Frequent repeaters of self-harm: Findings from the Irish National Registry of Deliberate Self-Harm

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ESSSB 15,

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Background

- Hospital-treated self-harm is a significant health issue
  - In Ireland, approx. 12,000 cases per annum (Griffin et al, 2013)
  - In England 220,000 estimated attendances per annum (Hawton et al, 2007)
- Estimated median risk of non-fatal repetition of 16% within 1 year (Owens et al, 2002; Carroll et al, 2014)
- Risk of repetition greatest in the short-term (Cedereke et al 2005; Kapur, 2006)
- Repetition varies by age, method of self-harm and number of previous presentations as well as psychosocial vulnerabilities (Perry et al, 2012; Larkin et al, 2014)

Factors associated with repeated self-harm

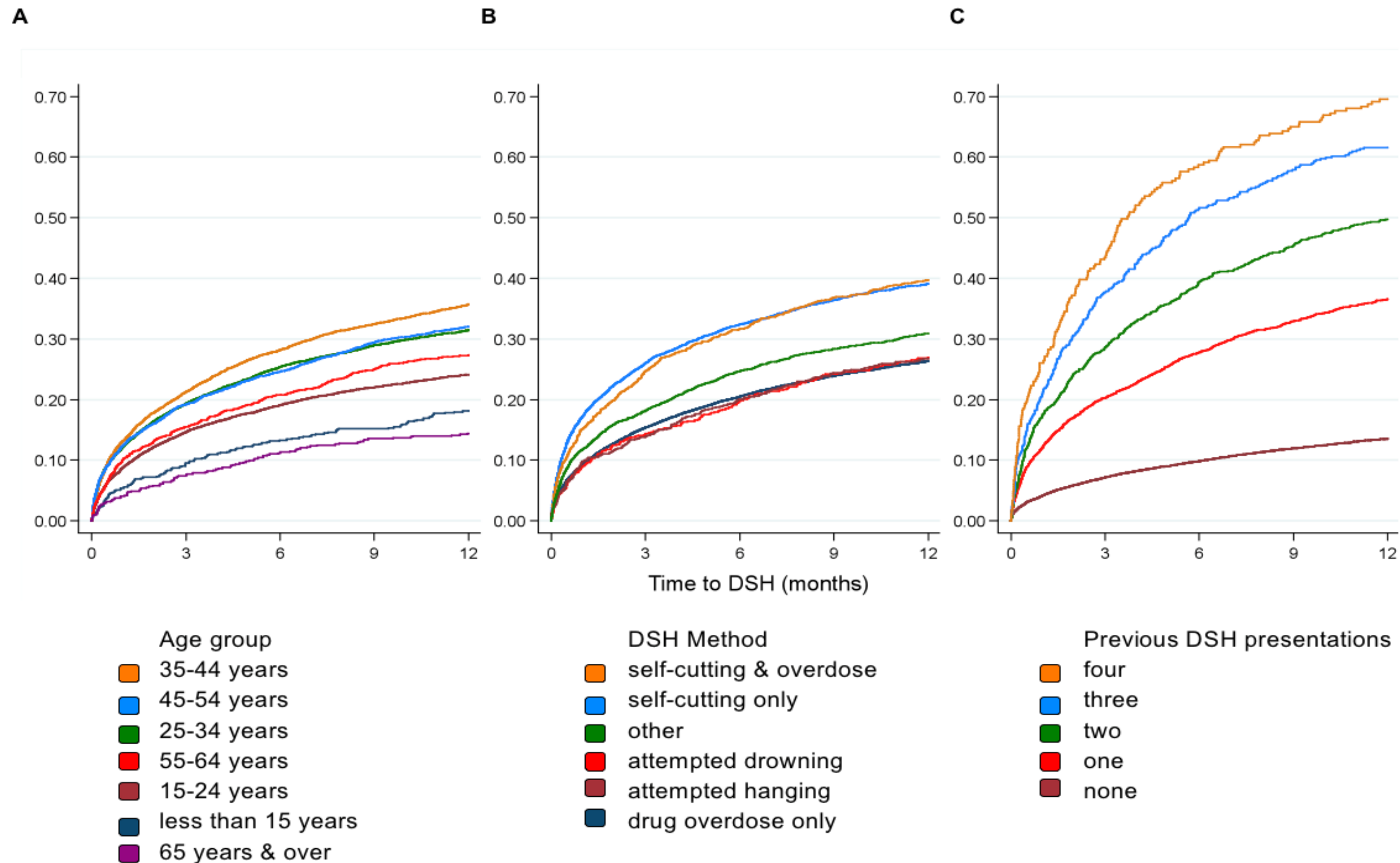


Figure 3: Kaplan-Meier failure curves showing the cumulative probability of a repeated deliberate self harm (DSH) presentation

Source: Perry et al (2012). The incidence and repetition of hospital-treated deliberate self-harm: Findings from the world's first national registry. Plos ONE.

