

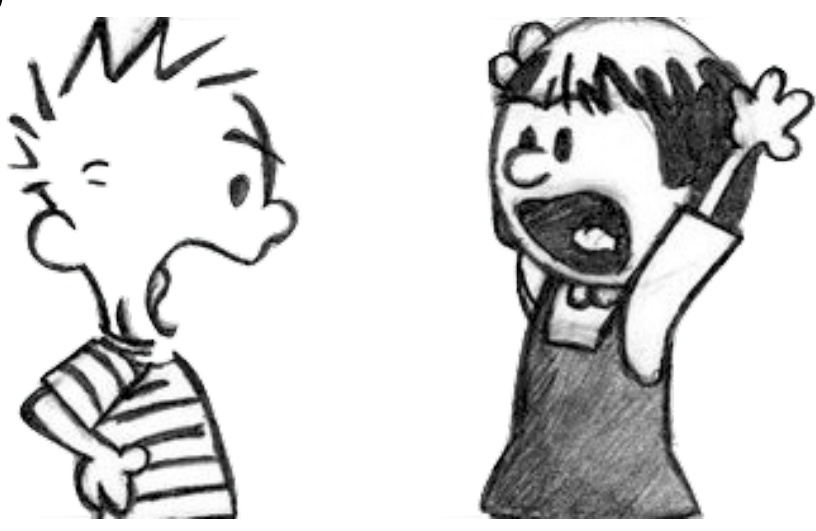
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The Difference is Research

Background

- Research shows a clear relationship between aggression and substance use, particularly alcohol, during adolescence
- Initiation to alcohol use peaks during adolescence making this period a key time to understand the developmental relationship between these factors
- Previous research has focused on incarcerated, treatment and single gender samples
- Many young people who are aggressive and violent may not be involved in the justice system or treatment services
- Therefore, it's important to examine the relationship among young people in the general community as well.



Methods cont.

- The second stage applied an Auto-regressive Latent Growth Model with Structured Residuals (ALT-SR) model
- The model accounts for the individual variability in alcohol and aggression at each time point to determine whether high levels of alcohol use on the individual level account for corresponding spikes in aggression, over and above what would be expected based on that person's normal trajectory of aggression.

