Assessing behavioral problems that predict poor educational and life outcomes
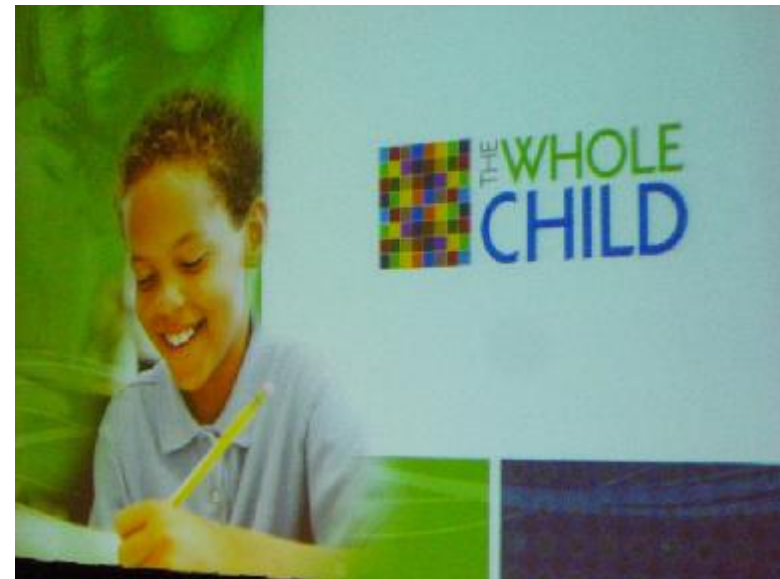
Candice L. Odgers, Ph.D.

Themes

• Developmental perspective, including trajectories and optimal timing of interventions

• Early determinants of mental, physical and economic status

• Movement towards a 'whole child' approach in medicine, psychology and education

http://www.wholechildeducation.org/

Antisocial Behavior

- Aggressive: fights, cruelty, bullies, weapon, threats

- Theft: stealing, shoplifting, taking things

- Deceitful: lies, cheats, blames others
- Personality: irritable, loud, jealous, hostile, brags, boasts, demands, annoys

- Rule-breaking: runaway, truant, disobedient

- Oppositional: argues, swears, stubborn, tantrums

- Destructive: vandalism, firesetting

Why consider antisocial behavior...

- ***It is prevalent*** with an estimated lifetime prevalence of close to 10% (Nock et al, 2006)

- ***It is a robust predictor of*** poor mental and physical health, school failure and economic difficulties (Moffitt et al., 2002; Odgers et al, 2008)

- ***It is closely linked to*** difficulties with self regulation and deficits in executive functioning (Dishion & Connell, 2007; Ellis et al., 2006; Moffitt, 1993)

Early Behavioral Problems…

- ***are costly***:

  - additional per child costs during adolescence are approximately $70,000 (Foster & Jones, 2005)

  - large returns are anticipated for early interventions via changes to 'non-cognitive skills', with the largest cost-savings related to crime (Heckman, 2006)

- ***translate into unique challenges for:***
  - families and schools
  - mental health and justice-related settings
  - employers and social welfare systems

Behavioral Problem Assessment

Dimensional

externalizing problems and antisocial behavior assessed using a variety of self, teacher and parent report scales

Diagnostic

Conduct Disorder (CD) as defined by the Diagnostic & Statistical Manual, 4th Edition

Rare example where there is consensus re: assessment!

ASEBA: Achenbach System of Empirically Based Assessments

- Most widely used instrument in child psychopathology

- Translated into 85 languages and reported in over 7,000 articles

- Designed to assess children's academic performance, adaptive functioning and behavioral/ emotional problems

