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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

% of sample

Malaise Score

Age 23
Age 33
Age 42

% of sample

Malaise Score
Sex Differences

[Graph showing the percentage of sample for males and females across different malaise scores.]
Class & Age Variation

- IV&V
- III
- I, II & III non manual

Mean Malaise Score vs Age

- Age: 20, 25, 30, 35, 40, 45
- Mean Malaise Score: 1.5, 2, 2.5, 3, 3.5, 4, 4.5

Graph showing the variation in mean malaise score across different classes and age groups.
## Changing depressive states

<table>
<thead>
<tr>
<th>Depressed (D) or Not Depressed (N) at 23 33 42</th>
<th>%</th>
<th>Grouped %</th>
<th>Further %</th>
</tr>
</thead>
<tbody>
<tr>
<td>D D D</td>
<td>1.56</td>
<td>1.56</td>
<td></td>
</tr>
<tr>
<td>D D N</td>
<td>0.73</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D N D</td>
<td>1.40</td>
<td>3.96</td>
<td>17.14</td>
</tr>
<tr>
<td>N D D</td>
<td>1.84</td>
<td></td>
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</tr>
<tr>
<td>N N D</td>
<td>7.11</td>
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<tr>
<td>N D N</td>
<td>1.64</td>
<td>11.62</td>
<td></td>
</tr>
<tr>
<td>D N N</td>
<td>2.87</td>
<td></td>
<td></td>
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<tr>
<td>N N N</td>
<td>82.86</td>
<td>82.86</td>
<td>82.86</td>
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<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</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