Background

- Major / grand repeaters (5+ acts) (Kreitman & Casey, 1988; Kerkhof et al, 1998; Bergen et al, 2010)

- Frequent repeaters are a minority, but have a major impact on services and their environment (resource, concerns and economic) (Rodger & Scott, 1995; Haw et al, 2007)

- Sign of persistent distress
  - 60-80% of those with Borderline Personality Disorder engage in suicidal behaviour (Linehan et al, 2006)
  - Personality disorder as a risk factor for repetition (Mehlum et al, 1994; Haw et al, 2007; Larkin et al, 2014)

- Effectiveness of psychosocial assessment and person-based therapies (Hawton et al, 1998; Linehan et al, 2006; Bergen et al, 2010; Kapur et al, 2013)

Aims of research

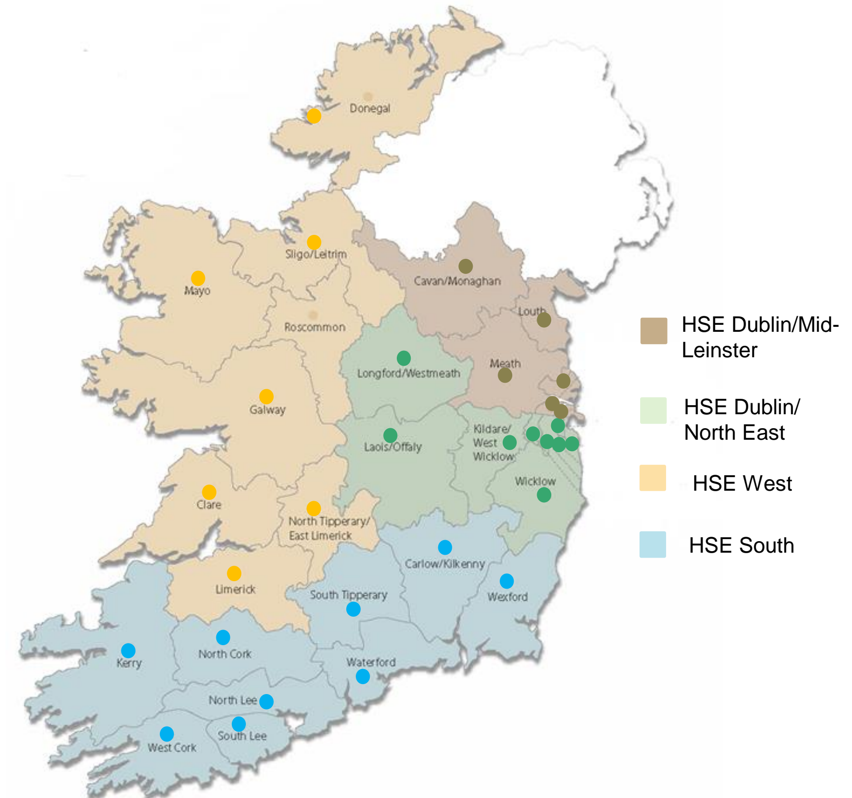
1. Quantify impact of frequent repeaters

2. Explore how patterns of self-harm change according to chronicity

3. Highlight a national health service response to issue of frequent repeaters

Setting: National Registry of Deliberate Self-Harm

- Republic of Ireland
- 4 Health Service Executive (HSE) regions
- 37-40 general hospital emergency departments operating 2004-2012
- Approximately 1.2m presentations annually (2012) (self-harm represents approx. 1%)
- Population: 4,593,300 (2012)



Definition of self-harm

‘an act with non-fatal outcome in which an individual deliberately initiates a non-habitual behaviour, that without intervention from others will cause self harm, or deliberately ingests a substance in excess of the prescribed or generally recognised therapeutic dosage, and which is aimed at realising changes that the person desires via the actual or expected physical consequences’.

