

Mental disorder among adolescents in detention: systematic review and metaregression analysis

Seena Fazel, University of Oxford
Helen Doll, University of Oxford
Niklas Langstrom, Karolinska Institute

Juveniles in detention

- 5% of all detained persons
- About 130,000 in the US
- Increasing in most countries worldwide (Walmsely 2006)
- High rates undiagnosed physical and mental health problems
- Estimated that 40-70% have current mental disorder (Arroyo 2001)



Methods

- Systematic review and metaregression analysis
- Search strategy: 1966- May 2006, all languages, grey literature
- Sex-specific diagnoses of psychosis, major depression, ADHD, conduct disorder
- Data combined using fixed or random effects meta-analysis
- Heterogeneity: Cochran Q or I^2
- Metaregression examined extent covariates explained heterogeneity

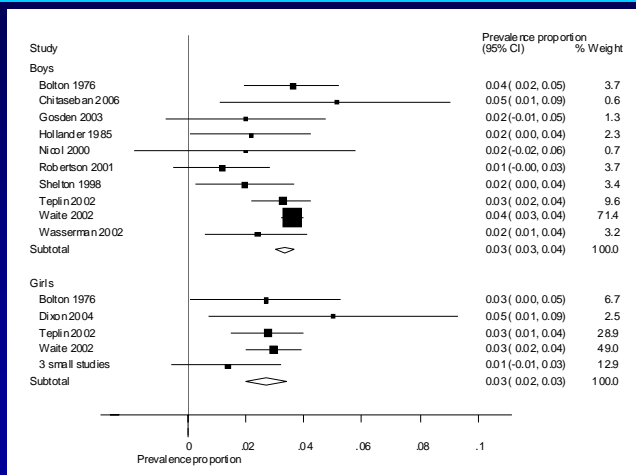
Inclusion criteria

- Unselected samples
- Clinical examination or semi-structured interviews
- **Current** diagnosis of psychosis, major depression and ADHD (within last 6 months)
- Any diagnosis of conduct disorder
- Excluded: referred studies, self-report

Results

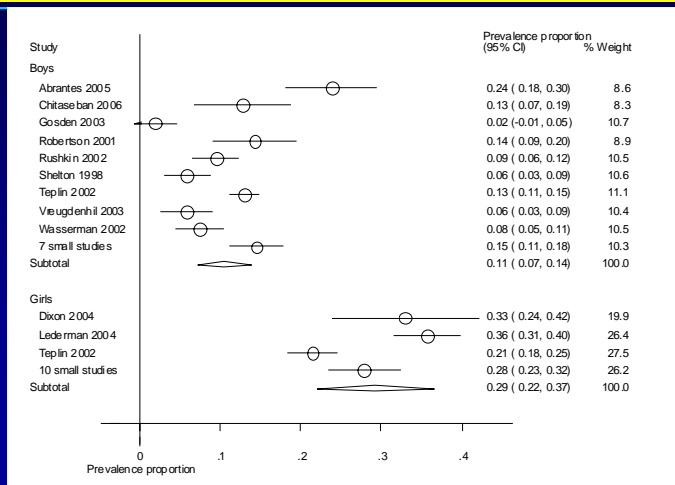
- 25 surveys
- 16 750 adolescents
- 13 778 boys and 2 972 girls
- Mean age 15.6 years
- 7 countries (US, UK, Australia, Russia, Holland, Denmark, Canada, Spain)

Psychosis



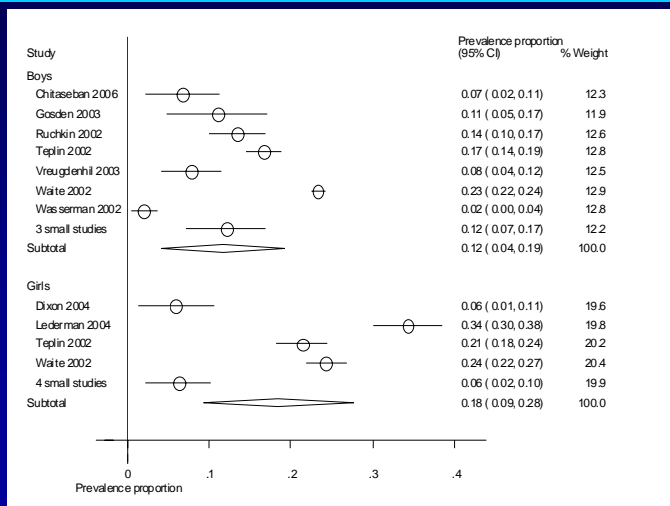
Boys: $\chi^2_9=15.7$, $p=0.073$; $I^2=42.7\%$ Girls: $\chi^2_4=3.32$, $p=0.51$; $I^2=0.0\%$

