

# The Impact of Childhood Adversity on Late-Life Mental Health

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James Lian

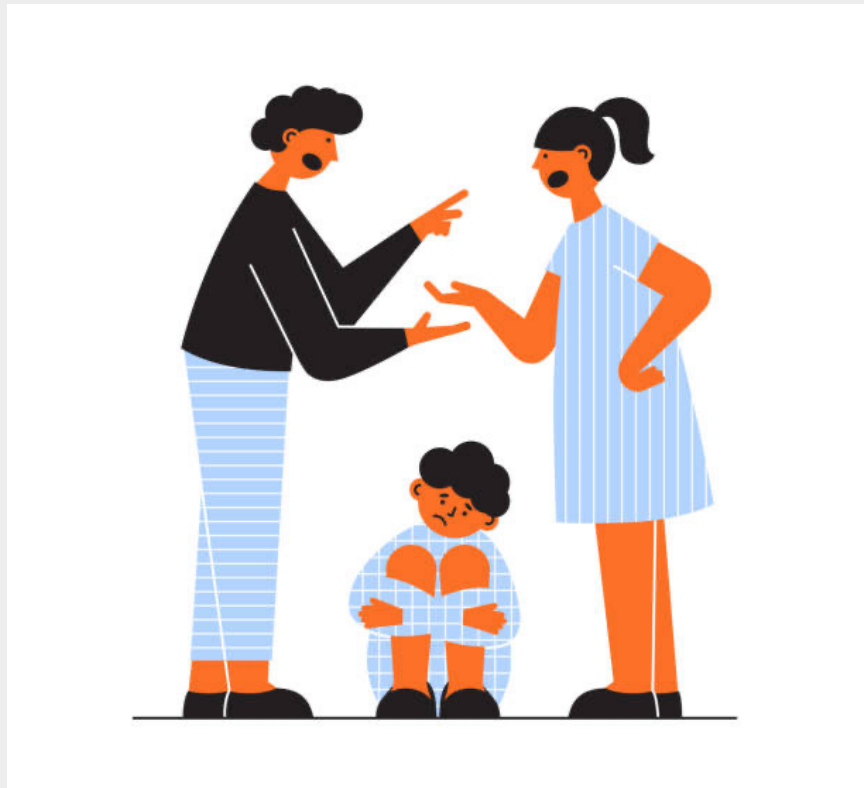
Supervisors: Scientia Professor Kaarin Anstey & Dr Kim Kiely (UNSW)

Dr Bridget Callaghan (UCLA)

What are Adverse Childhood Experiences (ACEs)?

# Childhood adversity and psychopathology

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# Childhood adversity and psychopathology

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- Childhood is a sensitive period
  - Changes in the brain
  - Changes in the environment
- Early adversity disrupts normal development of the brain and emotional processing systems



# Gap in Literature

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# Overview

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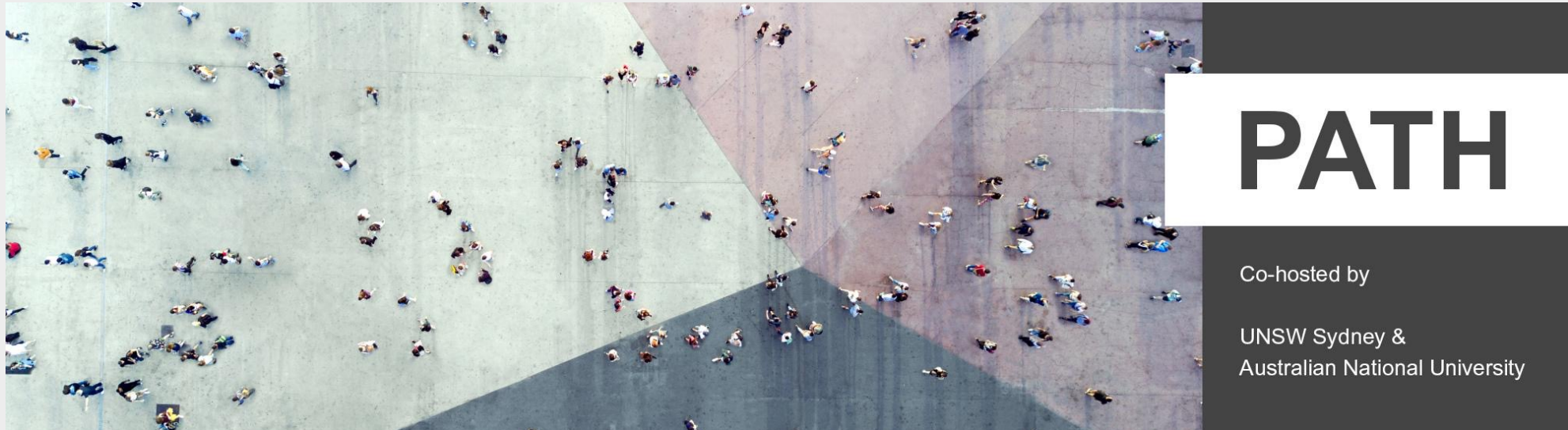
**Aim 1:** Compare different methods of modelling childhood adversity

**Aim 2:** Examine relationship between early adversity and late-life mental health

# PATH Project

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- Personality and Total Health (PATH) Through Life Project
  - Population-based longitudinal study which began in 1999 (Canberra & Queanbeyan)
  - Older adults 60-64
  - N = 2547



<p>1. How affectionate was your father or father figure towards you?</p> <ul style="list-style-type: none"> <li>- A little, somewhat, or very affectionate</li> <li>- Not at all affectionate</li> <li>- No father figure</li> </ul>
<p>2. Did your father or father figure suffer nervous or emotional trouble or depression?</p> <ul style="list-style-type: none"> <li>- Had problems</li> </ul>
<p>3. Did your father or father figure have trouble with drinking or other drug use?</p> <ul style="list-style-type: none"> <li>- Had problems</li> </ul>
<p>4. How affectionate was your mother or mother figure towards you?</p> <ul style="list-style-type: none"> <li>- A little, somewhat, or very affectionate</li> <li>- Not at all affectionate</li> <li>- No mother figure</li> </ul>
<p>5. Did your mother or mother figure suffer nervous or emotional trouble or depression?</p> <ul style="list-style-type: none"> <li>- Had problems</li> </ul>
<p>6. Did your mother or mother figure have trouble with drinking or other drug use?</p> <ul style="list-style-type: none"> <li>- Had problems</li> </ul>
<p>7. How much conflict and tension was there in your household while you were growing up?</p> <ul style="list-style-type: none"> <li>- Some</li> <li>- A lot</li> </ul>
<p>8. Did your parents' divorce or permanently separate when you were a child?</p> <ul style="list-style-type: none"> <li>- Separation/divorce</li> </ul>
<p>9. Which of the following applied to your childhood?</p> <ul style="list-style-type: none"> <li>a. <del>I had a happy childhood</del></li> <li>b. <del>My parents did their best for me</del></li> <li>c. I was neglected</li> <li>d. I had a strict, authoritarian, or regimented childhood</li> <li>e. I grew up in poverty or financial hardship</li> <li>f. I was verbally abused by a parent</li> <li>g. I suffered humiliation, ridicule, bullying, or mental cruelty from a parent</li> <li>i. I witnessed physical or sexual abuse of other in family</li> <li>j. I was physically abused by a parent – punched, kicked, hit, or beaten with an object or needed medical treatment</li> <li>k. I received too much physical punishment – hitting, smacking, etc.</li> <li>l. I was sexually abused by a parent</li> <li>n. <del>I had a normal upbringing</del></li> </ul>



