

# Reading for pleasure and child maladjustment: A longitudinal propensity score matching analysis of a population-based cohort study



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## What we know so far?

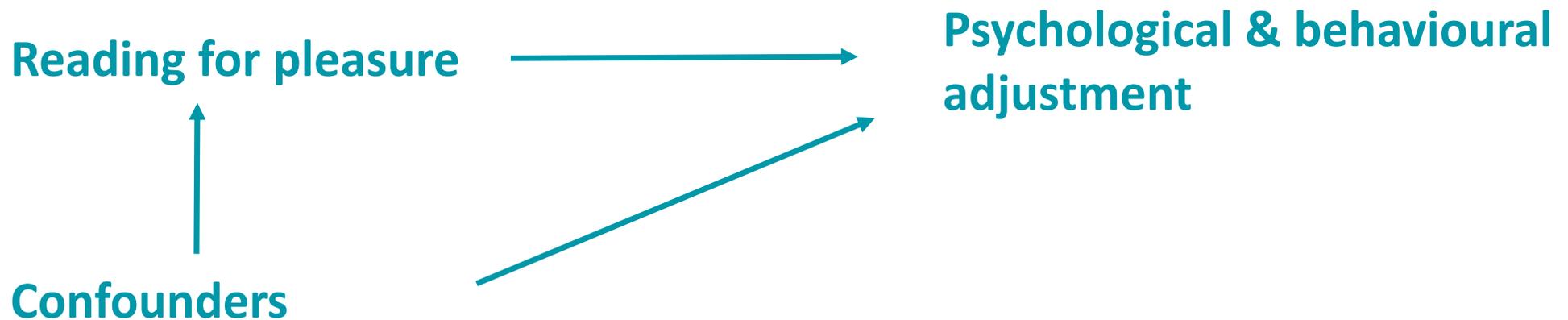
- Adjustment problems in childhood tend to persist into adulthood (e.g. youth unemployment, crime and mental health)
- Benefits of reading for prosocial behaviour e.g. empathy and helping behaviours

## Underlying mechanisms

- Theory of mind- **Understands** the emotions of others better
- **Stimulates** emotional states & the part of the mind that plans actions to achieve goals, supporting behaviour change
- Helps **establish** identity

## What we don't know

- Reading for pleasure and other aspects of psychological and behavioural adjustment.
- The confounding bias? Reading for pleasure is socially patterned.



## Contribution of the study

- First study to explore the *longitudinal relationship* between reading and children's adjustment.
- The first study using *propensity score matching* to explore the relationship.

## Data

- Millennium Cohort Study
- Follows around 19,000 young people who were aged 9 months in 2000/1 with follow-up every few years
- Sweeps 4 (2008, aged 7) & 5 (2011, aged 11)
- N=8,936 children

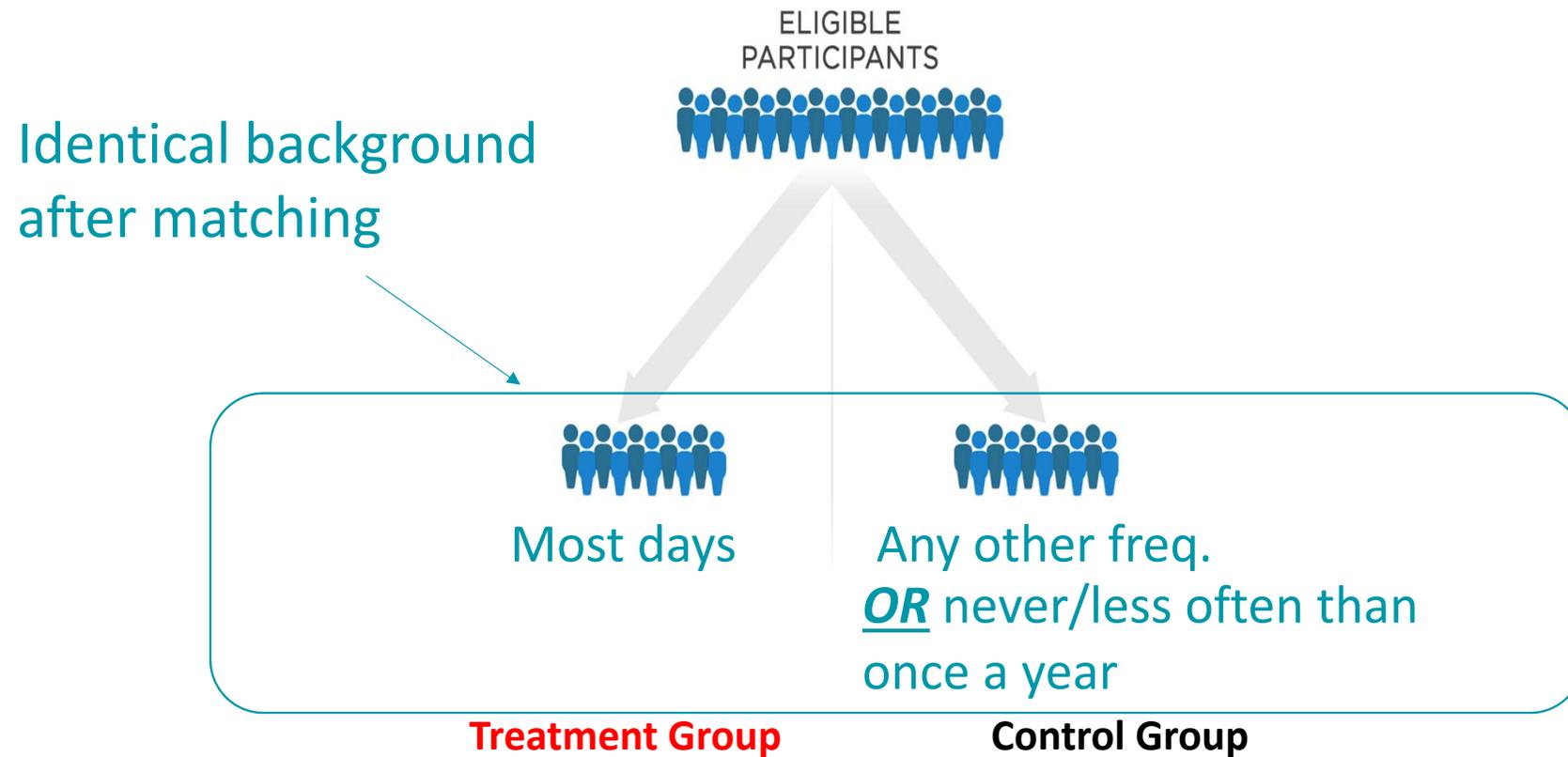
## Measures

- Outcome variables measured at S5: Strengths and Difficulties Questionnaire (SDQ) (standardised), which contains
  - prosocial behaviour
  - emotional symptoms
  - peer relationship problems
  - conduct problems
  - hyperactivity/inattention
- Reading for pleasure measured at S4: How often children read for enjoyment, not for school (binary).

