



Self-Harm in Manchester 2003-2005

Document Version

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Citation for published version (APA):

Murphy, E., Dickson, S., Donaldson, I., Healey, M., Kapur, N., Appleby, L., & Cooper, J. (2006). *Self-Harm in Manchester 2003-2005*. University of Manchester.

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The MaSH Project

Self-Harm in Manchester

1st September 2003 to 31st August 2005

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Acknowledgements

We wish to thank staff in the Emergency Departments, mental health liaison teams and other psychiatric staff for their contributions to the project. We would like to specifically thank Dr Frank Margison and Dr Damien Longson (staff at the Manchester Mental Health and Social Care Trust) for their continued support.

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Price: £5.00

Publication date: January 2007

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The MaSH Project

Introduction

Self-harm greatly increases the risk of subsequent suicide and the monitoring of self-harm is part of the National Suicide Prevention Strategy in England (Department of Health, 2002). Locally monitoring enables us to measure the effectiveness of changes within the service and other interventions that impact on this group of patients.

The Manchester Self-Harm (MaSH) Project is a city-wide collaboration between the University of Manchester and local hospitals. The project is funded by the Manchester Mental Health and Social Care NHS Trust. It began in April 1997 and data collection commenced in September 1997.

Aims

1. To monitor patterns of self-harm following presentation at three Emergency Departments (EDs) within the three participating Trusts of:
 - Central Manchester University and Childrens' Hospitals NHS Trust (at Manchester Royal Infirmary - MRI)
 - Pennine Acute Hospitals NHS Trust (at North Manchester General Hospital - NMGH) and
 - South Manchester University Hospitals NHS Trust (at Wythenshawe Hospital).
- To evaluate self-harm services
- To provide evidence on which service development and training may be based
- To provide an infrastructure for further research on patterns of self-harm and their clinical management

Method

In each participating hospital, data collected includes:

- Patient data- e.g. demographic characteristics, psychiatric history, details of self-harm episode, precipitating events, method of self-harm, mental state and suicidal intent
- Service data- e.g. risk assessment, communication with GP, follow-up arrangements

Upon each patient presenting at an ED with self-harm, a standard, brief assessment form containing the above items is completed. In addition, the mental health specialist who carries out the first full psychiatric assessment on this group of patients completes a more detailed assessment form.

The Two Year Report

Because this is a two year report, some further explanation of a number of points is necessary to make the findings easier to interpret.

1. The first episode for each individual during each year (Year 7 (1.9.03-31.8.04) and Year 8 (1.9.04-31.8.05)) was used to calculate rates of self-harm per 100,000 of the Manchester population.
2. For reports for the three separate trusts, index episode is the first chronological episode within the 2 year study period.
3. All clinical and some socio-demographic data is necessarily based on individuals who had an assessment completed. Therefore, 'individual' in this context refers to the first episode where an individual had an assessment form completed in preference to no form or 'Did Not Wait' (DNW) across the 2 year study period.
4. Demographic data (i.e. date of birth and gender) have been recorded on all episodes regardless of treatment status including patients that DNW since 1st September 2002.

Summary of Findings across All Participating Trusts

'All Participating Trusts' refers to combined data from three Emergency Departments (EDs) within Central Manchester University and Childrens' Hospitals NHS Trust (at Manchester Royal Infirmary - MRI), Pennine Acute Hospitals NHS Trust (at North Manchester General Hospital - NMGH) and South Manchester University Hospitals NHS Trust (at Wythenshawe Hospital).

MaSH Year referred to in the report and corresponding report period

Year 7:– 1st September 2003 until 31st August 2004

Year 8:– 1st September 2004 until 31st August 2005

Episodes, individuals and assessment rates

A total of 3488 episodes presented to the three EDs in Year 7 and 3149 episodes in Year 8. This represents a 6% increase and a 4% decrease respectively compared with the 3283 episodes in Year 6 (2002/3). The total number of individuals presenting represented a 0.4% increase (n = 2679 in Year 7) and 6% decrease (n = 2495 in year 8) compared to Year 6 (n = 2667).

Over the two year report period 78% of episodes received an assessment from either ED clinicians or mental health specialists (excluding those that did not wait for treatment). Assessments by mental health specialists accounted for 44% of these assessments.

Rates

Annual rates of self-harm in Manchester (based on individuals) have shown a recent decrease (452 per 100,000 in Year 8 compared to 496 per 100,000 in Year 7 and 501 per 100,000 in Year 6). However the number of episodes of self-harm presenting to the EDs, and therefore the burden on clinical services, remains high.

Rates by age and sex have shown rates to be highest in females aged 15-19 years. Rates peaked again for both genders aged 30-44 yrs before steadily declining in older age groups.

Repetition

Based on all individuals with an initial presentation during Year 7 (allowing a follow-up period into year 8) 6% of individuals repeated within 1 month, 14% repeated within 6 months and 17% repeated within 12 months of their first presentation. Therefore individuals who repeat self-harm are likely to repeat sooner rather than later after initial presentation.

Self-report measures of self-harm indicated that 56% of individuals had previously self-harmed, with or without medical treatment, within their lifetime.

Repetition rate was highest following self-cutting as a method of harm at first presentation than other methods. (12 month repetition rate: 24% for self-cutting; 16% for self-poisoning).

Sociodemographic characteristics: individuals at index episode from Sept 03 – Aug 05

58% of the self-harm cohort were female.

12% were from non-white ethnic backgrounds, the largest ethnic minority group being those of South Asian origin (Indian, Pakistani or Bangladeshi) (5%).

A large proportion of the self-harm cohort were unemployed (37%).

Alcohol misuse

Alcohol misuse was common. The majority of individuals were assessed for their current alcohol use and 27% were classed as abusing alcohol i.e. current harmful use or drinking 7 or more units a day. Temporal data shows an underlying trend of rising levels of alcohol misuse.

The use of alcohol in conjunction with the self-harm episode was also common, particularly for males. 54% of episodes involved the use of alcohol at the time of self-harm (63% for males, 48% for females).

Method of Harm

Self-poisoning by drugs was the most common method of self-harm, being the main method of harm in 80% of episodes. 16% of episodes involved self-cutting and 3% of episodes involved other methods of self-injury (such as drowning and asphyxiation).

Drugs used in self-poisoning episodes:

The most frequently used class of drug in self-poisoning episodes was paracetamol compounds (51%), 70% of these being pure paracetamol.

Sub-group differences in type of drug taken:

- <25 year olds were more likely to use paracetamol preparations
- 25-55 year olds were more likely to use antidepressants
- 55+ years were more likely to use benzodiazepines than other age group
- there was an age and gender interaction for benzodiazepine overdose with benzodiazepine overdose being most common in females over 45 years and in males under 35 years.

Time of Presentation

The highest number of presentations occurred in the evening, peaking between the hours of 10pm and 12am. Analysis by day of week showed that slightly more presentations occurred on a Sunday and Monday.

Management of self-harm episodes

The proportion of those admitted to general hospital from ED (including short stay wards) varied by Trust and method of harm. Medical admission was highest where method of harm was self-poisoning which may reflect the potential lethality associated with poisoning by drugs.

Implications

Overall population-based rates of self-harming individuals per 100,000 in Manchester have fallen in the last two years although it is too early to discern a trend.

Repetition occurs soon after the index episode. This suggests the need for early intervention and immediate referral for specialist psychosocial assessment for those most at risk.

Out-of-hours services should be available, possibly with the introduction of late evening/early hours of the morning shift.

Alcohol misuse is high, indicating the need for treatment of alcohol dependency in particular by referral to alcohol services. For those individuals with high alcohol misuse who do not reach the attention of psychiatric services, the provision of educational material which is readily available in the emergency department may be of benefit.

ALL PARTICIPATING TRUSTS

Source of Forms and Response Rate

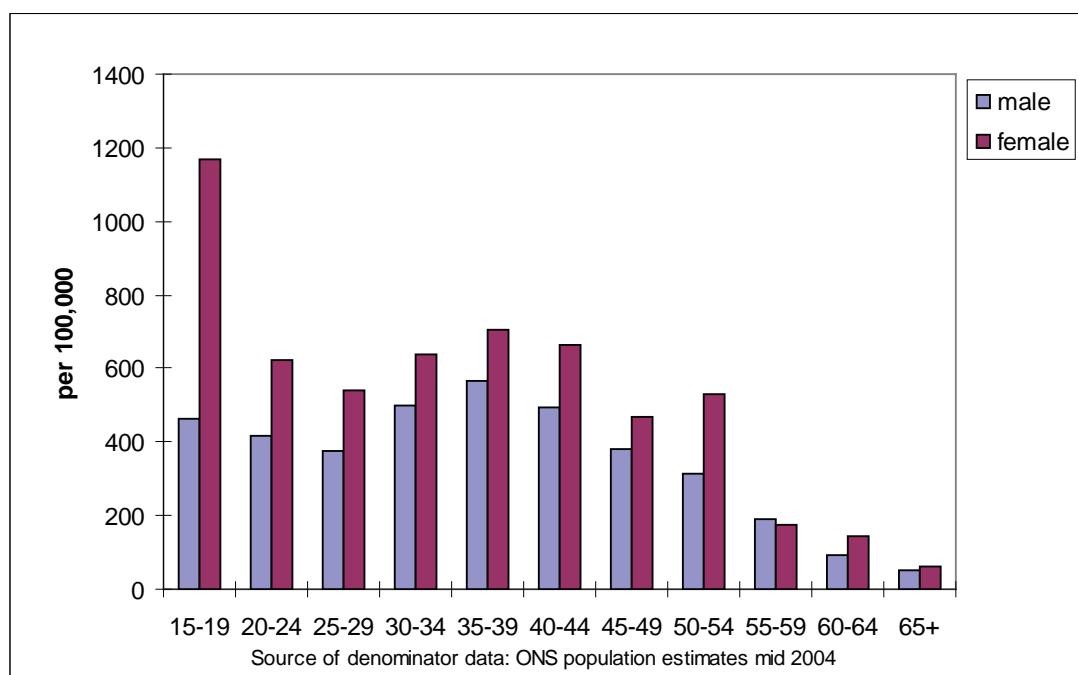
	YEAR 7 1 st Sept 03 – 31 st Aug 2004	YEAR 8 1 st Sept 04 – 31 st Aug 2005
	TOTAL	TOTAL
Number of episodes with forms	2404	2396
Number of episodes without forms	758	561
Number of episodes did not wait (DNW)	326	192
Total number of episodes	3488	3149
Total number of ED forms	1851	1814
Total number of Psychiatric forms	1311	1410
Total number of individuals	2679	2495

Annual rates of self-harm in Manchester per 100,000 population aged 15 years and over

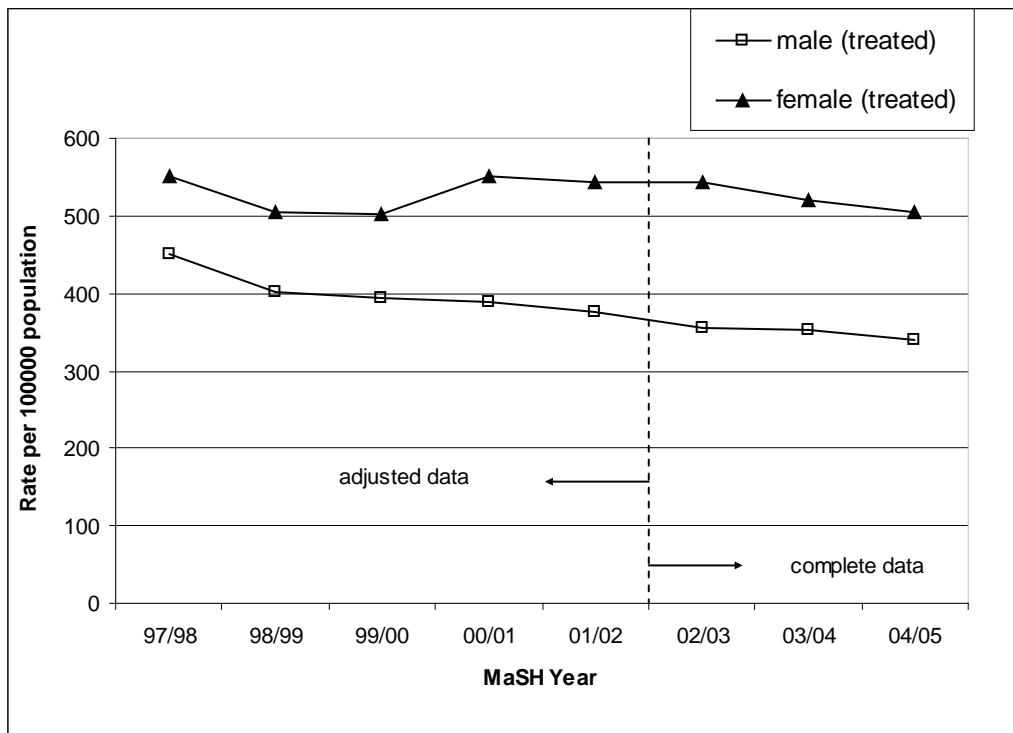
	MaSH Year 6 01.09.02- 31.08.03	MaSH Year 7 01.09.03-31.08.04	MaSH Year 8 01.09.04-31.08.05
Overall rate	501	496	452
Females	575	584	534
Males	423	405	368

NB Rates per 100,000 population are based on the index (first chronological) episode for each individual presenting to any of the three ED's in Manchester following self-harm, including patients who did not wait, who resided within the Manchester postcode area. Year 6 figures have been revised since the previous report but this does not change the year by year trends.

Average Rates of Self-harm in Manchester 1st Sept 2003/ 31st Aug 2005 by sex and age 15 years and over (n=3138)

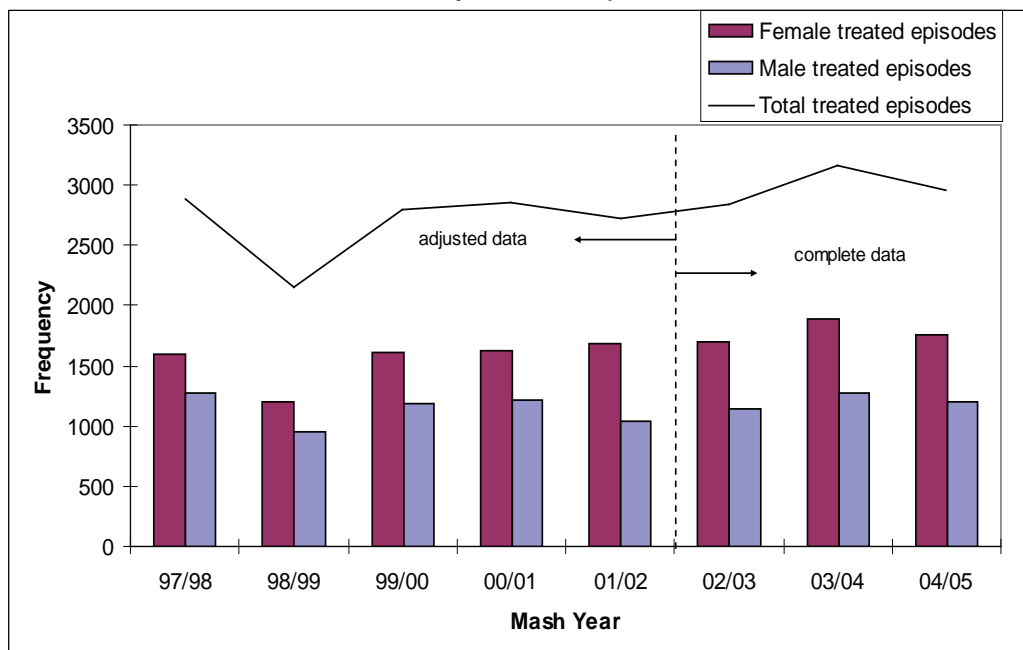


Sept 1997 – Aug 2005, Rates of treated self-harm individuals, 15 years and over in Manchester (3 year moving average)



Source of denominator data: ONS midyear population estimates. NB Rates were factored up by 1.3 prior to September '02 to take account of non-response rate.

Sept 1997 – Aug 2005. All treated episodes of self-harm at EDs (MRI, NMGH & Wythenshawe)



NB Rates episodes factored up by 1.3 prior to September '02 to take account of non-response rate.

Self-Harm and Suicide Rates:

Rates of self-harm appear to be declining (3-year moving averages). This corresponds to the trend of decreasing suicide rates within Manchester during this period (ONS, 2006).

Rates of self-harm and number of treated episodes:

Numbers of treated episodes at the EDs are increasing (see all treated episodes of self-harm). Since 2001/2 the number of treated episodes has risen by an average of 12% during the current report period (2003/5). Although rates of self-harm are declining slightly, an increase in episodes of self-harm means that the overall burden on clinical services is still high. It may be that the discrepancy between rates of self-harm (based on individuals) and total number of episodes of self-harm is accounted for by increasing repetition of self-harm.

