

Sleepy and popular?

The association between popularity, sleep duration, and insomnia in adolescents

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INTRODUCTION

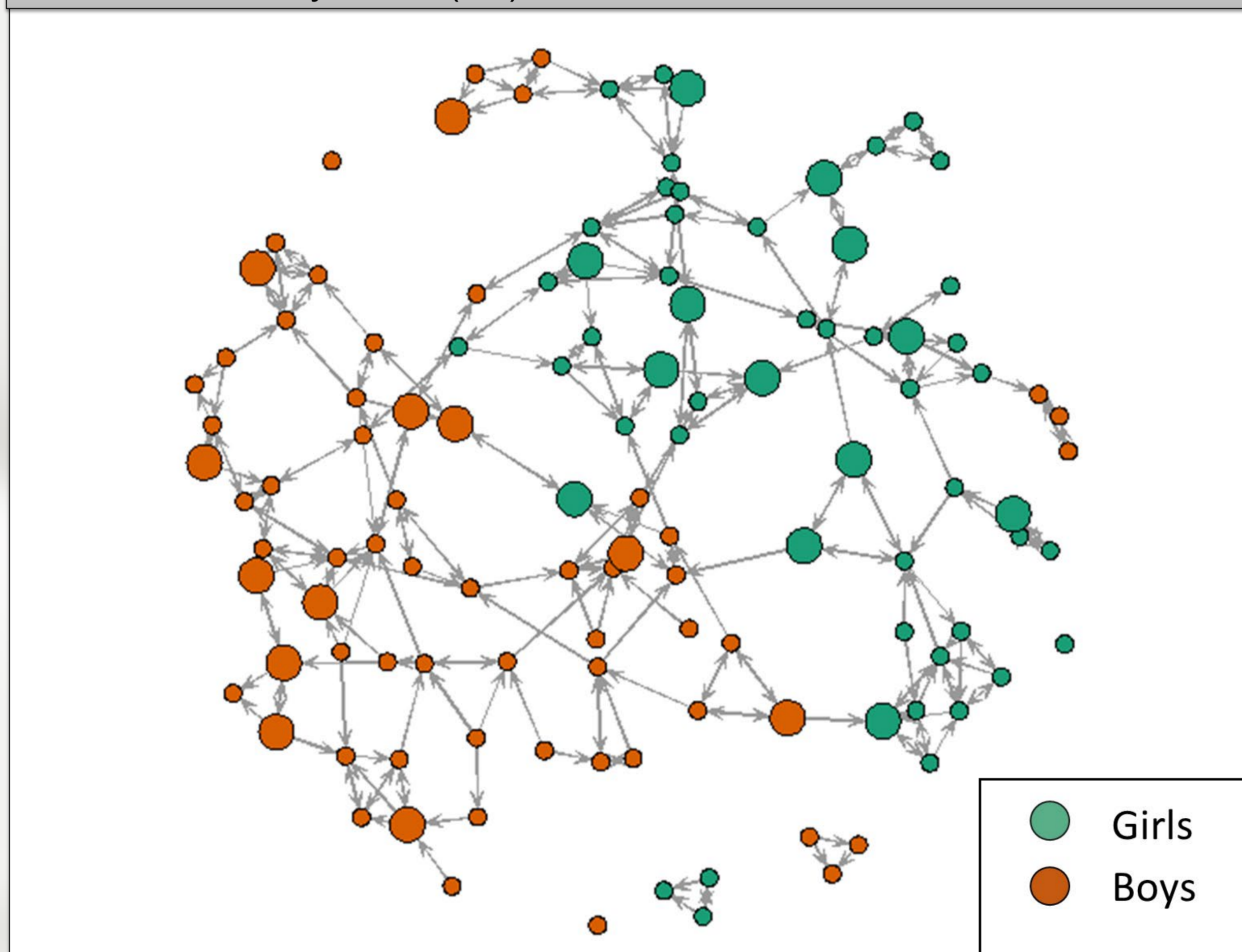
Adolescents' sleep does not occur in isolation from their social context (Gordon et al., 2021). During adolescence, peers gain a central role and with the availability of technology, socializing can occur around the clock. Very few studies have focused on the role of the peer context in adolescents' sleep problems using social network analyses (Mednick et al., 2010; Li et al., 2019; Palmer et al., 2020). These analyses help to describe peer relationships and social positions in a defined context (e.g., the school) based on friendship nominations. Adolescents who receive many nominations can be defined as "popular", which has been found to have its costs (i.e., shorter sleep duration) but also benefits (i.e., fewer insomnia symptoms). The aim of this study was to partially replicate and expand previous findings in a large Swedish sample of adolescents.

METHOD & RESULTS

The sample included 1394 adolescents (46% girls, Mage = 15.3, SD = .53, range 14-18) from 16 public schools in middle Sweden. Using established measures, the adolescents reported on their weekly sleep duration (calculated from bedtime, wake-time, and SOL), insomnia symptoms, anxiety, depression, alcohol use, and demographics (SES, immigrant background, sex). Moreover, they nominated up to three friends in school. We used R to calculate outgoing nominations (M = 2.3, SD = 0.95, range 0-3) and incoming nominations or popularity (M = 2.3, SD = 1.5, range 0-9). Linear regressions were used to examine the association between popularity and sleep, controlling for confounding variables (demographics, emotional problems). Finally, we ran the analyses separately for boys and girls.

Controlling for confounders, popular adolescents reported shorter sleep duration (B=-3.00; 95% CI [-5.77, -0.19]). Popular girls reported more insomnia symptoms (B = 0.36; 95% CI [.04, .68]), whereas there were no significant associations found for boys.

Figure 1. Network Representing Ties between Boys and Girls and Insomnia Severity Index (ISI) Scores in One School.



Note. Larger nodes indicate an Insomnia Severity Index score >9 (Chung et al., 2011)

CONCLUSION

Popularity was linked to shorter sleep duration (up to 27 minutes for the most popular teens). Moreover, girls may pay a price for their popularity by experiencing more insomnia symptoms. These results are in line with one previous study (Li et al., 2019) whose data were collected "pre-smartphone" (1994-95) and suggest that popularity has a similar impact on sleep in today's youths despite the availability of technology around the clock. Future longitudinal studies should examine the possible bi-directionality between social connectedness and sleep and elucidate the mechanisms explaining potential sex differences.

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