Suicide and self-harm: recent findings and future directions

Mental Health Research Group Seminar
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Suicide and self-harm

1. Context
2. Recent findings
3. Future directions
Context
Suicide in the UK

Age-standardised rates per 100,000 population

Males | Females

1991 | 2009
Suicide rates in young men

Figure 5: Trend in suicide rate for men aged 25-34 and 35-49
Death rates from Intentional Self-harm and Injury of Undetermined Intent, England
Suicide by region

Rate per 100,000 population by SHA
- Red: > 9.5
- Blue: 9.0-9.5
- Green: < 9.0

Regions:
- North West: 10.7
- North East: 9.9
- Yorkshire & the Humber: 9.3
- East Midlands: 9.5
- West Midlands: 8.9
- East of England: 8.9
- London: 9.0
- South West: 9.8
- South Central: 9.5
- South East Coast: 9.5
What causes suicide?

Suicidal Behaviour

Clinical factors
- Mental illness
- Physical illness
- Previous suicidal behaviour
- Drugs and alcohol
- Treatment

Psychological factors
- Problem solving
- Hopelessness
- Impulsivity
- Aggression

Constitutional factors
- Genes
- Neurodevelopment

Environmental factors
- Early life experience
- Life events
- Socio-economic conditions
- Societal attitudes
- Availability of methods

(Adapted from Gunnell and Lewis 2005)
Self-harm: Definition
Self-harm: Definition
Self-harm: Definition

Self-poisoning or self-injury irrespective of apparent motivation or medical seriousness
The epidemiology of self-harm

WHO Mental Health surveys
(Nock et al 2008)
-Lifetime prevalence was 9% for suicide ideation and 2.7% for suicide attempts

1 year prevalence in younger age groups (UK) around 11% for girls and 3% for boys (Hawton et al 2002).

Over 200 000 hospital attendances in England each year
Self-harm and suicide

(b) Suicide according to duration of follow-up
Recent findings
Suicide and mental illness

five year report of the national confidential inquiry into suicide and homicide by people with mental illness

AVOIDABLE DEATHS

December 2006
In-patient suicide
In-patient suicide
In-patient suicide

Post discharge suicide

In-patient rate per 100,000 in-year bed days

Post-discharge rate per 1,000 discharges

Year of death

Results

Suicide in alternative settings

Crisis resolution
Assertive outreach
Early intervention

Year
Frequency
Key service recommendations

- Removal of ligature points
- Assertive outreach
- 24-hour crisis team
- 7-day follow-up
- Non-compliance
- Dual diagnosis
- Criminal justice sharing
- Multi-disciplinary review
- Training in suicide risk management
The service study

• Did mental health services implement these recommendations?
• Did they make a difference?

Lancet 2012
Did mental health services implement the recommendations?

![Bar chart showing the number of trusts implementing recommendations from 1998 to 2006. The chart includes data for the years 1998 to 2006, with the number of trusts ranging from 0 to 80. The chart uses different colors to represent different levels of implementation: 0 (none), 1, 2, 3, 4, 5, 6, 7, 8, and 9 (all).]
Did the recommendations make a difference?

Suicide rate per 100,000

- 2003
- 2004
- 2005
- 2006

Green bars: 0-6 recommendations
Blue bars: 7-9 recommendations

* = significant difference p<0.05
Did the recommendations make a difference?

24-hour Crisis Team**
Dual Diagnosis policy**
Multi-disciplinary Review after suicide**

Suicide rate per 10,000 patients in contact (exact Poisson 95% CI)

Before | After | Before | After | Before | After | Before | After
--- | --- | --- | --- | --- | --- | --- | ---
9 | 10 | 11 | 9 | 10 | 11 | 12 | 13
Self-harm research

• MaSH (Manchester, since 1997, 36,000 episodes, 23,000 individuals)

• Multi-centre project (Manchester, Oxford, Derby, since 2000, 64,000 episodes, 38,000 individuals)
Trends over time

(a) Rate of self-harm per 100,000

- Oxford
- Manchester
- Derby
- Suicide (including open verdicts) in England

Trends over time

(i) % self-poisoning only
(ii) % both self-poisoning & self-injury
(iii) % cutting
(iv) % other self-injury
Self-harm and ethnicity

**Ethnic differences in self-harm, rates, characteristics and service provision: three-city cohort study**

Jayne Cooper, Elizabeth Murphy, Roger Webb, Keith Hawton, Helen Bergen, Keith Waters and Navneet Kapur

**Background**

Studies of self-harm in Black and minority ethnic (BME) groups have been restricted to single geographical areas, with few studies of Black people.

**Aims**

To calculate age- and gender-specific rates of self-harm by ethnic group in three cities and compare characteristics and outcomes.

**Method**

A population-based self-harm cohort presenting to five emergency departments in three English cities during 2001 to 2006.

