

From Child Maltreatment to Adolescent Substance Use: Different Pathways for Males and Females?

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Background

- Male and female adolescents self-report similar rates of substance use (Miech et al., 2017)
- Risk factors that contribute to substance use and the consequences that follow may vary by gender (Bloom et al., 2004; Kumpfer et al., 2008)

Theoretical framework

- Feminist Pathways Theory (Chesney-Lind, 1989; Belknap, 2015)
 - Examines the unique experiences that contribute to female law-breaking behavior
 - Developed based on studies that traced life histories of women in the criminal justice system retrospectively
- General Strain Theory (Agnew, 1992)
 - Posits that the main cause of delinquency is strain experienced during aversive personal relationships
 - Strain → negative emotion (fear, anger, sadness) → delinquency
 - Level of social support conditions the effect of strain on behavior

Theoretical framework

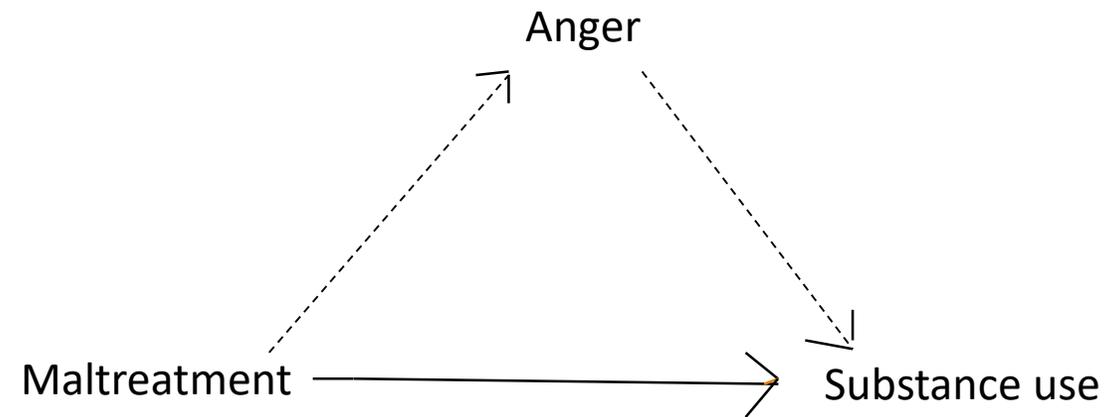
- Broidy & Agnew's (1997) review of General Strain Theory
 - Females and males are likely to experience different emotions as a result of strain
 - Females and males react differently to negative emotions
 - Females tend to have higher levels of social support compared to males

Summary of theory

- Strains such as maltreatment are associated with negative emotions and later delinquent behavior
- The reaction of females and males to stress and negative emotions varies
- The relationship between child maltreatment and subsequent substance use might be mediated by mental health issues, anger, parent-child attachment, and externalizing problems

Direct and indirect relationships

Mediation



Limitations of past empirical work

- Reliance on cross-sectional, retrospective data
- Limited examination of mediating factors in the relationship between maltreatment and substance use
- Limited examination of gender differences in the indirect relationship between maltreatment and substance use

The current study

RQ1: Does physical and sexual abuse experienced before age 12 increase substance use at age 16?

RQ2: Is the relationship between physical and sexual abuse experienced before age 12 and substance use at age 16 mediated by externalizing symptoms, internalizing symptoms, parent-child attachment, and anger?

RQ3: Do the mediating pathways between physical and sexual abuse and substance use vary by gender?

Research Method

Analyses rely on data from the *Longitudinal Studies of Child Abuse and Neglect (LONGSCAN) Consortium*

- Data collected from five sites in Baltimore, Chicago, San Diego, Seattle, and Chapel Hill
- Sample participants considered “at risk” for abuse based on demographic and social characteristics or prior maltreatment in the home

Sample: 1,354 youth

- LONGSCAN study follows respondents from age 4 to age 18

Primary independent measures (Age 12)

Child physical maltreatment: Experienced any physical maltreatment before age 12 (yes or no)

- Based on child self-report at age 12, parent report at child age 12, and official substantiated records
- If any of the three sources endorsed, participant is considered to have a physical maltreatment history

