

# Is there a predictive association between methamphetamine use and depression?

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# Thanks to:

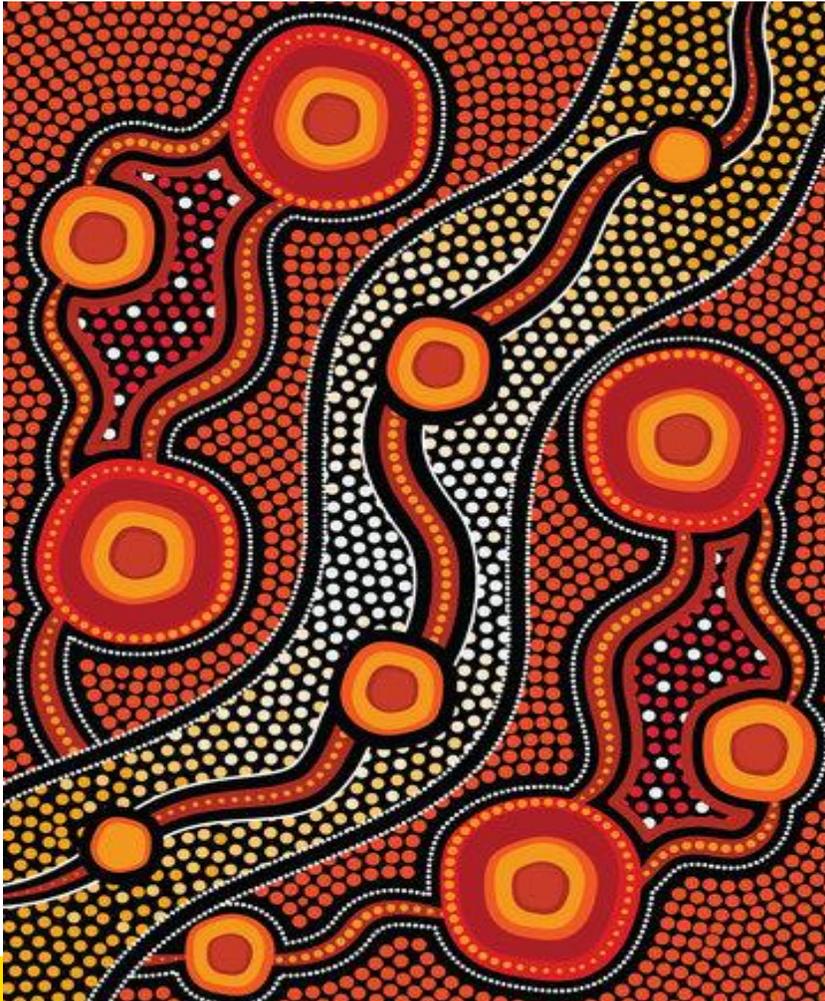
Rebecca McKetin, Louisa Degenhardt, Philip Clare, Michael Berk, Dan I. Lubman, Gregory Carter, Shalini Arunogiri, Alyna Turner, Olivia M. Dean and Peter Kelly

N-ICE participants and study team

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# Acknowledgement of Country



I would like to acknowledge the Gadigal people of the Eora nation who are the Traditional Custodians of the land and waters on which we are meeting on. I would also like to acknowledge the Traditional Custodians of the Wadawurrung and Dharawal countries that the trial was conducted on. I would also like to pay my respects to the Elders past and present and extend this respects to other Aboriginal and Torres Strait Islanders or Indigenous individuals who are present today.

# Background



People who use amphetamines are 1.6 times more likely to have a comorbid depression diagnosis than people who do not (McKetin et al., 2019)



Three main hypotheses proposed for the high comorbidity between methamphetamine use and depression (Garey et al., 2020; WHO, 2004)

Methamphetamine use causes depression

Depression causes methamphetamine use

Shared risk factors

# Background



People who use amphetamines are 1.6 times more likely

## AIM:

To examine the association and direction between  
methamphetamine use and depression



Depression causes methamphetamine use

Shared risk factors

# Methods



N-ICE cohort – 153 individuals dependent on methamphetamine and entering methamphetamine treatment RCT