Depression



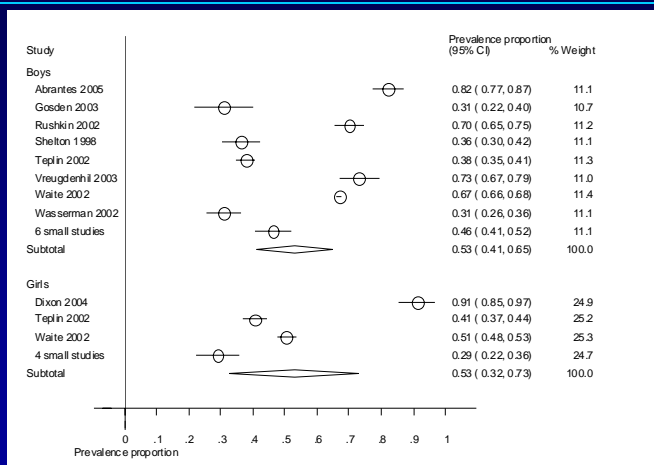
Boys: $\chi^2_9=91.5$, $p<0.001$; $I^2=90.2$ Girls: $\chi^2_3=29.8$, $p<0.001$; $I^2=85.1\%$

ADHD



Boys: $\chi^2=589.7, p<0.0001; I^2=98.8\%$ Girls: $\chi^2=137.3, p<0.001; I^2=97.1\%$

Conduct disorder



Boys: $\chi^2_8=754.5, p<0.0001; I^2=98.9\%$; Girls: $\chi^2_3=265.0, p<0.001; I^2=98.9\%$

Sources of heterogeneity

- Depression: girls higher prevalences, DISC lower prevalences, psychiatrist interviewer lower prevalences
- ADHD: US lower prevalences, DISC lower prevalences, older participants lower prevalences, consecutive sampling/complete sample higher prevalences
- Conduct disorder: DISC lower, older participants (15+) higher

Implications

- Adolescent girls in detention at particular risk of depression
- Adolescents in detention are at substantially increased risk of mental disorders than adolescent general population
- Risk increase higher for CD (10-20x in girls, 5-10x in boys), psychosis (10x), ADHD (2-4x), depression (4-5x in girls, 2x in boys)

Implications

- Metaregression suggested that DISC yielded lower prevalences of depression, ADHD, CD
- Psychiatrist interviewer lower prevalence of depression

Treatment implications

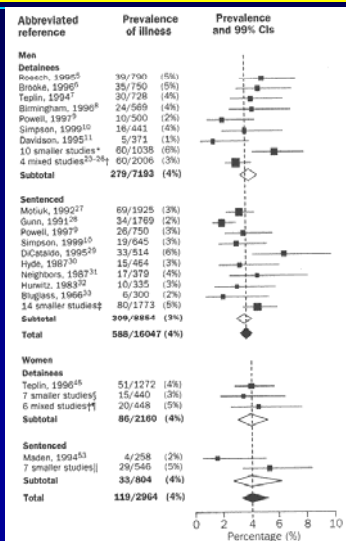
Potential public health impact
Screening for mental disorder and suicide risk
Suicide prevention programmes

Research implications

- Longitudinal studies
- Risk factors for repeat offending
- Screening for suicide
- RCTs for treatment

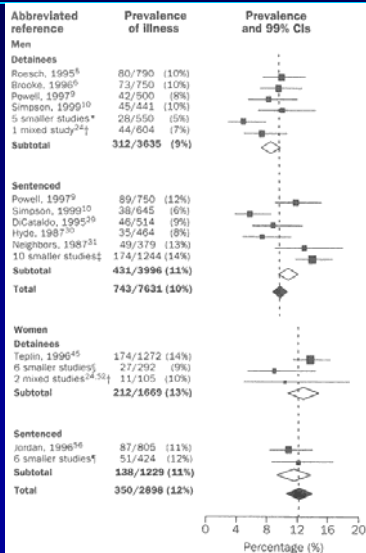
Psychosis in prisoners

49 surveys, 19 011 prisoners



Major depression in prisoners

31 surveys, 10 529 prisoners



Antisocial personality disorder

28 surveys, 13 844 prisoners