Multicentre Comparison of Rates of Self-Harm (Hawton et al, 2006)

Rates of self-harm were higher in Manchester than in Oxford and Leeds and reflect differences in suicide rates.

Annual rates per 100,000 population for 2000/1 were:

Manchester:	Females = 587	Males = 460
Oxford:	Females = 342	Males = 285
Leeds:	Females = 374	Males = 291

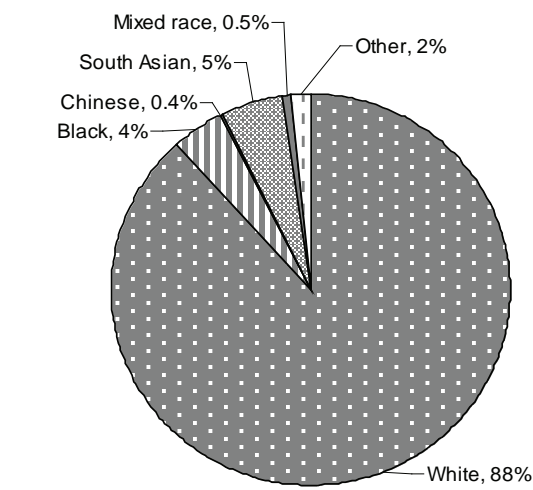
Social and Demographic Characteristics of Self-Harming Individuals (data on individuals by index episode from Sept 03 - Aug 05)

Based on index episode across the two year study period, 4908 individuals presented with self-harm. 390 individuals (8%) did not wait (DNW) and did not return to be treated.

Age and Gender	N (Valid cases) 4879	58% female	Mean age 32 years, ranging from 7 to 95 years.	The group of patients with the highest frequency of self-harm were aged 15-19 years for females and 20-24 years for males although frequency was high in males from aged 20-39 years
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Additional socio-demographic information was available for 3772 individuals who had completed forms. Data was also acquired directly from hospital records for some cases without forms.

Ethnicity of individuals presenting to NMGH, MRI and Wythenshawe (n=3876)



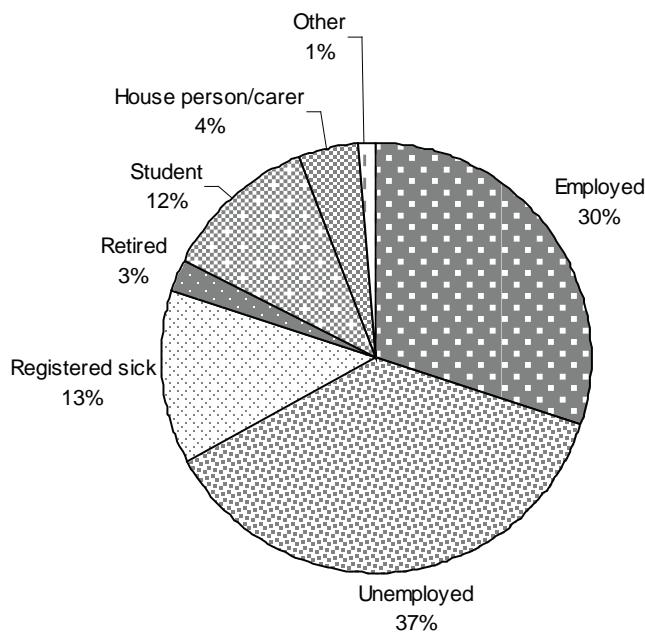
Ethnic groups other than white formed 12% of the Manchester self-harm population, the largest group being those of South Asian origin (Indian, Pakistani or Bangladeshi) who made up 5% of the sample. This compares to 19% of the general population of Manchester being from non-white ethnic groups, with 9% being South Asian.

► In some respects the figure of 5% for those of South Asian origin suggests that South Asians may be underrepresented in the self-harm population attending EDs. However a recent MaSH research paper (Cooper et al, 2006) found that young South Asian women aged 16-24 had the highest population based rates of self-harm compared to any other group.

Marital Status and Living Circumstances

Marital and Living Circumstances	N (Valid cases) 3638	Most patients were single (57%), 13% were separated or divorced, 2% were widowed and 28% were married or partnered. 22% lived alone and 22% with a parent/sibling. 5% were homeless or lived in hostels/lodgings.
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Employment status of individuals presenting to NMGH, MRI and Wythenshawe (n=3637)



Multicentre Comparison
 Unemployment in the Manchester self-harm cohort was more than twice as high as in Oxford (Hawton et al, 2006). This probably reflects higher rates of unemployment in the general population of Manchester.

Clinical Characteristics of Self-Harming Individuals (data on individuals by index episode with completed forms, Sept 03 - Aug 05 (n = 3772))

Current and Previous Psychiatric Treatment:

The psychiatric history was known in 3547 individuals (94% of individuals assessed). 39% of these were receiving current psychiatric treatment (including treatment by GP) and a further 15% had received psychiatric treatment in the past.

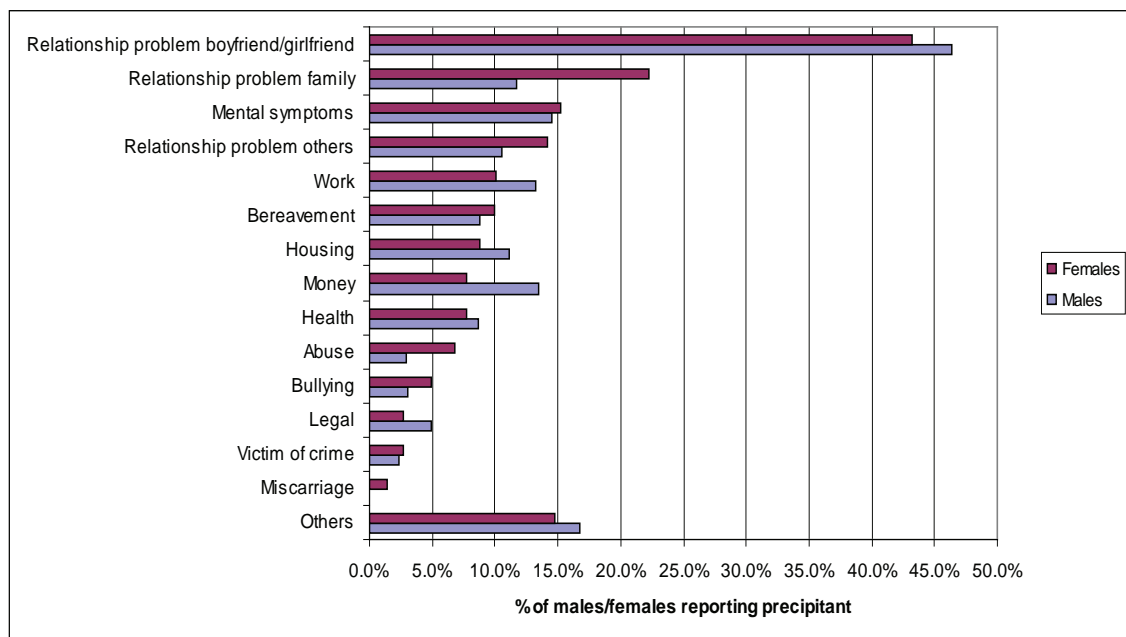
Alcohol and Substance Misuse:

3512 individuals (93% of those with forms) were assessed for their use of alcohol and 27% of these (35% of males and 21% of females) were classified as abusing alcohol i.e. current harmful alcohol use or drinking 7 or more units a day. 3531 individuals (94% of those with forms) were assessed for their use of street drugs and 15% of these (22% of males and 10% of females) were classified as misusing drugs (use on a regular basis or classified as harmful use by a clinician). Analysis of all episodes revealed alcohol to be used at time of self-harm in 54% of cases (63% for males, 48% for females).

Previous research based on MaSH data has shown that high alcohol use is an independent predictor for further self-harm and subsequent suicide (Cooper et al, 2005).
 MaSH research has also shown that drug misuse specifically in females has been identified as a risk factor for repetition of self-harm (Kapur et al, 2006).

Precipitants of Self-Harm:

Precipitants of self-harm by individuals at MRI, NMGH and Wythenshawe (n = 3353)



In 3353 cases (89% of those assessed) a precipitant to the act of self-harm was known. 41% of these cases reported more than one precipitant. The most frequent reasons given as precipitating factors in both sexes were interpersonal problems. In line with previous years relationship problems with a partner were the most frequently reported precipitants of self-harm. There were some gender differences: females tended to report relationship problems with family and others and more problems with abuse. Males reported more relationship problems with a partner, work, housing and money problems.

South Asian females were more likely to report interpersonal problems with their family than white women (Cooper et al, 2006).

A recent MaSH audit (Murphy et al, 2006) found that adolescents up to 18 years reported relationship problems with family as the most common precipitant to self-harm.

Evidence of mental disorder: clinical impression at time of assessment

Information on the presence or absence of psychiatric disorder was available for 999 individuals (45% of individuals assessed by mental health specialists). Probable depression was identified in 23% of these. Alcohol or drug misuse was evident in 18% and a further 6% were assessed as being alcohol dependent. 10% had probable anxiety/stress related disorders, 3% percent of individuals were likely to have had a severe mental illness (schizophrenia, bi-polar disorder or psychotic depression) and a further 2% were diagnosed with personality disorders. 34% had no psychiatric disorder evident at time of assessment.

- ❖ In previous years specialist mental health staff recorded a psychiatric disorder in very few individuals. This may have reflected a reluctance to record a diagnosis on the basis of a single assessment. Following consultation with clinical teams the number of individuals with a psychiatric diagnosis has now increased.

Repetition of Self-Harm

Self-reported previous self-harm:

3605 individuals were assessed for self-reported previous self-harm. 2036 individuals (56%) reported previous self-harm with or without medical treatment. Of these 30% (1095) reported self-harming within the last year.

Percentage of repeat episodes:

From September 2003 to end of August 2005 a total of 4908 individuals presented with 6637 episodes, this means that 1 in 4 episodes were repeat presentations of self-harm (1729, 26%). For males the percentage of repeat episodes was 24%, and for females this was 28%.

Percentage of Individuals repeating:

Considering the proportion of individuals who re-presented at least once to an ED within the whole study period, in total 16% (744 out of 4908) repeated.

Repetition rates provided a better measure of repetition based on the proportion of individuals repeating within a fixed time period since their index episode:

6 month repetition rate

6 month repetition could be calculated on all 2681 individuals on the MaSH database for Year 7 (1st September 2003 – 31st August 2004) allowing all individuals a 6 month follow-up period (up to 1st March 2005). Of these 14% (372) re-presented with an episode of self-harm within 6 months of their first episode.

For Year 8 (1st September 2004 – 31st August 2005) there were 1209 individuals for whom six month repetition could be calculated (index episode before the 1st March 2005 i.e. allowing all individuals a 6 month follow-up period) . Of these 17% (202) re-presented with an episode of self-harm within six months of their first episode.

12 month repetition rate

Repetition rate within 12 months of index episode could be calculated for individuals who presented during Year 7 (allowing a full 12 months follow-up period during Year 8). There were 2681 individuals who presented during Year 7 of which 17% (459) re-presented with an episode of self-harm within twelve months of their first episode.

- ❖ The majority of individuals who repeat do so sooner rather than later (6% repeated within 1 month, 14% repeated within 6 months and 17% repeated within 12 months of their first presentation in Year 7).

The repetition of suicidal behaviour, Kapur et al (2006)

A recent MaSH paper examined the timing of repetition in more detail and showed that repetition occurs soon after index episode:

- 1 in 10 repeaters repeat within 5 days of index episode
- 1 in 3 repeaters repeat within 1 month of index episode

Therefore prompt aftercare might be effective in reducing repetition.

The Manchester Self-Harm Rule (Cooper et al, 2006) (see Recent Research, pg 23)

The MaSH data has been used to derive a four-question rule which identifies patients at higher risk of repetition of self-harm or suicide within a 6 month period:

- i) any history of self-harm
- ii) previous psychiatric treatment
- iii) benzodiazepine use in this attempt
- iv) any current psychiatric treatment.

Repetition by Method of Self-Harm

Based on 12 month repetition rate of all 2681 individuals presenting during Year 7:

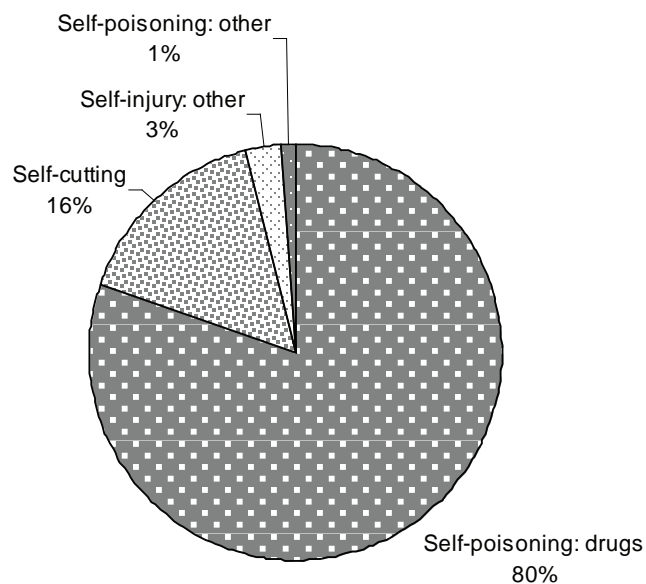
	Self-poisoning: drugs	Self-cutting	Self-injury: other	Self-poisoning: other
Number of individuals	2259	329	59	20
Number who repeated	362	79	12	2
12 month repetition rate	16%	24%	20%	10%

Repetition rate by gender and method:

There was no overall gender difference in 12 month repetition rate. Repetition rate by gender and method showed that repetition was highest for both males and females who self-cut than with other methods. Females who self-cut had the highest 12 month repetition rate (27% for females vs 21% for males who self-cut).

Clinical Characteristics of Self-Harm Episodes (all episodes from Sep 03 - Aug 05)

Method of Self-Harm (n=6598)



A method of self-harm was recorded for 6598/6698 (99.4%) episodes on the MaSH database. The most frequent method of self-harm was self-poisoning (80%) and the second most frequent method was self-injury for example cutting or piercing (16%). Other methods of self-injury such as drowning and asphyxiation were evident in 3% of episodes.

Analysis of all *episodes* revealed little gender difference in method of self-harm, although males were more likely to use other methods of self-injury such as hanging and asphyxiation than females (4% vs 2%).

However, analysis of method of harm for *individuals* based on their index episode revealed self-cutting to be more common in males (15% vs 11%) and self-poisoning to be more common in females (87% vs 81%).

MaSH research found that self-cutting as a method of harm was associated with increased risk of subsequent suicide; risk was higher for males who self-cut than females (Cooper et al, 2005).

Drugs

Of the 5365 episodes that involved self-poisoning with drugs as a method of harm, type of drug was known in (4696) 88% of episodes. Of these 51% of episodes involved a paracetamol compound in self-poisoning, the majority (70%) being pure paracetamol. The mean number of tablets taken was 22 (range: 1 – 192 tablets). 25% of poisoning episodes involved the ingestion of another form of analgesic and a further 24% used antidepressants. 12% used benzodiazepine, 6% used antipsychotics and 3% used opiates (i.e. heroin, morphine, methadone) as a method of self-harm.

Drugs and Age and Gender

Gender:

There was little overall gender difference in the type of drug taken (although females were slightly more likely to take paracetamol than males: 52 vs 48%).

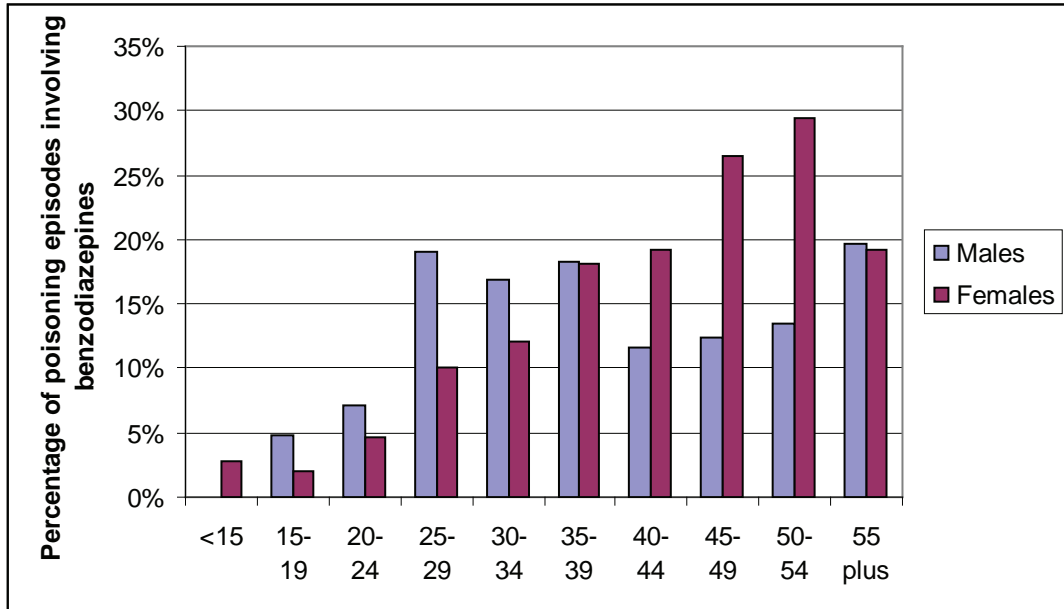
Age:

Data from all Trusts showed that under 25s were more likely than other ages to use paracetamol in self-poisoning episodes, 25-55's were more likely to use antidepressants than other age groups and that those aged over 55 were more likely to use benzodiazepines.