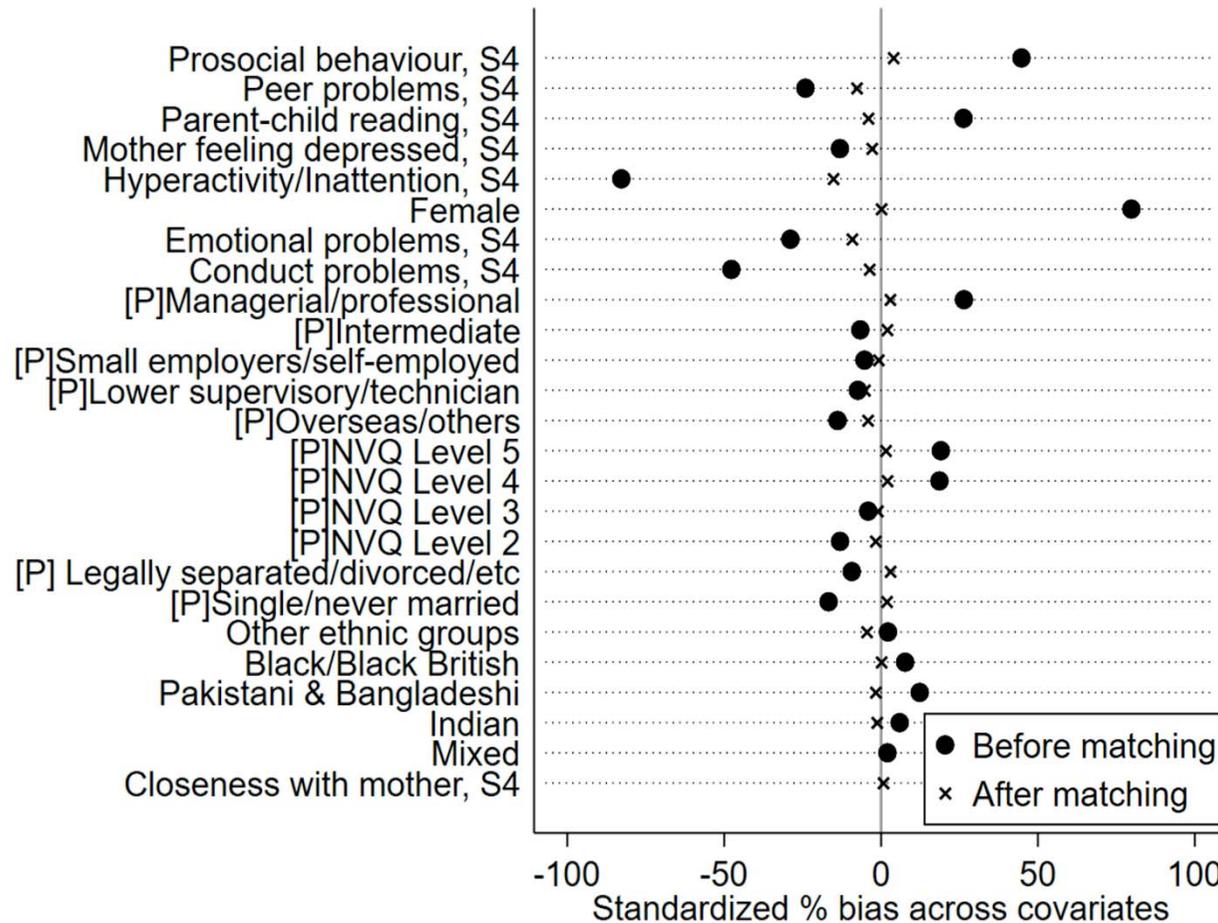
## Analysis

- PSM- Kernel matching algorithm
- Large set of socio-demographic controls, including:
  - Demographic backgrounds
  - Relationships with parents
  - Parental psychological condition
  - Children's previous freq. of reading with parents
  - Children's previous adjustment

# Propensity score matching



# Standardised % bias before/after matching



## Reading for pleasure & children's maladjustment

<b>SDQ</b>	<b>Most days vs any other freq.</b>	<b>Most days vs never/less often than once a year</b>
Prosocial behaviour	0.04 (0.01, 0.08)*	0.09 (0.00, 0.17)*
Emotional problems	0.01 (-0.03, 0.05)	-0.12 (-0.22, -0.02)*
Peer problems	0.05 (0.01, 0.08)*	-0.03 (-0.14, 0.08)
Conduct problems	0.04 (-0.03, 0.04)	-0.03 (-0.12, 0.06)
Hyperactivity/ Inattention	-0.06 (-0.09, -0.02)***	-0.22 (-0.31, -0.14)***
<b>N</b>	<b>8,936</b>	<b>4,479</b>

## Children with previous problems (top 40% issues)

<b>SDQ</b>	<b>Most days vs any other freq.</b>	<b>Most days vs never/less often than once a year</b>
Prosocial behaviour	0.07 (-0.02, 0.16)	0.11 (-0.02, 0.24) <sup>†</sup>
Emotional problems	0.01 (-0.07, 0.09)	-0.14 (-0.32, 0.04)
Peer problems	0.13 (0.04, 0.22)**	0.13 (-0.07, 0.33)
Conduct problems	0.01 (-0.07, 0.08)	-0.01 (-0.17, 0.15)
Hyperactivity/ Inattention	-0.10 (-0.16, -0.03)**	-0.34 (-0.46, -0.21)***
<b>N</b>	<b>varies</b>	

## Conclusions

- Daily reading for pleasure could help protect against the development of hyperactivity/inattention and support those with the problems in the management of their behaviours.
- Support prosocial behaviours, better emotional health, but also greater peer problems.