Child sexual maltreatment: Experienced any sexual maltreatment before age 12 (yes or no)

- Measured similarly to physical maltreatment, using sexual maltreatment reports

Primary independent measures (Age 12)

Child physical maltreatment

- Child report: 15 items
 - Example item: “Has any adult ever hit you with something really dangerous, like a baseball bat or a shovel?”
- Parent report: Based on Conflict Tactics Parent to Child Scale, 7 items, lifetime experience
 - Example item: “In the past year, how often have you hit him/her with a fist or kicked hard?”
 - Answer option for occurrence before the past year

Primary independent measures (Age 12)

Child sexual maltreatment

- Child report: 11 items
 - Example item: “Has anyone ever touched your private parts or bottom in some way?”
- Parent report: 4 items
 - Example item: “In your child’s lifetime, has he/she ever been sexually molested?”

Outcome measure (Age 16)

Substance use

- Youth self-report
- Modeled as a latent construct of three directly observed measures-Frequency of cigarette use, alcohol use, and marijuana use in the past year

Mediating measures

Externalizing problems (age 14): Youth self-report; based on the Child Behavioral Checklist Externalizing Problems subscale (Achenbach, 1991)

Internalizing problems (age 14): Youth self-report; based on the Child Behavioral Checklist Internalizing Problems subscale (Achenbach, 1991)

Mediating measures

Parent-child attachment (age 14): Parent report; based on Resnick et al.'s (1997) Parent-Child Relationship scale

Anger (age 12): Youth self-report; based on the Trauma Symptoms Checklist for Children Anger subscale (Briere, 1996)

Statistical procedure

- Weighted Least Squares Means and Variance Adjusted (WLSMV) estimation was used to analyze the described measurement models
- Model fit evaluated using Root Mean Square Error of Approximation (RMSEA) and the Comparative Fit Index (CFI)
- Indirect effects assessed using bias-corrected bootstrapping for both the full sample and for females and males separately

Table 1. Descriptive Statistics for Study Measures.