Benzodiazepine overdose, age and gender

Benzodiazepine overdose was found to be most commonly associated with females over the age of 45. However for males benzodiazepine overdose was associated with younger age groups. The peak age for males was aged 25-29 years (see graph).

Benzodiazepine overdose by age and gender (MRI, NMGH & Wythenshawe: n=591)

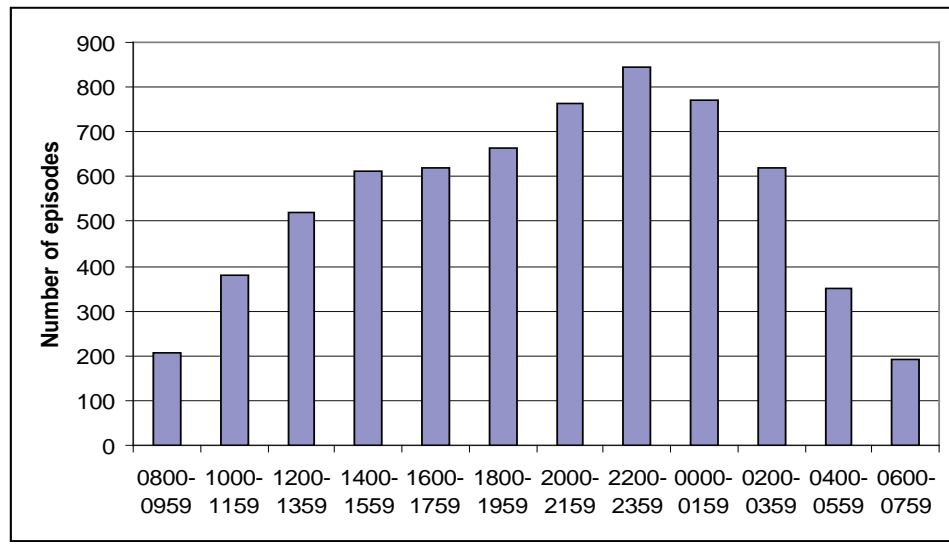


The Manchester Self-Harm Rule identified benzodiazepine overdose as being associated with repetition of self-harm (Cooper et al, 2006).

Time of Presentation

Of the 6541 episodes (99%) where time of presentation at the ED department was recorded, the majority of presentations occurred in the evening and at night: 46% presented to the ED between the hours of 8.00p.m and 4.00a.m. From morning until evening the numbers increased during the day, peaking between the hours of 10pm to midnight and declining during the early hours.

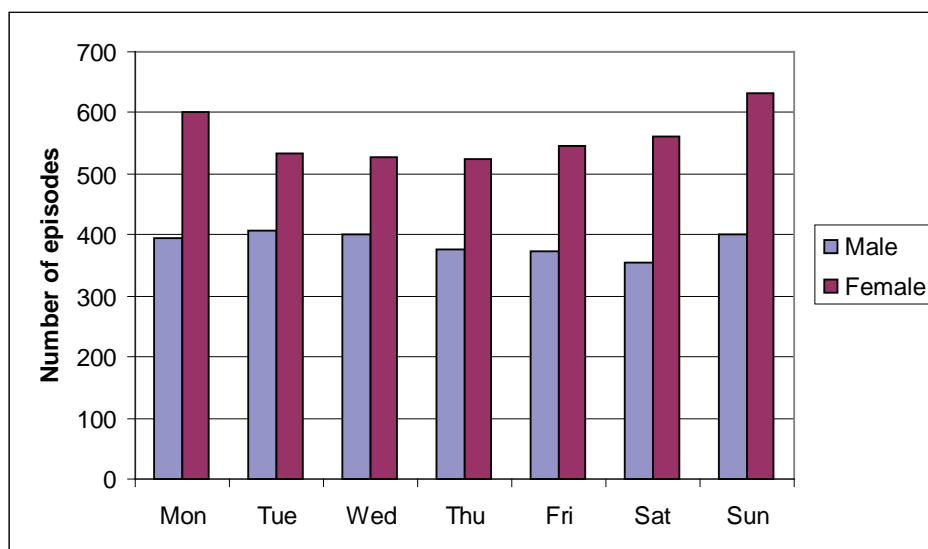
Number of episodes by time of presentation, (MRI, NMGH & Wythenshawe: n=6541)



Presentations by weekday

There was a tendency for higher numbers of self-harm presentations to occur on Sundays and Mondays. There was a pattern for females whereby attendances fell during the mid week and rose towards the weekend.

Number of episodes by weekday (MRI, NMGH & Wythenshawe: n = 6635)



Presentations by month

Analysis of number of episodes by month for all trusts combined revealed little overall variation although a slightly higher number of presentations occurred in January (586 episodes compared to a monthly average of 553).

Management of Self-Harm Episodes (data from completed forms, Sept 03 – Aug 05)

Management of Self-Harm Episodes by ED staff

There were 518 episodes of self-harm where patients did not wait for treatment. Of the 3665 episodes assessed by ED staff, 80% were completed by SHOs, 15% by registrars and 5% by consultants and other staff including nurses (1%).

Of those assessed by ED staff, the clinical management was known for 3663 episodes. 37% were referred to psychiatric services, a further 36% were referred to medical/surgical services (within this group 59% had a completed specialist psychiatric assessment form). 18% of ED patients were either discharged with no referral or discharged and told to see their GP. 4% of cases self-discharged.

Data on admission to general hospital (including short stay wards) was available for 2439 episodes. Of these 1325 cases (54%) were admitted.

Management of Self-Harm Episodes by Mental Health Specialists:

2720 episodes were assessed by mental health specialists (41% of the total number of episodes). 74% were completed by nurses and 25% by SHOs.

There were 2605 episodes for which the management by mental health specialists was known. Of these 7% resulted in an urgent referral, either to a 24-hour community service or to psychiatric outpatients. Admission to a psychiatric unit was provided for 75 episodes (3%), with 4 of these admissions under the Mental Health Act (1983). Additional referrals included 20% referred to other mental health services (these included community psychiatric teams, mental health teams, primary care teams and outpatients); 12% referred to alcohol and/or drug teams and 20% referred to other services (including voluntary and social services). Some episodes resulted in more than one referral. Referral back to the patient's general practitioner alone accounted for 52% of episodes assessed by mental health specialists. Self-discharge accounted for 15 episodes and 63 episodes (2%) were discharged to be reviewed by the assessor within two weeks.

With respect to the 38 child and adolescent episodes with psychiatric assessment at the Carol Kendrick hospital, 71% were given a non-urgent referral to other mental health services and 32% were given an urgent referral to a psychiatric team. One adolescent was given an urgent referral to a psychiatric unit. The general practitioner was contacted in 87% of episodes.

Differences between participating Trusts

Key differences of presentations of self-harm between the between the 3 EDs are summarised below:

1. MRI had the highest number of episodes and individuals presenting to the ED department within the study period:- 2882 episodes accounting for 2072 individuals. The next highest number being at Wythenshawe with 2000 episodes (1472 individuals) and the least number at NMGH with 1755 episodes (1364 individuals). The most frequent time of presentation at all trusts was between 22:00 hours and midnight (13%).
2. Repetition rate for a repeat presentation of self-harm within 12 months of index episode was similar and ranged from 16% - 18%. Repetition was highest at Wythenshawe (18%), followed by NMGH (17%) then MRI (16%).
3. The mean age of individuals at MRI was 31, lower than the other hospitals (mean age at NMGH +3years and at Wythenshawe +1year compared to MRI). Self-harm was most common in the in the 15-19 years age group in females at all participating hospitals. For males at MRI and Wythenshawe the self-harm was most common in the 20-24 year age group. At NMGH, self-harm presentations by males was most common in the 35-39 year age group (males also outnumbered the females in the 35-39 age group (109 to 107)).
4. MRI had the highest proportion of ethnic minority groups (19%). At NMGH 7% of individuals were from ethnic minorities and Wythenshawe had the lowest proportion at 5%. At all three trusts the greatest proportion were of Indian/Pakistani/Bangladeshi origin (8% at MRI, 3.2% at NMGH and 3% at Wythenshawe).
5. There were some differences in living arrangements between the hospitals with the highest proportion of individuals living with parents at Wythenshawe 27% compared with 20% at NMGH and 21% at MRI. The highest proportion of partnered individuals were at NMGH (32%) compared with 28% at Wythenshawe and 26% at MRI. NMGH had the smallest proportion of single individuals (49%) compared with 60% at MRI and 61% at Wythenshawe.
6. There were some small differences in the self-report of previous self-harm between the hospitals. MRI had the highest proportion (58%) of individuals compared to 50% at the other two hospitals reporting self-harm during their lifetime.
7. ED staff at Wythenshawe completed assessments on 77% of episodes presenting with self-harm compared with 52% at both MRI and NMGH.
8. Wythenshawe had the highest proportion of specialist (psychiatric) assessments (61%), compared to 41% at both MRI and NMGH. At Wythenshawe 93% of specialist assessments were completed by nurses and 6% by SHO's compared to 44% nurses and 55% SHO's at MRI and 95% by nurses and 5% SHO's at NMGH.

9. NMGH has the highest proportion of episodes (31%) with no formal follow up from the ED. At MRI, the proportion without formal follow up was 25% and at Wythenshawe, 13%.
10. The proportion of episodes admitted to general hospital from the ED was greatest at Wythenshawe (83%). 40% were admitted at MRI and 34% at NMGH.
11. Wythenshawe had the lowest proportion (1%) of episodes admitted to a psychiatric in-patient unit (2% at NMGH and 5% at MRI).
12. Wythenshawe had the highest proportion of GP only referrals following a specialist assessment (62%), (NMGH, 51% and MRI, 41%).

Recent Research

Clinical Tool for Assessing Risk after Self-Harm (Cooper et al, 2006)

The MaSH data has been used to derive a four-question rule which identifies patients at higher risk of repetition of self-harm or suicide if they answer yes to any of the following:

- i) any history of self-harm
- ii) previous psychiatric treatment
- iii) benzodiazepine use in this attempt
- iv) any current psychiatric treatment.

The rule correctly identified 94% of patients who repeated within 6 months and can be used as a guide to clinical prioritisation within the ED. High risk patients may be referred to specialist services immediately, lower-risk patients may be discharged for later psychosocial assessment in the community. The rule however should not replace detailed clinical assessments and ED clinicians should refer low risk patients for whom they have concerns.

Young South Asian women and self-harm (Cooper et al, 2006)

South Asian women aged 16-24 years are at high risk of self-harm. MaSH data identified young South Asian women as having higher age and population standardised rates of self-harm than any other group. South Asian women also reported more relationship problems with family than white women. However, clinicians tended to identify South Asians as being of low clinical risk according to accepted risk factors and were less likely to refer South Asians to specialist mental health services. South Asians were less likely to re-attend ED with a repeat episode which may indicate reluctance to access services. This suggests a need to develop more sensitive assessments and culturally appropriate services.

The repetition of suicidal behaviour (Kapur et al, 2006)

Repetition is common and occurs soon after index episode of self-harm. 1 in 10 repeaters re-present within 5 days of index episode. The mean time to first repetition was 74 days. Risk factors for repetition were identified as being unemployed/registered sick, alcohol misuse, having previous self-harm, mental health problems, self-injury as a method of harm and having suicidal plans or hallucinations.

Subgroup differences were also noted whereby drug misuse and hallucinations were stronger risk factors for women. Drug misuse and loss of appetite were stronger risk factors for the youngest age group. Fatal outcome of was associated with being male, being older and experiencing a relationship breakdown or the death of a partner.

Multicentre Monitoring

Manchester is part of a Department of Health (2002) funded multi-centre monitoring project alongside Leeds and Oxford. The benefits of multicentre monitoring are i) the provision of data on national trends to inform suicide prevention strategies ii) the ability to compare differences between centres and detect changing patterns of self-harm iii) the establishment of a network that can take on specific research projects, including treatment and evaluation. A report from the pilot study for the period of 1st March 2000 – 31st August 2001 (Hawton et al, 2006) has been completed and the findings are summarised on the www.csip.org.uk/ website (Document: http://kc.nimhe.org.uk/upload/NIMHE_summary2.doc).

NORTH MANCHESTER GENERAL HOSPITAL (NMGH)

Source of Forms and Response Rate

	YEAR 7 1 st Sept 03 – 31 st Aug 2004	YEAR 8 1 st Sept 04 – 31 st Aug 2005
	TOTAL	TOTAL
Number of episodes with forms	539	635
Number of episodes without forms	256	146
Number of episodes did not wait (DNW)	119	60
Total number of episodes	914	841
Total number of ED forms	347	480
Total number of Psychiatric forms	325	329
Total number of individuals	737	697

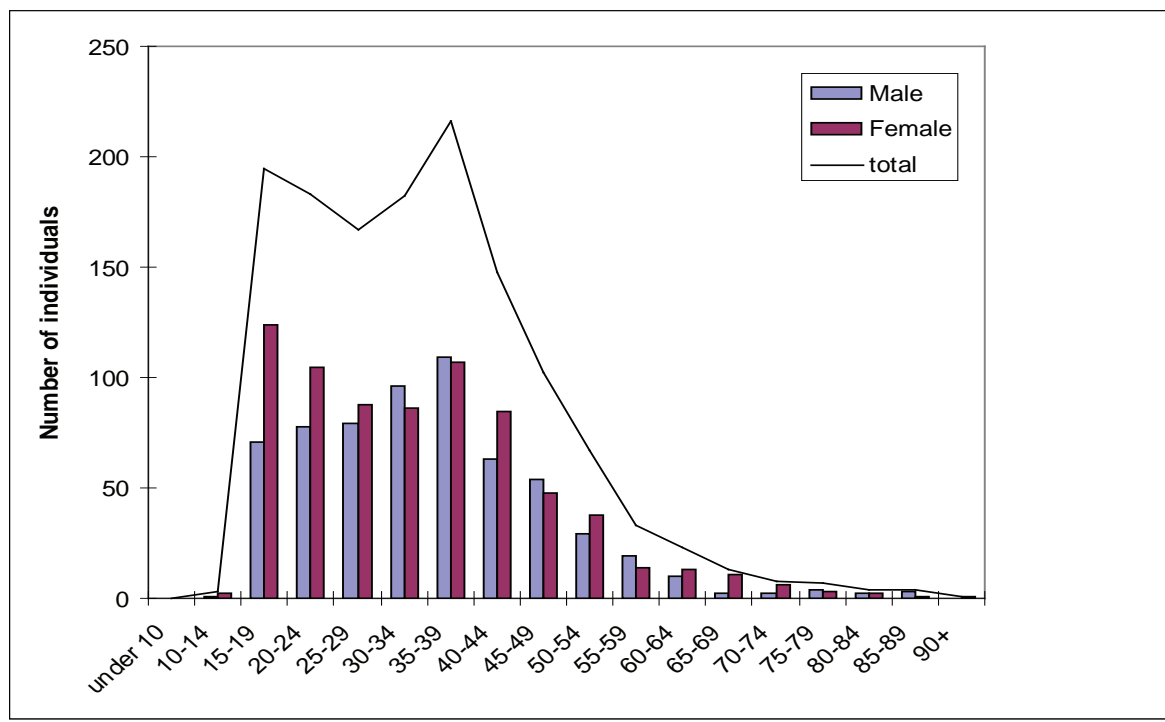
NB Total number of individuals = 1st chronological episode at the ED within that year regardless of treatment status.

Over the 2 year report period 74% of episodes received an assessment (excluding those that did not wait for treatment). Assessments by mental health specialists accounted for 42% of these. The overall number of episodes assessed was higher in Year 8 (81%) than in Year 7 (68%).

The following results are based on presentations to NMGH ED following self-harm between 1st September 2003 and 31st August 2005.

