a risk factor for the development of both internalizing problems (e.g., anxiety and depression, Narr, Allen, Tan, & Loeb, 2019), externalizing problems (e.g., antisocial behaviors, Tucker et al., 2011), and substance use (de Bruyn and Cillessen, 2006) among adolescents. According to a new transformation framework (Nesi et al., 2018), the nature of social media has the potential to transform such peer experiences. This framework suggests that the visibility and pervasiveness of online platforms amplifies adolescents' access to and awareness of their popularity (e.g., counting how many "likes" they receive), and may intensify the demands to maintain or increase status. This framework implies that frequent social media use would exacerbate the negative correlates of self-perceived popularity.

# **METHODS**

Participants were 1,205 7th and 8th grade students attending five public middle schools in the New England region of the U.S. (at T1, Mage=12.8 years, SD=0.71; 51% girls; 51% non-Hispanic White). Participants completed self-report questionnaires of image-based social media platform use (Snapchat, Instagram), self-perceived popularity, anxiety symptoms, depressive symptoms, alcohol use, and delinquent behaviors during school in the fall of 2016 (T1) and six months later, in the spring of 2017 (T2). Path analyses were used to examine hypotheses and multiple group analyses to evaluate gender differences.

## **RESULTS**

As shown in Figure 2, for both boys and girls, higher T1 self-perceived popularity was significantly associated with greater T2 anxiety symptoms, depressive symptoms, and alcohol use, and for boys only, with more delinquent behaviors. Social media use at T1 also was positively associated with T2 depressive symptoms, alcohol use, and delinquent behaviors. Significant social media use x self-perceived popularity interaction effects were found for girls (Figure 2A), but not boys (Figure 2B), such that the positive associations between girls' T1 self-perceived popularity and T2 anxiety symptoms, depressive symptoms, and alcohol consumption were stronger at higher levels of social media use.

# DISCUSSION

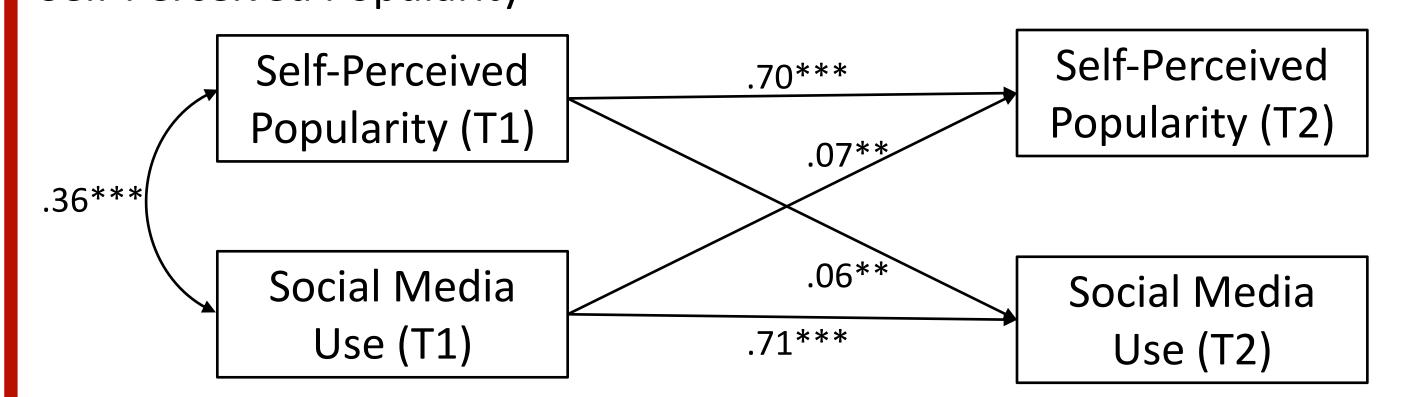
Findings partially support the tenets of the transformation framework (Nesi et al., 2018), which suggests that social media use may intensify peer status processes during adolescence. The current study found moderating effects of social media for girls only, indicating that they may be at greater risk. Additional research is needed to empirically test the transformation framework and evaluate potential mechanisms involved in the relationships among social media use, peer status, and psychological adjustment during adolescence.

Time spent on social media magnifies the associations between self-perceived popularity and risk for internalizing problems, externalizing problems, and substance use for adolescent girls.



