

# Partner Incarceration and Maternal Substance Use:

## Investigating the Mediating Effects of Social Support and Neighborhood Cohesion

### INTRODUCTION

- The United States is responsible for the highest incarceration rate globally<sup>1</sup>
- Collateral consequences of incarceration extend beyond those incarcerated and can affect:
  - Community health<sup>2</sup>
  - Chosen romantic partners or family unit<sup>3</sup>
- Partner incarceration: experience of a primary romantic partner being incarcerated<sup>4</sup>
- Familial disruption could influence rates of substance use, degree of social support, and perceptions of neighborhood cohesion

### AIMS

- 1 Explore the impact of partner incarceration on maternal substance use
- 2 Investigate the potential mediating role of social support and neighborhood cohesion between partner incarceration and maternal substance use

### METHODS

#### SAMPLE

- This longitudinal analysis includes data from the Fragile Families and Child Wellbeing Study (FFCWS)
- Used data from surveys when child was 3 (2001-2003), 5 (2003-2006), 9 (2007-2010), and 15 (2014-2017)
- Sample restricted to biological mothers who completed survey at year 3 (N=2890)

#### MAIN EXPOSURE

- Partner incarceration (yes vs. no) at year 3

#### MAIN OUTCOME

- Substance use in past year (yes vs. no) at year 5, 9, and 15
- Includes marijuana and illegal drugs used without a prescription or in excess of prescription guidelines

#### MEDIATORS

- Used confirmatory factor analysis to determine **factor** loadings:
  - Counting on someone to loan \$200, providing a temporary place to stay and providing emergency childcare load onto **emergency social support**
  - Counting on someone to loan \$1000, co-sign a bank loan for \$1000 and co-sign a bank loan for \$5000 load onto **financial support**
- Neighborhood cohesion measured via shortened Social Cohesion and Trust Scale

#### STATISTICAL ANALYSIS

- Multilevel modelling used to estimate association between partner incarceration and substance use, to account for longitudinal data
- Mediation analyses used to investigate social support and neighborhood cohesion
- Assessed social support and neighborhood cohesion as mediators at year 5 and year 9, with substance use lagged one wave

### REFERENCES

- (1) Wildeman, C., & Wang, E. A. (2017). Mass incarceration, public health, and widening inequality in the USA. *The Lancet*, 389(10077), 1464-1474. doi:10.1016/s0140-6736(17)30259-3 (2) Kajeepeta, S., Mauro, P. M., Keyes, K. M., El-Sayed, A. M., Rutherford, C. G., & Prins, S. J. (2021). Association between county jail incarceration and cause-specific county mortality in the USA, 1987–2017: a retrospective, longitudinal study. *The Lancet Public Health*. doi:10.1016/s2468-2667(20)30283-8 (3) Browning, S., Miller, R., & Spruance, L. (2001). Criminal incarceration dividing the ties that bind: Black men and their families. *Journal of African American Men*, 6(1), 87-102. (4) King, K. M., Latkin, C. A., & Davey-Rothwell, M. A. (2015). Love on lockdown: how social network characteristics predict separational concurrency among low income African-American women. *J Urban Health*, 92(3), 460-471. doi:10.1007/s11524-015-9951-6

### RESULTS

#### Half of the participants report partner incarceration, <10% report substance use

The final analytical sample included 2246 participants. Nearly half of the respondents (42.7%, N=958) reported experiencing partner incarceration. Within the sample at year 3, 7.3% (N=163) reported using substances; among those who used substances, 57.7% (N=94) experienced partner incarceration.

#### Odds of substance use 96% greater among people who reported partner incarceration

	Substance use (yes vs. no)	
	aOR	95% Confidence Interval
<b>Partner Incarceration</b>		
No	Ref	-
Yes	1.96	1.56, 2.46

Adjusted for: education, employment, race, age and history of intimate partner violence; aOR: Adjusted Odds Ratio

