Development: physical, cognitive and social

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What is Child Development?

Child development refers to the ordered emergence of interdependent skills of sensori-motor, cognitive-language, and social-emotional functioning. This emergence depends on and is interlinked with the child’s good nutrition and health. As A World Fit for Children states, “…children should be physically healthy, mentally alert, emotionally secure, socially competent and ready to learn.”

UNICEF 2006
Developmental perspective

Three domains of human development:

• Physical
• Cognitive
• Social and emotional
CSDH conceptual framework for action on the social determinants of health

What are the influences on early child development?
Social determinants for child health and development

**Socioeconomic position**

**Social class**

**Gender**

**Ethnicity**

**Education**

**Occupation**

**Income**

**Material** - including housing quality, overcrowding, air pollution

**Behavioural** – including home environment and parenting activities (reading and telling stories), family routines (sleeping and meal times, screen based media use), physical activity

**Psychosocial** – including parent mental health, parent-child interactions, discipline strategies, parental warmth and hostility

**Structural determinants**

**Intermediary determinants**

**Child health and development**
Obesity Age 5

Girls Age 5 (n=5875)

Boys Age 5 (n=6090)
Longitudinal Verbal Profiles

Mean BAS scores over age from 3 to 11 years old, showing average (74.9%), high (19.5%), and low (5.6%) groups.

Zilanawala et al, Eur J Pub Health 2016
Inequality starts early

(Hart & Risley, 1995)
Verbal ability at ages 3 & 5 by family income

![Bar chart showing verbal ability at ages 3 and 5 by family income, with the richest group having the highest scores at 59.9 and 58.7, and the poorest group having the lowest scores at 47.6 and 51.2.](chart.png)
Verbal months ahead or behind at age 7 by number of risk factors

Kelly et al, forthcoming
Income gap in the risk of socioemotional difficulties at 5 years of age

- Richest (2.0%)
- Band 2 (4.0%)
- Band 3 (6.4%)
- Band 4 (11.2%)
- Poorest (15.9%)

Risk income distribution across income bands.
Clinically relevant behavioural problems at age 7, by number of risk factors

% clinically relevant problems

Number of risk factors

Mother
Teacher
Adolescence
Adolescence

The period from the onset of puberty to that of an independent role in society
Puberty transitions

• Physical – stature, sexual characteristics
• Physiological – endocrine
• Psychological – autonomy, identity, decision making, social relationships
Social transitions

• Leaving education
• Entering employment
• Leaving parental home
• Partnership and/or family formation
Important markers

- Mental health
- Health behaviours
- Overweight/obesity
Recent decades - marked changes in health and wellbeing:

• Alcohol consumption, smoking, teenage pregnancy rates have declined
• Screen based media use, overweight and obesity and poor mental health have increased
What are the influences on adolescent health and wellbeing?
Early menarche (by age 11) by family income

<table>
<thead>
<tr>
<th>Income Level</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poorest</td>
<td>14.1</td>
</tr>
<tr>
<td></td>
<td>12.8</td>
</tr>
<tr>
<td></td>
<td>8.8</td>
</tr>
<tr>
<td></td>
<td>7.2</td>
</tr>
<tr>
<td></td>
<td>6.8</td>
</tr>
</tbody>
</table>

Poorest vs Richest
Inequalities in obesity, poorest vs richest

![Graph showing age-related odds of obesity in the poorest vs richest groups.](image-url)
### Health behaviours by income quintile among youth (Age 14, MCS)

<table>
<thead>
<tr>
<th>Health Behaviour</th>
<th>Richest</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Poorest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heavy drinking (All)</td>
<td>7.0</td>
<td>9.0</td>
<td>10.7</td>
<td>10.2</td>
<td>7.1</td>
</tr>
<tr>
<td>Heavy drinking (current drinkers)</td>
<td>15.1</td>
<td>18.9</td>
<td>22.1</td>
<td>22.3</td>
<td>23.5</td>
</tr>
<tr>
<td>Ever smoked</td>
<td>8.7</td>
<td>11.4</td>
<td>14.7</td>
<td>21.4</td>
<td>20.1</td>
</tr>
<tr>
<td>Any illicit drug use</td>
<td>2.6</td>
<td>3.6</td>
<td>5.5</td>
<td>6.6</td>
<td>5.4</td>
</tr>
</tbody>
</table>

### Physical activity

<table>
<thead>
<tr>
<th>Activity</th>
<th>5+ days</th>
<th>3-4 days</th>
<th>1-2 days</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>41.3</td>
<td>36.7</td>
<td>18.9</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>38.4</td>
<td>34.9</td>
<td>23.2</td>
<td>3.6</td>
</tr>
<tr>
<td></td>
<td>36.8</td>
<td>32.7</td>
<td>26.7</td>
<td>4.5</td>
</tr>
<tr>
<td></td>
<td>35.8</td>
<td>32.4</td>
<td>26.5</td>
<td>5.4</td>
</tr>
<tr>
<td></td>
<td>35.5</td>
<td>30.6</td>
<td>27.6</td>
<td>6.3</td>
</tr>
</tbody>
</table>
Depressive symptoms by family income

Family income
- Richest
- Fourth
- Third
- Second
- Poorest

Geometric Mean MFQ score
- Girls
- Boys

Kelly et al 2019 EClinMed
Prevalence of weekday hours of social media use

Kelly et al 2019 EClinMed
Depressive symptoms by social media use

<table>
<thead>
<tr>
<th>Weekday hours of social media use</th>
<th>Girls</th>
<th>Boys</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>11.2</td>
<td>7.4</td>
</tr>
<tr>
<td>&lt; 1 hour</td>
<td>15.1</td>
<td>7.2</td>
</tr>
<tr>
<td>1-3 hours</td>
<td>18.1</td>
<td>6.8</td>
</tr>
<tr>
<td>3-5 hours</td>
<td>25.1</td>
<td>11.4</td>
</tr>
<tr>
<td>5+ hours</td>
<td>38.1</td>
<td>14.5</td>
</tr>
</tbody>
</table>

Kelly et al 2019 EClinMed
Social media use

Poor sleep

Cyberbullying

Poor self-esteem

Body image

Depressive symptoms

Confounders
Poor self-esteem

Depressive symptoms

Social media use

Online harassment

Poor sleep

Poor self-esteem

Poor body image

Key:
- $1.96 < t < 3$
- $3 \leq t < 5$
- $5 \leq t < 10$
- $t \geq 10$
Summary

- Child and adolescent health and development matters – now and for the future
- Stark socioeconomic inequalities are evident and these start early
- Structural factors shape ‘intermediary’ environments: behavioural, material, psychosocial
- To give every child and young person a good start in life - action is needed on intermediate and structural influences
Major challenges for adolescent health and wellbeing – what might some of the research questions be?