# **NOTABLE VISUALS**

Figure 1
Standardized Estimates from the Path Model Examining the Prospective, Bidirectional Relationships Between Social Media Use and Self-Perceived Popularity

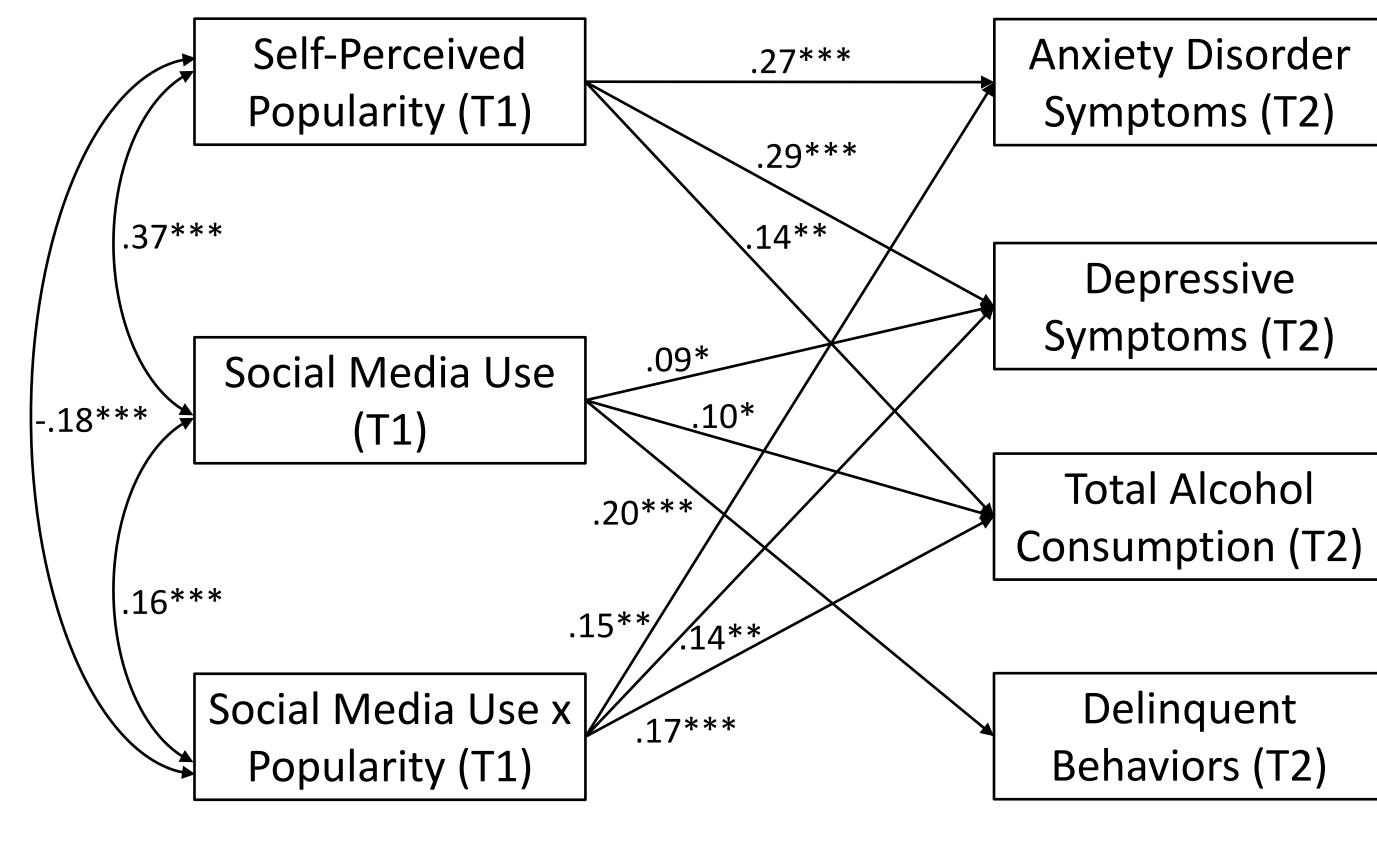


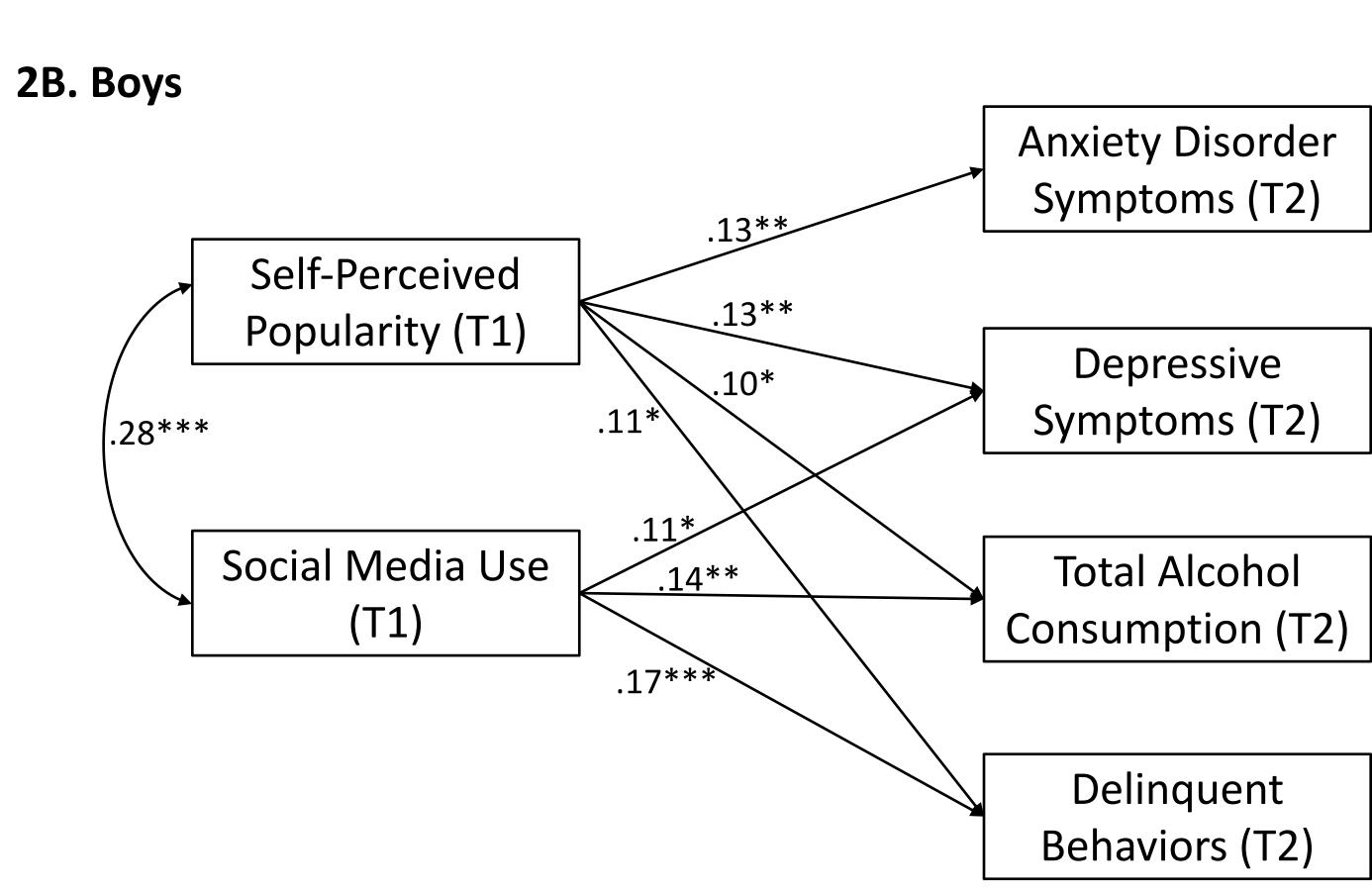
*Notes*: T1 = Time 1; T2 = Time 2. Model adjusted for T1 age, race/ethnicity, and socioeconomic status. \*p < .05; \*\*p < .01; \*\*\*p < .001.

### Figure 2

Standardized Estimates from the Unconstrained Path Model Examining the Interactive Effects of Social Media Use and Self-Perceived Popularity in Predicting Psychological Adjustment

### 2A. Girls





Results from the path model provided a good fit to the data,  $\chi^2(56)=240.31$ , p<.001; CFI=.96; TLI=.95; RMSEA=.05, 90% CIRMSEA=.04 -.06. Multiple group analyses suggested significant gender differences in the structural weights,  $\Delta\chi^2(28)=48.89$ , p<.01. Covariates included T1 age, race/ethnicity, socioeconomic status, and all psychosocial outcomes. \*p < .05; \*\*p < .01; \*\*\*p < .001.