# ACE measurement

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- Cumulative risk method
  - Most common method
- Latent class analysis (LCA)
  - Person-centered approach



# Mental health variables

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Mental health	Scale
Anxiety	Goldberg Anxiety Scale (GAS)
Depression	Goldberg Depression Scale (GDS)
Depression	Patient Health Questionnaire (PHQ-9)
Mental wellbeing	Mental Health Component (MCS) of the Short Form Survey (SF-12)

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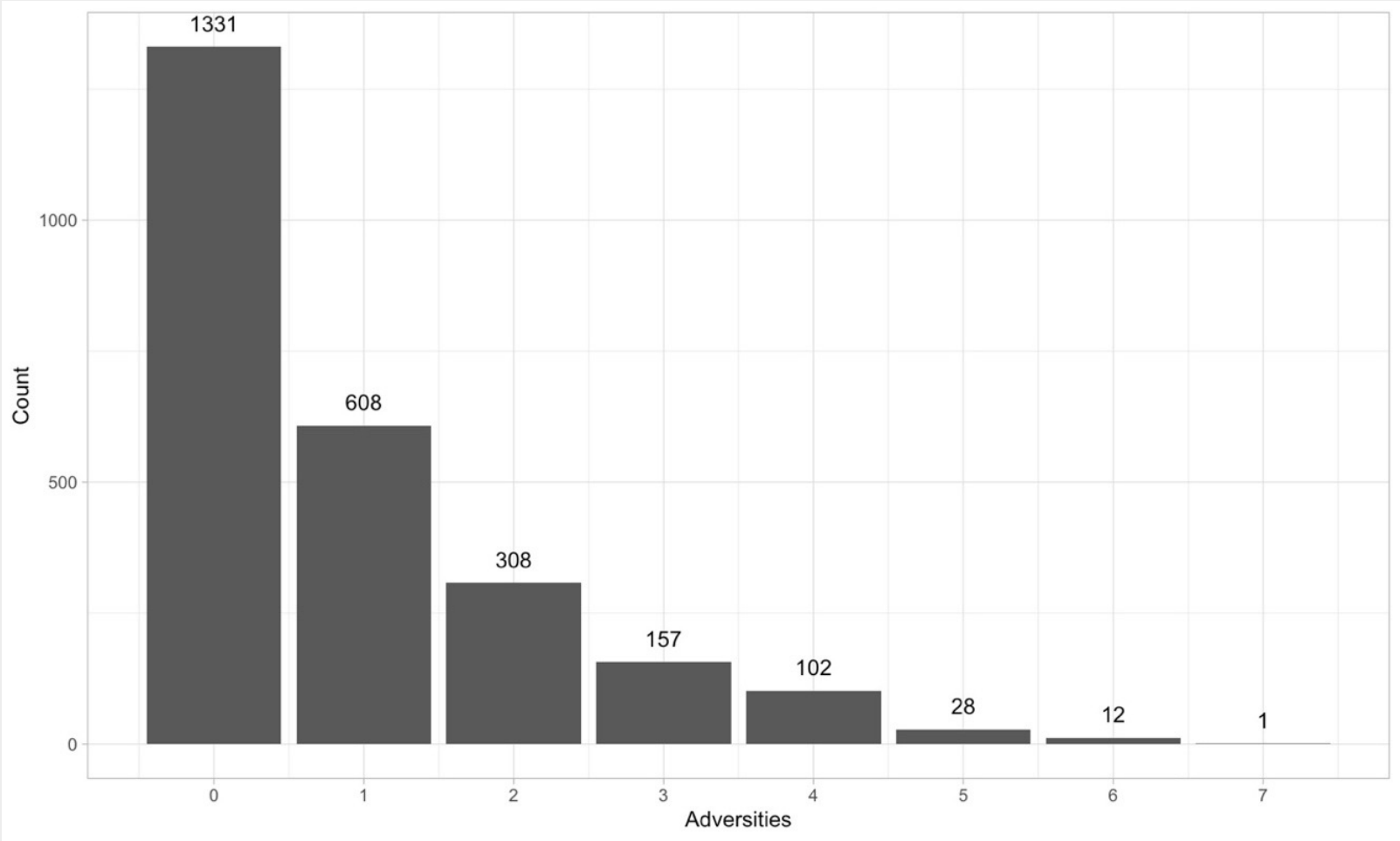
# Statistical methods