#### Financial support at year 5 is the only significant partial mediator

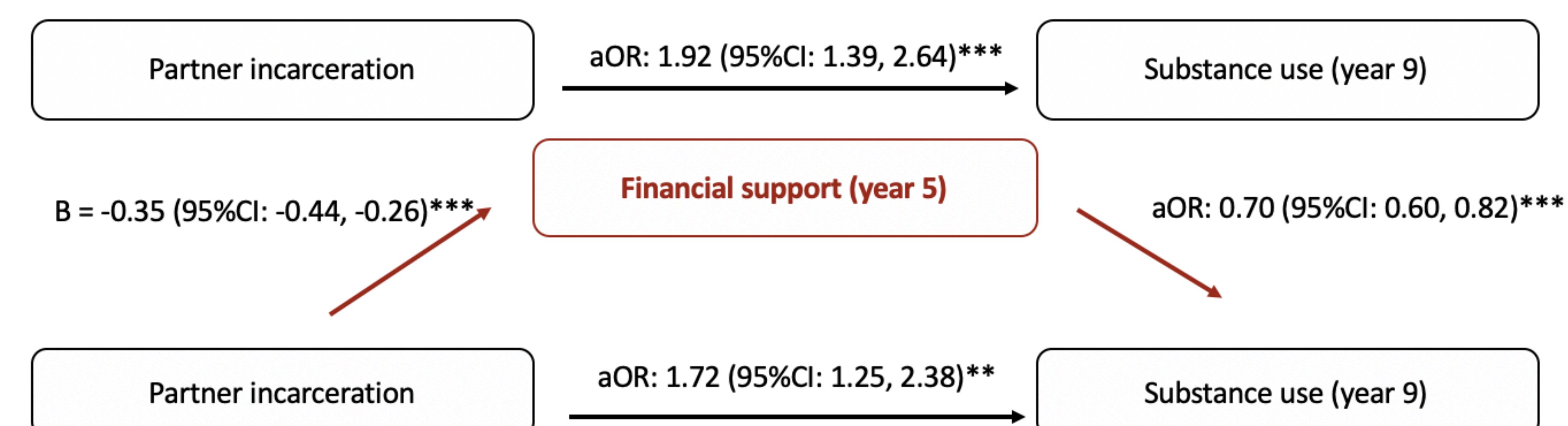
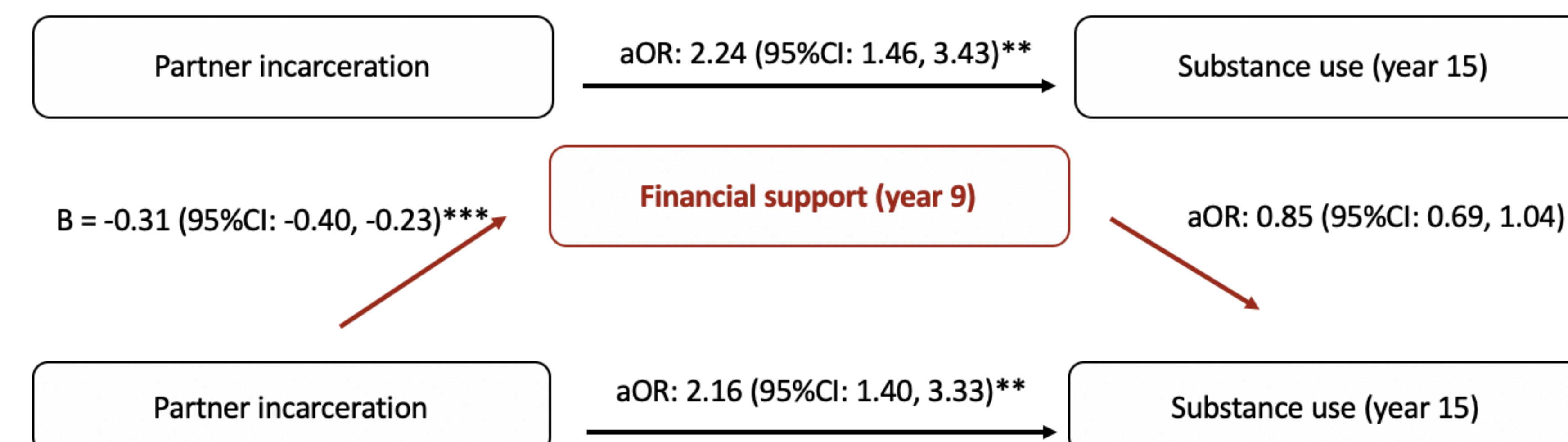


Figure 1. Mediation schematic demonstrating the mediating effect of financial support at year 5.



\*\*\* p-value < 0.0001, \*\*p-value < 0.01, \* p-value < 0.05  
Adjusted for: age, income, education, employment, race, history of depression and history of intimate partner violence.

Figure 2. Mediation schematic demonstrating the mediating effect of financial support at year 9.

Results from mediation analyses where financial support at year 5 (Figure 1) and year 9 (Figure 2) are presented. Financial support mediated **17%** of the effect between partner incarceration and substance use at year 5. Financial support at year 9 was not a significant mediator. Emergency social support and neighborhood cohesion at both year 5 and 9 were not significant mediators.

### CONCLUSIONS

Partner incarceration results in increased substance use, a relationship which is partially mediated by financial support. These findings should be taken in the context wherein incarceration rates have dramatically increased alongside policies enacted from the war on drugs. These findings further support the notion that collateral consequences of mass incarceration extend beyond the person who is incarcerated. Policymakers should consider the benefits of providing enhanced financial support to partners of those who are incarcerated, to abate substance use and improve health and well-being.