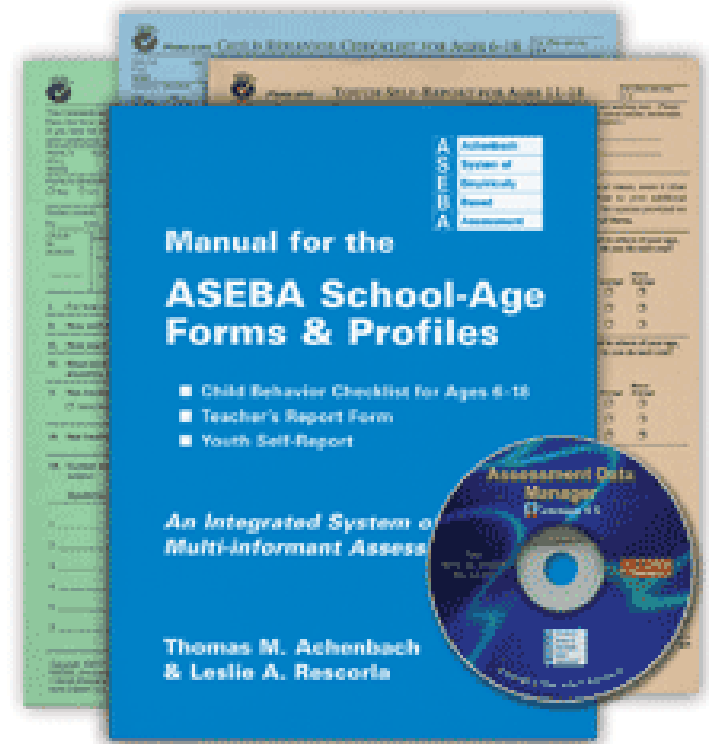- Teacher, parent and youth self report versions of the instrument

http://www.aseba.org/
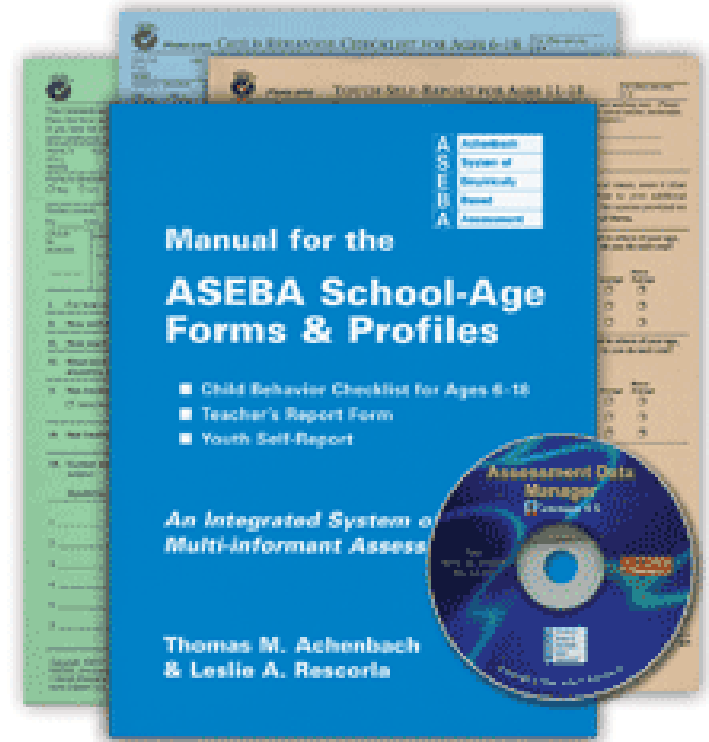
ASEBA
Reliability, Validity and Feasibility

- Syndrome scales derived via factor analysis

- Normed on large population-based and clinical samples

- Acceptable test-retest reliabilities and alpha coefficients (>.90)

- Time required = 15 minutes

- Compatible with DSM-IV

In-depth information regarding reliability, internal consistency, cross-informant agreement and stability for the CBCL, TRF and YSR can be found by clicking here .

CBCL: Example Items

Below is a list of items that describe children and youths. For each item that describes your child now or within the past 6 months, please circle the 2 if the item is very true or often true of your child. Circle the 1 if the item is somewhat or sometimes true of your child. If the item is not true of your child, circle the 0.

- Argues a lot
- Temper tantrums or hot temper
- Stubborn, sullen or irritable
- Doesn't get along well with other kids

- Destroys his/her own things
- Lying or cheating
- Runs away from home
- Physically attacks people
- Cruelty, bullying, or meanness to others

Sample CBCL :http://www.aseba.org/forms/schoolagecbcl.pdf and other forms: http://www.aseba.org/forms.html

DSM-IV Definition of CD

"A repetitive and persistent pattern of behavior in which the basic rights of others or major age-appropriate societal norms or rules are violated..."
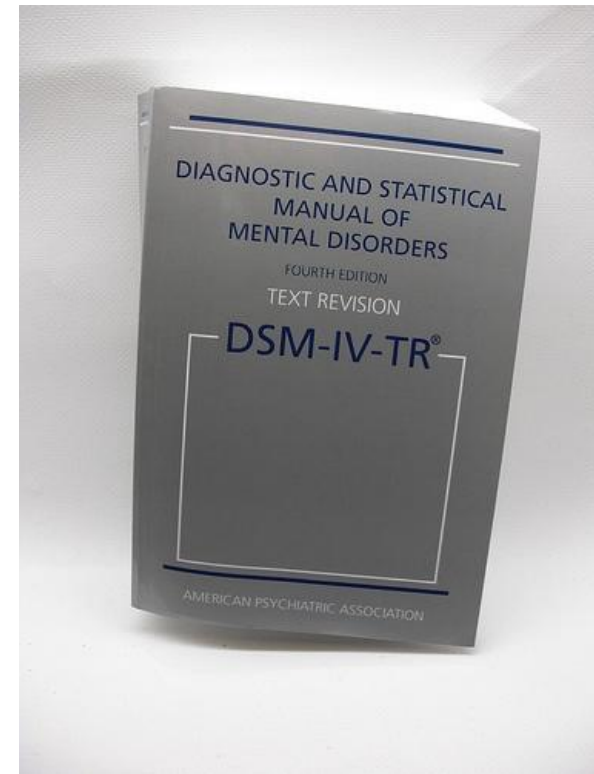
CD diagnosis as defined by the Diagnostic and Statistical Manual – 4th Edition, a full listing of the criteria can be found here.

DSM-IV Criteria & Subtypes

Manifested by the presence of <u>3</u> or more of the following criteria in the <u>past 12 months</u>, with <u>at least one criterion present in the past 6 months</u>:

Aggression to people or animals (e.g., bullies, initiates fights, weapon use, physically cruel to people/animals, robbery, forced sex)

Destruction of property (deliberately destroys property, fire setting)

Deceitfulness or theft (e.g., broken into buildings/ house/car, lies to obtain goods/ avoid obligations)

Serious violation of rules (e.g., truancy, running away, staying out at night despite parental prohibitions)

Childhood-Onset Subtype = 1 criteria present prior to age 10
Adolescent-Onset Subtype = no criteria present prior to age 10

Research Review: DSM-V conduct disorder: research needs for an evidence base

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Wendy S. Slutske,[7] and Essi Viding[8]

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[5]Harvard School of Public Health, USA; [6]University of California at Irvine, USA; [7]University of Missouri-Columbia,
USA; [8]University College London, UK

This article charts a strategic research course toward an empirical foundation for the diagnosis of conduct disorder in the forthcoming DSM-V. Since the DSM-IV appeared in 1994, an impressive amount of new information about conduct disorder has emerged. As a result of this new knowledge, reasonable rationales have been put forward for adding to the conduct disorder diagnostic protocol: a childhood-limited subtype, family psychiatric history, callous-unemotional traits, female-specific criteria, preschool-specific criteria, early substance use, and biomarkers from genetics, neuroimaging, and physiology research. This article reviews the evidence for these and other potential changes to the conduct disorder diagnosis. We report that although there is a great deal of exciting research into each of the topics, very little of it provides the precise sort of evidence base required to justify any alteration to the DSM-V. We outline specific research questions and study designs needed to build the lacking evidence base for or against proposed changes to DSM-V conduct disorder. **Keywords:** Conduct disorder, DSM-V.

Developmental Considerations:
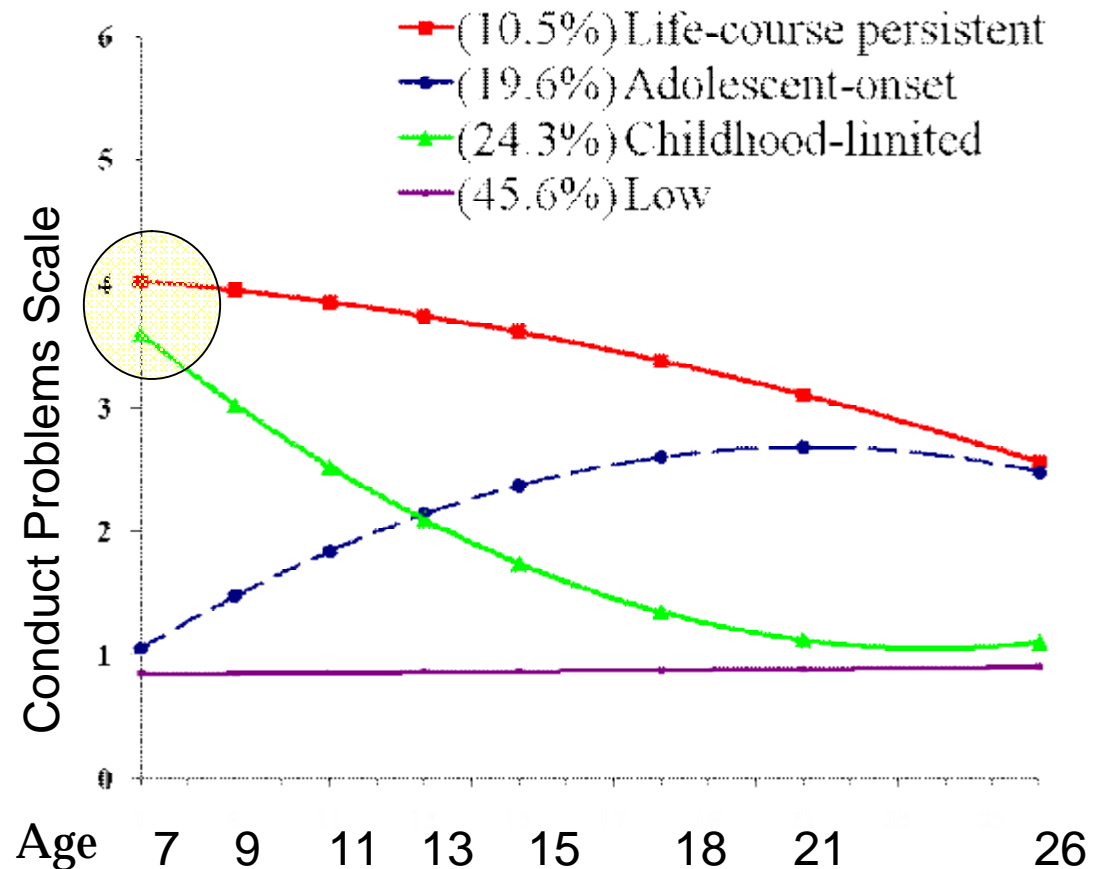
The Dunedin Study Example