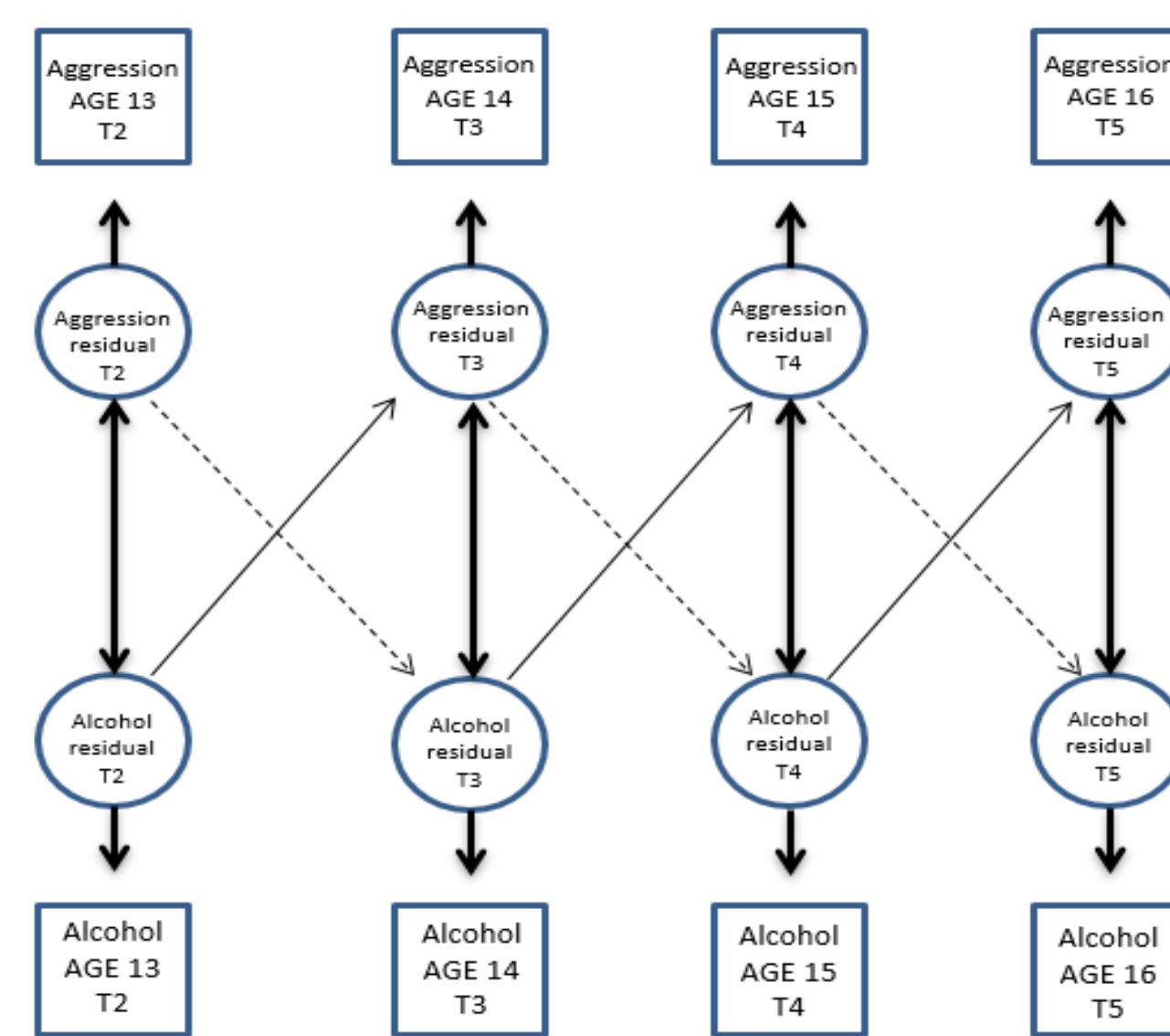