Social and Demographic Characteristics of Self-Harming Individuals (data on all individuals by index episode from Sept 03 – Aug 05)

Self-harming individuals by sex and age (n=1356)



Based on index episode across the two year study period, 1364 individuals presented with self-harm. 147 individuals (11%) did not wait (DNW) and did not return to be treated.

Age and Gender	N (Valid cases) 1358	54% female	Mean age 34 years, ranging from 11 to 93 years.	The group of patients with the highest frequency of self-harm were aged 15-19 years for females and 35-39 years for males.
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Additional socio-demographic information was available for 974 individuals who had completed forms. Data was acquired directly from hospital records at NMGH for some cases without forms.

Ethnicity	N (Valid cases) 1048	93% white	The largest ethnic minority group was Indian /Pakistani or Bangladeshi (3.2%). 2.8% were black, 0.2% were Chinese, 0.2% were mixed race and 0.7% fell into the 'other' category.	
Marital, Employment and Living	928		Most patients were single (49%), 25% were married or partnered, 16% were separated or divorced and 2% were widowed. 41% were unemployed, 26% were employed and 16% were registered sick. 32% lived with a spouse/partner, 24% lived alone and 20% with a parent/sibling. 6% were homeless or lived in hostels/lodgings.	

Gender differences

- ❖ Ethnicity: more females were from non-white ethnic groups (9% females vs 5% males).
- ❖ Marital status: more males were single (54% males vs 45% females).
- ❖ Employment: more males were unemployed (46%) or registered sick/disabled (19%) than females (37% & 13% respectively).
- ❖ Living arrangements: males were more likely to live alone (31% males vs 18% females) and were more likely to be homeless or live in hostels/lodgings (7% males vs 4% females).

Clinical Characteristics of Self-Harming Individuals (data on individuals by index episode with completed forms, Sept 03 – Aug 05 (n = 974))

Current and Previous Psychiatric Treatment

The psychiatric history was known for 901 individuals (93% of individuals assessed). 40% of these were receiving current psychiatric treatment (including treatment by GP) and a further 13% had received psychiatric treatment in the past.

Alcohol and Substance Misuse

889 individuals (91% of those with forms) were assessed for their use of alcohol and street drugs. 27% of these were classified as abusing alcohol (36% of males, 21% of females) i.e. current harmful alcohol use or drinking 7 or more units a day. Drug misuse (use on a regular basis or classified as harmful use by a clinician) was identified in 11% (16% of males and 8%

of females). Additional analysis of all episodes revealed that 58% of episodes involved alcohol use at the time of self-harm (68% of males and 51% of females).

Precipitants of Self-Harm

In 870 cases (90% of those assessed) a precipitant to the self-harm act was known. The most frequent reason given as a precipitant to self-harm was relationship problems with partner/boyfriend/girlfriend (44%), followed by relationship problems with others (15%) or with family (14%). The next most frequently cited precipitating factors were bereavement (12%), self-harm as a direct response to mental symptoms (11%), money problems (11%), and housing and health problems (both 9%).

Evidence of mental disorder - clinical impression at time of assessment

Information on the presence or absence of a psychiatric disorder was available for 258 individuals (47% of individuals assessed by mental health specialists). Probable depression was identified in 17% of these. Alcohol and/or drug misuse was also evident in 17%. An additional 10% were diagnosed with alcohol dependence and 1% with substance dependence. 9% were diagnosed with stress related disorders and 3% were likely to have had a severe mental disorder (schizophrenia/schizo-affective disorder, bi polar disorder or psychotic depression). Only 0.5% of individuals were identified as having a probable personality disorder. Of those that were assessed for diagnosis of a psychiatric disorder 38% had no evidence of psychiatric illness.

Repetition of self-harm

Self-reported previous self-harm:

924 individuals were assessed for self-reported previous self-harm. 509 individuals (55%) reported previous self-harm with or without medical treatment. Of these 27% (250) reported self-harming within the last year.

6 month repetition rate:

6 month repetition rate could be calculated on all 737 individuals on the MaSH database for Year 7 (1st September 2003 – 31st August 2004) allowing all individuals a 6 month follow-up period (up to 1st March 2005). Of these 13% (99) re-presented with an episode of self-harm within 6 months of their first episode.

For Year 8 (1st September 2004 – 31st August 2005) there were 344 individuals for whom 6 month repetition rate could be calculated (index episode before the 1st March 2005 i.e. allowing all individuals a 6 month follow-up period). Of these 15% (50) re-presented to ED within 6 months of their first episode.

12 month repetition rate:

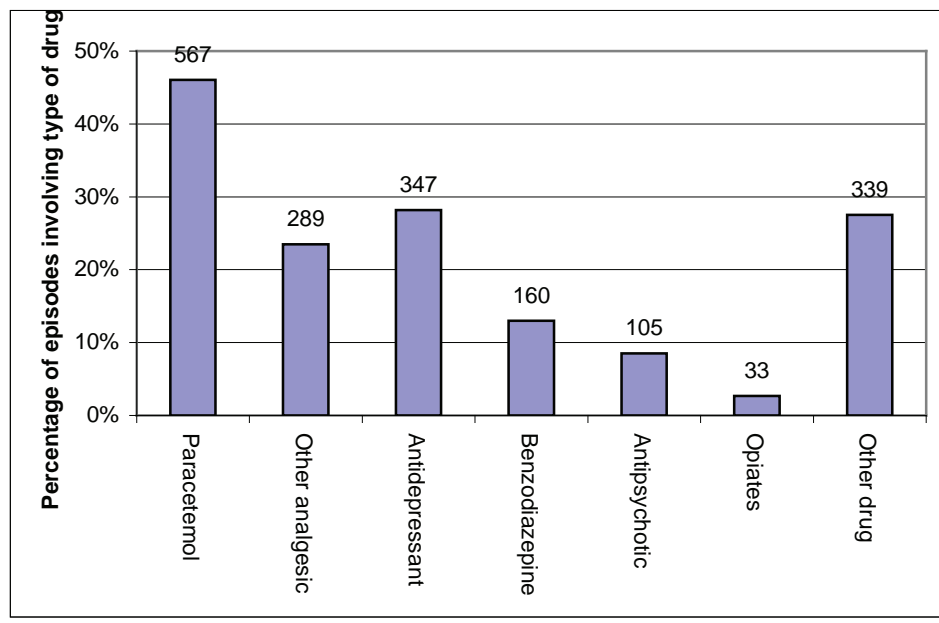
Repetition rate within 12 months of index episode could be calculated for all 737 individuals who presented during Year 7 (allowing a full 12 months following-up period during Year 8). Of these 17% (123) re-presented with an episode of self-harm within 12 months of their first episode.

Clinical Characteristics of Self-Harm Episodes (data on all episodes from Sept 03 – Aug 05)

Method of Self-Harm

A method of self-harm was recorded on 1743 episodes (99%) at the NMGH (including DNW). The most frequent method of self-harm was self-poisoning (86%) and the second most frequent method was self-injury (cutting/piercing) (12%). Other methods of self-injury such as asphyxiation or drowning were used by 2%. Of those that self-poisoned using drugs information on the type of drug taken was available in 82% (1231) of episodes (we do not have information on type of drug in many DNW episodes).

Type of drug taken in self-poisoning episodes (n = 1231)



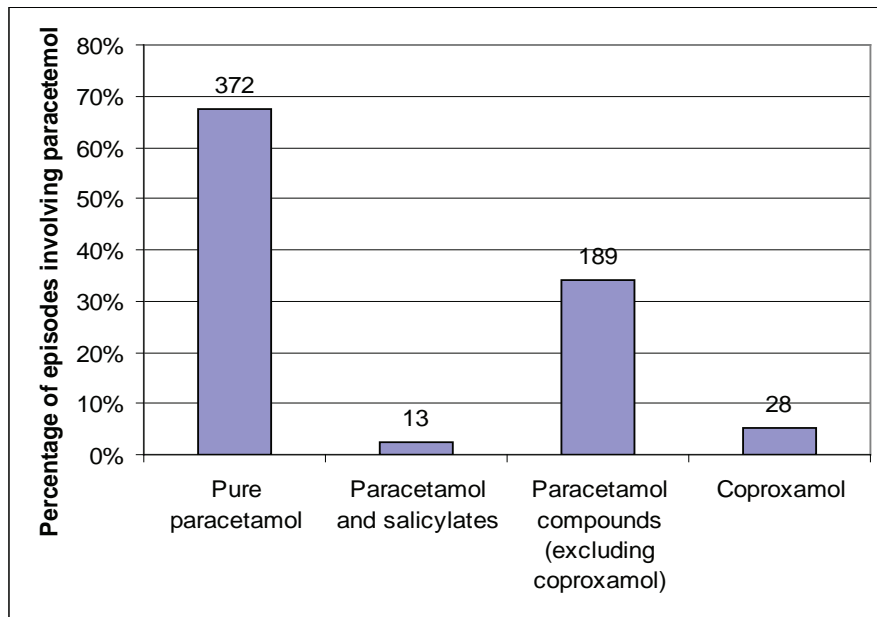
NB: more than one drug may have been taken per episode

'Opiates' refers to heroin, morphine and methadone only.

Paracetamol compounds, including pure paracetamol, were the most frequently used drugs (involved in 46% of self-poisoning episodes) followed by antidepressants (28%), other analgesics (16%) and benzodiazepines (13%). Those aged less than 25 years were more likely to use paracetamol products and other analgesics than older age groups.

Analysis of paracetamol products that were used in overdose is given below.

Paracetamol products used in episodes of self-poisoning (n=566)

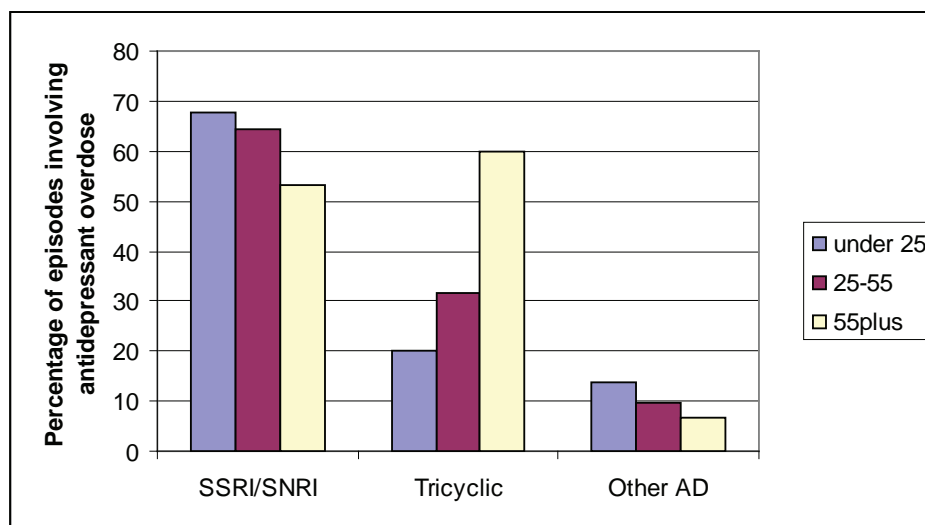


NB: more than one type of paracetamol preparation may have been taken per episode

Antidepressants

Of the 347 episodes involving antidepressants the type of antidepressant taken was known for 339 cases (98%). Of these the majority used SSRIs or SNRIs (64%) and 31% used tricyclic antidepressants. Females were more likely to take SSRIs/SNRI's (68% of females vs 58% of males) and males were more likely to take tricyclics (40% of males vs 25% of females). Age group differences are shown in the graph below.

Antidepressant used in episodes of self-poisoning (n=347)

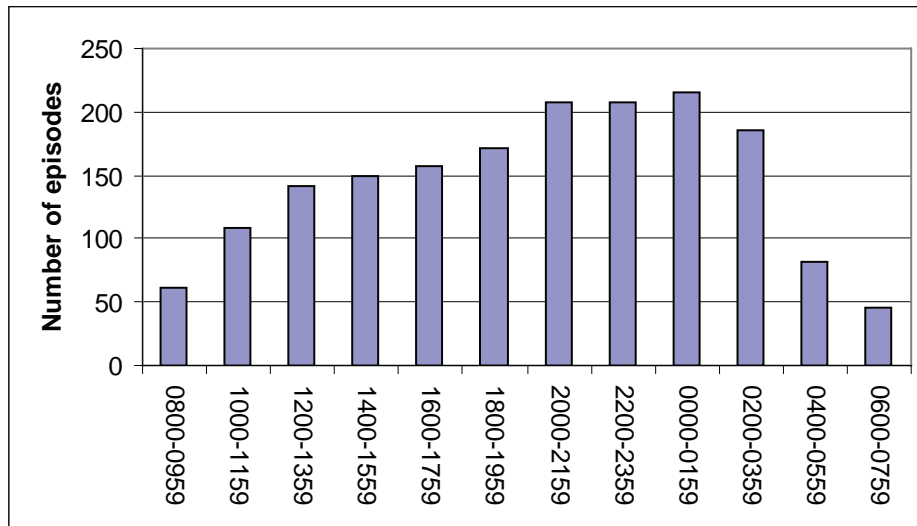


Benzodiazepine overdose

Up to the age of 35 years benzodiazepine overdose was consistently more common amongst males. Above the age of 35 years, females had the highest proportion of benzodiazepine overdose, being most common in those aged 50-54 years (involved in 38% of poisoning episodes for this age group).

Time of presentation

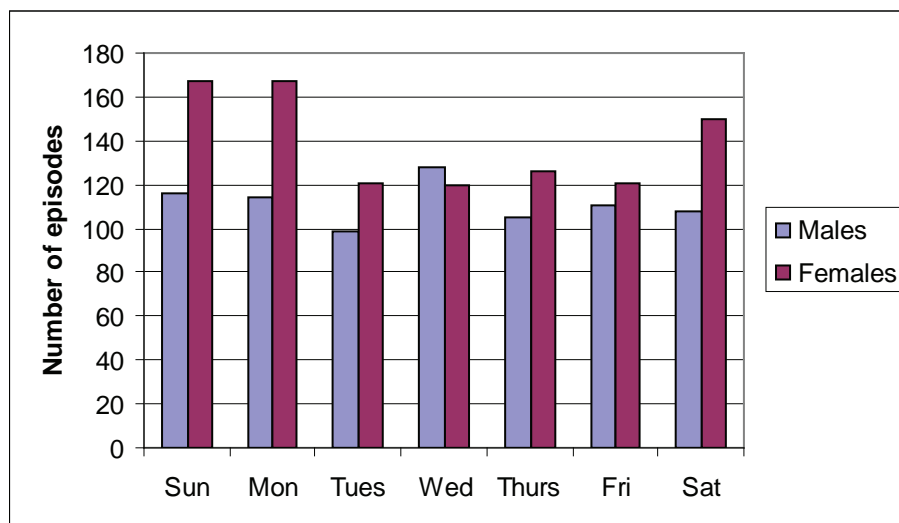
Number of episodes by time of presentation (n=1730)



Of the 1730 episodes (99%) where time of presentation at the ED was recorded the majority of presentations occurred in the evening and at night: 47% presented to the ED between the hours of 8.00p.m. and 4.00a.m.

Presentations by weekday

Number of episodes by weekday (n=1753)



There was a tendency for higher numbers of presentations to occur on Sundays on Mondays due to a female trend of rising attendances over the weekend. Males however showed less variation in attendances by weekday.

Management of Self-Harm Episodes (data from completed forms, Sept 03 – Aug 05)

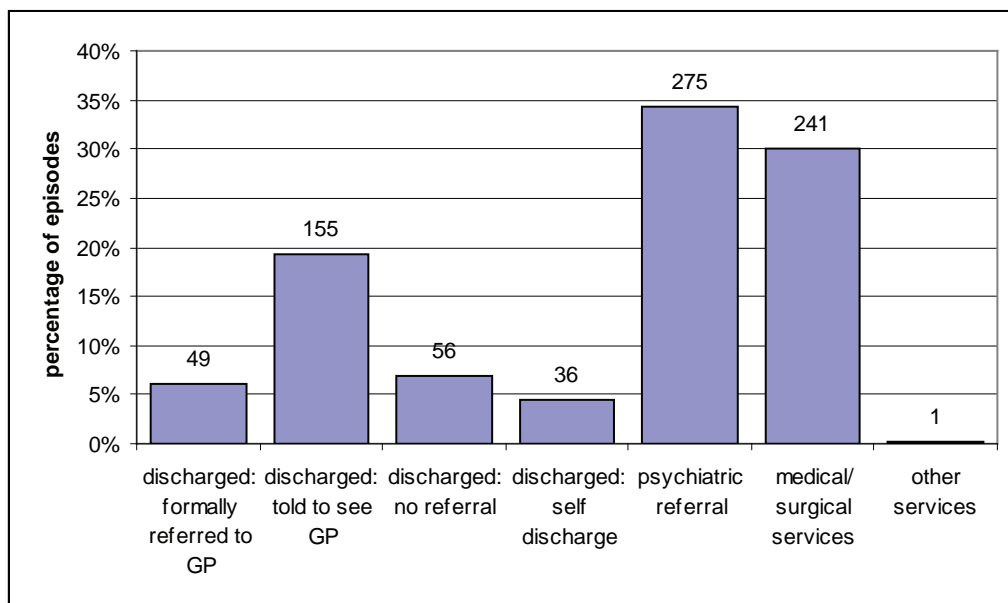
Management of Self-Harm Episodes by ED Staff

There were 179 episodes of self-harm where patients did not wait for treatment. Of the 1104 episodes with ED assessment forms, 84% were completed by SHOs, 12% by registrars and 4% by consultants, nurses and other staff.