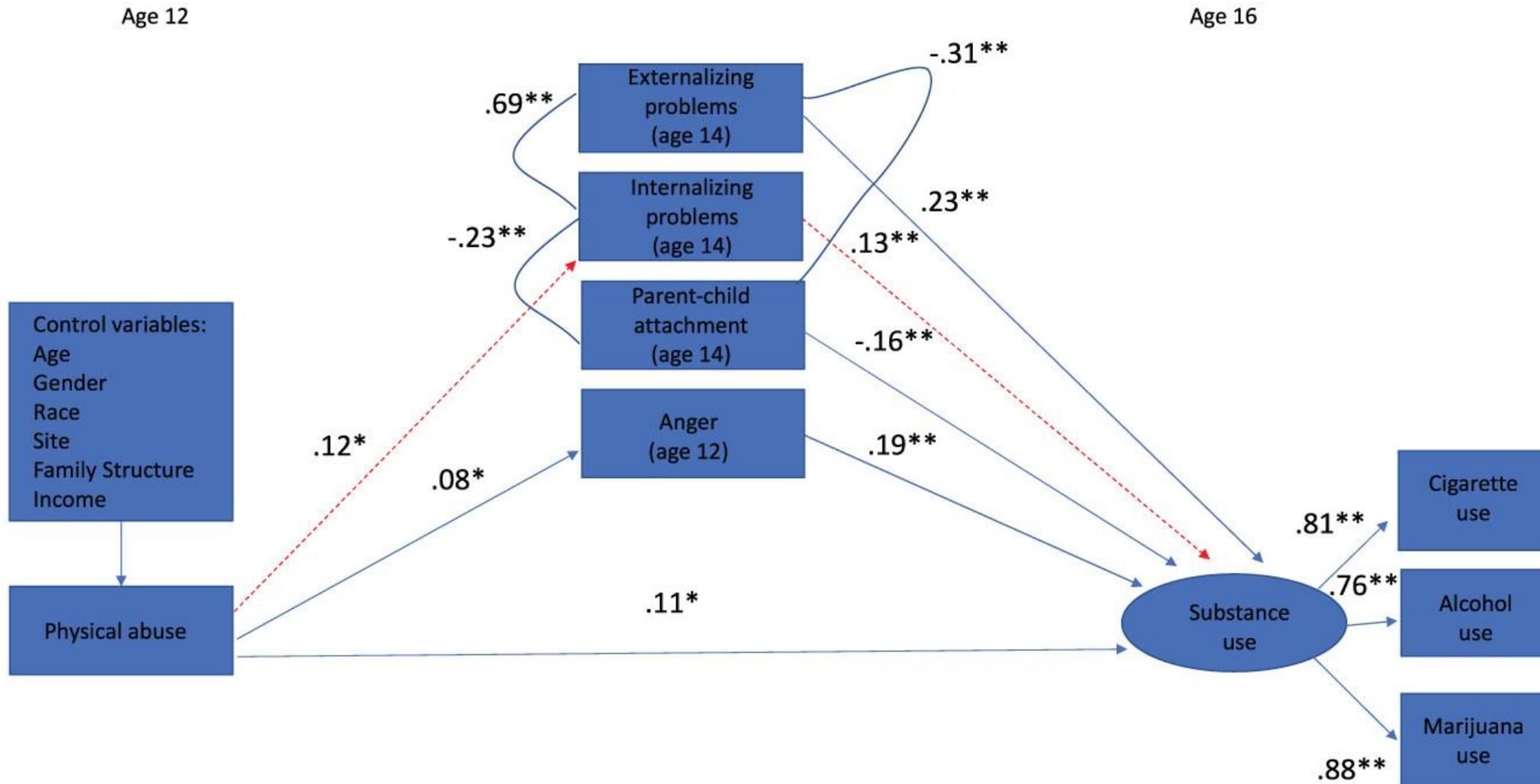
Measure	Total sample % yes or <i>M, SD</i> (<i>N</i>)	Females % yes or <i>M, SD</i> (<i>n</i>)	Males % yes or <i>M, SD</i> (<i>n</i>)
Age (at baseline)	4.48, 0.66 (777)	4.53, 0.68 (400)	4.43, 0.63 (377)
Gender (female = 1)	—	51.48 (400)	48.52 (377)
African American	52.25 (777)	53.00 (400)	51.46 (377)
White	25.61 (777)	24.75 (400)	26.53 (377)
Hispanic	7.59 (777)	6.75 (400)	8.49 (377)
Other race/ethnicity	14.54 (777)	15.50 (400)	13.53 (377)
Low household income	26.00 (777)	25.25 (400)	26.79 (377)
Family structure ^a	66.67 (777)	65.00 (400)	68.44 (377)
Physical abuse	47.10 (777)	43.25 (400) ^b	51.19 (377)
Sexual abuse	27.81 (777)	33.25 (400) ^b	22.02 (377)
Frequency of past year cigarette use ^c	0.48, 0.94 (694)	0.46, 0.94 (363)	0.49, 0.95 (331)
Frequency of year alcohol use ^c	0.45, 0.77 (692)	0.42, 0.75 (361)	0.47, 0.79 (331)
Frequency of past year marijuana use ^c	0.39, 0.84 (692)	0.35, 0.80 (362)	0.44, 0.88 (330)
Externalizing problems	11.98, 10.22 (675)	11.58, 10.15 (339)	12.39, 10.29 (336)
Internalizing problems	7.86, 7.32 (675)	8.45, 7.85 (339)	7.27, 6.70 (336)
Parent–child attachment	30.77, 3.29 (673)	30.96, 3.19 (340)	30.58, 3.40 (333)
Anger	3.52, 4.26 (586)	3.77, 4.42 (293)	3.27, 4.09 (293)

^aLives with at least one biological parent.

^bStatistically significant ($p < .05$) difference compared with male participants.