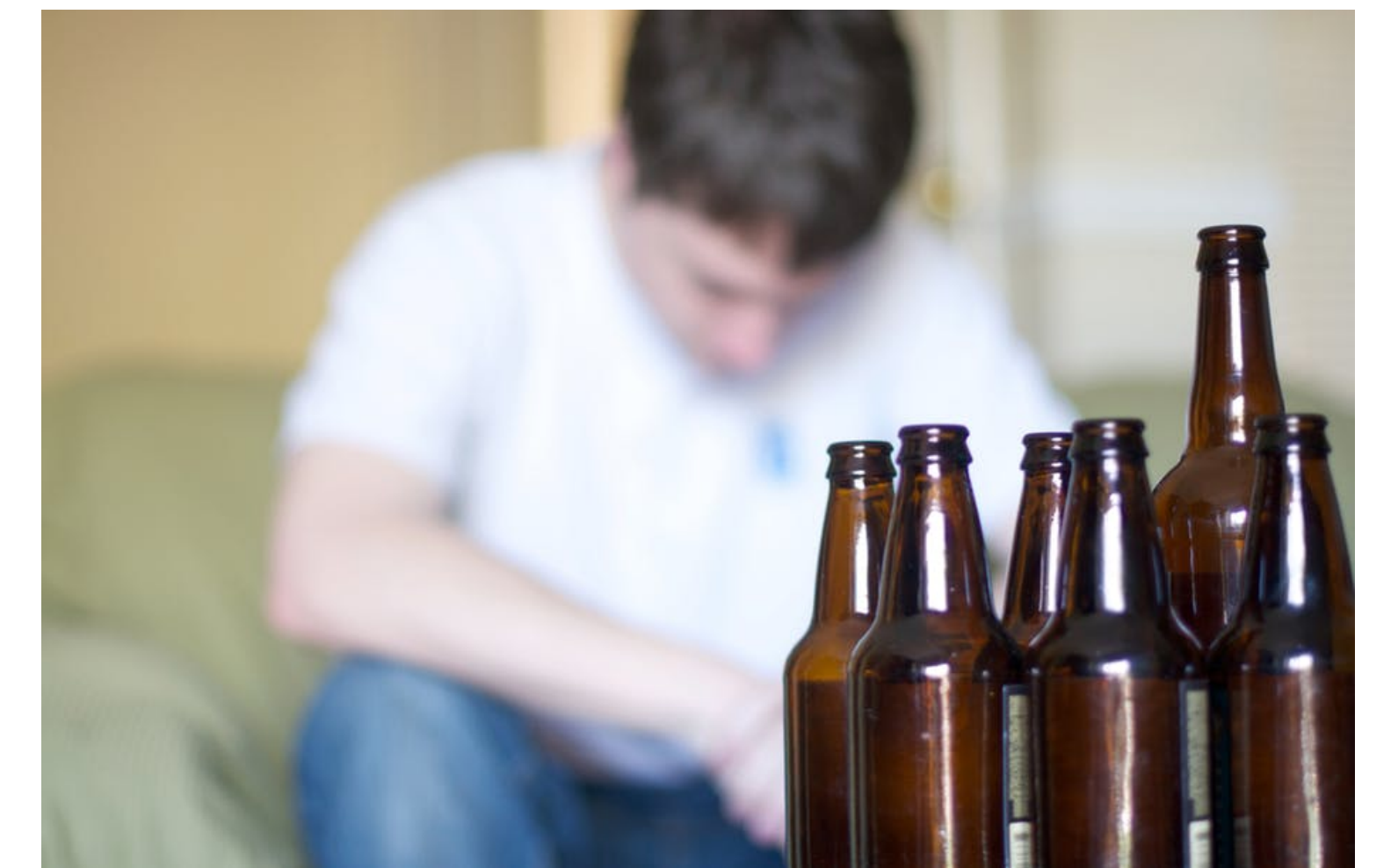