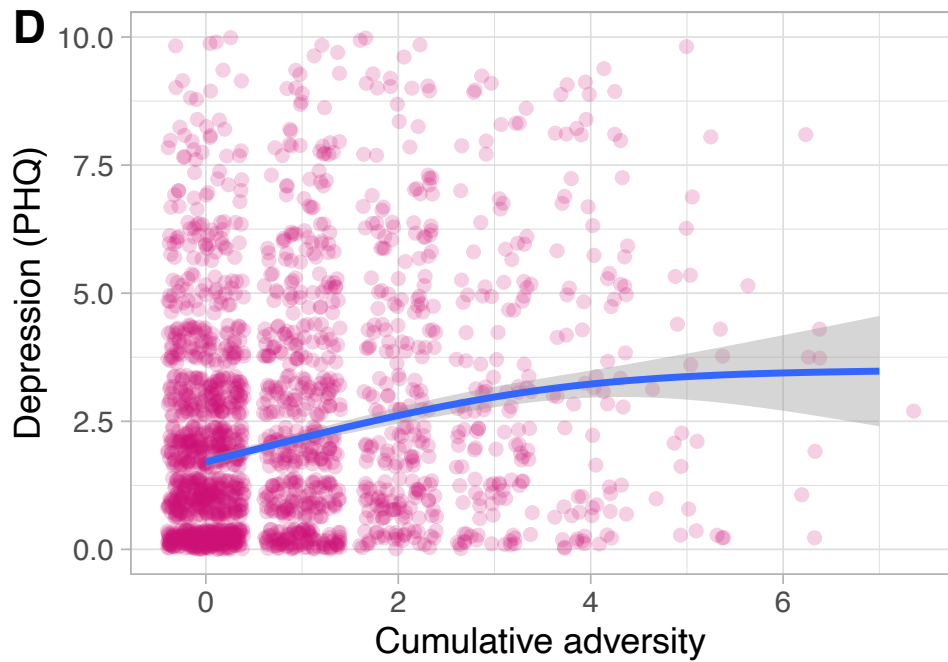
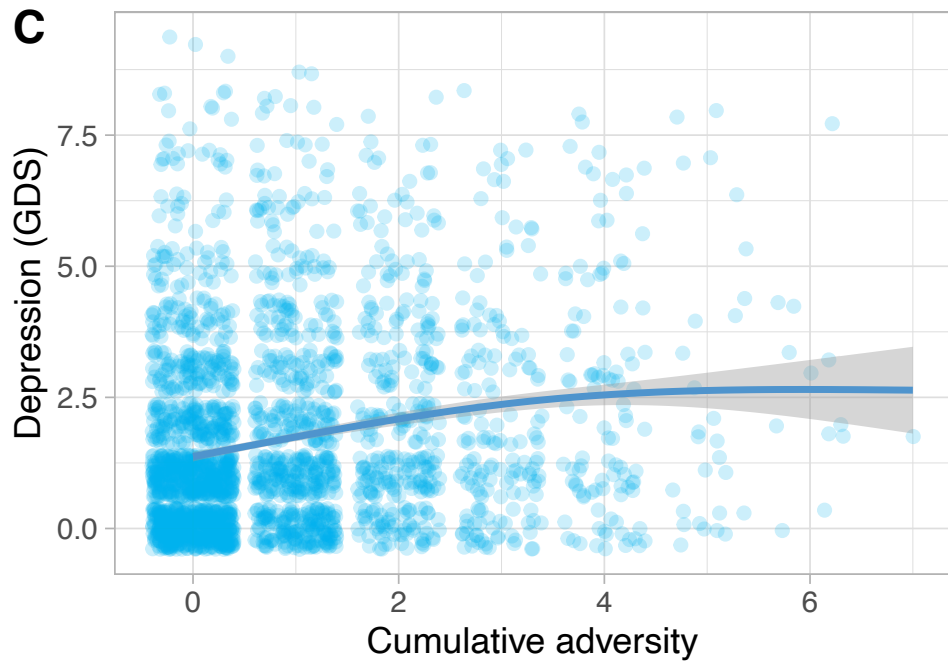
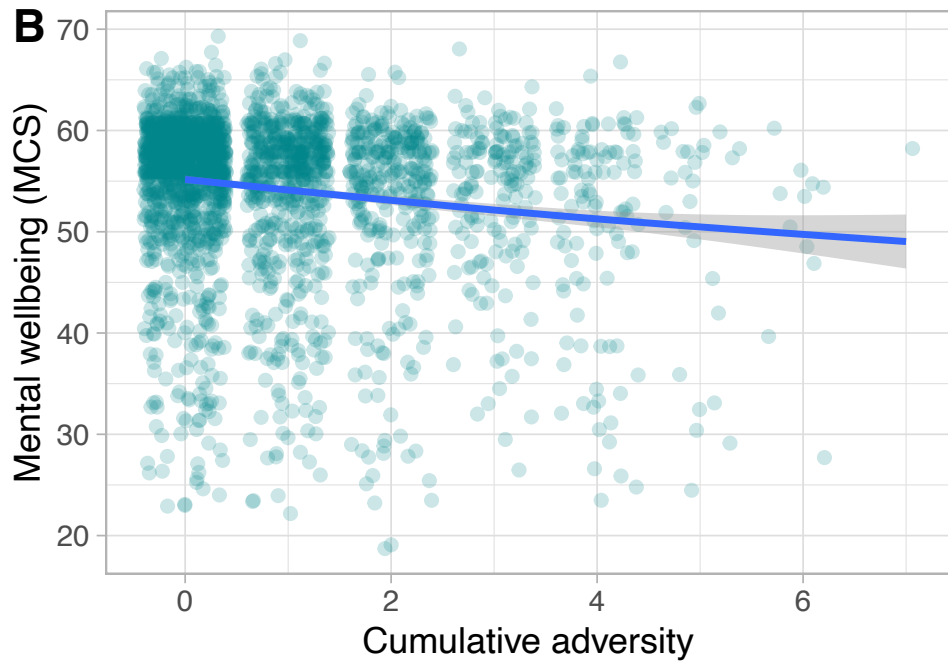
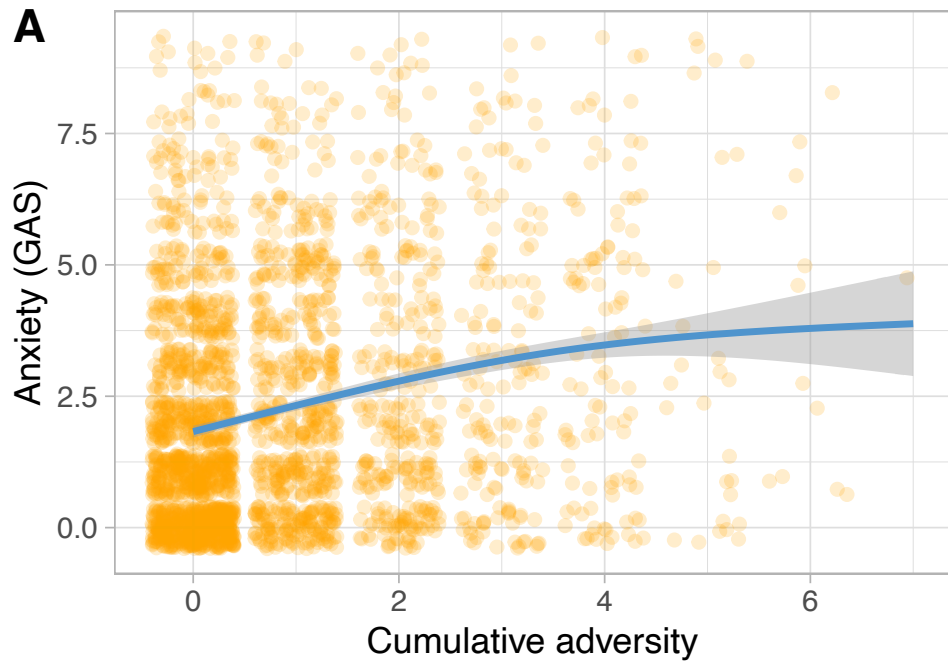
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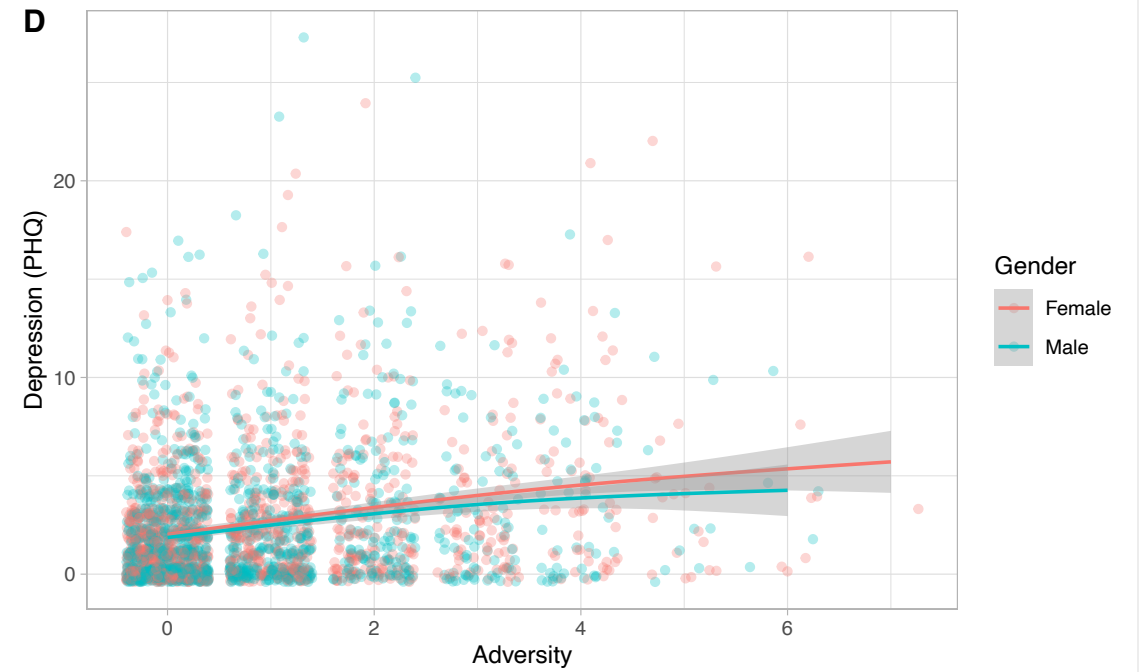
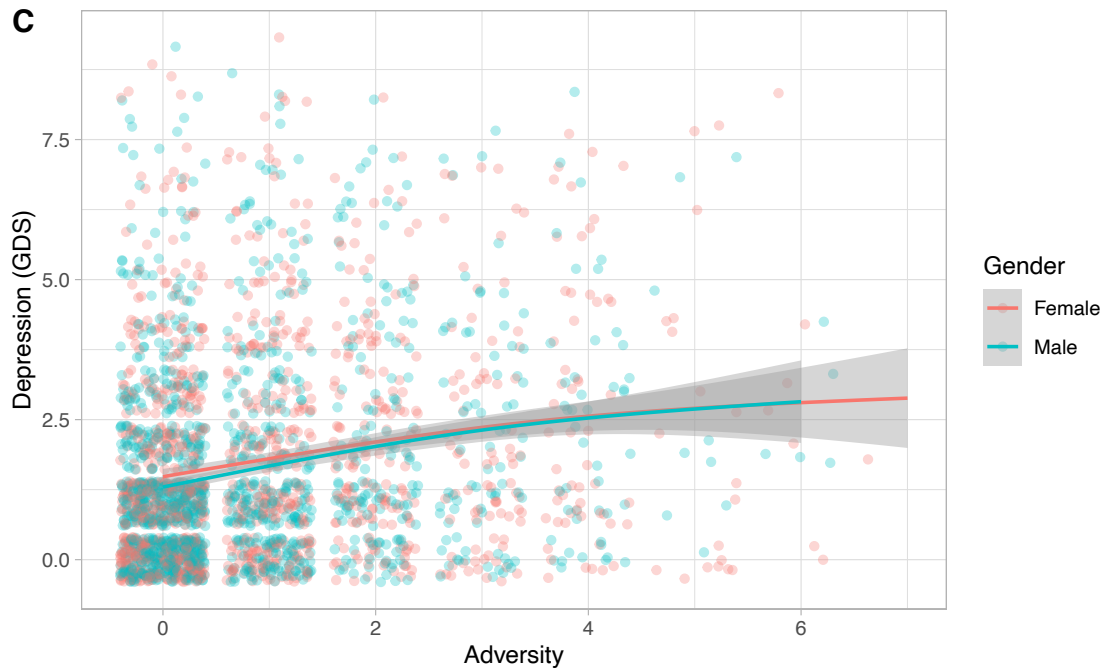
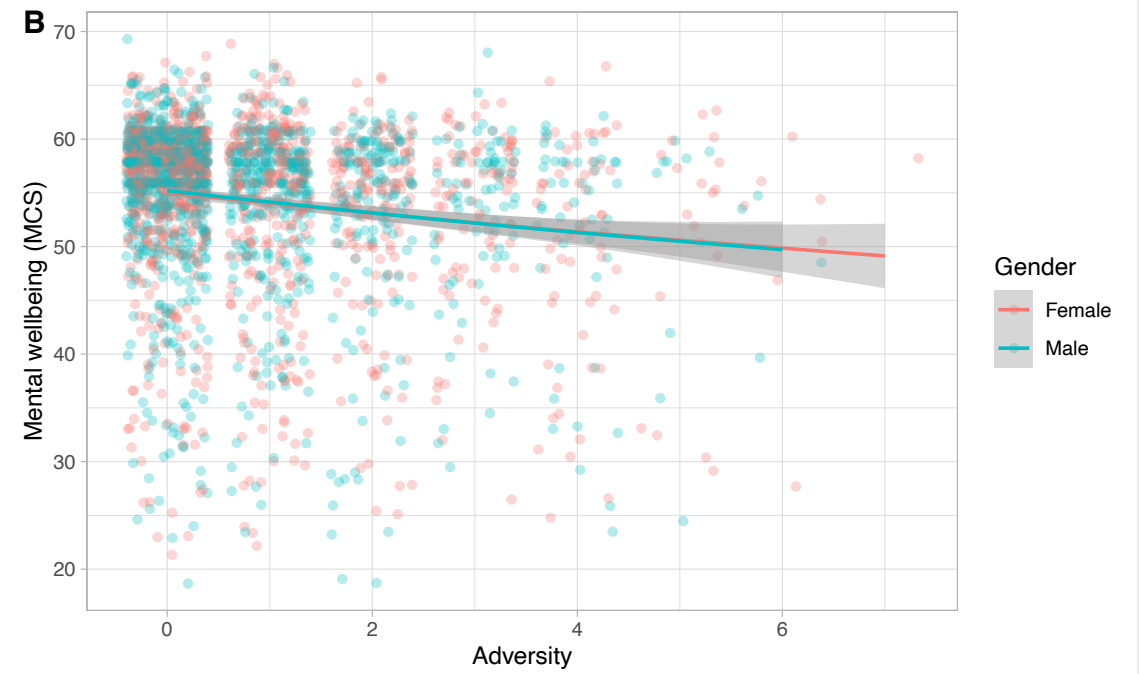