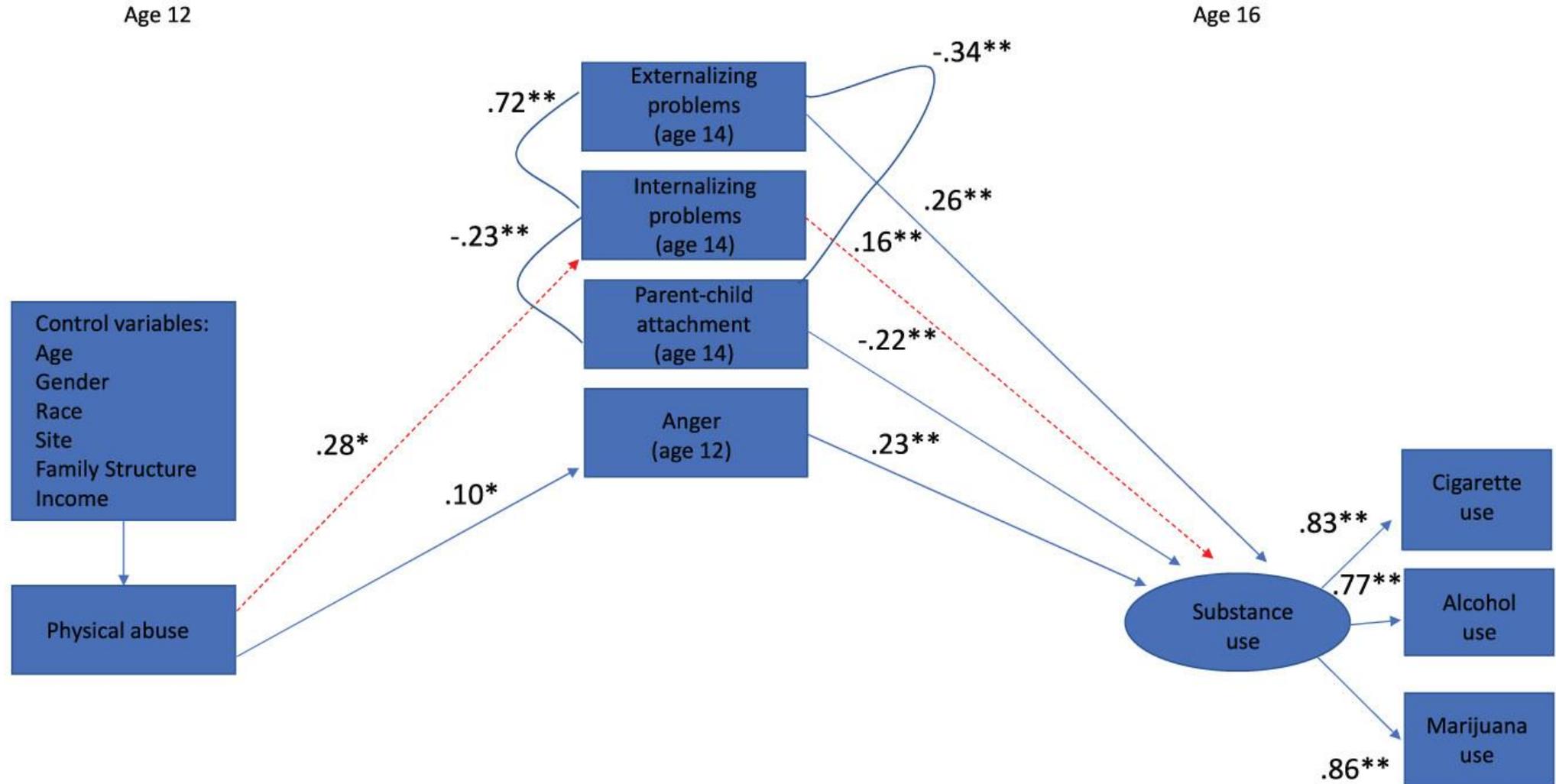
^cItem responses are based on a 4-point Likert-type scale.

Full sample



* $p < .05$. ** $p < .01$.