Of those assessed by ED staff, the management in the ED was known for 813 episodes. The majority of cases were referred to psychiatric services (34%) and a further 30% were referred to medical/surgical services (within those referred to medical services 61% had a completed psychiatric assessment form). 31% (247 episodes) had no formal follow up (either discharged with no referral, discharged and told to see their GP or self discharged; this represents an increase of 6% on year 6). However, of these 247 discharged episodes, 31 (13%) were subsequently detected by psychiatric services and assessed by a mental health specialist.

Data on admission to general hospital (including short stay wards) was available for 526 episodes. Admission requested for 195 episodes and 180/526 episodes (34%) were actually admitted.

Management of episodes of self-harm in ED Department (n = 813)



NB: Each case may be referred to more than one service.

ED Management by method of harm

ED Management:	Self-poisoning ^a (n=698)	Self-cutting (n=94)	Self-injury: other (n=11)
Discharged	36%	43%	27%
admitted to general hospital ^b medical/ surgical services	37%	7%	0%
psychiatric referral	34%	56%	45%
other services	1%	1%	9%

^a Self-poisoning by drugs and other ingestible substances combined.

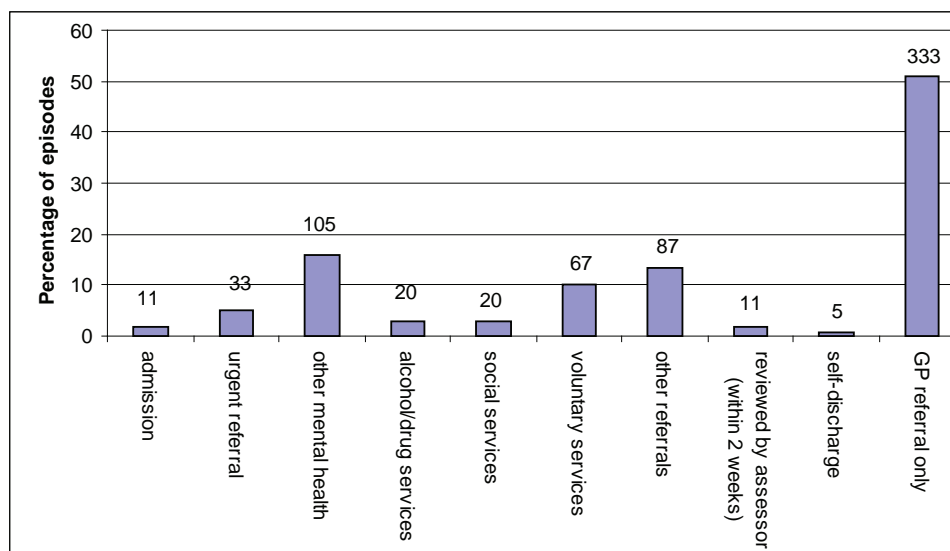
^b Data on admission was known for 526 cases. Valid n for self-poisoning, cutting and other injury = 475, 46, and 5 respectively.

Where method of harm was self-cutting there were fewer general hospital admissions or referrals to medical/surgical services and a slightly greater number of discharges from the ED (this could reflect perceived medical seriousness). Those that self-cut were more likely to be referred to psychiatric services.

Management of DSH by Mental Health Specialists

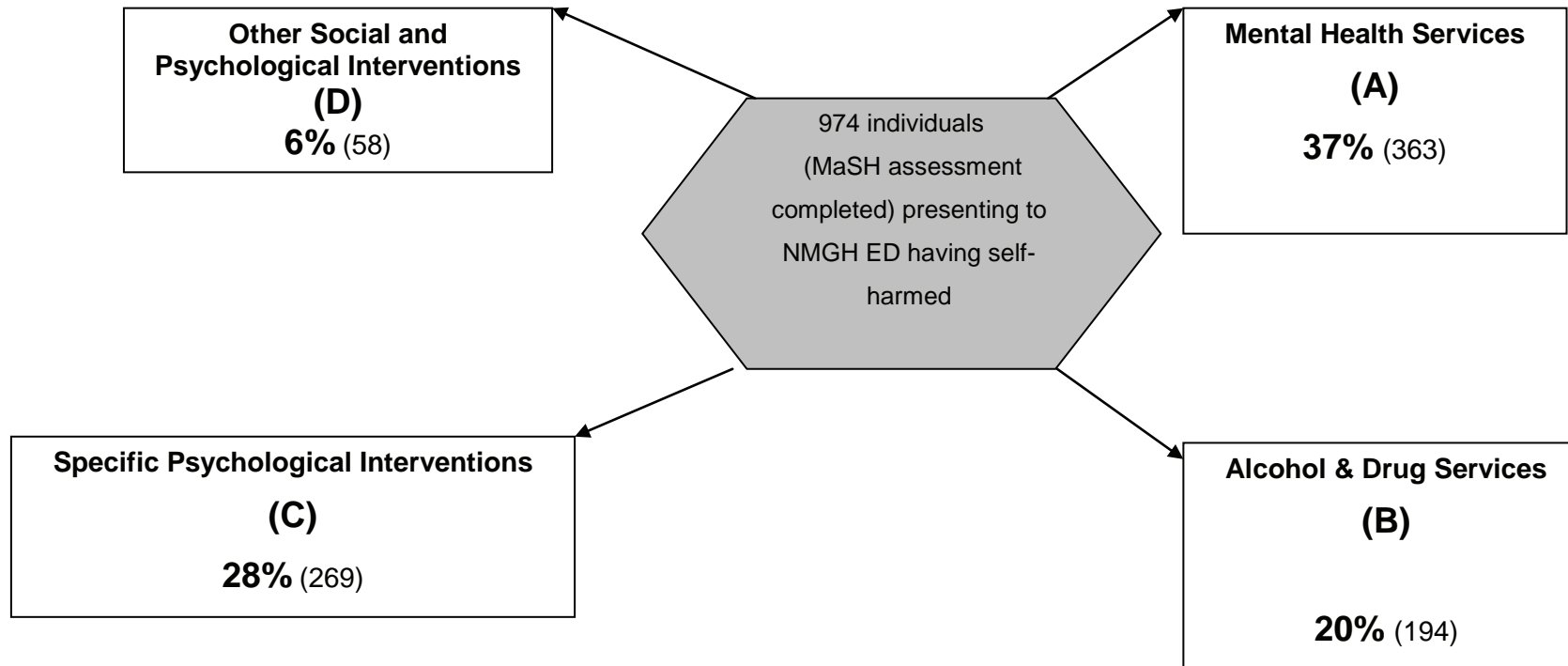
There were 654 episodes assessed by mental health specialists of which 95% were completed by nurses and 5% by SHOs. The management by mental health specialists was known for 649 episodes. There were 11 (2%) admissions to a psychiatric unit although none of these were made under the Mental Health Act (1983). Of the 33 urgent referrals (5%), 17 were made to a 24-hour community service and 16 were made to outpatients. Referrals to 'other mental health' constituted 16% of episodes and included referrals to day hospitals, community psychiatric teams, mental health teams and outpatients. Other referrals (13%) included referrals to psychologists, debt counselling and marriage guidance. GP referral only (51%) constituted cases not formally referred elsewhere.

Management of adult self-harm episodes by mental health specialists (n = 654)



NB: Each case may be referred to more than one service.

Suggested service needs for self-harm patients presenting to the NMGH from 1st September '03 to 31st August '05



Glossary of inclusion criteria

Service	Characteristics of self-harm patient who may require that service
A	Individuals currently receiving psychiatric treatment, those assessed as a high suicide risk, individuals with hallucinations and delusions, individuals harming in a direct response to mental state and individuals with a diagnosis of mental illness.
B	Individuals currently being treated for alcohol/substance misuse, current alcohol/substance abuse diagnosis, those drinking more than 7 units of alcohol per day.
C	Individuals with interpersonal, bereavement, bullying, abuse, victim of crime, miscarriage problems. Interventions might include problem solving, brief psychodynamic interpersonal therapy, CBT etc.
D	Individuals with financial, housing, unemployment and/or legal problems, or Individuals who repeat DSH (self-report) where no specific service is appropriate.

N.B. All categories are exclusive. A minority of patients were not assessed as falling into any of the above categories. Informing the patient's GP is recommended in all cases.

MANCHESTER ROYAL INFIRMARY (MRI)

Source of Forms and Response Rate

	YEAR 7 1 st Sept 03 – 31 st Aug 2004	YEAR 8 1 st Sept 04 – 31 st Aug 2005
	TOTAL	TOTAL
Number of episodes with forms	1009	932
Number of episodes without forms	398	314
Number of episodes did not wait (DNW)	140	89
Total number of episodes	1547	1335
Total number of ED forms	763	617
Total number of Psychiatric forms	502	576
Total number of individuals	1158	1026

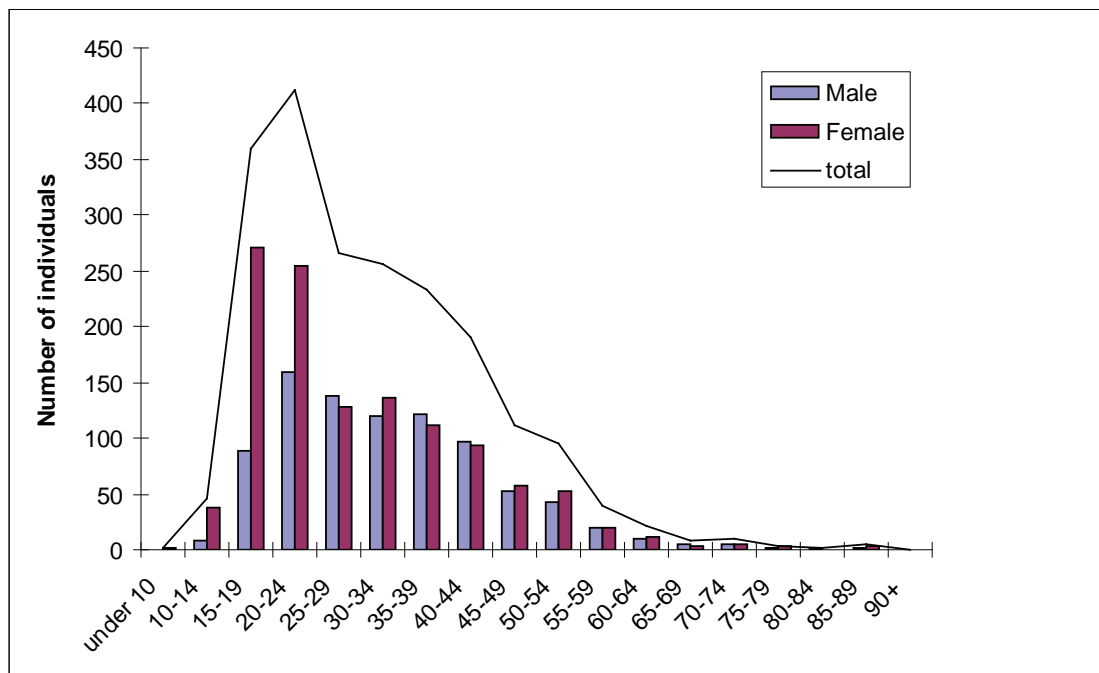
NB Total number of individuals = 1st chronological episode at ED within that year regardless of treatment status.

Over the two year report period 72% of episodes presenting to MRI received an assessment (excluding those that did not wait for treatment). The proportion of episodes assessed by mental health specialists was higher in Year 8 (46%) than in Year 7 (36%)

The following results are based on presentations to MRI following self-harm between 1st September 2003 and 31st August 2005.

Social and Demographic Characteristics of Self-Harming Individuals (data on all individuals by index episode from Sept 03 – Aug 05)

All Self-harming Individuals by sex and age (n=2060)



Based on index episode across the two year study period, 2072 individuals presented with self-harm. 175 individuals (8%) did not wait (DNW) and did not return to be treated.

Age and Gender	N (Valid cases) 2061	58% female	Mean age 31 years, ranging from 7 to 92 years.	The group of patients with the highest frequency of self-harm were aged 15-19 years for females and 20-24 years for males.
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Additional socio-demographic information was available for those 1511 individuals who had completed forms. Data was acquired directly from hospital records at MRI for some cases without forms.

Ethnicity	N (Valid cases) 1577	81% white	The largest ethnic minority group was Indian /Pakistani or Bangladeshi (8%). 7% were black, 0.7% were Chinese, 0.8% were mixed race and 3% fell into the 'other' category.	
Marital, Employment and Living	1475	Most patients were single (60%), 27% were married or partnered, 12% were separated or divorced and 1% were widowed. 42% were unemployed, 29% were employed and 8% were registered sick. 26% lived with a spouse/partner, 22% lived alone and 21% with a parent/sibling. 11% were homeless or lived in hostels/lodgings.		

Gender differences

- ❖ Ethnicity: more females were from non-white ethnic groups (23% females vs 14% males), especially those of South Asian origin (10% females vs 4% males).
- ❖ Marital: males were slightly more likely to be single (63% males vs 58% females).
- ❖ Employment: more males were unemployed (48%) or registered sick/disabled (10%) than females (37% & 7% respectively).
- ❖ Living: males were more likely to live alone (30% males vs 16% females) and more males were homeless (8% males vs 1% females). However equal proportions of males and females lived in hostels/lodgings (7%).

Clinical Characteristics of Self-Harming Individuals (data on individuals by index episode with completed forms, Sept 03 – Aug 05 (n = 1511))

Current and Previous Psychiatric Treatment

The psychiatric history was known in 1445 individuals (96% of those assessed). 36% of these were receiving current psychiatric treatment (including treatment from GP) and a further 16% had received psychiatric treatment in the past.

Alcohol and Substance Misuse

1418 individuals (94%) were assessed for their use of alcohol and street drugs. 26% of these (36% of males and 21% of females) were classified as abusing alcohol i.e. current harmful alcohol consumption or drinking 7 or more units a day. Drug misuse (use on a regular basis or classified as harmful use by a clinician) was identified in 17% (24% of males and 12% of females). Analysis of all episodes revealed that 52% of episodes involved alcohol use at the time of self-harm (61% of males and 45% of females).

Precipitants of Self-Harm

In 1333 cases (88% of those assessed) a precipitant to the self-harm act was known. The most frequent reason given as a precipitant to self-harm was relationship problems with partner/boyfriend/girlfriend (45%). 17% cited relationship difficulties with a family member as instrumental in their self-harm and 15% said their self-harm was a direct response to their mental state. The next most frequently cited factors were work problems (13%), housing problems (11%) and bereavement (8%).

Evidence of mental disorder – clinical impression at time of assessment

Information on the presence or absence of a psychiatric disorder was available for 522 individuals (60% of individuals assessed by mental health specialists). Of these, 31% had probable depression, 15% had a probable stress related disorder and 10% had probable alcohol or drug misuse. An additional 6% had alcohol dependence and 3% had substance dependence. Personality problems were identified in 4% and 3% had a severe mental illness (schizophrenia, bipolar disorder, psychotic depression). Of those assessed for diagnosis of a psychiatric disorder 24% had no evidence of psychiatric illness.

Repetition of Self-Harm

Self-reported previous self-harm:

1457 individuals were assessed for self-reported previous self-harm. 851 individuals (58%) reported previous self-harm with or without medical treatment. Of these 32% (446) reported self-harming within the last year.

6 month repetition rate:

6 month repetition rate could be calculated on all 1158 individuals on the MaSH database for Year 7 (1st September 2003 – 31st August 2004) allowing all individuals a 6 month follow-up period (up to 1st March 2005). Of these 13% (148) re-presented with an episode of self-harm within 6 months of their first episode.

For Year 8 (1st September 2004 – 31st August 2005) there were 508 individuals for whom 6 month repetition could be calculated (index episode before the 1st March 2005 i.e. allowing all individuals a 6 month follow-up period). Of these 18% (90) re-presented with an episode of self-harm within 6 months of their first episode.