(Platt et al, 1992)

- 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)

Repetition: Any repeat presentation to an emergency department following an index episode of self-harm (Perry et al, 2012)

Results

- Over the 8-year period 2004-2012 there were 101,904 presentations made to hospital recorded by the Registry, involving 63,457 individuals
- 55% (n=55,538) were female
- Drug overdose was the most common method of self-harm (72%, followed by self-cutting (22%)
- 14,755 (23%) individuals repeated at least once

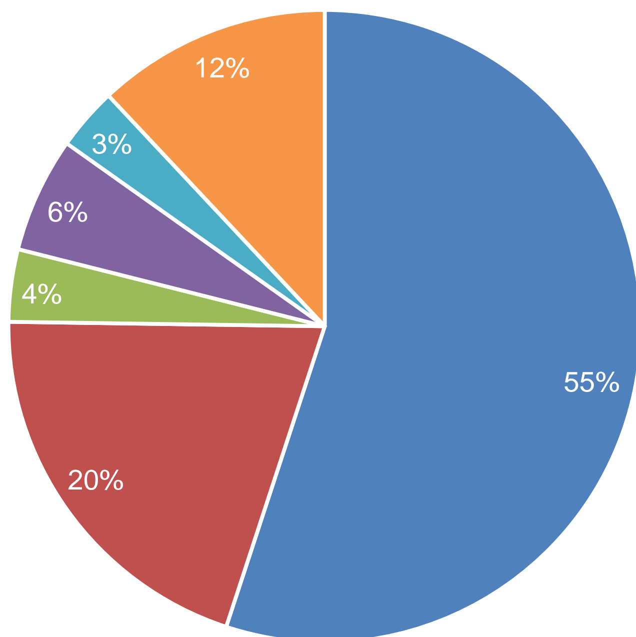
The extent of repeated self-harm presentations

No. of self-harm acts in 2004-2012	Persons (n=63,457)		Presentations (n=101,904)	
	Number	(%)	Number	(%)
One	48,702	76.7	48,702	47.8
Two	8,159	12.9	16,318	16.0
Three	2,809	4.4	8,427	8.3
Four	1,305	2.1	5,220	5.1
Five - Nine	1,854	2.9	11,620	11.4
10 or more	628	1.0	11,617	11.4

628 people made 11,617 self-harm presentations to hospital

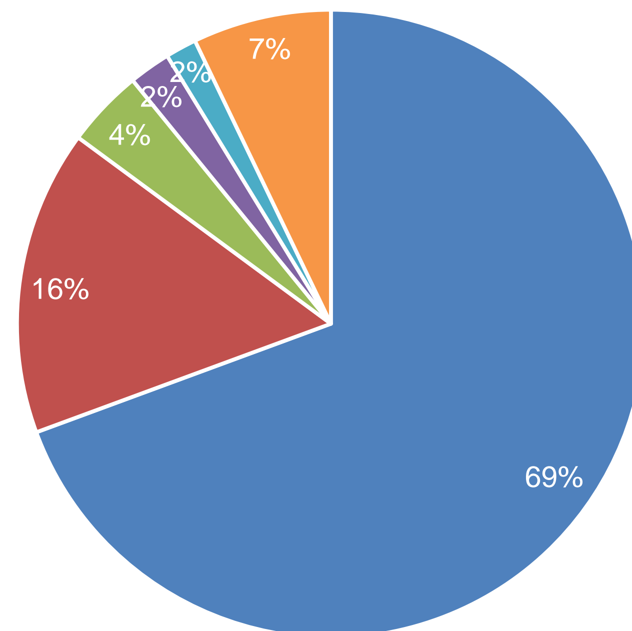
Method of self-harm
(n=101,904)