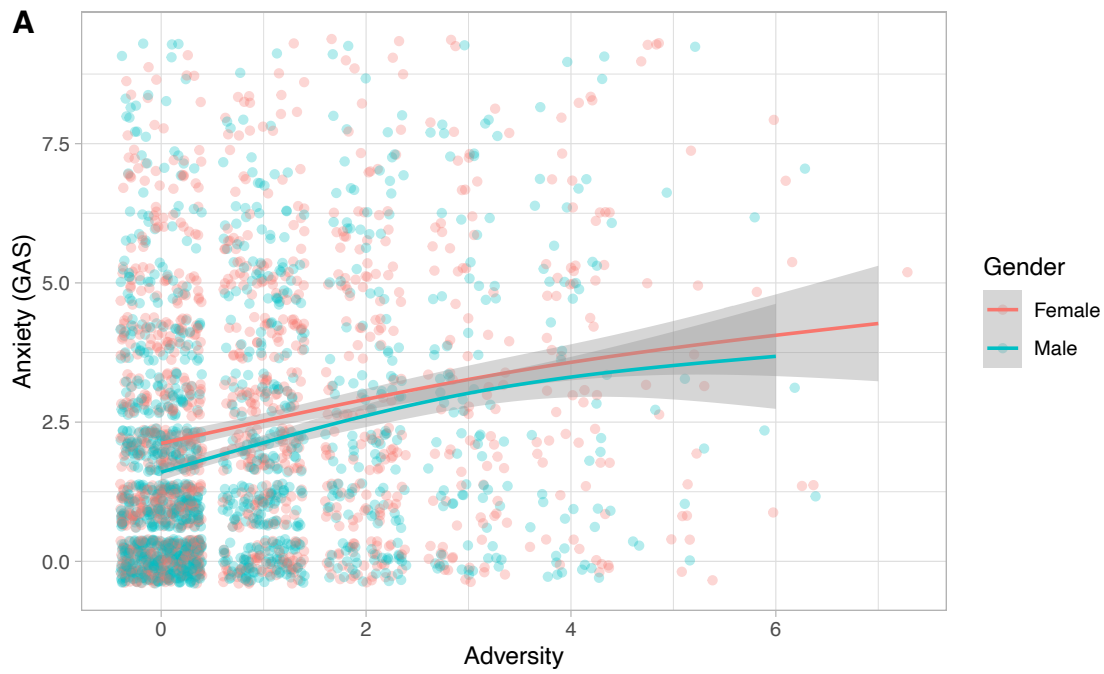
- Association between cumulative ACEs and mental health outcomes
  - Generalized additive models (GAM) in R
  - Controlling for age, gender, ethnicity, and education
- Class structure of ACEs
  - Latent class analysis (LCA) in Mplus
  - Means and CI of outcomes calculated for each class

