Substance use and the relation with high school social networks

Aim

To examine the co-evolution of friendships, (potential) romantic relationships, and substance use

Background

Substance use (e.g., smoking, alcohol consumption, marijuana use) is a public health problem and a process that typically begins in high school. As parental control diminishes during adolescence, individuals have more freedom to spend unsupervised time with friends and to explore different sensations, such as those produced by substance use. In addition to friends, adolescents spend a great deal of time thinking, talking about, and being in romantic relationships, even interacting more with their romantic partners than with their family or friends. Even before a relationship is established, crushes play a crucial role, as efforts to gain the attention of the crush may lead to changes in adolescents' behavior. Both friends and crushes are crucial during adolescence, and because substance use often begins during this period, it should be examined in the context of these social relationships.

This project aims to examine substance use in the context of fancy networks and friendship networks. In the first part of the project, characteristics related to fancying someone (including substance use) will be investigated using the Peers and Emergence of Adolescent Romance (PEAR) dataset, which contains information on 2,159 Dutch adolescents. A first analysis will include data from the first wave of PEAR, and Exponential Random Graph Models (ERGMs) will be conducted to identify characteristics related to nominating and receiving fancy nominations. Subsequently, both waves of PEAR will be used to examine selection and influence processes, using Stochastic Actor-Oriented Models (SAOMs), which will help us to understand whether the substance use of the person being fancied can influence the people being romantically interested to change their behavior toward a more similar level of substance use. For example, if adolescents have a crush on someone who smokes, they may start smoking to become more similar and thus increase the likelihood of interacting with that person. In the second part of the project, a new longitudinal dataset will be collected from Chilean high school students (7th to 12th grade). This dataset will be used to assess possible moderators in the context of friends' influence on substance use. These possible moderators may include anxiety, depressive mood, self-esteem, popularity, and beliefs about substance use. By collecting three waves of measures within one high school year, it is expected that we will be able to determine how these proposed moderators may act as either risk or protective factors for substance use.

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