Men

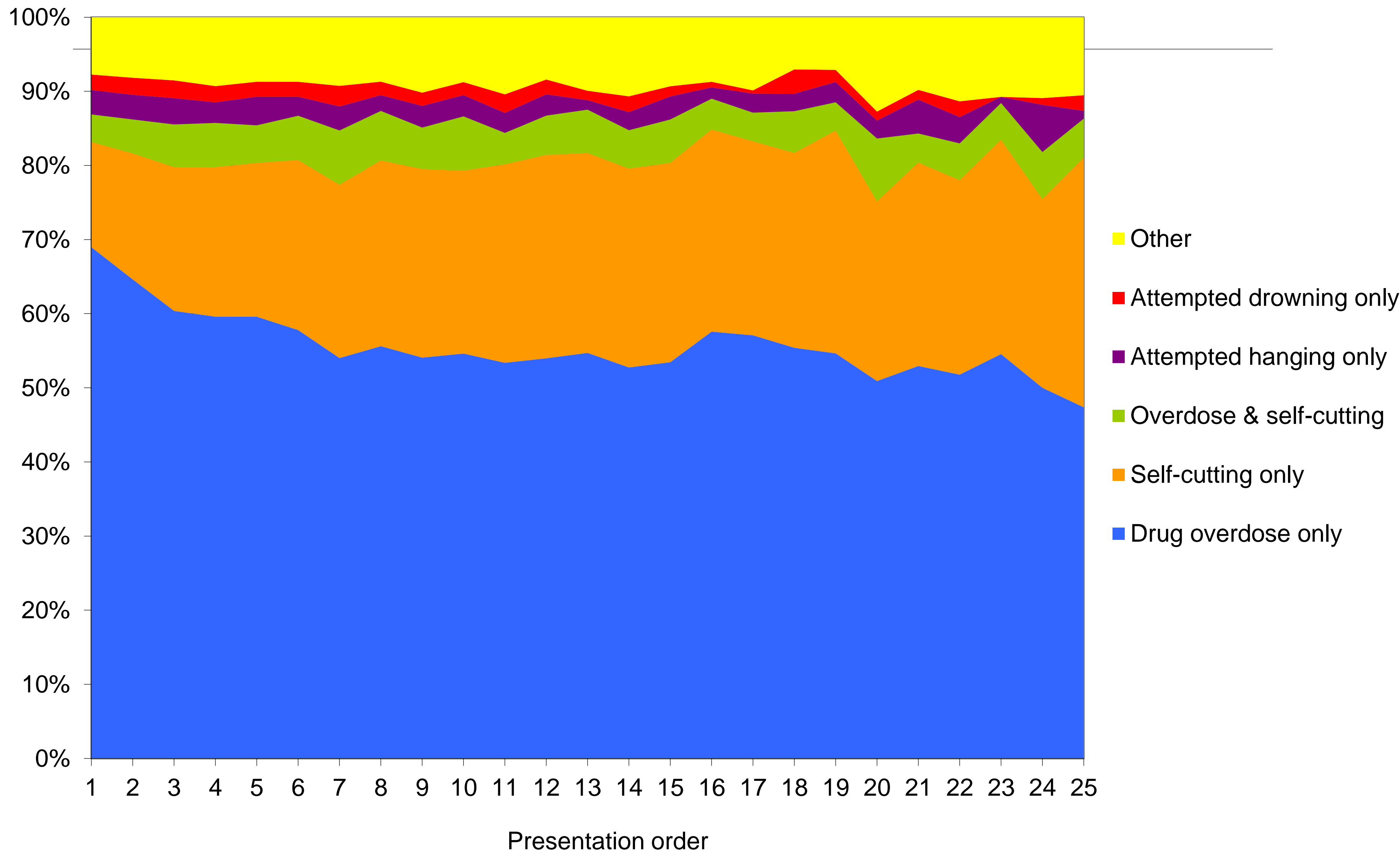


- Drug overdose only
- Self-cutting only
- Overdose & self-cutting
- Attempted hanging only
- Attempted drowning only
- Other