**Conclusions**

Despite the increased risk of self-harm in young Black females fewer receive psychiatric care. Our findings have implications for assessment and appropriate management for some BME groups following self-harm.
Self harm - methods

The graph shows the proportion of people not repeating self-harm methods over time (in days). The key indicates different methods:
- Red: Other self-injury
- Green: Self-cutting
- Purple: Multiple methods
- Blue: Self-poisoning

- Other self-injury: 22% not repeating after 600 days
- Self-cutting: 32% not repeating after 600 days
- Multiple methods: 34% not repeating after 600 days
- Self-poisoning: 20% not repeating after 600 days
Interventions for self-harm

Distribution of time to repeat self-harm after index
censored at 1 year

Bar width = 30 days
Future directions
The Suicide Prevention Strategy for England 2012

Consultation on preventing suicide in England

A cross-government outcomes strategy to save lives
The Suicide Prevention Strategy for England 2002

• Reduce risk in high risk groups
• Promote population mental health
• Reduce availability of means
• Improve media reporting
• Promote research
• Improve monitoring
The Suicide Prevention Strategy for England 2012

- Reduce risk in high risk groups
- Promote mental health
- Reduce availability of means
- Improve care for the bereaved
- Improve media reporting
- Promote research and monitoring
Self-harm: longer-term management

Issued: November 2011

NICE clinical guideline 133
www.nice.org.uk/cg133
Working with people who self-harm

Health and social care professionals should:

• aim to develop a trusting and supportive relationship
• be aware of stigma and discrimination
• ensure that people are involved in decision-making about their care
• aim to foster people’s autonomy and independence
• aim to maintain continuity of therapeutic relationships
• ensure that information about episodes of self-harm is communicated sensitively to other team members.
Risk assessment tools and scales

Do not use risk assessment tools and scales to predict future suicide or repetition of self-harm.

Do not use risk assessment tools and scales to determine who should and should not be offered treatment or who should be discharged.

Risk assessment tools may be considered to help structure, prompt, or add detail to assessment.
Risk assessment tools and scales

risk scales predicting suicide following self-harm

0 2 4 6 8 10 12 14 16 18 20

BHS BHS SSI-W SSI-C BHS SUAS SIS SIS SIS

PPV %
Risk assessment tools and scales

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Interventions for self-harm

Do not offer drug treatment as a specific intervention to reduce self-harm.

Consider offering 3 to 12 sessions of a psychological intervention that is specifically structured for people who self-harm, with the aim of reducing self-harm. This should be tailored to individual need.
1.4 Per protocol repetition (last follow up)

<table>
<thead>
<tr>
<th>Study or Subgroup</th>
<th>Experimental</th>
<th>Control</th>
<th>Risk Ratio M-H, Random, 95% CI</th>
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<tbody>
<tr>
<td></td>
<td>Events</td>
<td>Total</td>
<td>Events</td>
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<tr>
<td>BROWN2005</td>
<td>13</td>
<td>45</td>
<td>23</td>
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<td>DUBOIS1999</td>
<td>8</td>
<td>43</td>
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<td>41</td>
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<tr>
<td>TYRER2003a</td>
<td>84</td>
<td>213</td>
<td>99</td>
</tr>
</tbody>
</table>

Total (95% CI): 675 / 648 = 100.0%  Risk Ratio: 0.76 [0.61, 0.96]

Total events: 172 / 211

Heterogeneity: Tau² = 0.03; Chi² = 11.36, df = 8 (P = 0.18); I² = 30%

Test for overall effect: Z = 2.35 (P = 0.02)
Interventions - Australia

Relative Risk Reduction 0.13 (NS)
Interventions - Iran

Relative Risk Reduction 0.42

(With thanks to Greg carter for the slide)
Dear [Name],

It has been a short time since you attended the Accident & Emergency Department. We know that this can be a difficult time so we wanted to drop you a line. If you wish you can write back and let us know how you are.

Your GP is [Name] and you can contact them on [Number]. Your care coordinator is [Name] and if things get difficult you can contact them on [Number]. You can talk to your care coordinator about any areas of your life that are causing you concern (e.g. money or housing problems), not just mental health issues.

Enclosed is another copy of the leaflet that we have put together to provide you with some information about other services that might be of interest to you. These include telephone support lines and support groups.

With best wishes,
Harm minimisation

If stopping self-harm is unrealistic in the short term:

• consider strategies aimed at harm reduction; reinforce existing coping strategies and develop new strategies as an alternative to self-harm where possible

• consider discussing less destructive or harmful methods of self-harm with the service user, their family, carers or significant others, and the wider multidisciplinary team

• advise the service user that there is no safe way to self-poison.
Harm minimisation

Alternatives (Pengelly 2008)

Decide not to self-harm for 10 min, monitor how it feels and what helps

Kick and punch something soft such as a pillow

Put rubber bands over your wrists and ‘snap’ them

Pinch yourself instead of cutting

Try physical exercise/exertion, such as walking, gardening, tidying

Slam doors, scream or sing loudly to music

Draw on your body with red markers or paint (as an alternative to seeing blood)

Squeeze ice for a short time
Extras on the website

Visit [www.nice.org.uk/guidance/CG133](http://www.nice.org.uk/guidance/CG133) for:

- the guideline
- ‘Understanding NICE guidance’
- costing report and template
- audit support and baseline assessment tool
- clinical case scenarios
- risk assessment podcast
- service user podcast.
The NICE self-harm pathway covers:

- planning of services
- general principles of care
- assessment, treatment and management
- longer-term treatment and management.
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