Social factors behind Eating Disorders: does deprivation have a role to play in their development? A question re-visited.

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Background:
Evidence exploring social class trends in eating disorders is conflicting and minimal. There are a few reports, mainly from the UK, that suggest the presence of an upper class bias within this disease group, however other evidence fails to show this trend. Two reports looked for such a trend within Aberdeen the first in 1973 (1) and another in 1986(2) Again both failed to agree on a conclusion despite using a similar study population. With the growing realisation of how other factors such as the media, may affect the development of eating disorders, it is obvious that eating disorders develop due to multiple factors. If a social class bias was to be found, it could help identify those who may be most at risk of developing these disorders and such allow for closer monitoring and early treatment. Due to the inconsistent results surrounding eating disorders and social class, the use of deprivation scores as used in this study, may provide a novel perspective and so help to clarify any existence of a bias. There is little published literature on this area.

Aim:
The aim of this project was to examine for any possible links between rates of referrals to the Grampian Eating Disorder Service and patient's deprivation, defined by using their postcodes from their referral letters.

Methods:
Patients who were referred to Grampian Eating Disorders Service from 1994 to August 2009 were included in this analysis. All patient identifiers were removed before any analysis took place in order to allow for total anonymity and to protect each patient’s confidentiality. Patient's postcodes were extracted from the referral database and matched to Scottish Index of Multiple Deprivation (SIMD) score using the Scottish Government’s website (found at http://www.scotland.gov.uk/Topics/Statistics/SIMD/SIMDPo stcodeLookup) using the 2006 database. (3) The resulting scores were ranked into quintiles ranging from group 1, score of 1 – 1301 (most deprived) to group 5, score of <5204 (least deprived) using the same criteria also found on the website. Chi-squared testing was then performed on the data to assess statistical significance of the findings.

Results:
Results obtained from Chi-squared testing, showed that there was a increasing difference in rates of referrals across the deprivation groups (x² = 201.805) this was statistically significant with p <0.001

Table 1 showing numbers of patients in deprivation groups 1-5 with N = 2053 patients.

<table>
<thead>
<tr>
<th>Deprivation Group</th>
<th>Number of patients</th>
<th>Percentage of total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>211</td>
<td>10.3%</td>
</tr>
<tr>
<td>2</td>
<td>346</td>
<td>16.9%</td>
</tr>
<tr>
<td>3</td>
<td>464</td>
<td>22.6%</td>
</tr>
<tr>
<td>4</td>
<td>433</td>
<td>21.0%</td>
</tr>
<tr>
<td>5</td>
<td>599</td>
<td>29.2%</td>
</tr>
</tbody>
</table>

Table 1 – Table showing numbers of patients in deprivation groups 1-5 with N = 2053 patients.

Figure 1 – Graph to show percentage of referrals to Grampian Eating Disorder Service from 1994 till August 2009, classified according to Scottish Index of Multiple Deprivation Score (SIMD) from 2006 and grouped into quintiles.

Conclusions:
Although some postcodes were missing from the earlier referrals, the results from this project would suggest a higher proportion of the referrals made to the Grampian Service during this time were of patients from areas of least deprivation. This is in keeping with results obtained by Szmulker G. et al (1986) who also examined for relationships between eating disorders (specifically anorexia nervosa) and social class within an Aberdeen population. Although these findings are similar, it is important to understand that social class is measured purely on occupation (usually parental) however the SIMD scores account for 37 individual outcomes of which employment is one. It is therefore hoped that by using this scoring system, patient’s level of deprivation will be more accurately represented. There is a major limitation at this stage of this work which is that an underlying population number set of differences in deprivation bands could confound or even fully explain the results, though it appears unlikely that there would be such a consistent demographic difference. This possibility is being further investigated. Further work will also be required to look at the diagnostic breakdown of this cohort among other details of interest. It maybe however that these findings will be able to contribute further to the debate about social and cultural factors in the incidence of eating disorders.

References: