

AMPHETAMINE USE AND MENTAL HEALTH PROBLEMS IN YOUNG PEOPLE: FINDINGS FROM FOUR AUSTRALASIAN COHORT STUDIES.

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INTRODUCTION

- Globally 34.2 million people aged 15-64 years use amphetamines; Australasia: 2nd in prevalence of use (1) & 1st in prevalence of disorder (2).
- Comorbid mental health problems are common among people who use amphetamines (3, 4, 5), yet current inferences about the direction of causality are limited, due to: cross-sectional designs, non-representative samples, & unmeasured confounding.
- This has led to a lack of policy approaches to address mental health problems and substance use in young adulthood
- Population-based, cohort studies can address some of these limitations and provide critical evidence, but the low prevalence of amphetamine use reduces analytic power.
- Solution?** Maximise the value of data collected across multiple cohorts - the Monitoring Illicit Substance Use (MISUse) Consortium (6).

OBJECTIVE

- Examine bidirectional evidence for a causal relationship between amphetamine use and mental health difficulties across adolescence and young adulthood
- Contrast relationships between male and female participants



METHODOLOGY

Participants:

- Harmonised data from the MISUse Consortium
 - N=7524, 3682 male, 3842 female
- The Christchurch Health and Development Study (CHDS; est. 1977)
- The Australian Temperament Project (ATP; est. 1983)
- The Victorian Adolescent Health Cohort Study (VAHCS; est. 1992)
- The International Youth Development Study (IYDS; est. 2002)

Analysis:

- Target Trial Emulation, Risk Ratios (RRs) using G-computation and Poisson regressions

Measures:

- Amphetamine use ($\geq$ monthly)
- Mental health difficulties (depression/anxiety)
- 14 potential confounding factors

RESULTS

Full sample:

- AD amphetamine $\rightarrow$ YA mental health
 - 20% increased risk (p=0.014)**
- AD mental health $\rightarrow$ YA amphetamine
 - 18% increased risk (p=0.073)**

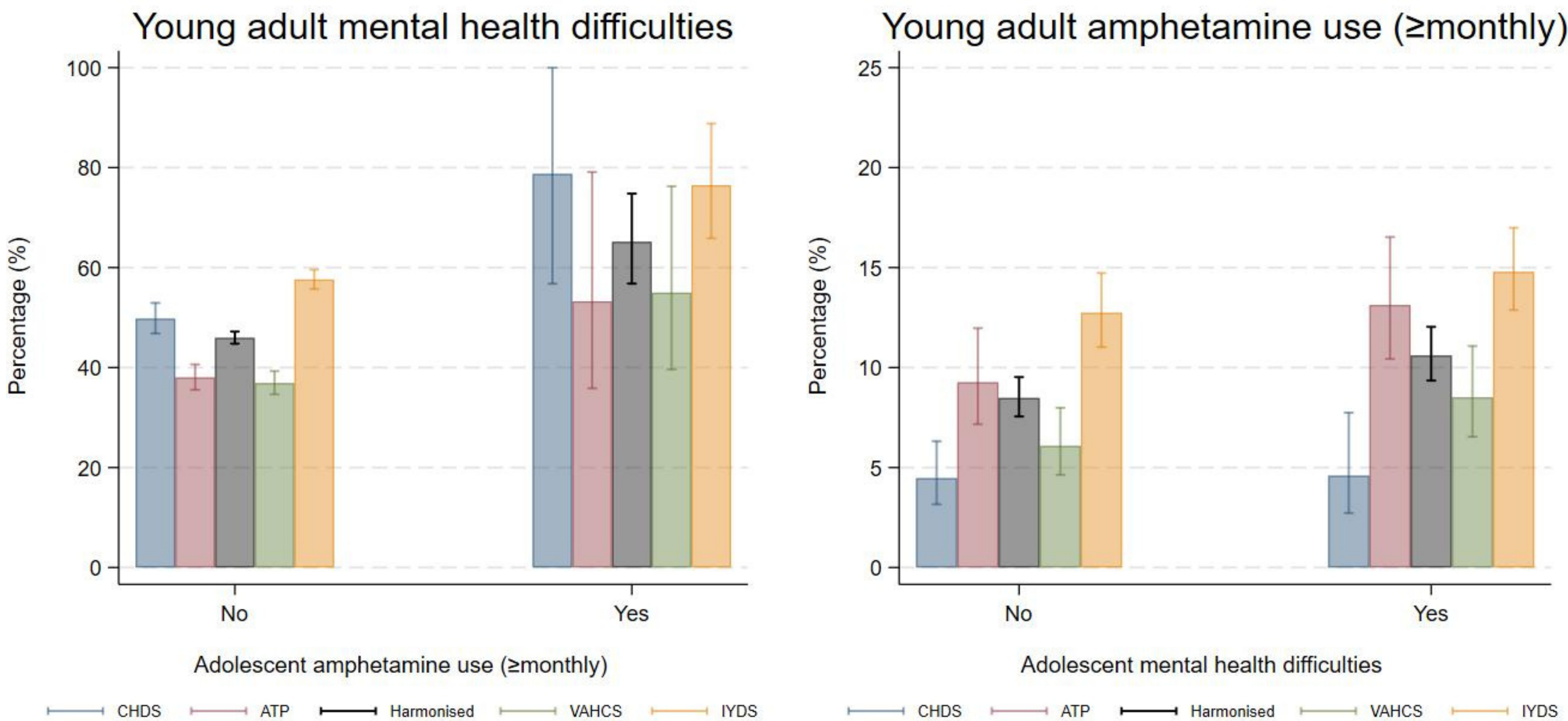
Males:

- AD amphetamine $\rightarrow$ YA mental health
 - 20% increased risk (p=0.088)**
- AD mental health $\rightarrow$ YA amphetamine use
 - 7% increased risk (p=0.559)

Females:

- AD amphetamine $\rightarrow$ YA mental health
 - 14% increased risk (p=0.130)
- AD mental health $\rightarrow$ YA amphetamine use
 - 33% increased risk (p=0.049)**

Note: AD=adolescence, YA=young adulthood



CONCLUSION

- We found evidence for bidirectional causal pathways between amphetamine use and mental health problems, with the importance of these pathways potentially varying across male and female participants.
- Our findings suggest population strategies to prevent mental health problems should consider amphetamines, while strategies to address amphetamine use should consider mental health risk factors

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