The epidemiology and repetition of hospital-treated self-harm in Irish children and adolescents: Findings from a national registry

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Background

- Suicidal behaviour in children and adolescents is a major health problem internationally.
- Suicide is a leading cause of death in young people (Eurostat, 2013).
- Rates of hospital-treated self-harm highest among adolescents and young adults (Griffin et al, 2014; Hawton et al, 2012).
- Not all self-harm cases present to health services (Ystgaard et al, 2009; Hawton et al, 2002; Pages et al, 2004).

Hospital-treated self-harm

- Much work has been done at community level (Madge et al, 2008; Morey et al, 2008; O’Connor et al, 2014) with hospital-based studies based on limited samples (Cassidy et al, 2009; Hawton et al, 2003; Hawton et al, 2012)

- Need to explore profiles of hospital-treated self-harm nationally, the provision of care, and challenges for reduction of risk of repetition

1. Incidence of hospital-treated self-harm in 10-19 year-olds
   2. Characteristics of self-harm presentation and aftercare
   3. Factors associated with repetition
Study design

Self-harm presentations to all EDs in Ireland across a 6-year period

Study period: 1 Jan 2006 to 31 Dec 2012

Sample: 10-19 year-olds

Definition:
- non-fatal outcome
- deliberately-initiated behavior (e.g. self-cutting; drug overdose)
- varying degrees of suicidal intent
- varying intentions (e.g. wish to die; relief from a state of mind; self-punishment)
Results

1. Incidence of hospital-treated self-harm in 10-19 year-olds

2. Characteristics and aftercare of self-harm

3. Factors associated with repetition
Self-harm in young people

• Over a six year period, 9,792 children and adolescents made 13,320 presentations
Results

1. Incidence of hospital-treated self-harm in 10-19 year-olds

2. Characteristics and aftercare of self-harm

3. Factors associated with repetition
Methods of self-harm

- Male 10-14yrs
- Male 15-19yrs
- Female 10-14yrs
- Female 15-19yrs

- Other
- Attempted drowning only
- Attempted hanging only
- Overdose & self-cutting
- Self-cutting only
- Drug overdose only
Aftercare of self-harm

NICE guideline 4.9.1.3: “all children or young people who have self-harmed should normally be admitted overnight to a paediatric ward...”

Bar chart showing the distribution of aftercare options for boys and girls.
Results

1. Incidence of hospital-treated self-harm in 10-19 year-olds

2. Characteristics and aftercare of self-harm

3. Factors associated with repetition
## Factors associated with repetition of self-harm

*\(p<0.05; **p<0.01; ***p<0.001\)

<table>
<thead>
<tr>
<th></th>
<th>Crude OR</th>
<th>95% CL</th>
<th>Adjusted OR</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Male</td>
<td>1.04</td>
<td>0.96-1.14</td>
<td>1.11*</td>
<td>1.01-1.22</td>
</tr>
<tr>
<td>Female</td>
<td>1.00</td>
<td>Ref</td>
<td>1.00</td>
<td>Ref</td>
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<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>10-14yrs</td>
<td>0.85*</td>
<td>0.74-0.97</td>
<td>1.19*</td>
<td>1.03-1.37</td>
</tr>
<tr>
<td>15-19yrs</td>
<td>1.00</td>
<td>Ref</td>
<td>1.00</td>
<td>Ref</td>
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<tr>
<td><strong>Method</strong></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Overdose</td>
<td>1.47***</td>
<td>1.35-1.60</td>
<td>1.23**</td>
<td>1.06-1.43</td>
</tr>
<tr>
<td>Self-cutting</td>
<td>0.53***</td>
<td>0.48-0.57</td>
<td>1.85***</td>
<td>1.61-2.13</td>
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<tr>
<td>Attempted hanging</td>
<td>0.86</td>
<td>0.72-1.02</td>
<td>1.28*</td>
<td>1.03-1.59</td>
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<tr>
<td>Attempted drowning</td>
<td>1.32</td>
<td>0.93-1.88</td>
<td>0.87</td>
<td>0.59-1.29</td>
</tr>
<tr>
<td><strong>Aftercare</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General ward</td>
<td>1.00</td>
<td>Ref</td>
<td>1.00</td>
<td>Ref</td>
</tr>
<tr>
<td>Psychiatric ward</td>
<td>0.92</td>
<td>0.83-1.01</td>
<td>1.56***</td>
<td>1.29-1.88</td>
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<tr>
<td>Refused admission</td>
<td>2.30***</td>
<td>1.98-2.69</td>
<td>1.26</td>
<td>0.84-1.89</td>
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<tr>
<td>Left without being seen</td>
<td>1.68**</td>
<td>1.18-2.41</td>
<td>1.02</td>
<td>0.86-1.22</td>
</tr>
<tr>
<td>Not admitted</td>
<td>1.28***</td>
<td>1.11-1.48</td>
<td>0.96</td>
<td>0.86-1.07</td>
</tr>
<tr>
<td><strong>Presentation sequence</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1&lt;sup&gt;st&lt;/sup&gt;</td>
<td>1.00</td>
<td>Ref</td>
<td>1.00</td>
<td>Ref</td>
</tr>
<tr>
<td>2&lt;sup&gt;nd&lt;/sup&gt;</td>
<td>0.51***</td>
<td>0.04-0.06</td>
<td>2.66***</td>
<td>2.37-2.99</td>
</tr>
<tr>
<td>3&lt;sup&gt;rd&lt;/sup&gt;</td>
<td>0.14***</td>
<td>0.11-0.17</td>
<td>3.90***</td>
<td>3.30-4.61</td>
</tr>
<tr>
<td>4&lt;sup&gt;th&lt;/sup&gt;</td>
<td>0.21***</td>
<td>0.17-0.27</td>
<td>6.63***</td>
<td>5.26-8.35</td>
</tr>
<tr>
<td>5&lt;sup&gt;th&lt;/sup&gt; plus</td>
<td>0.36***</td>
<td>0.27-0.47</td>
<td>18.30***</td>
<td>15.17-22.07</td>
</tr>
</tbody>
</table>
How many were assessed (2013 data)?

NICE guideline 4.9.1.1: “children and young people .... who have self-harmed should be triaged, assessed, and treated .....”

- 72% Received a psychosocial assessment
- 28% Didn't receive a psychosocial assessment
<table>
<thead>
<tr>
<th>Referrals for young people (2013)</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>33% outpatient appointment</td>
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<td>27% discharged home</td>
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<td>16% to general practitioner</td>
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<td>11% to community-based services</td>
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<tr>
<td>3% to psychological services</td>
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</table>
Discussion

• Over the 6-year period 2006-2012 there were 13,320 presentations made to hospital recorded by the Registry, involving 9,792 individuals

• Rate of self-harm among girls was 1.7 times as high as for boys

• 15% of boys and 13% of girls made at least one repeat presentation with self-harm within 1 year

• Psychiatric admission, self-cutting, and number of previous attendances associated with increased risk of repetition
Discussion

• Patterns of aftercare and repetition rates suggest a ‘gap’ in services

• There is need for uniform assessment and referral procedures, in line with international best practice, to ensure the most appropriate treatment
  • Targeted interventions for frequent repeaters (e.g. youth-focused DBT for those with a diagnosis of Borderline Personality Disorder)
  • Results highlight need for monitoring of medication availability (in particular paracetamol and minor tranquillisers)

• Extent of self-harm in community highlights need for school-based interventions for increased awareness and for engagement with health services
Thank You!

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