Females only

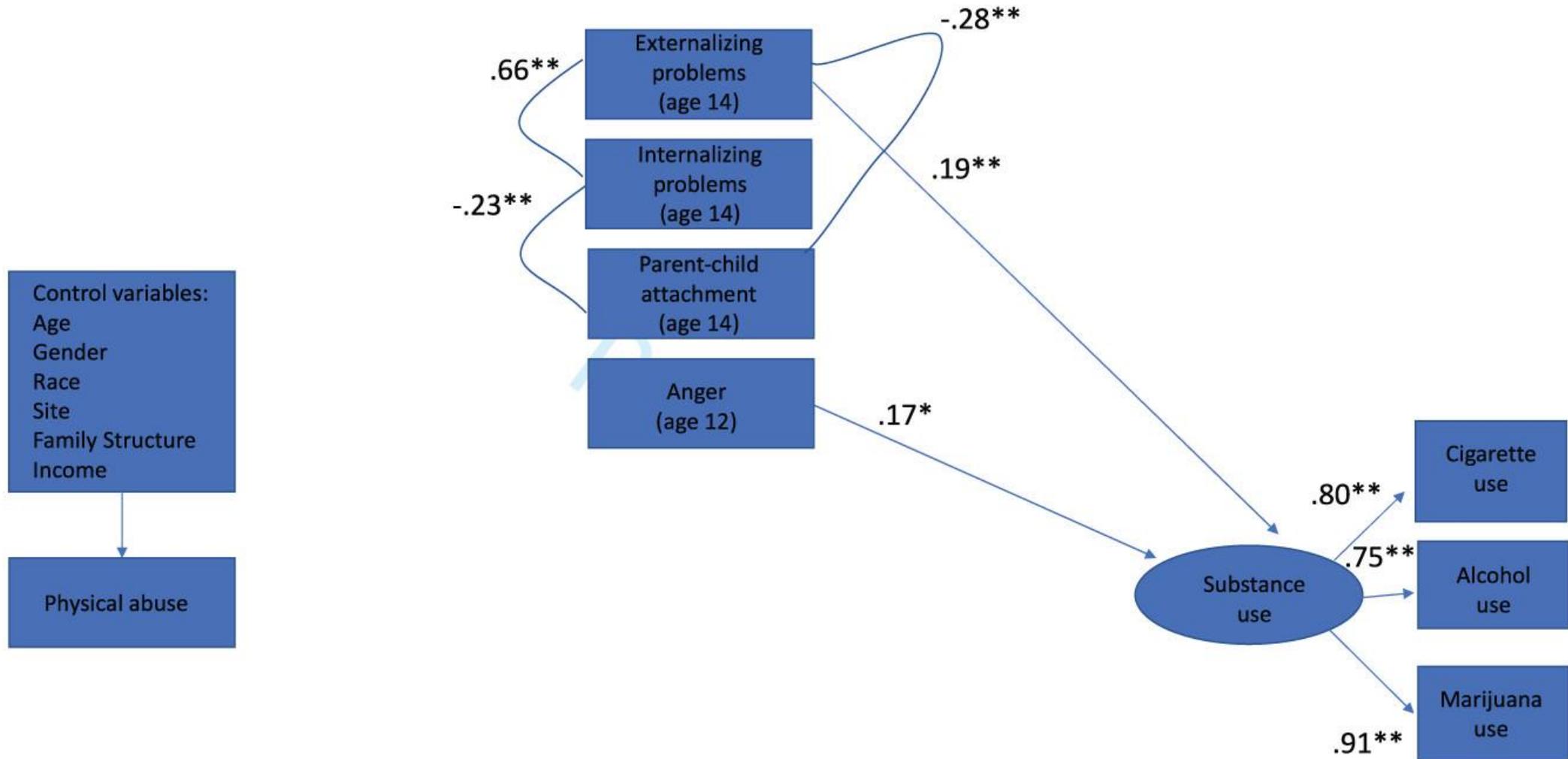


* $p < .05$. ** $p < .01$.