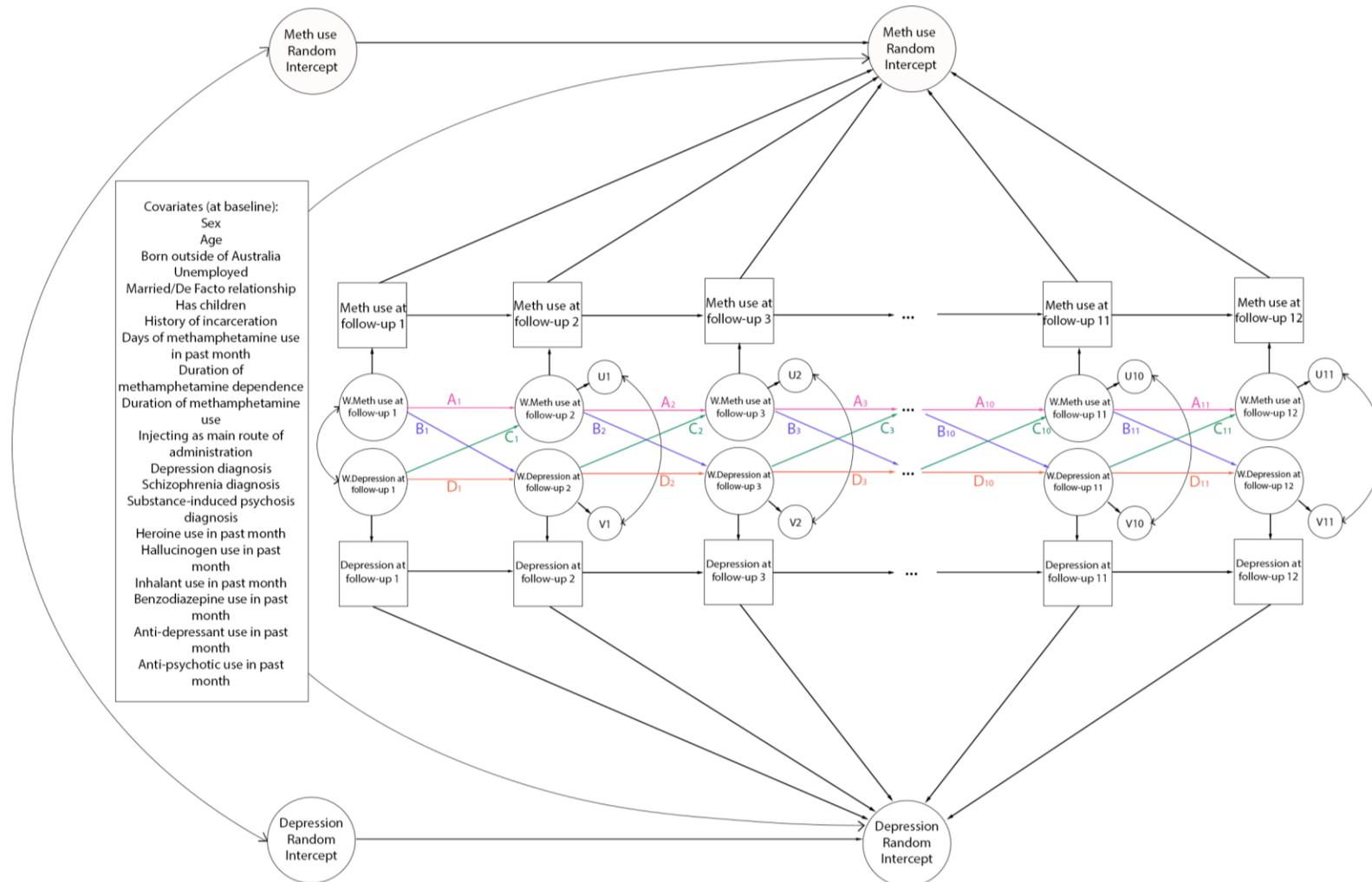


12 weekly measures of weekly methamphetamine use and BPRS



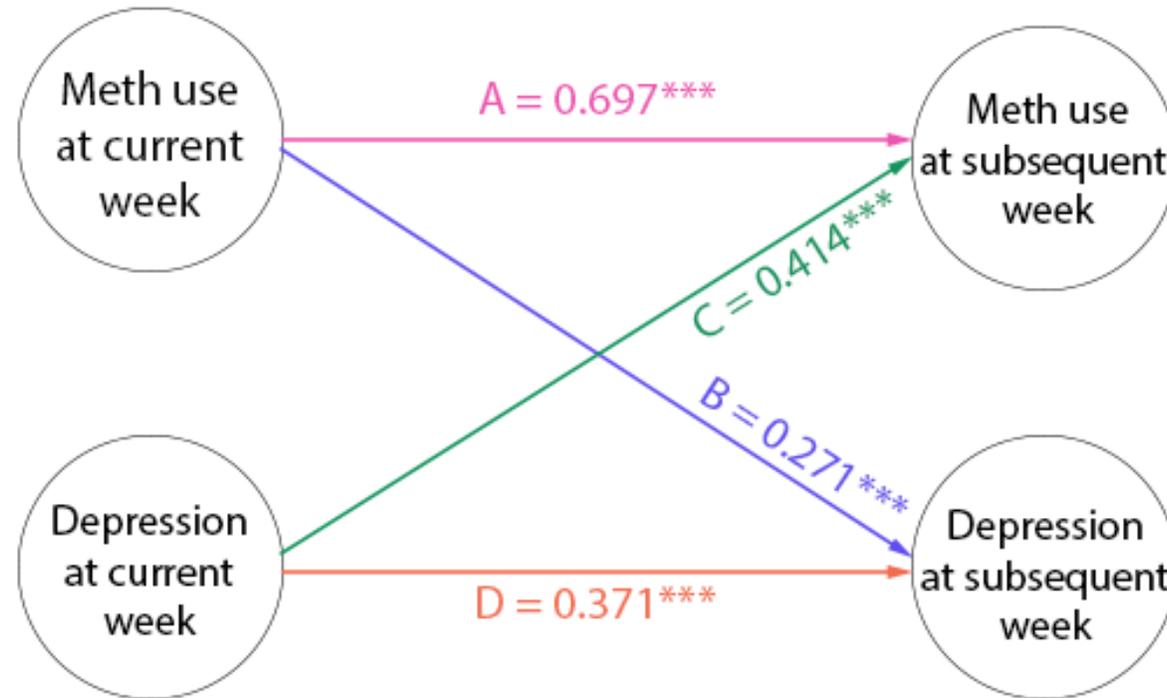
Random Intercept Cross-Lagged Panel Modelling (RI-CLPM) used to explore whether past week's methamphetamine use or likelihood of depression was associated with following week's methamphetamine use or likelihood of depression

# Analysis Model



# Results

## Time-constrained RI-CLPM



# Conclusions



Model indicates that there is a bidirectional weekly predictive association between methamphetamine use and depression



Findings support the causal hypotheses of methamphetamine use causing depression and depression causing methamphetamine use

# THANK

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