12 month repetition rate:

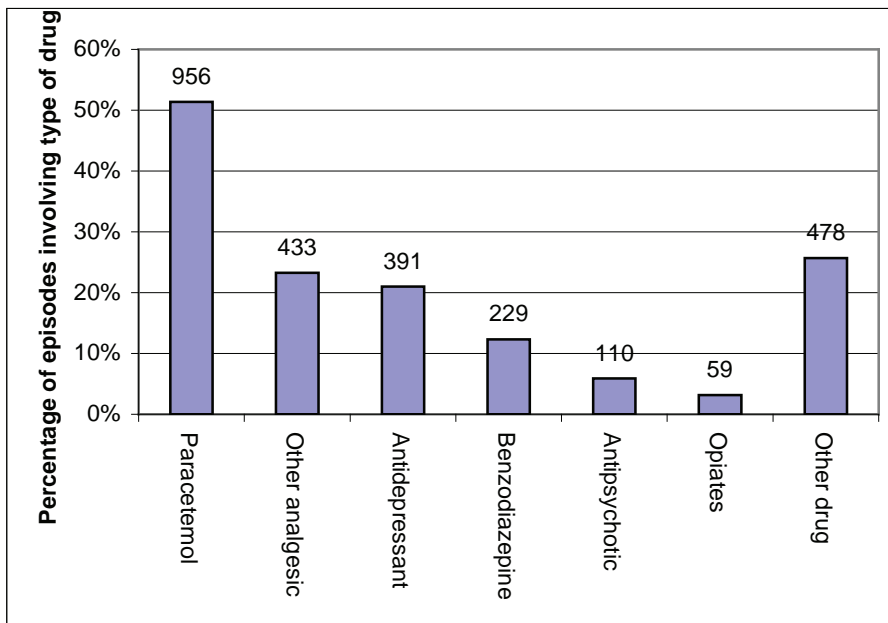
Repetition rate within 12 months of index could be calculated for all 1158 individuals who presented during Year 7 (allowing a full 12 months follow-up period during year 8) Of these 16% (189) re-presented with an episode of self-harm within 12 months of their first episode.

Clinical Characteristics Self-Harming Episodes (data on all episodes from Sept 03 – Aug 05)

Method of Self-Harm

A method of self-harm was recorded on 2860 episodes (99%) of self-harm at the MRI (including DNW). The most frequent method of self-harm was by self-poisoning (75%) and the second most frequent method was self-injury (cutting/piercing) (21%). Other methods of self-injury such as asphyxiation or drowning were used by 3%. Of those that self-poisoned using drugs we have information on the type of drug they took in 85% (1862) of episodes we do not have information on type of drug in many DNW episodes).

Type of drug taken in episodes of self-poisoning (n=1862)



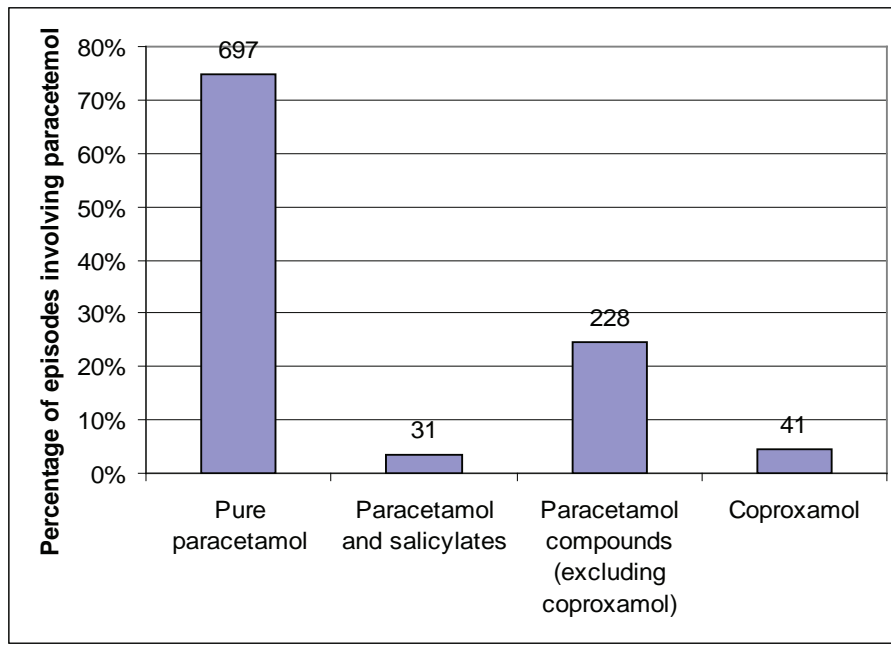
NB: more than one drug may have been taken per episode

'Opiates' refers to heroin, morphine, and methadone only.

Paracetamol compounds, including pure paracetamol, were the most frequently used drugs (involved in 51% of self-poisoning episodes) followed by other analgesics (23%), antidepressants (21%) and benzodiazepines (12%) Under 25's were more likely to take paracetamol products than other age groups whilst older age groups were more likely to take benzodiazepines.

Analysis of paracetamol products that were used in overdose is given below.

Paracetamol products used in episodes of self-poisoning (n = 931)

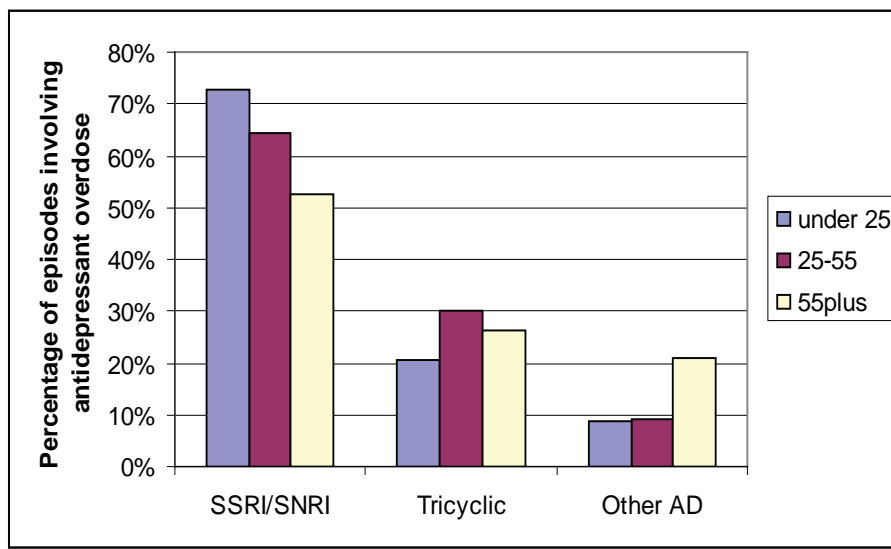


NB: more than one type of paracetamol preparation may have been taken per episode

Antidepressants

Of the 391 episodes involving antidepressants the type of antidepressant taken was known in 375 cases (96%). Of these, the majority used SSRI's or SNRI's (66%), with 27% using tricyclic antidepressants. Females were more likely to take SSRI's/SNRI's (69% vs 63%) and males were more likely to take tricyclics (33% vs 23%). Age group differences are shown in the graph below.

Antidepressants used in episodes of self-poisoning (n=391)

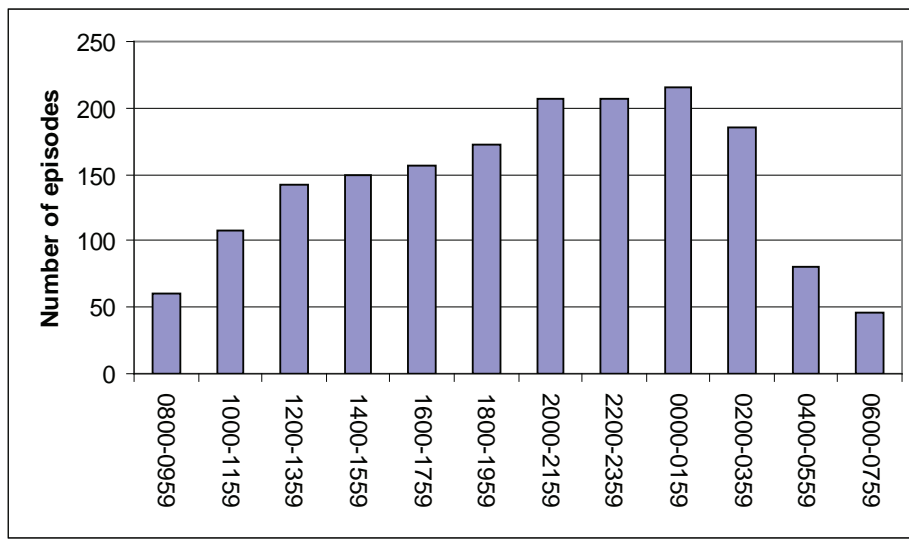


Benzodiazepine overdose

Overall benzodiazepine overdose was associated with older age groups. However gender differences were observed whereby up to the age of 35 years benzodiazepine overdose was consistently more common amongst males. Above the age of 35 years females had the highest proportion of benzodiazepine overdose, being most common in those aged 45-49 years (involved in 29% of poisoning episodes for this age group).

Time of Presentation

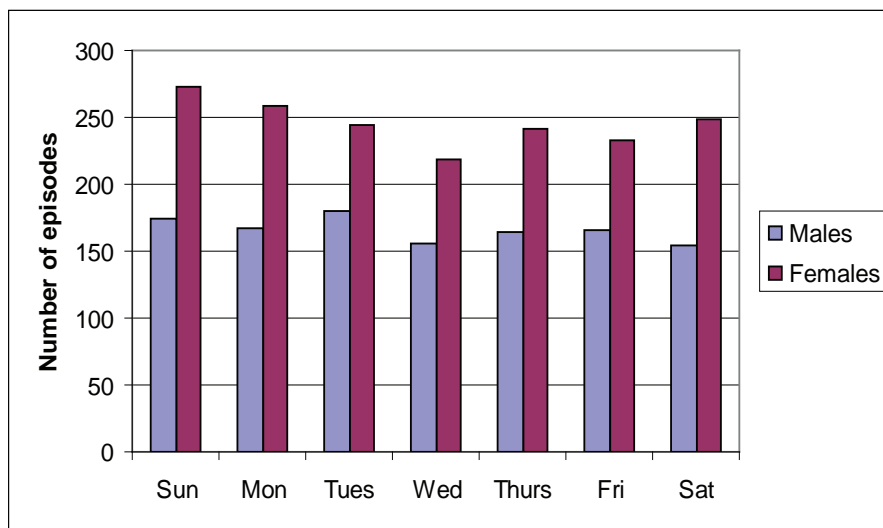
Number of episodes by time of presentation (n=2853)



Of the 2853 episodes (99%) where time of presentation at the ED was recorded, the majority of presentations occurred at evening and at night: 44% presented to ED between the hours of 8.00p.m and 4.00a.m.

Presentations by weekday

Number of episodes by weekday (n=2882)



There was a tendency for higher numbers of presentations to occur on Sundays and Mondays due to a female trend of riding attendances over the weekend. Males however showed less variation in attendances by weekday.

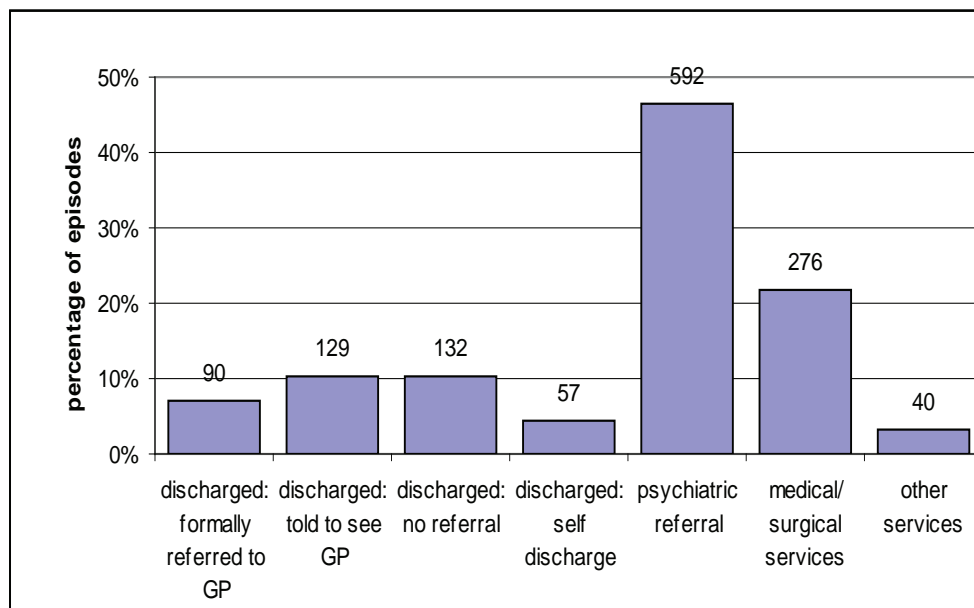
Management of Self-Harm Episodes (data from completed forms, Sept 03 – Aug 05)

Management of Self-Harm Episodes by ED Staff

There were 229 episodes of self-harm where patients did not wait for treatment. Of the 1973 episodes assessed by ED staff, 75% were completed by SHOs, 18% by registrars and 7% were completed by consultants, nurses and other staff. There were 1270 episodes where the management in the ED was known. The majority of cases were referred to psychiatric services (47%) and a further 22% were referred to medical/surgical services (within those referred to medical services 49% had a completed psychiatric assessment form). 25% (318 episodes) had no formal follow up (either discharged with no referral, discharged and told to see their GP or self discharged). Of these 318 discharged episodes, 66 (21%) were subsequently detected by psychiatric services and assessed by a mental health specialist, which could indicate that a follow-up from the SAFE team at MRI was prompted by the attendance at the ED.

Data on admission to general hospital (including short stay wards) was available for 844 episodes. Admission was requested for 358 episodes and 339/844 episodes (40%) were actually admitted.

Management of episodes of self-harm in ED Department (n = 1270)



NB: Each case may be referred to more than one service.

ED Management by method of harm (n=1269)

ED Management:	Self-poisoning ^a (n=971)	Self-cutting (n=268)	Self-injury: other (n=30)
Discharged	28%	44%	23%
admitted to general hospital ^b medical/ surgical services	48%	12%	46%
psychiatric referral	36%	7%	23%
other services	46%	47%	63%
	3%	5%	0%

^a Self-poisoning by drugs and other ingestible substances combined

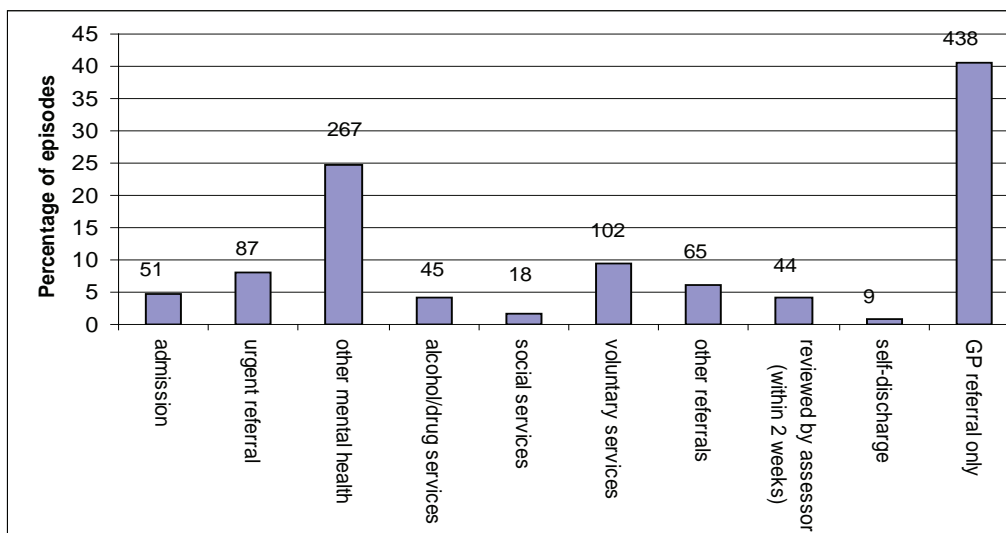
^b Admission status by method known for n=843 cases. Valid n for self-poisoning, cutting, other injury and other poisoning = 645, 185 and 13 respectively.

Where method of harm was self-cutting there were fewer general hospital admissions or referrals to medical/surgical services and a greater number of discharges from the ED (this could reflect perceived medical seriousness). Those that self-cut were however equally as likely to be referred to psychiatric services as those who self-poisoned.

Management of DSH by Mental Health Specialists

There were 1078 episodes assessed by mental health specialists of which 44% of the assessments were completed by nurses and 55% by SHOs. Of the 51 admissions (5%) made by mental health specialists, 3 were made under the Mental Health Act (1983). Of the 87 urgent referrals (8%), 15 were made to a 24-hour community service and 72 were made to outpatients. Referrals to 'other mental health' constituted 25% of episodes and included referrals to day hospitals, community psychiatric teams, mental health teams and outpatients. 'Other' referrals include referrals to psychologists, debt counselling and marriage guidance. GP referral only constituted cases not formally referred elsewhere or not advised to contact another service.