Males only

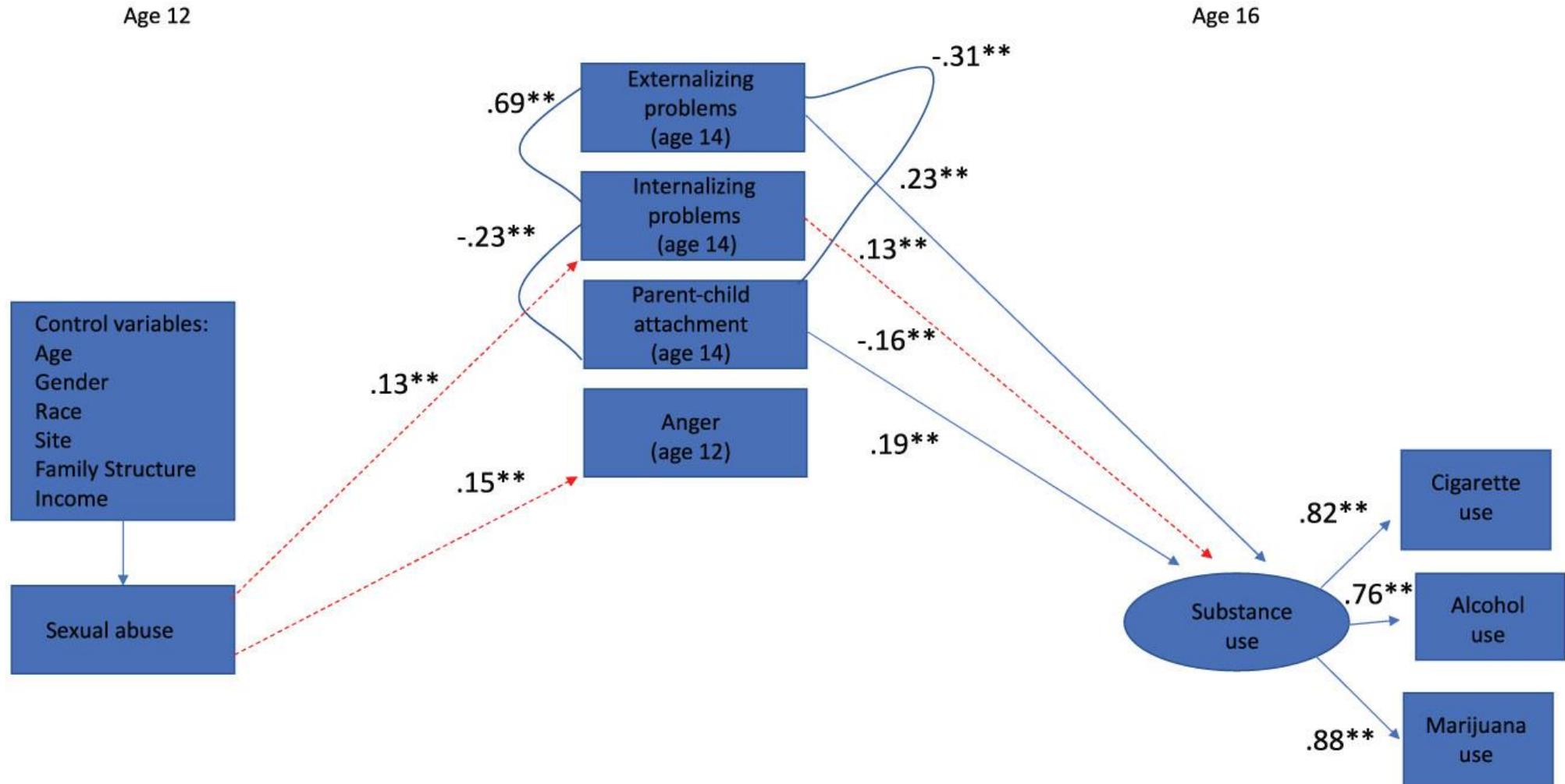
Age 12

Age 16



* $p < .05$. ** $p < .01$.