Antisocial Behaviour Trajectories

ASB in early childhood does not necessarily signal poor outcomes

Key to prediction is early onset and *persistent* ASB

Failure to be 'socialized out' of ASB or develop effective self regulation skills
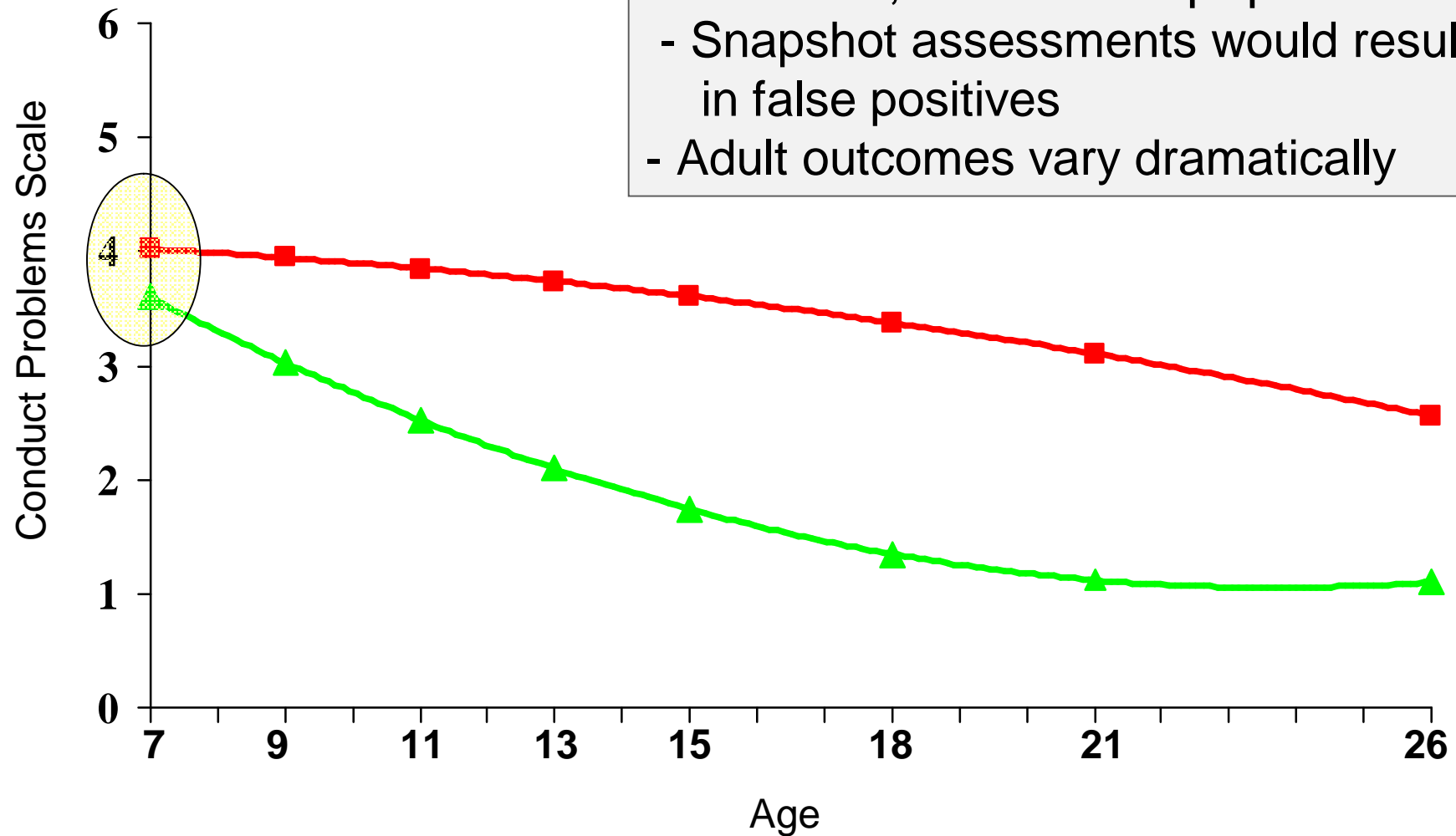

Odgers, Caspi et al., *Arch Gen Psychiatry, 2007*;

Odgers, Milne et al., *JACCAP, 2007*

Childhood-limited Subgroup

Prevalent , 24% of the population
 - Snapshot assessments would result
   in false positives
 - Adult outcomes vary dramatically