Management of adult self-harm episodes by mental health specialists (n =1078)



NB: Each case may be referred to more than one service

Suggested service needs for self-harm patients presenting to MRI from 1st September '03 to 31st August '05



Glossary of inclusion criteria

Service	Characteristics of self-harm patient who may require that service
A	Individuals currently receiving psychiatric treatment, those assessed as a high suicide risk, individuals with hallucinations and delusions, individuals harming in a direct response to mental state and individuals with a diagnosis of mental illness.
B	Individuals currently being treated for alcohol/substance misuse, current alcohol/substance abuse diagnosis, those drinking more than 7 units of alcohol per day.
C	Individuals with interpersonal, bereavement, bullying, abuse, victim of crime, miscarriage problems. Interventions for this group might include problem solving, brief psychodynamic interpersonal therapy, CBT etc.
D	Individuals with financial, housing, unemployment and/or legal problems, or individuals who repeat DSH (self-report) where no specific service is appropriate.

N.B. All categories are exclusive. A minority of patients were not assessed as falling into any of the above categories. Informing the patient's GP is recommended in all cases.

WYTHENSHAW HOSPITAL

Source of Forms and Response Rate

	YEAR 7 1 st Sept 03 – 31 st Aug 2004	YEAR 8 1 st Sept 04 – 31 st Aug 2005
	TOTAL	TOTAL
Number of episodes with forms	856	829
Number of episodes without forms	104	101
Number of episodes did not wait (DNW)	67	43
Total number of episodes	1027	973
Total number of ED forms	741	717
Total number of Psychiatric forms	484	505
Total number of individuals	784	772

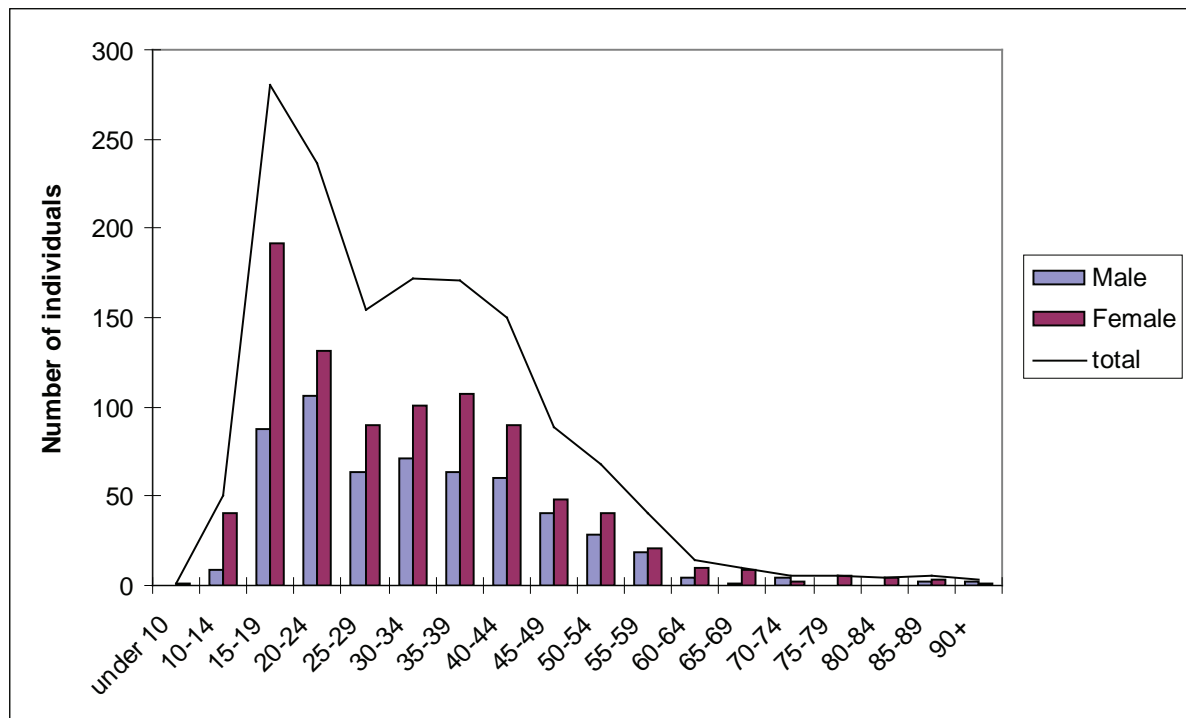
NB Total number of individuals = 1st chronological episode at ED within that year regardless of treatment status.

Over the two year report period assessment forms were received for 89% of episodes (excluding those that did not wait for treatment). Of these 52% were assessed by mental health specialists.

The following results are based on presentations to Wythenshawe ED following self-harm between 1st September 2003 and 31st August 2005.

Social and Demographic Characteristics of Self-Harming Individuals (data on all individuals by index episode from Sept 03 - Aug 05)

All Self-harming Individuals by sex and age (n=1460)



Based on index episode across the two year report period, 1472 individuals presented with self-harm. 68 individuals (5%) did not wait (DNW) and did not return to be treated.

Age and Gender	N (Valid cases) 1460	61% female	Mean age 32 years, ranging from 9 to 95 years.	The group of patients with the highest frequency of self-harm were aged 15-19 years for females and 20-24 years for males.
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Additional socio-demographic information was available for those 1287 individuals who had completed forms. Data was acquired directly from hospital records at Wythenshawe for some cases without forms.

Ethnicity	N (Valid cases) 1251	95% white	The largest ethnic minority group was Indian /Pakistani or Bangladeshi (3%). 1% were black, 0.1% were Chinese, 0.3% were mixed race and 1% fell into the 'other' category.	
Marital, Employment and Living	1234		Most patients were single (61%), 26% were married or partnered, 12% were separated or divorced and 2% were widowed. 28% were unemployed, 35% were employed and 17% were registered sick. 28% lived with a spouse/partner, 21% lived alone and 27% with a parent/sibling. 4% were homeless or lived in hostels/lodgings.	

Gender differences

- ❖ Ethnicity: more females were from non-white ethnic groups (7% females vs 4% males).
- ❖ Marital: males to some extent were more likely to be single (64% males vs 58% females).
- ❖ Employment: males were slightly more likely to be unemployed (31%) and more males were registered sick/disabled (20%) than females (27% and 15% respectively).
- ❖ Living: males were more likely to live alone (26% males vs 18% females) and more males were homeless (3% males vs 1% females) although males were not more likely to live in hostels/lodgings (2% of males, 3% females).

Clinical Characteristics of Self-Harming Individuals (data on individuals by index episode with completed forms, Sept 03 – Aug 05 (n = 1287))

Current and Previous Psychiatric Treatment

The psychiatric history was known in 1201 individuals (93% of those assessed). 42% of these were receiving current psychiatric treatment (including treatment from GP) and a further 15% had received psychiatric treatment in the past.

Alcohol and Substance Misuse

1204 individuals (94%) were assessed for their use of alcohol and street drugs. 26% of these were classified as abusing alcohol (33% of males and 22% of females) i.e. current harmful alcohol consumption or drinking 7 or more units a day. Drug misuse (use on a regular basis or classified as harmful use by a clinician) was identified in 15% (24% of males and 10% of

females). Analysis of all episodes revealed that 52% of episodes involved alcohol use at the time of self-harm (62% of males and 49% of females).

Precipitants of Self-Harm

In 1106 cases (86% of those assessed) a precipitant to self-harm was known. The most frequent reason given as a precipitant to self-harm was relationship problems with partner/boyfriend/girlfriend (44%) followed by relationship problems with a family member (21%). The third most frequently given precipitant was self-harm as a direct response to their mental state at time of self-harm (17%). A further 11% cited problems with work, 10% cited money problems and 8% gave bereavement, housing, or health problems as precipitant to self-harm.

Evidence of mental disorder - clinical impression at time of assessment

Information on the presence of absence of a psychiatric disorder was available for 407 individuals (52% of individuals assessed by mental health specialists) Of these 13% had probable depression. Alcohol or drug misuse was identified in 30% (an additional 2% had alcohol dependence and 1% had substance dependence). Severe mental illness such as psychotic depression and schizophrenia were identified in 2%, anxiety related disorders in 2% and 0.2% had a personality disorder. Of those assessed for diagnosis of a psychiatric disorder 46% had no evidence of psychiatric illness.

Repetition of Self-Harm

Self-reported previous self-harm:

1224 individuals were assessed for self-reported previous self-harm. 676 individuals (55%) reported previous self-harm with or without medical treatment. Of these 31% (379) reported self-harming within the last year.

6 month repetition rate:

6 month repetition rate could be calculated on all 784 individuals on the MaSH database for Year 7 (1st September 2003 – 31st August 2004) allowing all individuals a 6 month follow-up period (up to 1st March 2005). Of these 16% (125) re-presented with an episode of self-harm within 6 months of their first episode.

For Year 8 (1st September 2004 – 31st August 2005) there were 357 individuals for whom 6 month repetition could be calculated (index episode before the 1st March 2005 i.e. allowing all individuals a 6 month follow-up period). Of these 17% (62) re-presented with an episode of self-harm within 6 months of their first episode.

12 month repetition rate:

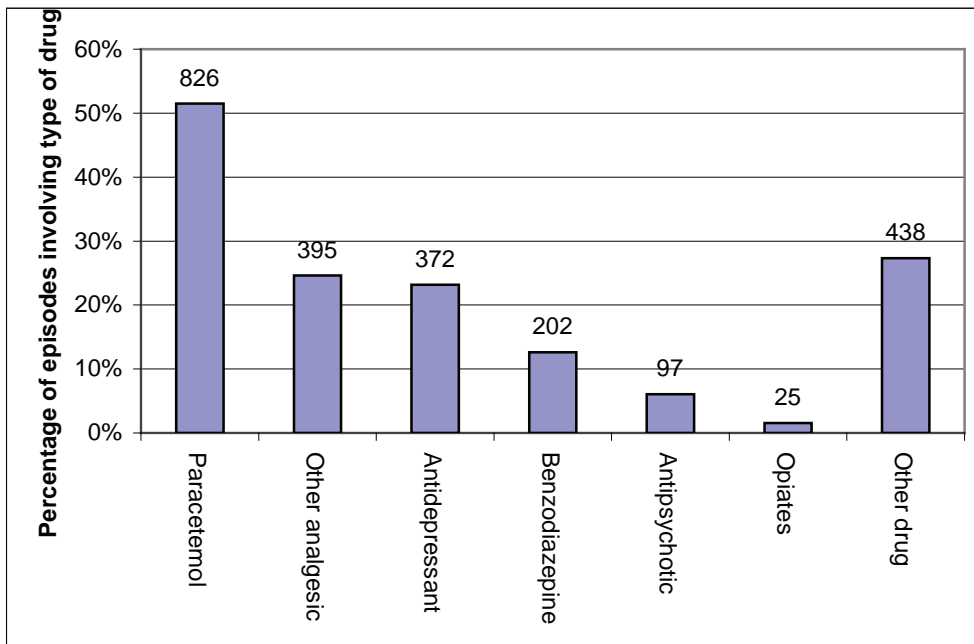
Repetition rate within 12 months of index could be calculated for all 784 individuals who presented during Year 7 (allowing a full 12 months follow-up period during year 8). Of these 18% (144) re-presented with an episode of self-harm within 12 months of their first episode.

Clinical Characteristics of Self-Harming Episodes (data on all episodes from Sept 03 – Aug 05)

Method of Self-Harm

A method of self-harm was recorded for 1995 episodes (99.8%) of self-harm at Wythenshawe (including DNW). The most frequent method of self-harm was by self-poisoning (84%) and the second most frequent method was self-injury (cutting/piercing) (12%). Other methods of self-injury such as asphyxiation or drowning were used by 3%. Of those that self-poisoned using drugs we have information on the type of drug taken in 95% of episodes (1604 cases).

Type of drug taken in self-poisoning episodes (n = 1604)

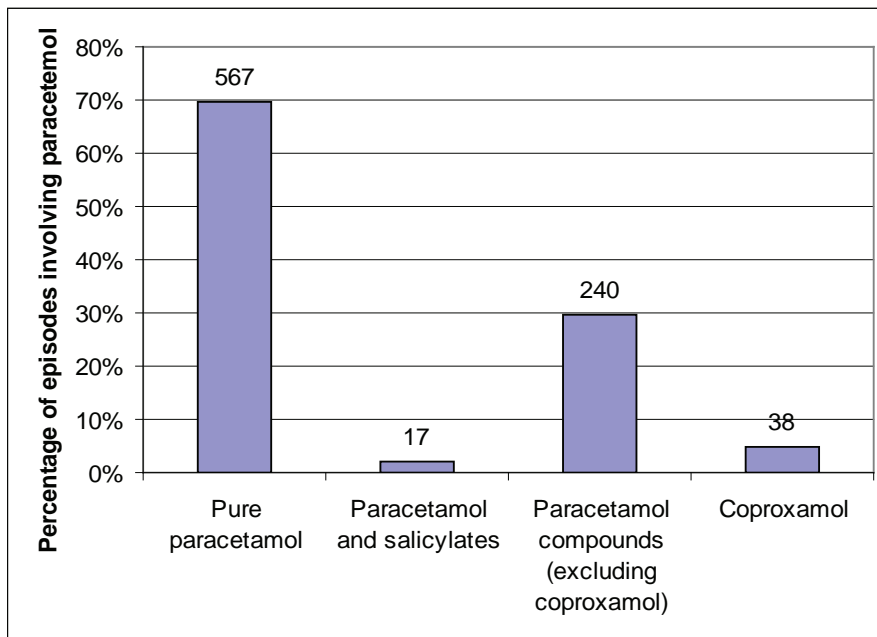


NB: more than one drug may have been taken per episode
 'Opiates' refers to heroin, morphine and methadone only

Paracetamol compounds, including pure paracetamol, were the most frequently used drugs (involved in 53% of self-poisoning episodes) followed by other analgesics (26%), antidepressants (23%) and benzodiazepines (14%). Under 25's were more likely to take paracetamol products or other analgesics than older age groups.

Analysis of paracetamol products that were used in overdose by age group is given below.

Paracetamol products used in episodes of self-poisoning (n = 812)

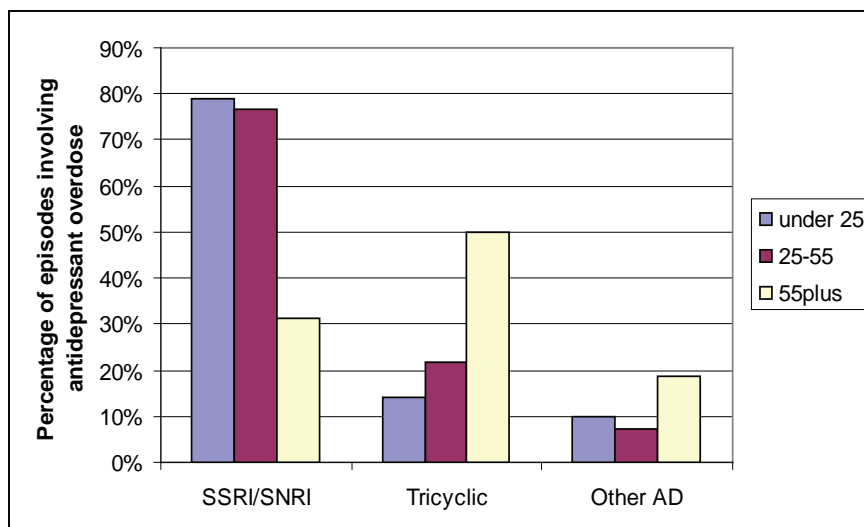


NB: more than one type of paracetamol preparation may have been taken per episode

Antidepressants

Of the 372 episodes involving antidepressants the type of antidepressant taken was known for 350 cases (94%). The majority used SSRIs and SNRIs (75%), with 21% using tricyclic antidepressants. Females were somewhat more likely to take SSRI's/SNRI's (78% vs 70%) and males were more likely to take tricyclics (24% vs 19%). Age group differences are shown in the graph below.