# Results

# Prevalence of ACEs in PATH





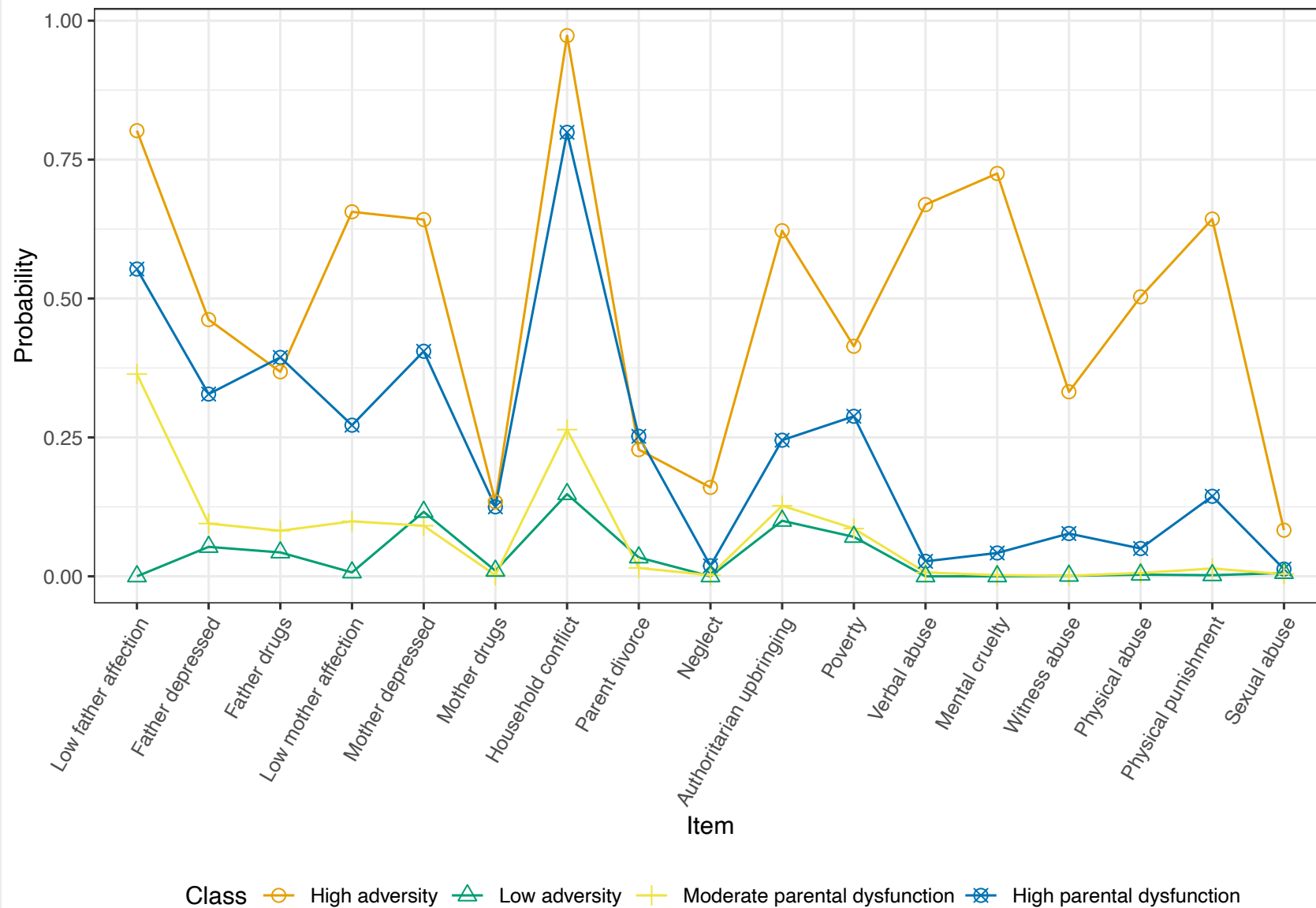


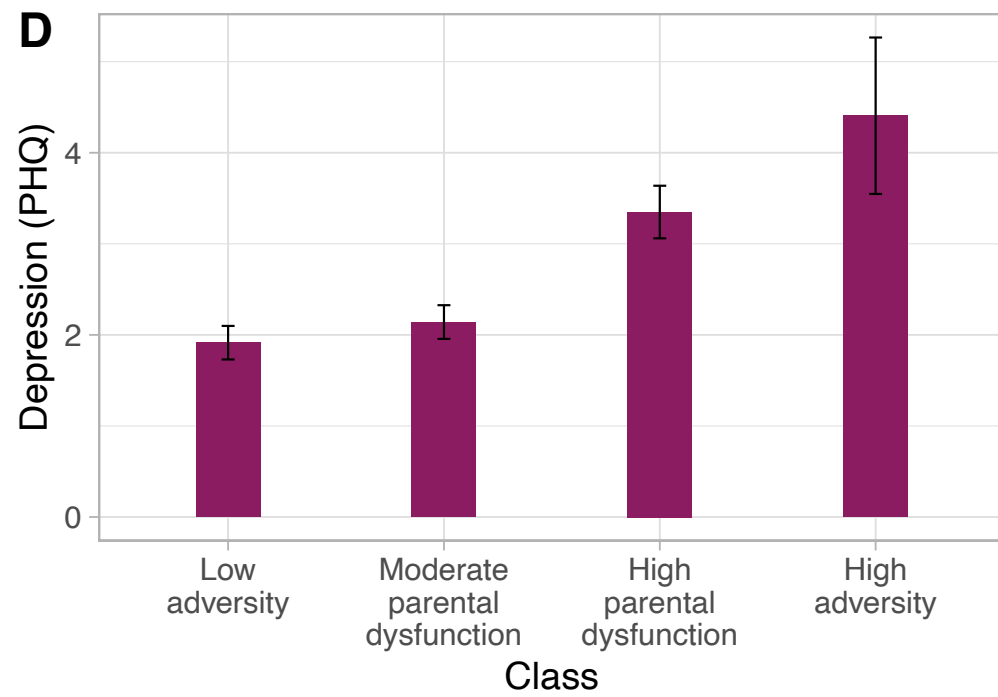