Conduct Problems Scale

Age

Adult Health: LCP males (vs. Lows)
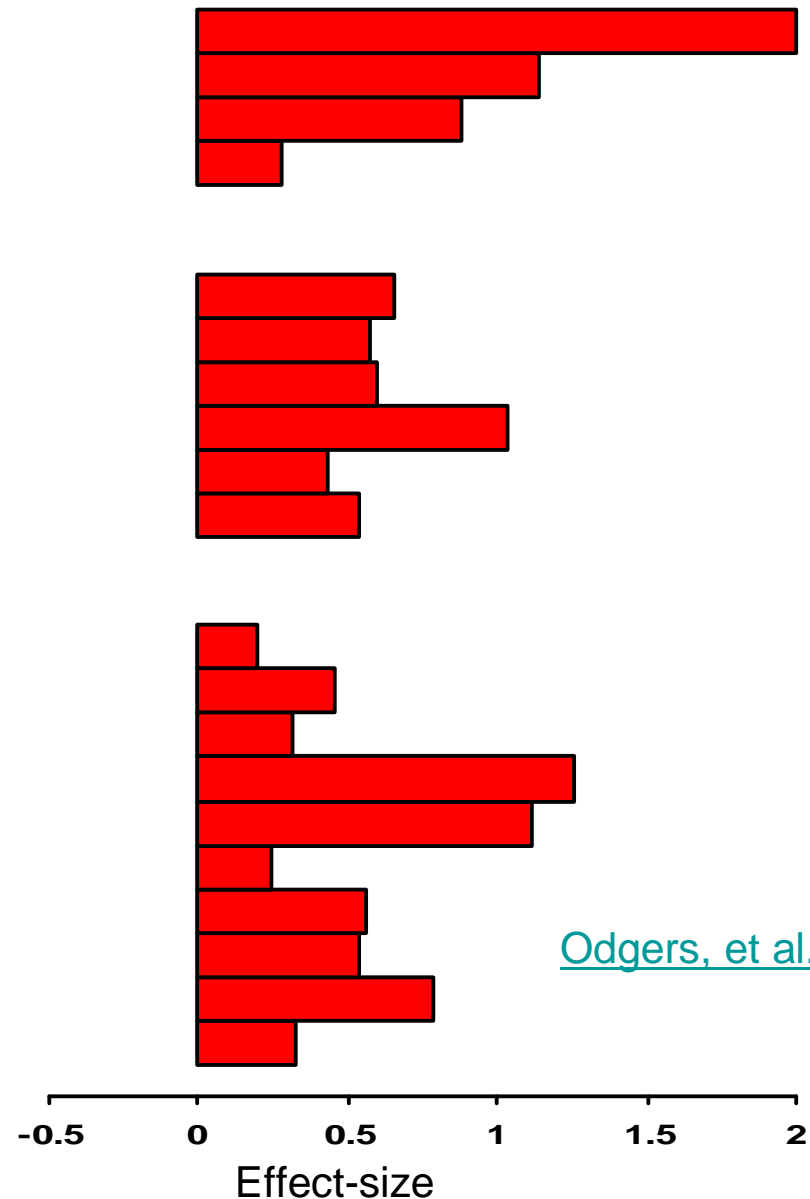
VIOLENCE TOWARDS OTHERS
- Official convictions (lifetime)
- Self report violence
- Controlling/Stalking
- Partner abuse

MENTAL HEALTH DIAGNOSIS
- Anxiety
- Major Depressive Disorder
- Cannabis dependency
- Other drug dependency
- Alcohol dependency
- PTSD

PHYSICAL HEALTH PROBLEMS
- Cardiovascular risk
- C-reactive protein
- Type 2 Herpes
- Smoker
- Nicotine dependency
- Lung Function (FEV1/VC)
- Chronic Bronchitis
- Gum Disease
- Decayed Tooth Surfaces
- Serious Injury

Odgers, et al., *2008*

Effect-size: -0.5, 0, 0.5, 1, 1.5, 2

Adult Health: Childhood-limited males

VIOLENCE TOWARDS OTHERS
Official convictions (lifetime)
Self report violence
Controlling/Stalking
Partner abuse

MENTAL HEALTH DIAGNOSIS
Anxiety
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Serious Injury

