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Circumstances in Development and Social Class Differences in Adulthood Depression

Evidence from the National Child Development Study
Context

- Increasing
- Inequality of mental health morbidity by Social Class
- Variation evident by
  - Age
  - Sex
  - Geography
- Impact on primary care facilities
Some Risk Factors...

- Low Birth Weight
- Bottle-fed in infancy
- Lower IQ
- Lack of social or parental support
- Poor quality housing in childhood
- Low income or financial insecurity
- Poor physical health
- Low educational achievement
Research Question

Which risk factors for depression during development influence the social class gradient of depressive tendency in adulthood?

- Are class differences in risk factors a sufficient explanation?
- What are the most influential determinants of poor mental health?
National Child Development Study (NCDS, 1958 cohort)

- All those living in Great Britain born between 3rd-9th March 1958 (N=18,000)
- Data collected at birth, 7, 11, 16, 23, 33 & 42 years of age
- Rich data on multiple aspects of life at each ‘sweep’
Malaise Inventory

- Population measurement of ‘depressive tendency’
- Simple sum of a 24 question inventory of dichotomous questions (‘Yes’=1 ‘No=0’)
- Measured in NCDS at 23, 33 & 42
- Inventories with less than 21 responses not used, those with 22-24 responses treated for missing values
Distribution

Malaise Score

% of sample

Age 23

Age 33

Age 42

Malaise Score

% of sample

0 4 8 12 16 20 24

0 5 10 15 20 25 30 35

Age 23

Age 33

Age 42
Sex Differences
Class & Age Variation

![Graph showing mean malaise score variation by age and class. The graph compares IV&V, III manual, and I, II & III non manual categories. The x-axis represents age from 20 to 45, and the y-axis represents mean malaise score from 1.5 to 4.5. Each category shows a trend with age, with IV&V having the highest score at older ages.]
## Changing depressive states

<table>
<thead>
<tr>
<th>Depressed (D) or Not Depressed (N) at</th>
<th>23</th>
<th>33</th>
<th>42</th>
<th>%</th>
<th>Grouped %</th>
<th>Further %</th>
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<td>100</td>
<td>100</td>
<td>100</td>
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</tbody>
</table>
Regression Analysis - method

- Multiple linear regression models fitted
- Control variables from infancy, childhood & adulthood
- Regressions initially performed on each separate age survey (23, 33, 42)
- Final regressions combined all survey inventories & adjusted additionally for age
Regression Analysis - controls I

- Sex
- Birth weight
- Breastfeeding
- Ethnicity
- Parity
- Family Size
- Geographical Region
- Housing Tenure (age 7, 11, 16)
Regression Analysis - controls II

- Crowding (age 7, 11, 16)
- Health Abnormality (age 7, 16)
- Maths ability (age 7, 11, 16)
- Reading ability (age 7, 11, 16)
- Financial Hardship in family (age 11, 16)
- Parental divorce (up to ages 7, 11, 16)
- Geographical mobility (birth to 16)
- Parental interest in education (ages 7, 11, 16, both maternal & paternal)
Regression Analysis - results I

- Crude Linear Regressions
  - Significant increases in mean malaise score with SES (p<0.001)
  - Malaise score increased by 0.51, 0.76 and 1.15 points for each respective SES group
  - Significantly higher malaise among women (p<0.001)
Regression Analysis - results II

- Adjusted Linear Regressions
  - Non Significant differences in malaise scores between SES groups (p>0.05)
  - Significantly higher malaise among women persists (p<0.001)
  - Factors with most explanatory power include maths score, financial hardship & parental interest in education
Conclusions

- Significant gradient with social class
- Episodic in nature
- Large and persistent gender difference
- Gradient can be eliminated by relatively few factors: thus differences can be explained by differentials in risk factors between SES groups
- Factors in infancy, childhood & adolescence all play a role
For electronic versions of full project please email laura.woods@lshtm.ac.uk