Antidepressants used in episodes of self-poisoning (n=372)

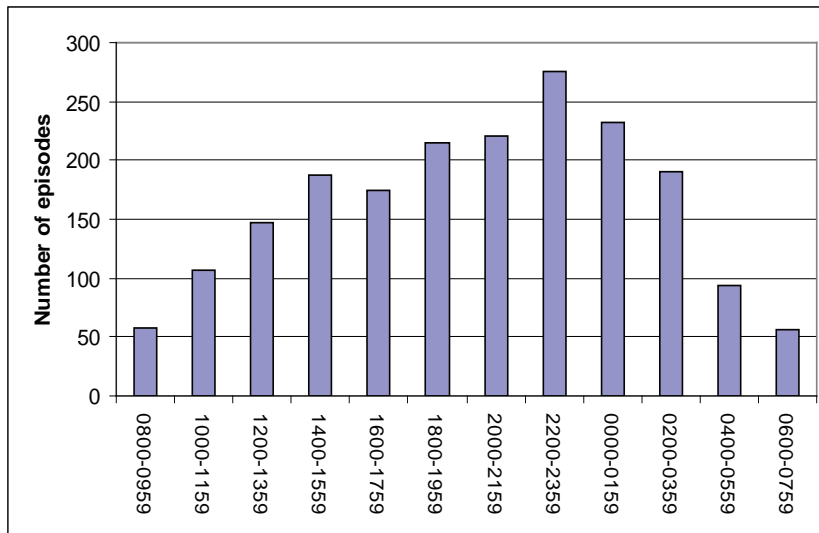


Benzodiazepine overdose

Up to the age of 40 years benzodiazepine overdose was slightly more common amongst males than females. Above the age of 40 years, the proportion of females using benzodiazepines increased considerably. Benzodiazepine overdose was most common in females aged 45-49 years and was involved in 32% of self-poisoning episodes for this age group.

Time of Presentation

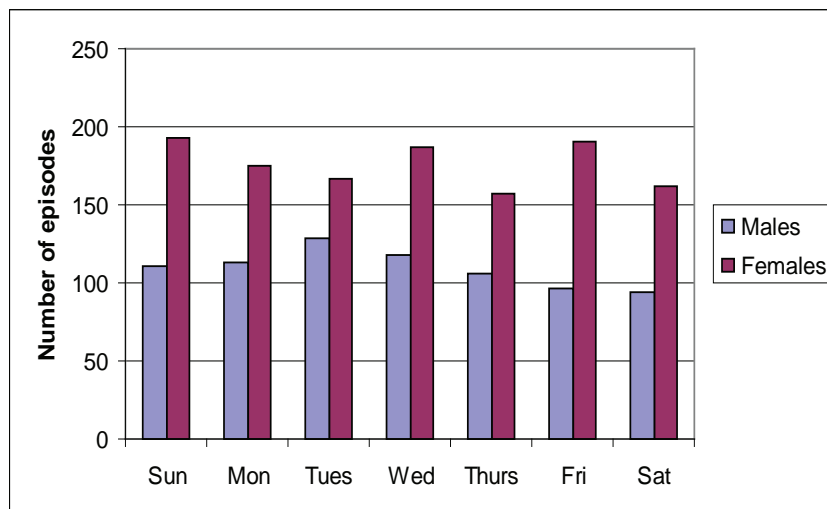
Number of episodes by time of presentation (n = 1958)



Of the 1958 episodes (98%) where time of presentation at the ED was recorded, the majority of presentations occurred in the evening and at night: 47% presented to ED between the hours of 8.00p.m and 4.00a.m.

Presentations by weekday

Number of episodes by weekday (n = 1958)



There was a tendency for presentations to vary by gender and weekday although overall there was little variation in the total number of presentations per weekday.

Management of Self-Harm Episodes (data from completed forms, Sept 03 – Aug 05)

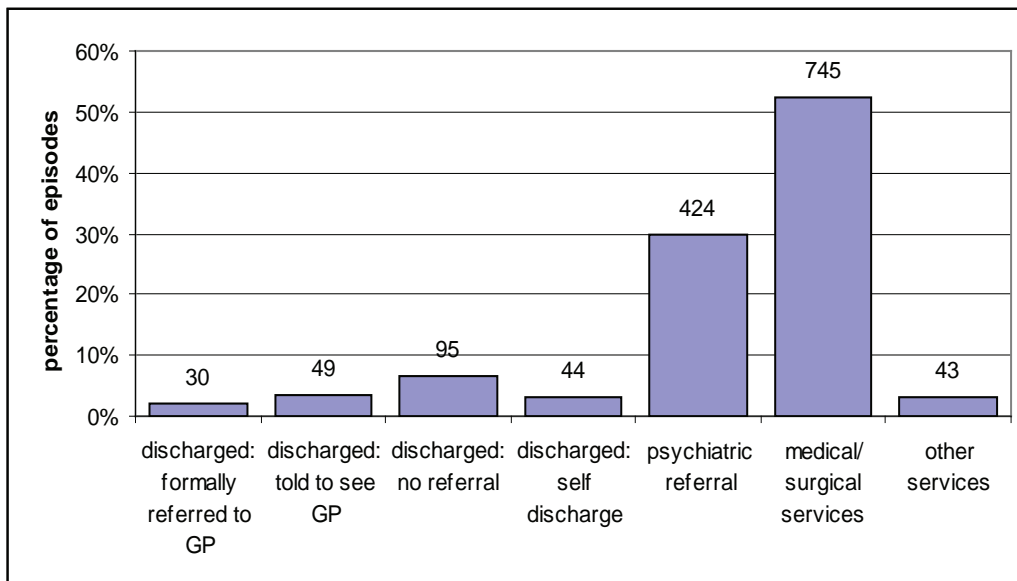
Management of Self-Harm Episodes by ED Staff

There were 110 episodes of self-harm where patients did not wait for treatment. Of the 1570 episodes assessed by ED staff, 82% were completed by SHOs (82%), 15% by registrars and 3% by consultants, nurses and other staff.

Of those assessed by ED staff, the management in the ED was known in for 1422 episodes. Referrals to psychiatric services accounted for 30% of episodes. The majority of episodes (52%) were referred to medical/surgical services (within this group 62% had a completed psychiatric assessment form). 13% (188 episodes) had no formal follow up (either discharged with no referral, discharged and told to see their GP or self discharged). Of these discharged episodes, 23 (12%) were subsequently detected by psychiatric services and assessed by a mental health specialist.

Data on admission to general hospital (including short stay wards) was available for 1069 episodes. Admission was requested for 872 episodes and 806/1069 episodes (75%) were actually admitted.

Management of episodes of self-harm in ED Department (n = 1422)



NB: Each case may be referred to more than one service.

ED Management by method of harm (n=1422)

ED Management:	Self-poisoning ^a (n=1220)	Self-cutting (n=163)	Self-injury: other (n=39)
discharged	11%	47%	18%
admitted to general hospital ^b	83%	17%	44%
medical/ surgical services	67%	13%	33%
psychiatric referral	28%	42%	46%
other services	1%	6%	8%

^a Self-poisoning by drugs and other ingestible substances combined

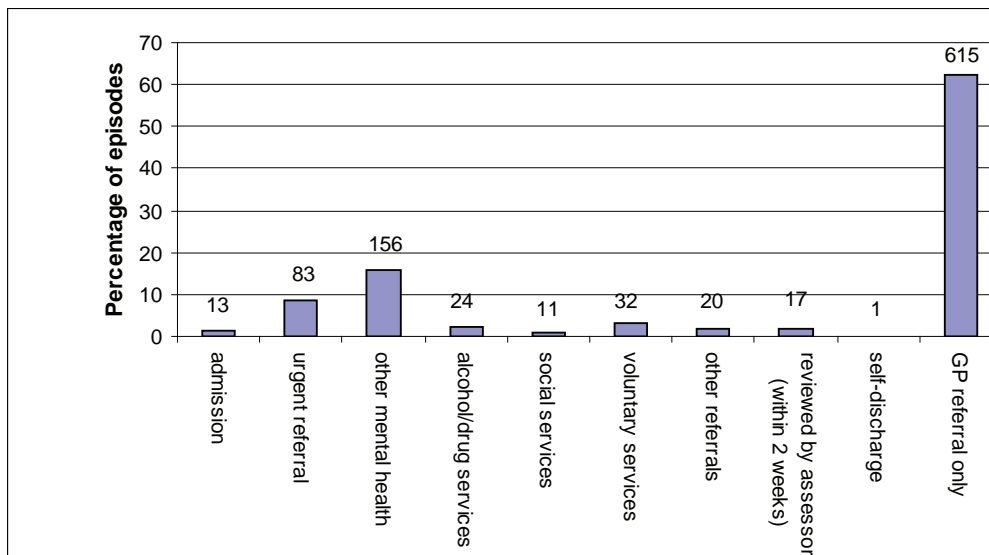
^b admission status known for n=1069 cases. Valid n for self-poisoning, cutting, other injury = 938, 106 and 25 respectively.

Referral to medical services and admission to general hospital were highest where method of harm was self-poisoning; the majority of those that self-poisoned (83%) were admitted to general hospital. Those that used self-cutting as a method of harm were most likely to be discharged from the ED, although 42% of those that self-cut were referred to psychiatric services.

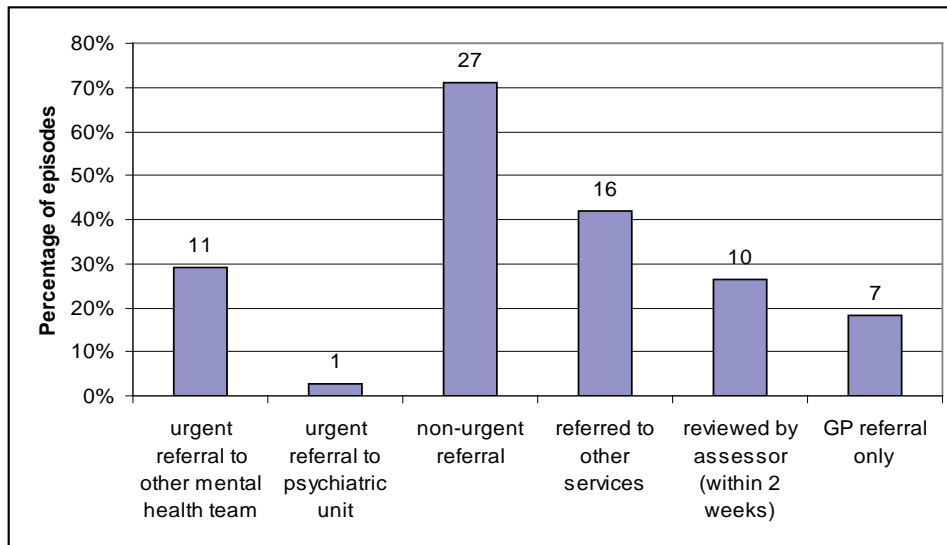
Management of Self-Harm Episodes by Mental Health Specialists

989 episodes received assessments by mental health specialists and 38 of these were assessed by staff at the Carol Kendrick Unit (Child and Adolescent Psychiatry). Of the assessments by mental health specialists, 93% were completed by nurses, 6% by SHOs and 1% were completed by therapists. Of the 13 admissions (1%) made by mental health specialists, 1 was made under the Mental Health Act (1983). Of the 71 urgent referrals (7%), 17 were made to a 24-hour community service and 54 were made to outpatients. Referrals to 'other mental health' constituted 16% of episodes and included referrals to day hospitals, community psychiatric teams, mental health teams and outpatients. 'Other' referrals (2%) include referrals to psychologists, debt counselling and marriage guidance. GP referral only (62%) constituted cases not formally referred elsewhere.

Management of adult self-harm episodes by adult mental health specialists (n = 989)



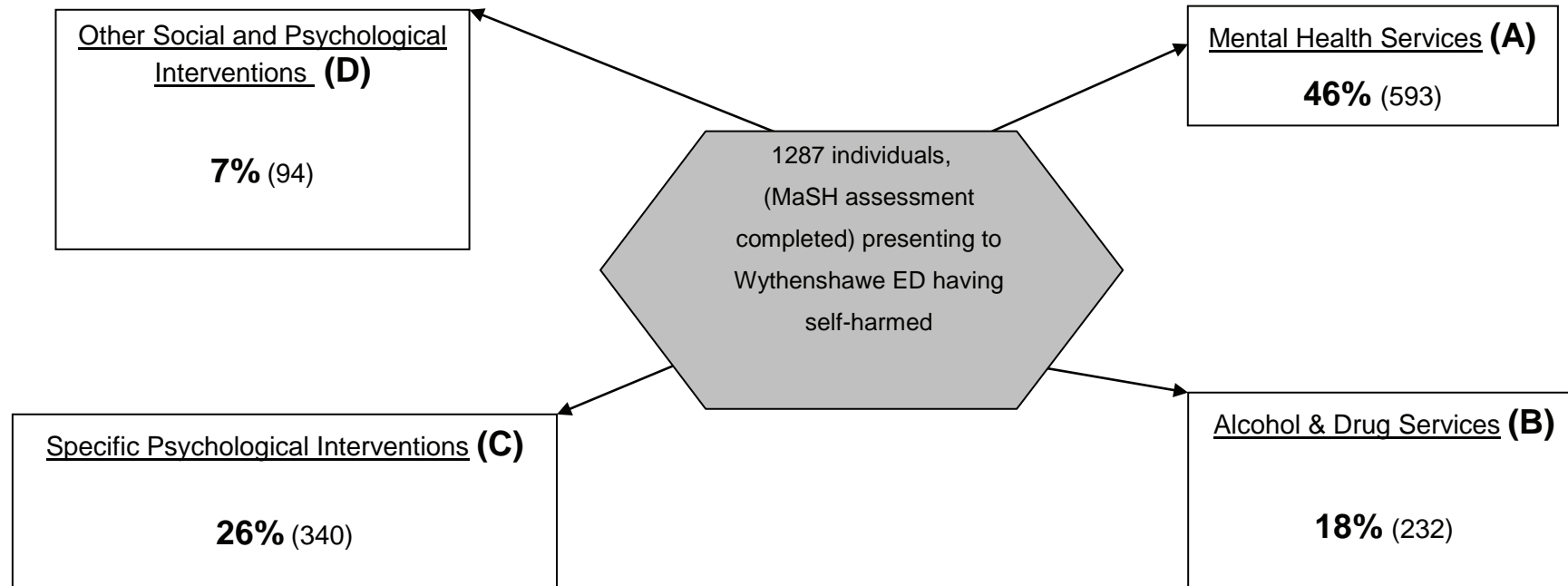
Management of child self-harm episodes by mental health specialists - Carol Kendrick Unit (n=38)



NB: Each case may be referred to more than one service.

There were 38 episodes by individuals aged 16 and under which were assessed by staff at the Carol Kendrick Unit (Child and Adolescent Psychiatry). Of these none were admitted as a psychiatric inpatient. Of the 12 (32%) urgent referrals made 1 child was referred to a psychiatric unit and 11 to other mental health teams. 71% of children were given a non-urgent referral including out patient mental health teams and community psychiatric nurses. Referrals to other services including social services were made for 42% and 18% were referred to their GP only. None of the children self-discharged.

Suggested service needs for self-harm patients presenting to the South Manchester University Hospital Trust from 1st September '03 to 31st August '05



Glossary of inclusion criteria

Service	Characteristics of self-harm patient who may require that service
A	Individuals currently receiving psychiatric treatment, those assessed as a high suicide risk, individuals with hallucinations and delusions, individuals harming in a direct response to mental state and individuals with a diagnosis of mental illness.
B	Individuals currently being treated for alcohol/substance misuse, current alcohol/substance abuse diagnosis, those drinking more than 7 units of alcohol per day.
C	Individuals with interpersonal, bereavement, bullying, abuse, victim of crime, miscarriage problems. Interventions for this group might include problem solving, brief psychodynamic interpersonal therapy, CBT etc.
D	Individuals with financial, housing, unemployment and/or legal problems, or individuals who repeat DSH (self-report) where no specific service is appropriate.

N.B. All categories are exclusive. A minority of patients were not assessed as falling into any of the above categories. Informing the patient's GP is recommended in all cases.

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Continuing and proposed work programme and collaborations

Continued collaboration with other self-harm monitoring centres as part of the Multicentre Monitoring Project.

Deliberate self-harm and suicide: gender specific trends in eight European regions – Network for International Collaboration on Evidence in Suicide Prevention (NICE–SP).

Factors associated with none capture of NHS number in the Manchester self-harm population.

Factors associated with receipt of specialist psychosocial assessment following an episode of self-harm and association with subsequent repetition of self-harm

Audit of the communication between primary and secondary care following presentation of self-harm. Does communication affect subsequent management in primary care and repetition of self-harm?

Exploring patient experience of treatment in the Emergency Department following self-harm and the subsequent impact their experiences have on suicidal behaviour.

Further understanding of the processes underlying risk assessment and comparison of risk assessment by discipline.

Exploring the differences in characteristics between those who correctly remember previous self-harm and those who do not.

Repetition according to type of drug taken in overdose, how this varies by age and gender and specific examination of the characteristics associated with benzodiazepine overdose.

Comparing the accuracy of global clinical assessments of risk with the Manchester Self-Harm Rule in specialist and non specialist staff.

Validating the clinical tool both retrospectively using our links with existing databases and prospectively in other centres. Conducting a feasibility study of the implementation of the prediction tool to clinical settings.