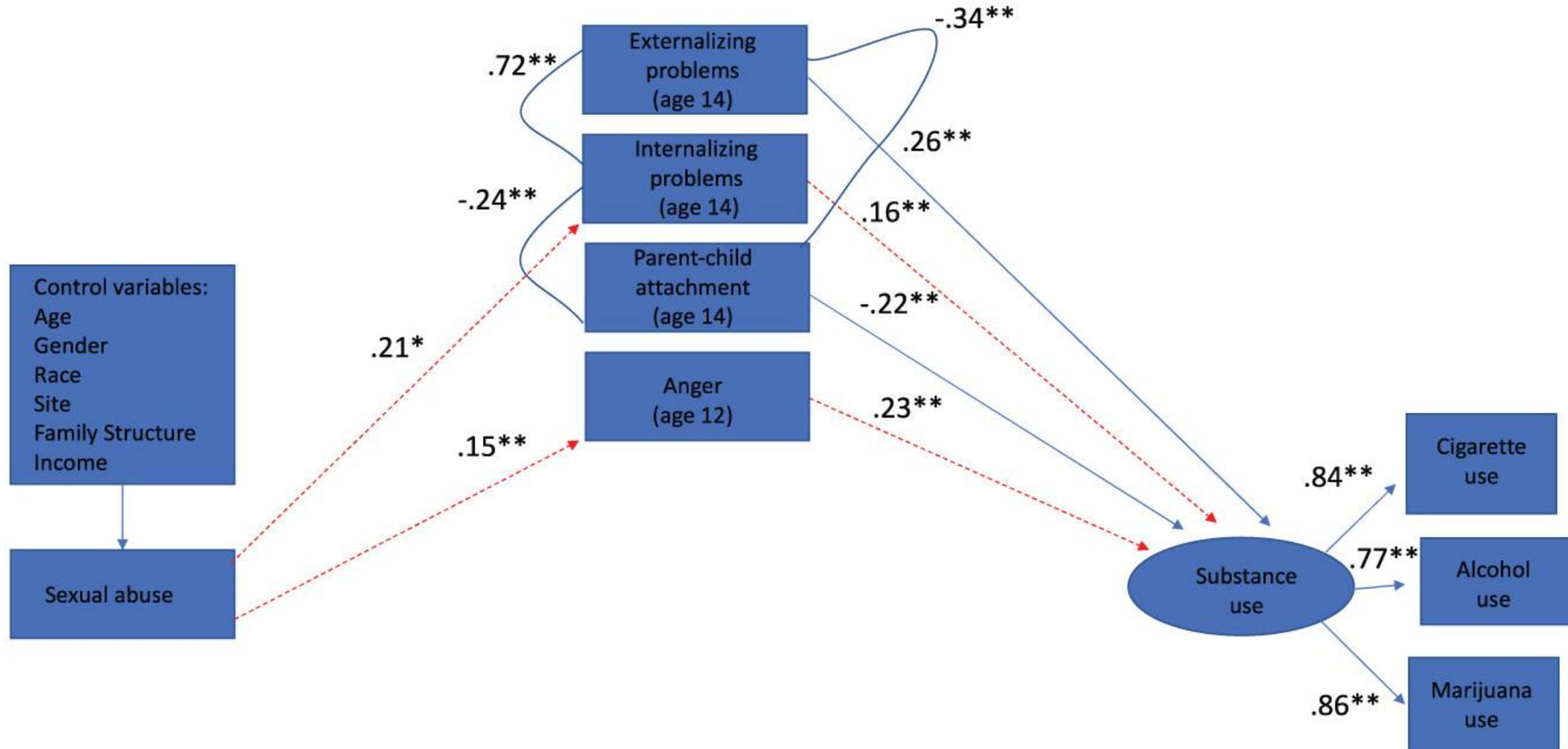
Full sample



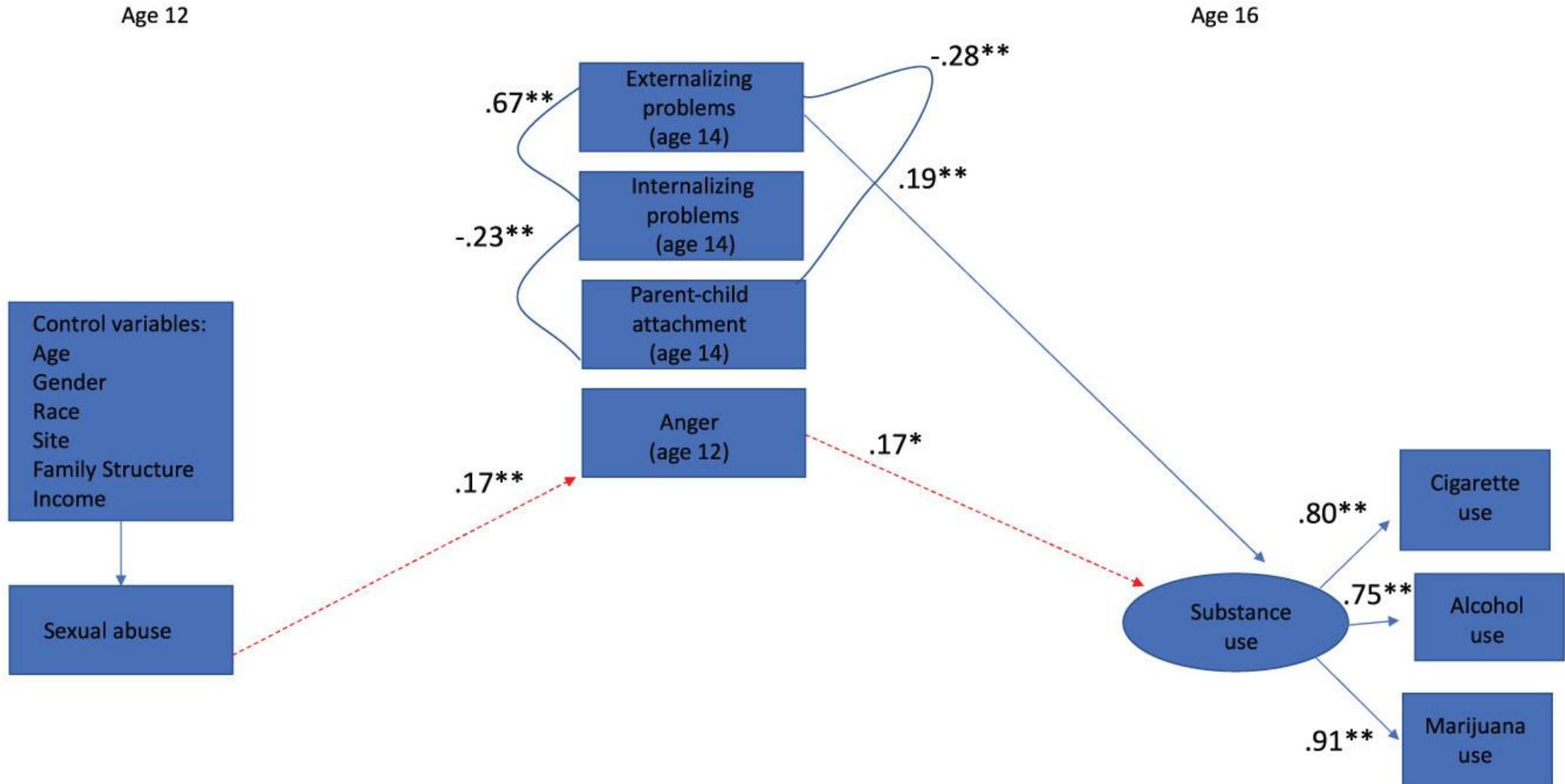
Females only

Age 12

Age 16



Males only



Summary of results-Full sample

- Physical abuse had a direct effect on substance use; sexual abuse did not have a direct effect on substance use
- The relationship between physical abuse and substance use was mediated by internalizing behavior
- The relationship between sexual abuse and substance use was mediated by internalizing behavior and anger

Summary of results-Gender groups

- Among females, the relationship between physical abuse and substance use was mediated by internalizing behavior
- Among females, the relationship between sexual abuse and substance use was mediated by internalizing behavior and anger
- Among males, the relationship between sexual abuse and substance use was mediated by anger

Conclusions and next steps

- Results partially support assertions of Feminist Pathways Theory and General Strain Theory
- More studies examining the indirect relationship between maltreatment and substance use are needed using longitudinal, prospective data
- Results indicate there are some differences in how males and females respond to maltreatment, which suggests gender-responsive programming is needed to help victims cope with abuse and/or prevent substance use

Thank you! Questions?

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