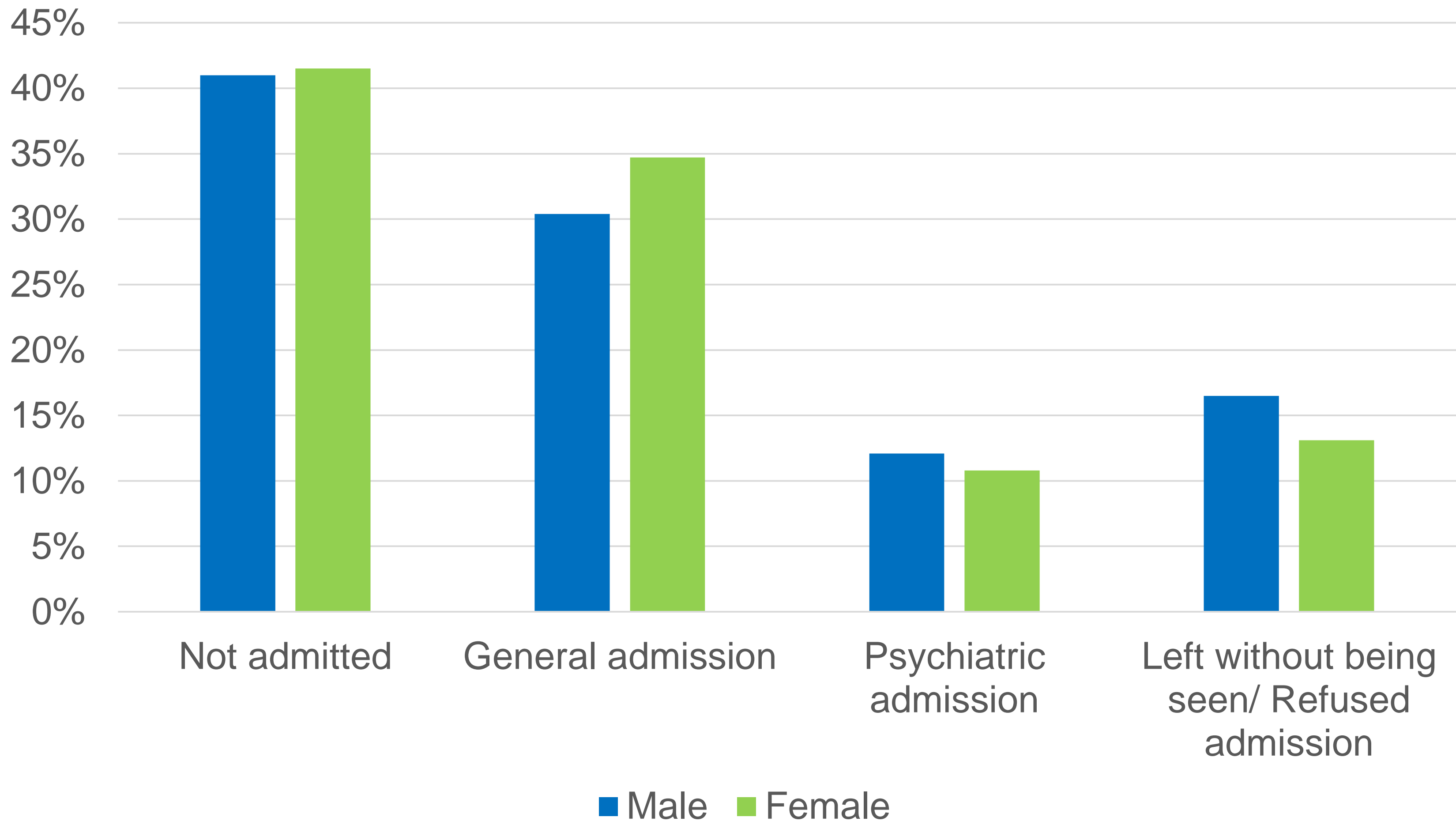
Women



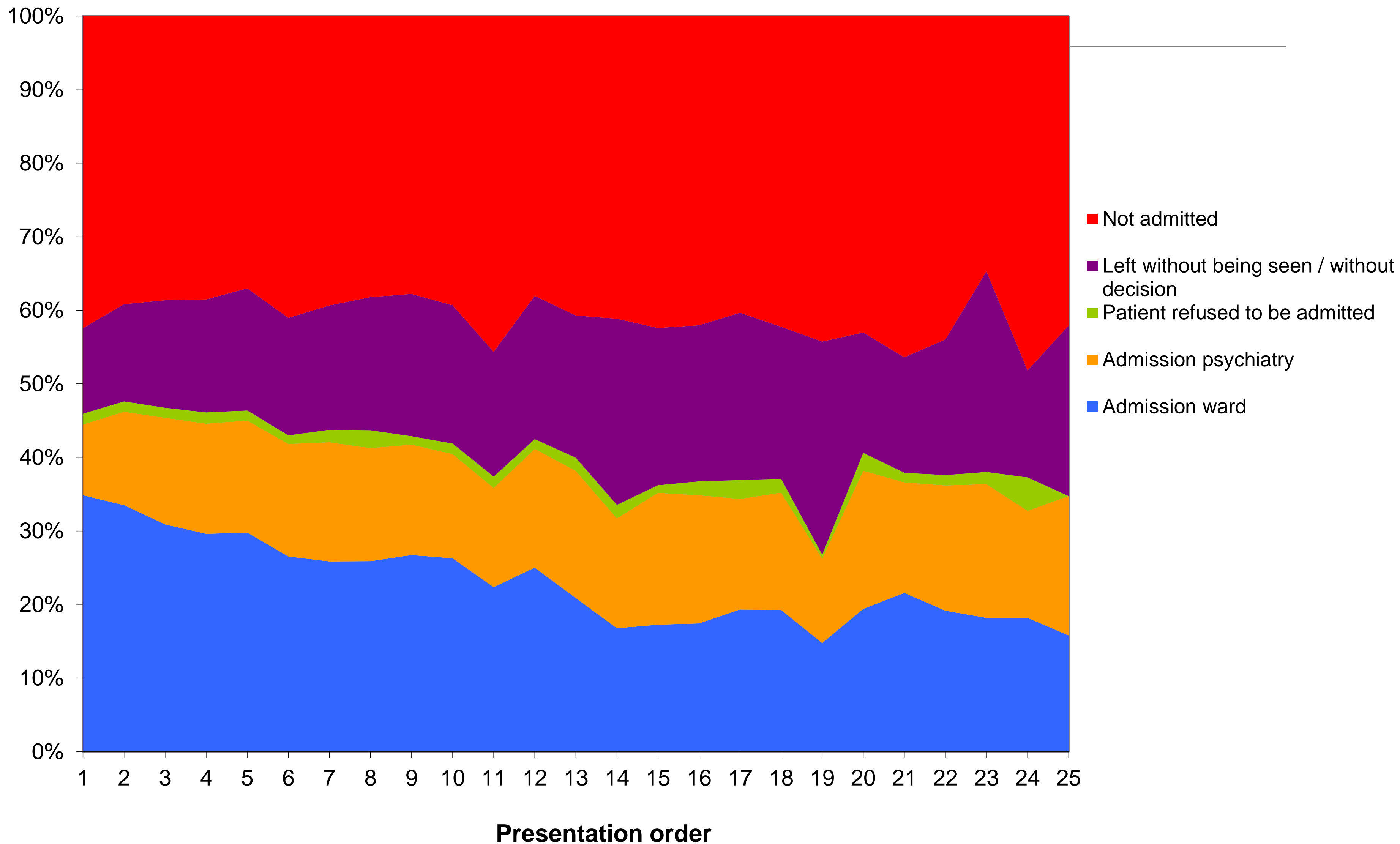
Alcohol was involved in 38% of all cases
(42% in men, 36% in women)