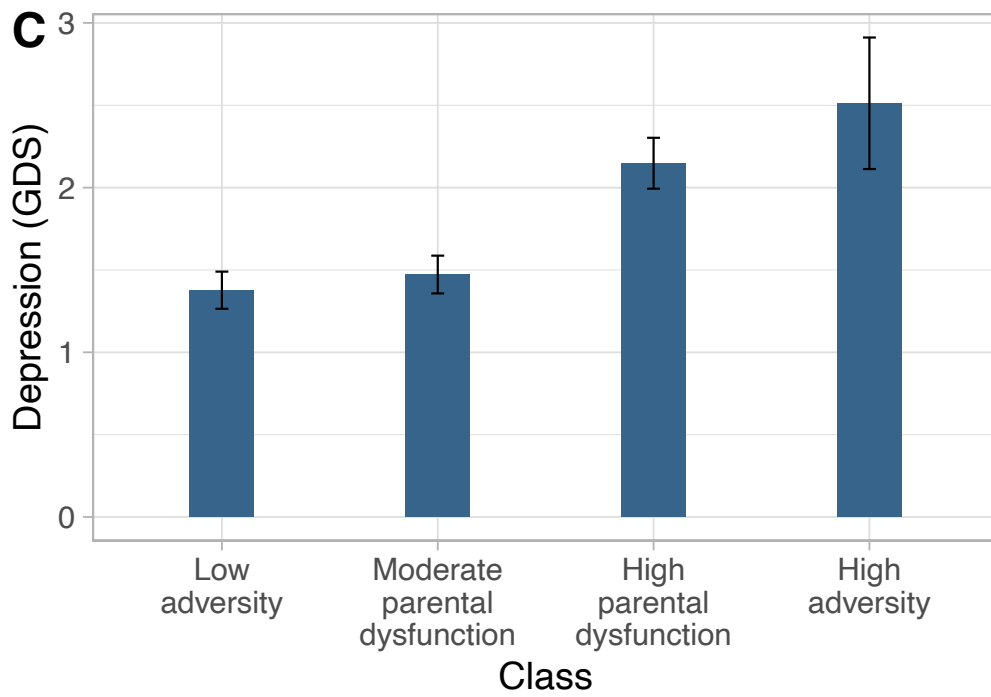
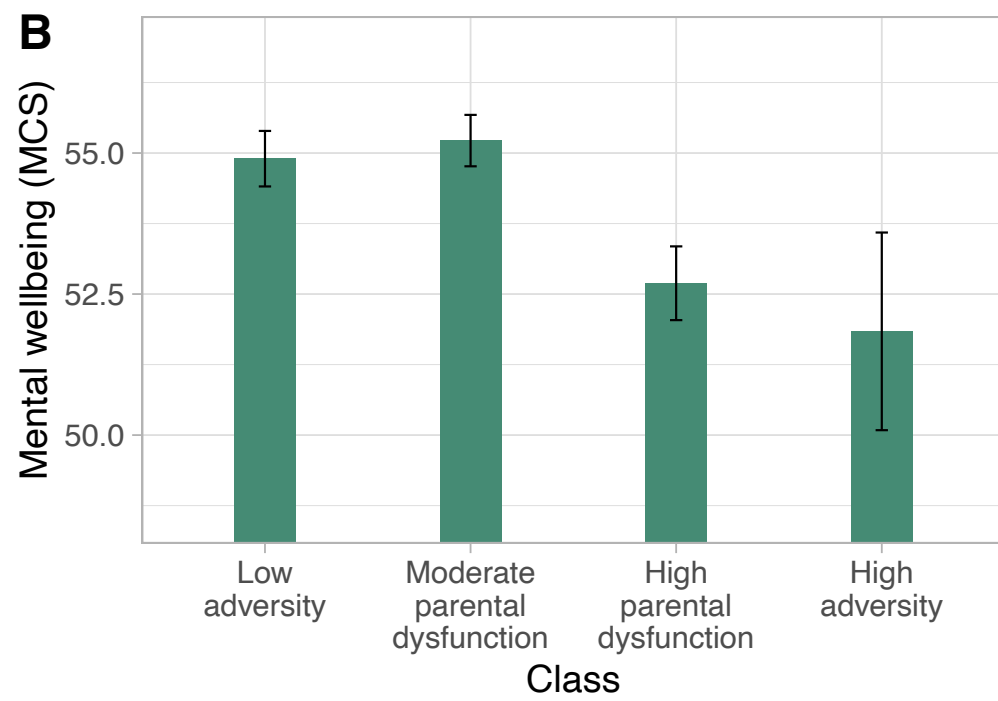
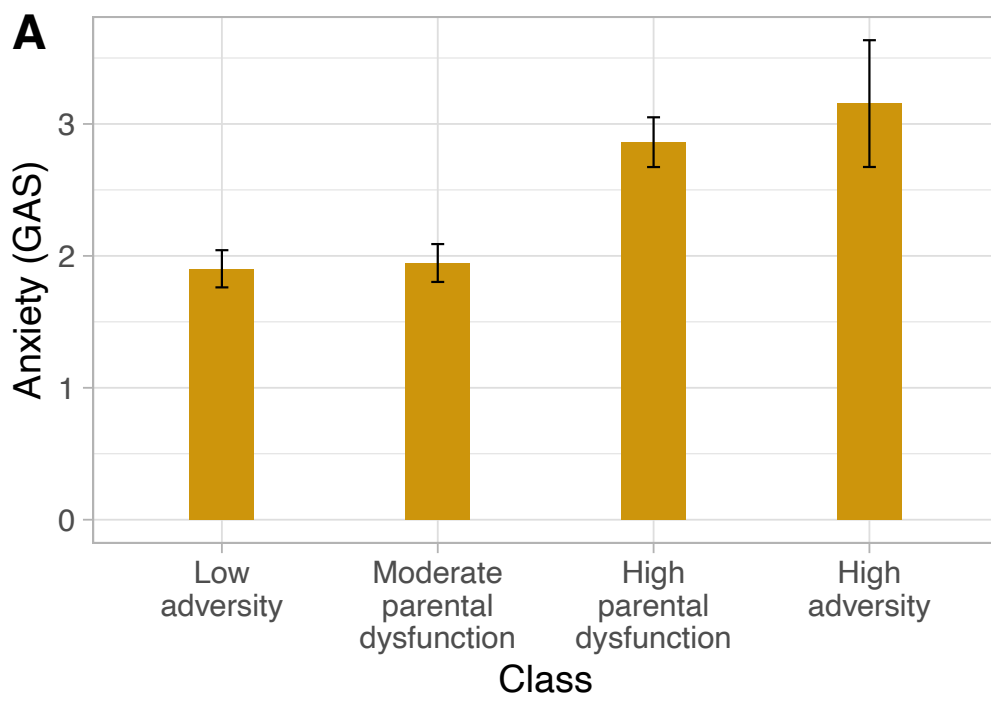
# LCA results