Figure 2. Auto-regressive Latent Growth Model with Structured Residuals (ALT-SR)

Conclusions

- This study found that the development of alcohol use and aggression are positively correlated in adolescence
- Increases in alcohol use predicted corresponding spikes in aggression at three of the four time points and the effect was strongest at age 16
- However, increases in alcohol use did not predict higher than normal aggression at the following time point, suggesting alcohol use has a proximal, rather than lagged influence on aggression in adolescence.



Aims

- Examine the developmental relationship between alcohol use and aggression in adolescence
- Determine whether alcohol use is associated with time-specific elevations in aggression during adolescence.

Data

- This study employs prospective data from the Climate and Prevention (CAP) study
- The CAP study is a cluster randomized controlled trial conducted between 2012-2015 with school students from New South Wales (NSW) & Victoria (VIC), Australia.



Results

- The rate of change in alcohol use over time was statistically significant however on average the sample did not change in their aggression levels over time.
- Young people in this study significantly increased their alcohol use from age 13 to 16.

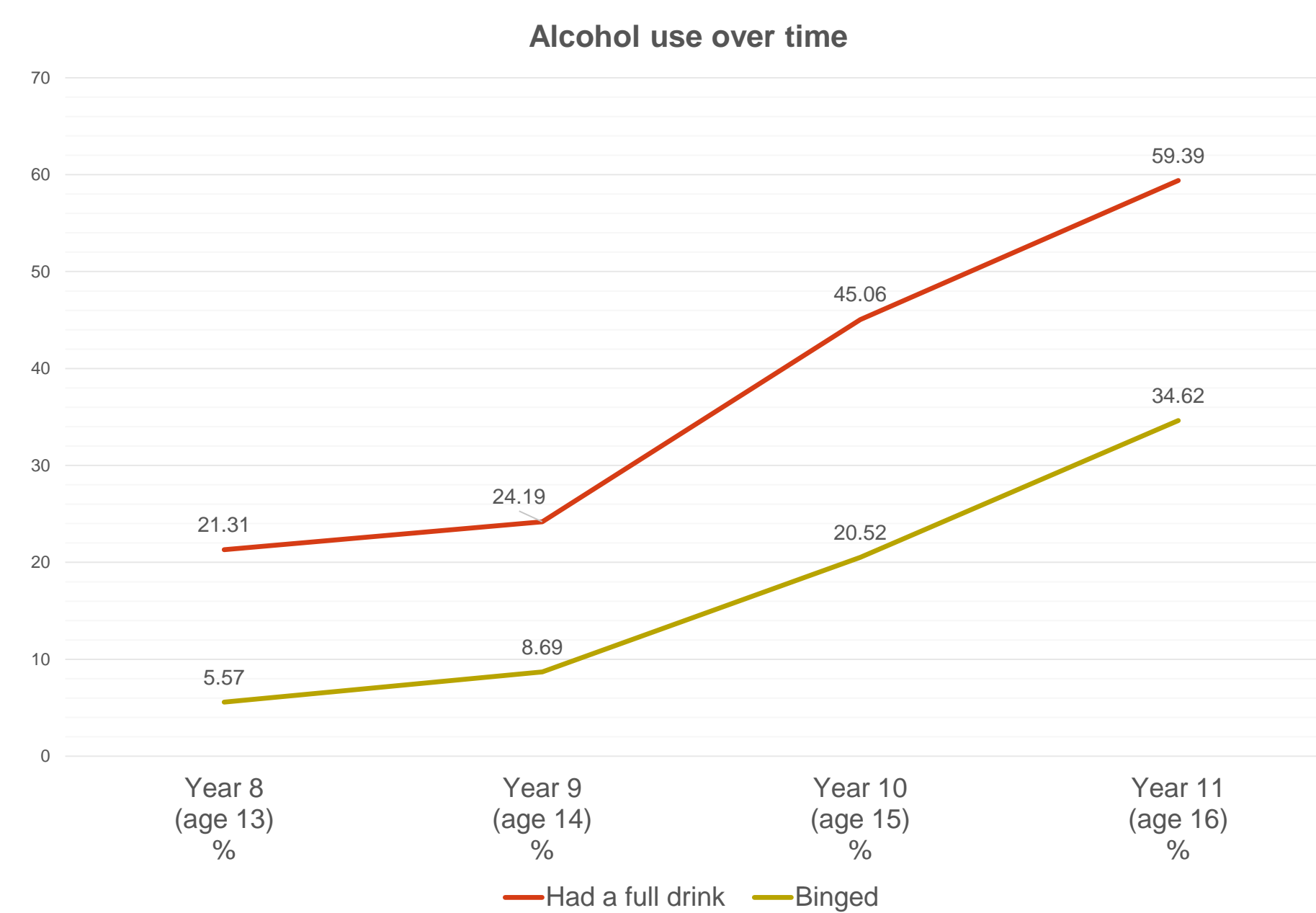


Figure 3. Development of alcohol use from age 13 to 16

- Alcohol use at age 13, 14 and 16 was associated with corresponding increases in aggressive behaviour over and above what would be expected based on the normal trajectories of the young people.**
- However, increasing alcohol use at each time point was not prospectively related to increasing aggression at the following time point.



Implications

- A contemporaneous relationship between alcohol and aggression as demonstrated here is consistent with the *Snares hypothesis* (Moffitt 1993) where heavy substance use can effectively ensnare young people into antisocial pathways by creating short-term increases in antisocial behaviour during a period when most young people would show desistance in antisocial behaviour (Hussong et al., 2004).
- Programs that are effective in preventing, delaying and reducing heavy alcohol use or binge drinking in adolescence also have the potential to significantly reduce violence and delinquency among young people, as demonstrated in some classroom prevention program evaluations (Botvin et al., 2006; Vogl & Teesson., 2006).

Methods

- Frequency of alcohol use and aggression were measured in subset of students (n = 1500, 57% male) repeatedly from Time 2 across four time points (ages 13, 14, 15 & 16).
- As a first step, aggression and alcohol use were modelled in separate unconditional latent growth models across four time points
- Next, aggression and alcohol models were combined in a parallel growth model in order to examine the associations between the growth in each construct.

