Trends in youth mental health: priorities for future research

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Outline

• Importance of youth mental health

• Trends in prevalence and outcomes

• Research Priorities
  • Reasons for trends
  • Impact, outcomes and prognosis
  • A global perspective
  • Methodology
Child and adolescent psychiatric disorders: Burden and prognosis

• 1 in 10 adolescents has a psychiatric disorder; 4 million+ in Europe alone

• Major impacts on family life, friendships, education and health

• Self harm and suicide (a leading cause of death in young people)

• Long-term costs for individuals and society
  • Persistence and recurrence (>50% of adult disorders onset <18 years)
  • Families, employment, civic participation, chronic disease and mortality
  • Economic burden (global costs of mental disorders US$16 trillion 2010-2030)

• A major public health problem

Trends in mental health diagnoses and treatment:

• Substantial increases globally

• Similar pattern in most countries

Why?

• Changing diagnostic criteria

• Greater clinical recognition & public awareness

• Treatment availability and perceived efficacy

Majority still don’t access services

Potter et al., 2012; Stephenson et al, 2013; Olfson et al., 2014; Collishaw, 2015;
Has the prevalence of mental health problems really changed?

Evidence from ‘unselected’ population samples
UK population-based surveys

- National Child Development Study: 60 y
- 1970 British Cohort Study: 48 y
- Avon Longitudinal Study of Parents and Children: 26 y
- UK pregnancy/birth cohorts, N ~15,000-20,000 per cohort: 17 y
- Millennium Cohort Study

British Child and Adolescent Mental Health Surveys, N ~10,000 per cohort

Schools Health Research Network, Wales, N > 100,000 every two years

Trends in adolescent emotional problems in UK

Emotional problems: high scores (parent reports)

- Cohort 3 vs. cohort 2
  - OR = 1.72

<table>
<thead>
<tr>
<th>Year</th>
<th>% High Scores</th>
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<tbody>
<tr>
<td>1974</td>
<td>10,499</td>
</tr>
<tr>
<td>1986</td>
<td>7,293</td>
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<tr>
<td>1999</td>
<td>868</td>
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Collishaw et al., 2004

Emotional problems: DSM symptoms (youth reports)

- Girls
  - ES = 0.36; p < .001
- Boys
  - ES = 0.13; p = .06

Collishaw et al., 2010

Cohort differences by severity (2006 vs 1986)

- Odds ratio: all p < .01; Interaction p < .05

<table>
<thead>
<tr>
<th>Symptom Count</th>
<th>Odds Ratio</th>
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<tbody>
<tr>
<td>1+</td>
<td>1.5</td>
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<tr>
<td>2+</td>
<td>2.0</td>
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<td>3+</td>
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<td>7+</td>
<td>4.5</td>
</tr>
<tr>
<td>8+</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Collishaw et al., 2010

Emotional problems: DSM disorder (11-15 year olds)

<table>
<thead>
<tr>
<th>Year</th>
<th>% High Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>3,700</td>
</tr>
<tr>
<td>2004</td>
<td>2,982</td>
</tr>
<tr>
<td>2017</td>
<td>2,622</td>
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</table>

Sadler et al., 2018
I. Reasons for trends

Are people just more open about reporting problems?
Cross-cohort comparisons: evidence for specificity

Hyperactivity: mean scores (parent reports)

Behavioural disorders: DSM disorder (11-15 year olds)

Child problems (7 years), parent reports (1965-2008)

Collishaw et al., 2004

Sadler et al., 2018

a) Boys


Child mental health problems, %

b) Girls


Child mental health problems, %

Sellers et al., 2019
I. Reasons for trends – changes in social risk

- Children: Pubertal development; self-concept; cognition
- Lifestyle: Sleep, exercise, screen time; substance use
- Social environment: Peer relationships, bullying, schools, academic stress
- Families: Parent mental health, family dynamics, poverty
- Adolescent emotional problems

Patalay & Gage, 2019; Chorin et al., 2015; Twenge et al., 2018; Azzopardi et al., 2019; Chester et al., 2015; Tiiri et al., 2019; Lempinen et al., 2019; Nygren & Hagquist, 2017; West & Sweeting, 2003; Collishaw, 2015
One example: Trends in family life

- Multi-faceted changes in family life which have impacted on trends in adolescent emotional problems
- Inter-generational effects
- Increasing family poverty /inequalities
- Changes in family structure and parenting?

![Graph showing Parent reported child mental health and Youth DSM symptoms by income and year.](Schepman et al., 2013)

Collishaw et al., 2019
II Impact, outcomes and prognosis
II Impact, outcomes and prognosis

• Most studies focused on prevalence trends

• What about young people who do have mental health problems?

• Is their functioning better than in the past?

• Particularly interesting to where repeat cohorts have longitudinal data – test trends in prognosis and outcomes

*Very few studies of this kind, some indicative findings from our group...*
Cross-cohort comparisons: impact and outcomes

Increasing ‘impact’ of mental health problems in childhood (despite lack of change in symptom prevalence)

Child distress
Classroom learning
Friendships
Family relationships

1960s/70s vs 1990s/2000s

Markedly poorer outcomes now

Victimization
Loneliness
Exam attainment
Adolescent mental health

Outcomes for children with mental health problems, age 16 (SDQ total symptoms)

Sellers et al., 2015

Sellers et al., 2019
III Need for a global perspective
III Global perspective

• Majority of 2.5 billion children and youth live in LMICs but mental health trends evidence almost exclusively from HICs

• LMICs often experience more rapid and profound social change

• Major challenges: conflict, displacement/migration, rapid urbanisation, natural disasters, climate change

• Global improvements in child physical health (vaccination coverage, neonatal care, nutrition, infectious disease burden)

• In contrast, global burden of disease attributable to mental disorders likely to rise, but accurate estimates impossible

• Critical challenge: expand global coverage of epidemiological data on children’s mental health

Erskine et al., 2017; Patton et al., 2016; Patel et al., 2018; UN IGME, 2018
IV. Methodology

Developing and applying robust methodologies essential

*Key challenges:*

- Equivalence of sampling in cross-cohort comparisons  
  (missing data, representativeness)

- Equivalence of measurement  
  (data harmonization, calibration, measurement invariance, benchmarking)

- Causal inference  
  (natural experiments, utilizing variation in confounding structures)
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