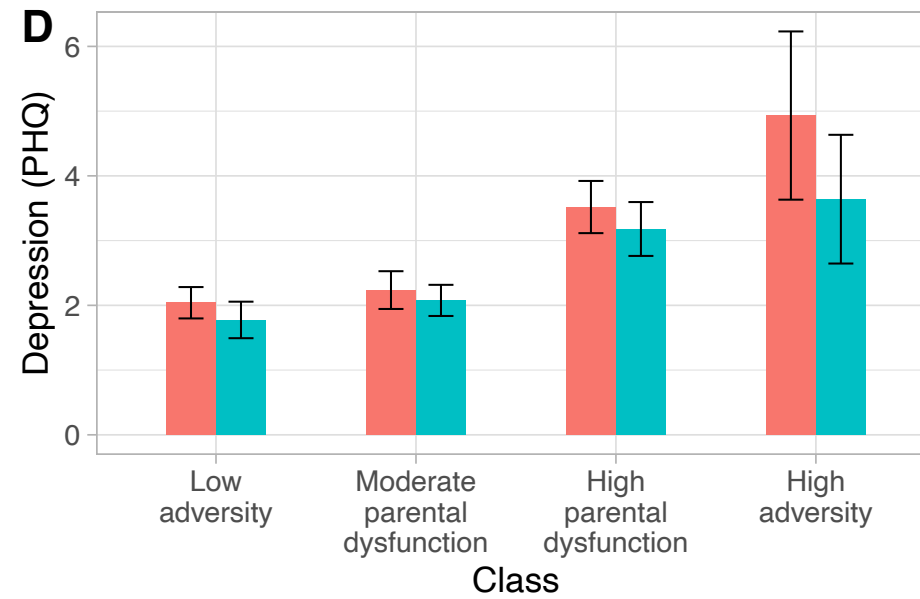
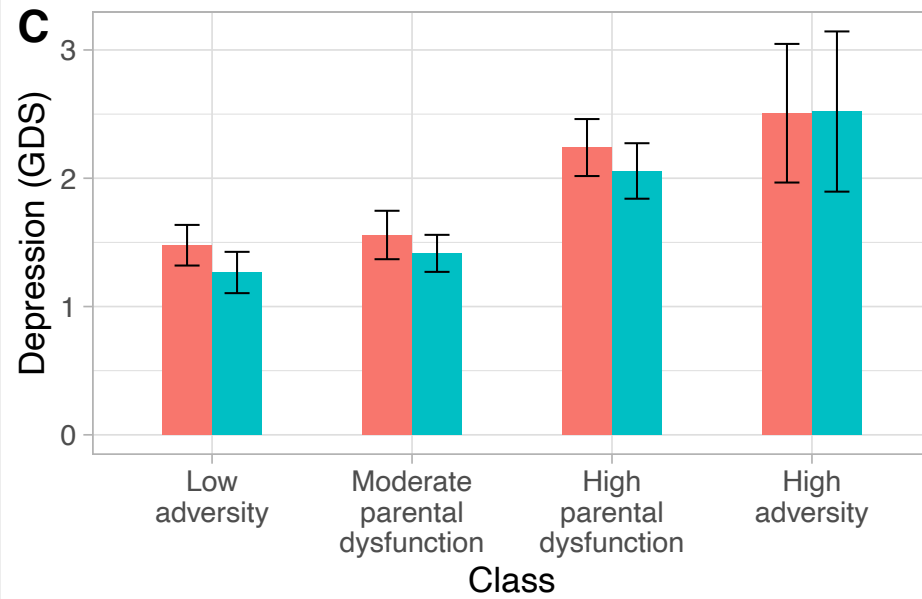
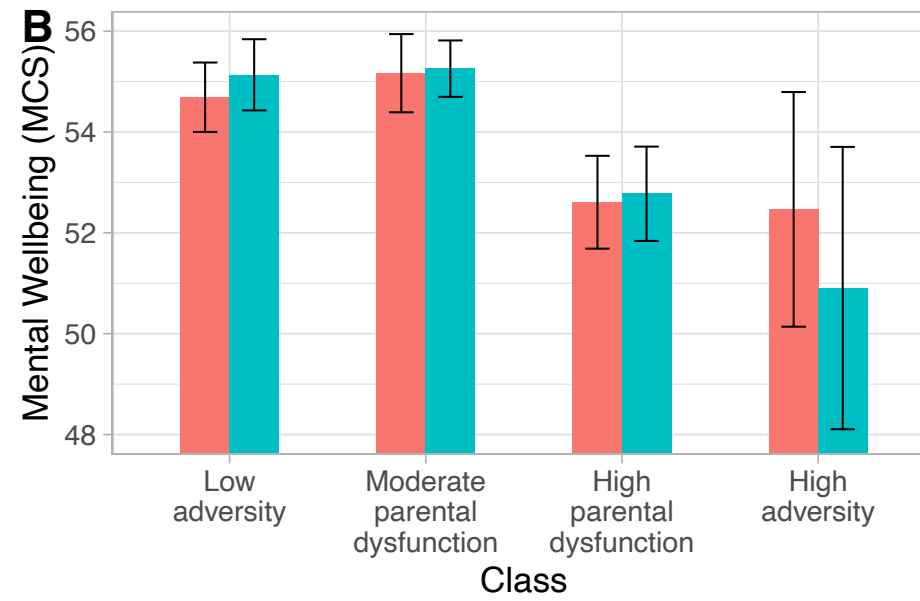
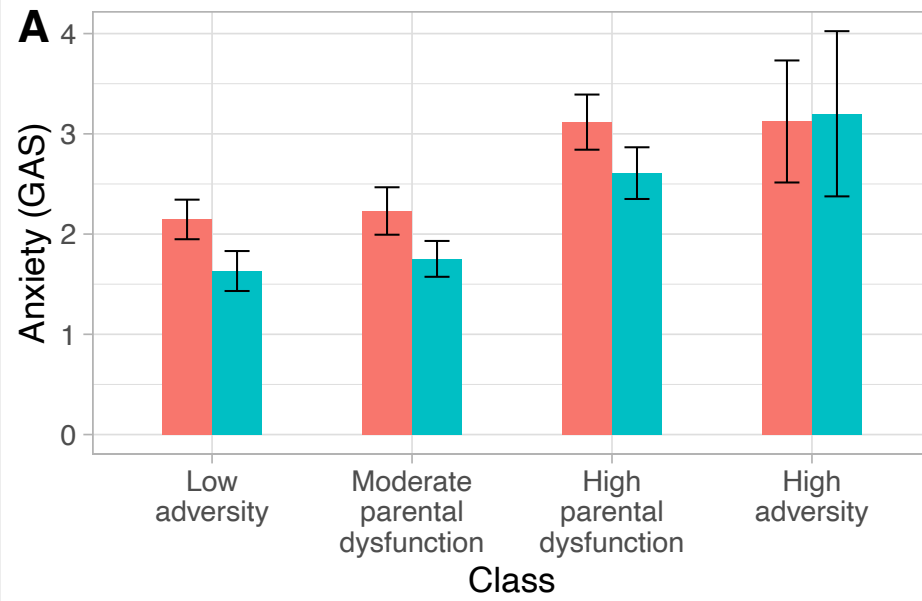
Number of classes	AIC	BIC	SSABIC	Log-likelihood	Entropy	LMRT (p)
1	46204.330	46350.436	46271.004	-23077.165	N/A	N/A
2	34825.705	35100.311	34950.979	-17365.852	0.822	3050.045 (<0.001)
3	34212.484	34627.313	34401.727	-17035.242	0.775	657.727(<0.001)
4	33960.757	34515.811	34213.970	-16885.378	0.734	298.143 (<0.001)
5	33872.154	34567.432	34189.337	-16817.077	0.700	135.881 (0.591)
6	33786.625	34622.127	34167.777	-16750.312	0.705	130.920 (0.404)