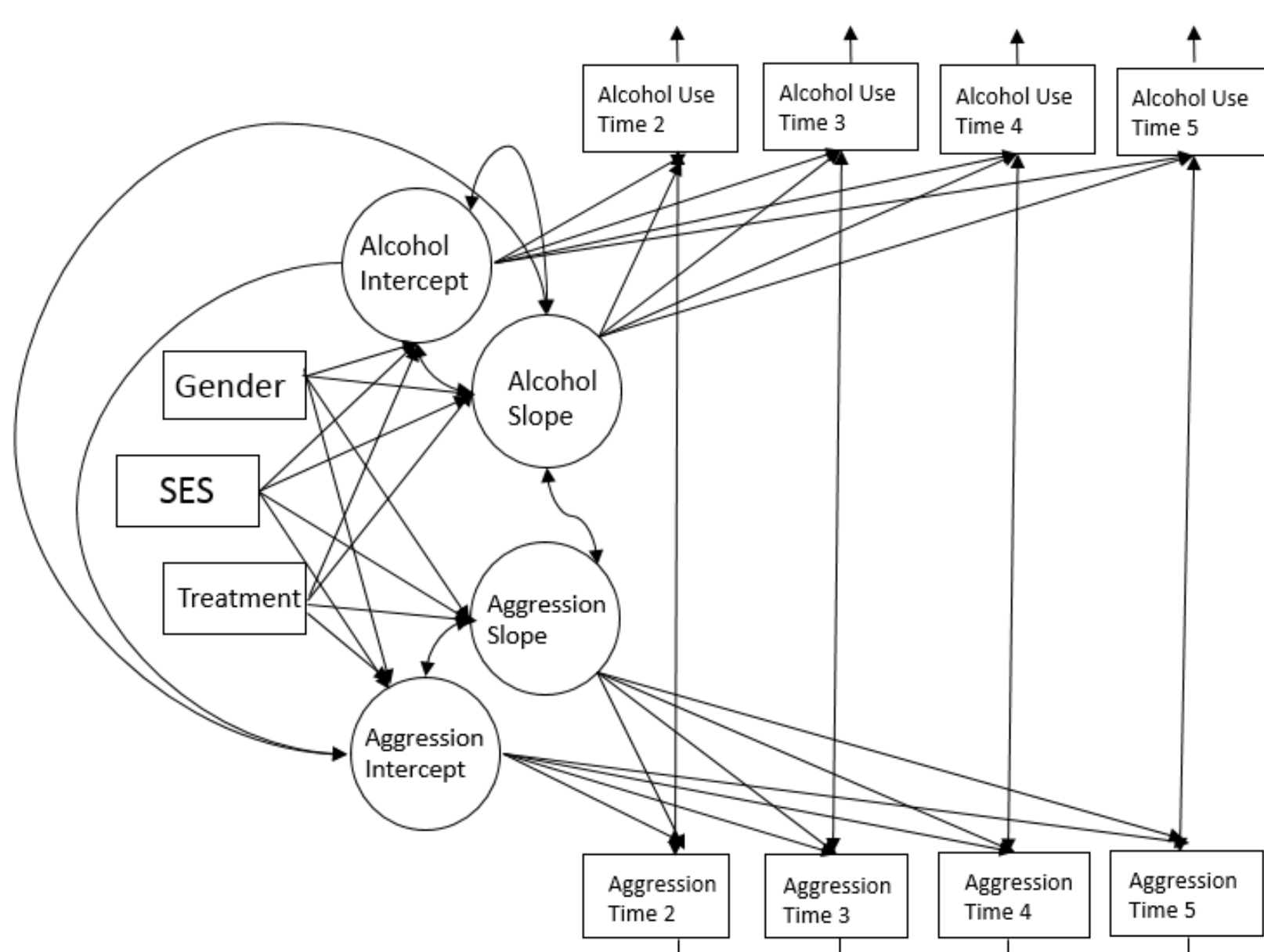


Figure 1. Path diagram of the parallel process growth model with gender, SES and treatment as covariates

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