Odgers, et al., 2008

-0.5   0   0.5   1   1.5   2
Effect-size
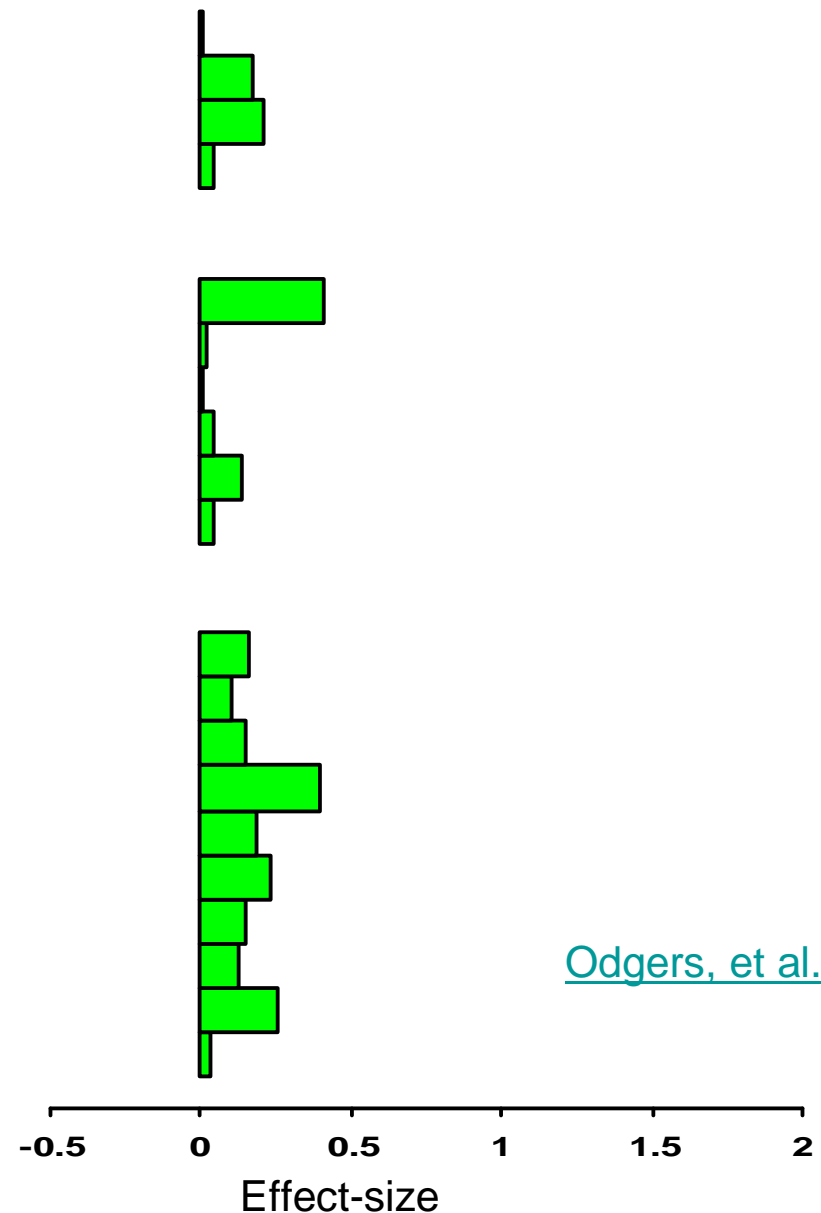
Educational Qualifications

- 24.2% versus 59.2% of the CL versus LCP men had no educational qualifications at age 32 (for women, 17.9% versus 30.6%)

No educational qualification was defined as ending secondary education prior to receiving qualifications, and not returning by age 32.

Qualifications are based on national exams that almost all students take by age 16.

Assessment Issues

- ## Heterogeneity
  - aggression subtypes, bullying, delinquency, oppositional, callous-unemotional traits

- ## Best informant varies by age
  - Childhood = teacher + parent
  - Adolescence = self report
  - Adulthood = self-report + informant

- ## Measurement bias: age, gender & ethnicity
  - Multi-cultural supplements for the ASEBA
  - Evidence of measurement invariance across gender

The Future of ASB Assessment

- Use of Family History Information
  - Routine in medical settings: improves prediction and helps to prioritize resources

- Revisions to DSM-IV CD Diagnosis
  - Proposed addition of a callous and unemotional trait specifier

- Ecological Momentary Assessment (EMA)
  - New technology and real time assessments

EMA Methods

- Real time data capture using phones and text messaging

- Minimize recall bias

- Employ technology from adolescents' worlds

- Rapid advances in technology and study design

Lessons learned

- Developmental Perspective
  - Developmental trajectories versus single assessments
  - Metric invariance across development
  - Optimal timing for 'intervention'; critical periods

- Early Determinants of Life Outcomes
  - Robust predictions across the lifespan
  - Early deficits set in place a developmental process; may widen the 'skill gap' with interventions

- Thinking about the 'whole child'
  - cognitive vs. 'non-cognitive skills' cannot be neatly partitioned; interwoven across development
  - Most effective interventions are multi-systemic, particularly for high-risk children

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