How method of self-harm changes with repeated presentation
(N=101,904)
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25
Presentation order
Other
Attempted drowning only
Attempted hanging only
Overdose & self-cutting
Self-cutting only
Drug overdose only

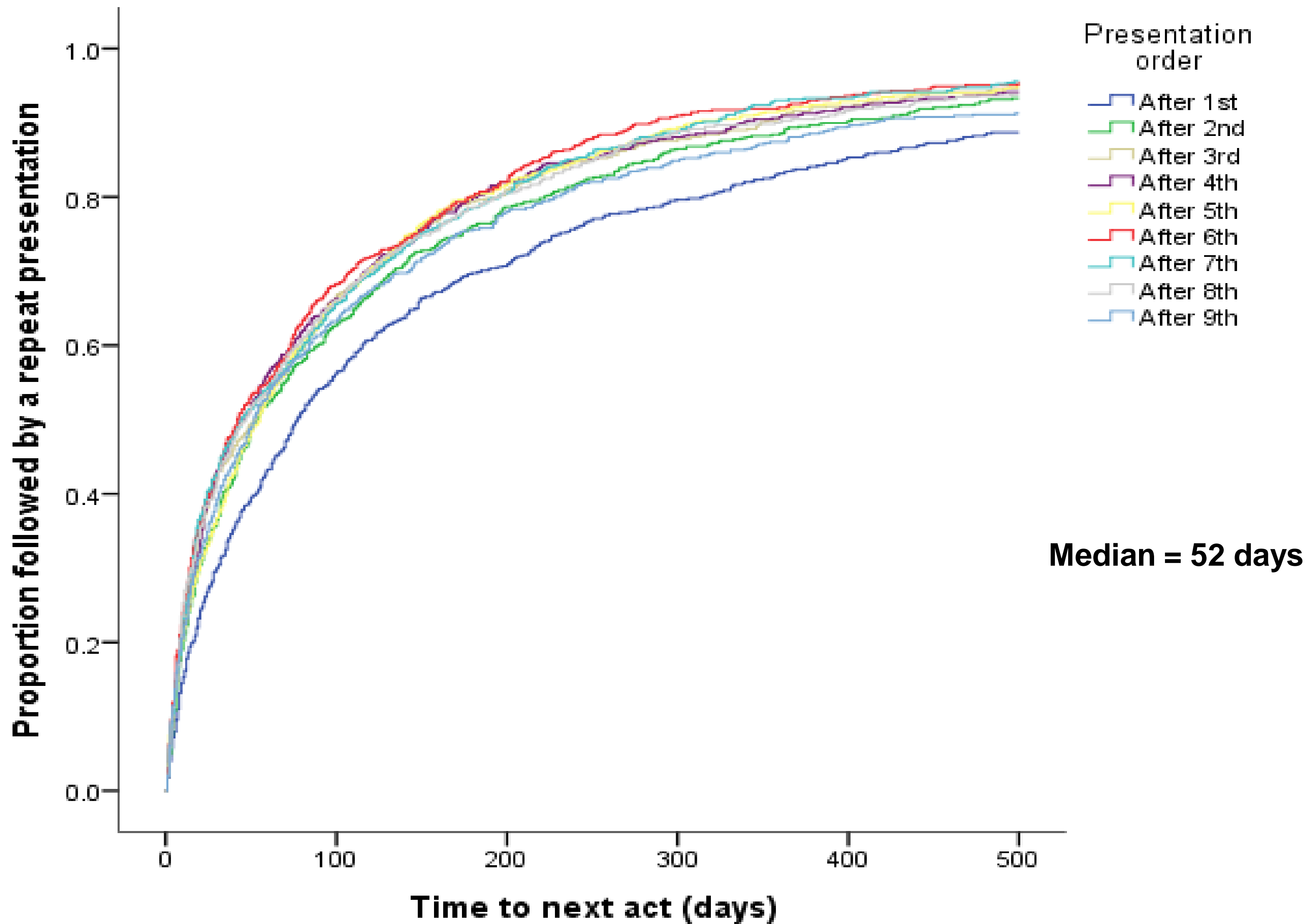
Aftercare of self-harm (N=101,904)