# LCA results

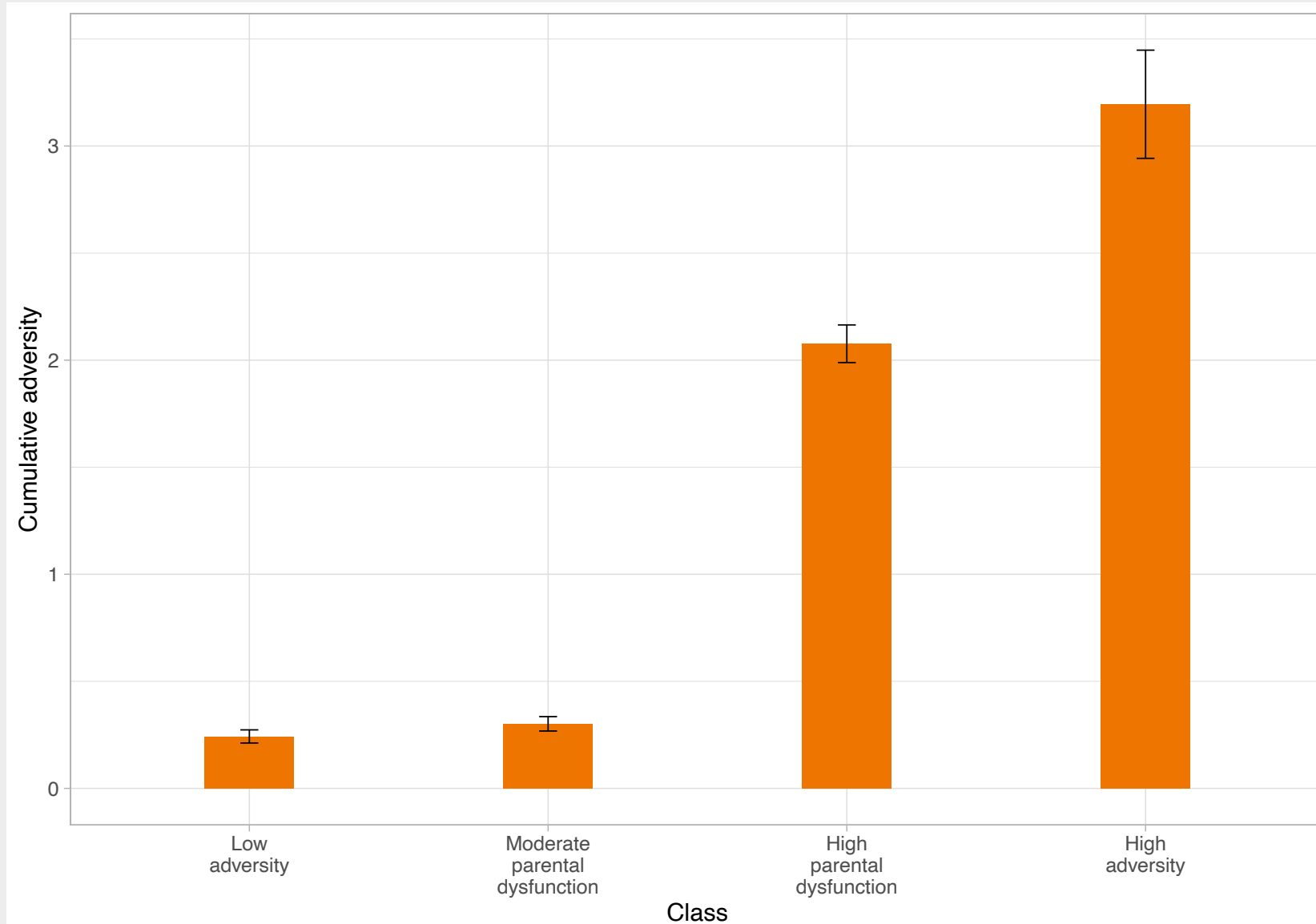






Gender Female Male

# Cumulative adversities of latent classes



# Summary

- Cumulative ACEs → Older adult mental health
- Four latent classes of ACEs
  - Low adversity, moderate parental dysfunction, high parental dysfunction, high adversity
- LCA not much more informative vs cumulative
- No notable sex differences in both analyses

# Discussion

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- Evidence for lifelong impact of ACEs on mental health
- Efficacy of conceptualizing ACEs
  - Smith & Pollack (2021) argue that many models rely on categories of adversities that are overlapping, have vague boundaries, and lack biological evidence.

# Acknowledgements

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- Advisors: Prof Kaarin Anstey, Dr Kim Kiely, Dr Bridget Callaghan
- PATH team and participants