
Downloaded from: http://researchonline.lshtm.ac.uk/2121436/

DOI:

Usage Guidelines:

Please refer to usage guidelines at http://researchonline.lshtm.ac.uk/policies.html or alternatively contact researchonline@lshtm.ac.uk.

Available under license: Copyright the author(s)
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
Sex Differences

![Graph showing sex differences in malaise score]

- **% Sample**
- **Malaise Score**
- **Males**
- **Females**

The graph illustrates the percentage of males and females across different malaise score ranges.
**Class & Age Variation**

### Mean Malaise Score by Age and Class

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

The chart displays the mean malaise score across different age groups and classes. The vertical axis represents the mean malaise score, while the horizontal axis represents age. Each class is represented by a different line color:
- **IV&V** (yellow line)
- **III manual** (red line)
- **I, II & III non manual** (blue line)

The data shows a trend where the mean malaise score increases with age for all classes.
## 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 D</td>
<td>1.56</td>
<td>1.56</td>
<td></td>
</tr>
<tr>
<td>D  D  D N</td>
<td>0.73</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D  N  D D</td>
<td>1.40</td>
<td>3.96</td>
<td></td>
</tr>
<tr>
<td>N  D  D D</td>
<td>1.84</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N  N  D D</td>
<td>7.11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N  D  N N</td>
<td>1.64</td>
<td>11.62</td>
<td></td>
</tr>
<tr>
<td>D  N  N N</td>
<td>2.87</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N  N  N N</td>
<td>82.86</td>
<td>82.86</td>
<td>82.86</td>
</tr>
<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