How aftercare of self-harm changes with repeated presentation



How time to next self-harm act changes with repetition (n=628)



Summary

- In an eight-year period, 628 people made over 11,000 presentations to hospital involving self-harm
- There was an association with self-cutting and repetition
- Frequent repeaters were less often admitted to hospital wards, and more likely to leave without a recommendation
- Time to next act was considerably short, with most repeating within 5 months
- The findings suggest that self-harmers are not a homogenous group

Dialectical behavioural therapy and suicidal behaviour

Papers

The difference may be partly accounted for by the factors that influence infectivity of the two viruses. Hepatitis B is much more likely to be transmitted from mother to infant if there is a high concentration of the virus in the mother's blood. This explains the ethnic differences that are observed—for example, the transmission rate is over 70% in Chinese women but less than 10% in white women. This ethnic difference does not seem to apply to hepatitis C infection.

Alcohol intake and obesity are both thought to be associated with more severe hepatitis C, although the exact interaction is unknown. Advanced liver disease, for example, is far worse in people infected with hepatitis C who also have a high alcohol intake than in those with a low intake. About half of patients with hepatitis B infections respond to interferon compared with 15% with hepatitis C. Ongoing trials of interferon and antivirals together may prove more fruitful. Although infection with hepatitis C virus does not necessarily cause abnormal liver function, precirrhotic damage confirmed by biopsy is one reason for starting treatment with interferon.

Abi Berger *Science editor, BMJ*

Deliberate self harm: systematic review of efficacy of psychosocial and pharmacological treatments in preventing repetition

Keith Hawton, Ella Arensman, Ellen Townsend, Sandy Bremner, Eleanor Feldman, Robert Goldney, David Gunnell, Philip Hazell, Kees van Heeringen, Allan House, David Owens, Isaac Sakinofsky, Lil Träskman-Bendz

Abstract

Objective: To identify and synthesise the findings from all randomised controlled trials that have examined the effectiveness of treatments of patients who have deliberately harmed themselves.
Design: Systematic review of randomised controlled trials of psychosocial and physical treatments. Studies categorised according to type of treatment. When there was more than one investigation in a particular category a summary odds ratio was estimated with the Mantel-Haenszel method.
Setting: Randomised trials available in electronic databases in 1996, in the Cochrane Controlled Trials Register in 1997, and from hand searching of journals to 1997.
Subjects: Patients who had deliberately harmed themselves shortly before entry into the trials with information on repetition of behaviour. The included trials comprised 2452 randomised participants with outcome data.
Main outcome measure: Repetition of self harm.
Results: 20 trials reported repetition of self harm as an outcome variable, classified into 10 categories. Summary odds ratio (all for comparison with standard aftercare) indicated reduced repetition for problem solving therapy (0.73; 95% confidence interval 0.45 to 1.18) and for provision of an emergency contact card in addition to standard care (0.45; 0.19 to 1.07). The summary odds ratios were 0.83 (0.61 to 1.14) for trials of intensive aftercare plus outreach and 1.19 (0.53 to 2.67) for antidepressant treatment compared with placebo. Significantly reduced rates of further self harm were observed for depot flupenthixol versus placebo in multiple repeaters (0.09; 0.02 to 0.50) and for dialectical behaviour therapy versus standard aftercare (0.24; 0.06 to 0.93).
Conclusion: There remains considerable uncertainty about which forms of psychosocial and physical treatments of patients who harm themselves are most effective. Further larger trials of treatments are needed.

Introduction

Prevention of suicide is now included in health policy initiatives in several countries, and reduction in suicidal behaviour, both fatal and non-fatal, is part of the Health for All targets of the World Health Organisation.[1] In the United Kingdom, reduction in the number of suicides is a central theme in the government's Health of the Nation strategy for England.[2] There is, however, a considerable lack of information as to which preventive strategies are effective.[3] Improvement of outcome after deliberate self harm is an important focus because at least 1% of patients presenting to general hospitals in the United Kingdom after deliberate self harm kill themselves within a year and 3-5% do so within 5-10 years. A history of multiple episodes of deliberate self harm is a particular risk factor.[4] Higher rates of suicide after deliberate self harm have been reported from other countries.[5,6] About half of all people who kill themselves have a history of deliberate self harm, an episode having occurred within the year before death in 20-25%.[7,8]

It would be difficult to investigate the effectiveness of intervention strategies after deliberate self harm in terms of subsequent actual suicides because extremely large populations of patients would be required. Repetition of deliberate self harm is, however, a reasonable proxy measure because of its strong associations with suicide. It is also in itself an important outcome because it occurs frequently,[9,10] indicates persistent distress, and results in considerable healthcare costs. Deliberate self harm is common in Europe[11] and in other parts of the world,[12,13] especially in young people. Recent marked increases in rates of deliberate self harm in the United Kingdom,[14,15] with a currently estimated 140 000 hospital referrals in England and Wales,[16] have highlighted the need for effective aftercare strategies.

Descriptive reviews of treatment outcomes in patients who deliberately harm themselves have been

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continued over

BMJ 1998;317:441–7

- Systematic Review of the Efficacy of Psychosocial and pharmacological Treatments in Preventing Repetition (Hawton et al, 1998; BMJ).
- DBT only psychotherapeutic treatment showing a significant reduction in self-harm

Target group: People with a history of multiple acts of self-harm who met the diagnostic criteria for Borderline Personality Disorder

Consistency of positive outcomes in applying DBT in different countries and settings

BEHAVIOR THERAPY 32, 371–390, 2001

Efficacy of Dialectical Behavior Therapy in Women Veterans With Borderline Personality Disorder

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REGULAR ARTICLES

Dialectical Behavior Therapy for Patients with Borderline Personality Disorder and Drug-Dependence

Marsha M. Linehan, Ph.D., Henry Schmidt III, M.A., Linda A. Dimeff, Ph.D., J. Christopher Craft, B.S., Jonathan Kanter, M.A., Katherine A. Comtois, Ph.D.

ORIGINAL ARTICLE

Two-Year Randomized Controlled Trial and Follow-up of Dialectical Behavior Therapy vs Therapy by Experts for Suicidal Behaviors and Borderline Personality Disorder

Marsha M. Linehan, PhD; Katherine Anne Comtois, PhD; Angela M. Murray, MA, MSW; Milton Z. Brown, PhD; Robert J. Gallop, PhD; Heidi L. Heard, PhD; Kathryn E. Korslund, PhD; Darren A. Tutek, MS; Sarah K. Reynolds, PhD; Noam Lindenboim, MS

Regular Article

Psychotherapy and Psychosomatics
Psychother Psychosom 2012;81:356–365
DOI: 10.1159/000338897

Effectiveness and Cost-Effectiveness of Dialectical Behaviour Therapy for Self-Harming Patients with Personality Disorder: A Pragmatic Randomised Controlled Trial

Stefan Priebe[a] Nyla Bhatti[b] Kirsten Barnicot[a] Stephen Bremner[a] Amy Gaglia[b] Christina Katsakou[a, b] Iris Molosankwe[c] Paul McCrone[c] Martin Zinkler[a]

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BRITISH JOURNAL OF PSYCHIATRY (2005), 182, 135–140

Dialectical behaviour therapy for women with borderline personality disorder

12-month, randomised clinical trial in The Netherlands

ROEL VERHEUL, LOUISE M. C. VAN DEN BOSCH, MAARTEN W. J. KOETER, MARIA A. J. DE RIDDER, THEO STIJNEN and WIM VAN DEN BRINK

Outcomes initial DBT programme implemented in the North Lee Adult Mental Health Services – Endeavour Programme

(Flynn and Kells, 2013)

- Following 12 months DBT intervention:
  - Reductions in self-harm repetition, symptoms of BPD, depression and hopelessness
  - Reductions in ED visits (49 to 0), in-patient admissions (12 to 1) and bed days (207 to 1)
- Project expanded to 16 community mental health teams over 2 years

Discussion

- Non-fatal repetition of self-harm remains a real clinical challenge
  - Impact on both services and environment

- Patterns of aftercare and timing of acts suggest ‘a gap’ in services for frequent repeaters

- All self-harm patients presenting to the ED should receive a comprehensive assessment and tailored treatment
  - Screening for suicide risk

Thank You!

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NSRF

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