



Manchester and Salford

Self-Harm Project (M.A.S.S.H.)

Fourth Year Report

(1.9.2000 – 31.8.2001)

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THE MONITORING OF DSH AN AUDIT OF PRACTICE

INTRODUCTION

The Manchester and Salford Self-Harm (M.A.S.S.H.) Project is a city-wide collaboration between the University of Manchester and local hospital trusts. The project is funded by the Manchester Mental Health Partnership (South Manchester University Hospitals Trust, Central Manchester Hospital Trust, North Manchester Hospital Trust) and Salford Mental Health Services Trust. It began in April 1997 and data collection commenced in September 1997.

Aims

- To monitor patterns of deliberate self-harm (DSH) locally
- To evaluate DSH services
- To provide the evidence on which service development and training may be based
- To provide an infrastructure for further research on patterns DSH and their clinical management

Method

In each participating Trust, data collected includes:

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

On each patient presenting at an Accident and Emergency (A&E) Department with DSH, a standard brief assessment form containing the above items is completed, usually by an emergency junior doctor. 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 following is a report on the fourth year of data from 1st September 2000 to 31st August 2001.

Acknowledgements

We wish to thank members of the A&E departments, mental health liaison teams and other psychiatric staff who have supported the project. Also thanks to Dr Navneet Kapur for his helpful suggestions in writing this report.

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Service Provision for DSH Patients

There are variations in the provision of mental health services for DSH patients between the A&E departments in the participating trusts:

A&E Crisis Service, Mental Health Services of Salford NHS Trust

The A&E crisis service is a 24hr nurse led service, consisting of 9 psychiatric nurses (RMN's) and a Clinical Leader. They are based in the Majors area of Hope A&E department. Referrals of DSH patients are from staff in the emergency department and all medical wards. The team provides risk assessments and short term follow-up if required.

DSH Team and Mental Health Liaison Team, Central Manchester University Hospital Trust

The DSH Team provides hospital or home-based assessment for patients aged 16-65yrs, having attended the A&E department at MRI, following an act of DSH. The Mental Health Liaison Nurse Team commenced on December 6th 1999 with a team of 3 psychiatric nurses and they assess this group of patients outside the DSH Team's working hours. The on-call Duty Psychiatrist assesses all patients, who reside outside the Central Manchester catchment area or those who are of no fixed abode, 24hrs a day.

09:00 to 17:00, Monday to Friday - the DSH Team (excluding Bank Holidays).

Referrals are not accepted after 16:00hrs:

16:00-23:00, Mon-Fri, Mental Health Liaison Nurse Team (MHLNT).

10:00-23:00 Sat and Sun, MHLNT.

23:00-08:00 Daily, on-call Duty Psychiatrist.

Mental Health Liaison Team, South Manchester University Hospitals Trust

The Mental Health Liaison Team was set up in February 2000, the initial team of 3.5 increased to 5 psychiatric nurses. Based at Wythenshawe Hospital, they provide the first-line psychiatric assessment for all psychiatric emergencies aged between 16 and 65, that present to the A&E department. They also provide assessments and support on all wards in the general hospital. The service operates daily from 9am to 10pm. Outside these hours the on-call Psychiatric SHO completes all the first-line assessments of psychiatric patients attending A&E.

Mental Health Liaison Team, North Manchester General Hospital

The Mental Health Liaison Team operate a service within the A&E department at North Manchester General Hospital, daily from 9am – 9pm, with the last referral being taken at 7.30pm. After this time referrals are made to the duty psychiatrist. Referrals are taken directly from Triage, medical staff & nurses in the A&E department. Following assessment, the team refer patients to other services and agencies and where appropriate provide short term support for patients presenting in crisis.

Summary of Findings

- The highest incidence of DSH occurred in females aged 15-24 years. In males the highest incidence was in patients aged between 30-35 years (slightly older than previous years). The age range was 11 to 91 years with a mean of 32 years.
- The female:male ratio of all individuals was 1.3:1. Differences between trusts did not reach statistical significance.
- Reported DSH for the period 1st September 2000 to 31st August 2001 (aged 15 years and above, both sexes) occurred in 346 individuals per 100,000 in the Manchester (ward) area; 390 and 301 per 100,000 for females and males respectively. There appears to have been a decrease in the rate of DSH compared to previous years.
- Many of the characteristics of DSH patients presenting to A&E departments of the four participating trusts were similar across the trusts, and to previous years. For example, DSH patients were more likely to be single, unemployed, white, self-poison by drugs as a method of harm and experience relationship problems.
- MRI had the highest proportion of patients from ethnic minority groups compared to all trusts.
- Depression was the most common diagnosis of DSH patients assessed by mental health specialists at Hope/Meadowbrook, MRI, and SMUHT. In NMGH the most

common diagnosis was alcohol/substance abuse.

- There was an increase in the number of individuals in all trusts with alcohol or drug related problems. Significantly more males than females consumed alcohol around the time of self-harm.
- The number of admissions to a psychiatric ward decreased in all trusts (41/1390 (3%) compared to 74/1623 (5%) in the previous year).
- NMGH had a greater proportion of assessments completed by mental health specialists (65%), but had proportionately less A&E forms (54%) compared to other trusts; MRI had proportionately more A&E forms (83%) and less psychiatric forms (37%) compared to other trusts.
- 1 in 5 patients were discharged from the A&E departments without any formal referral to the psychiatric services (excluding self discharging patients). Differences between the trusts were apparent. Between 8 – 28% of episodes assessed by A&E doctors were discharged without referral. MRI had the highest proportion of patients discharged directly from A&E department. (N.B. the Deliberate Self-Harm team at MRI follow up patients at home, whether or not they have been referred.)
- Over 90% of cases identified by A&E doctors as low risk did not repeat self-harm within 6 months.

CHAPTER 1

ALL PARTICIPATING TRUSTS

1. Introduction

Four hospital trusts participated in the Manchester and Salford Self-Harm (M.A.S.S.H.) Monitoring Project for the study period 1.9.00 to 31.8.01: Hope Hospital; Manchester Royal Infirmary (MRI); North Manchester General Hospital (NMGH); South Manchester University Hospitals Trust including the Duchess of York Unit (SMUHT). This report presents data on episodes and individuals from all the trusts combined and each trust separately. Individuals and their characteristics are determined from their first presentation in the period under study irrespective of the trust to which they presented. It is possible that an individual will have subsequent presentations to other trusts. He/she would not be included in the analyses of individuals in that subsequent trust; the data on this episode would be included in the analyses where all episodes are presented.

- **Response rates**

The total number of forms received compared to the total number of known DSH episodes was calculated within the study period. Episodes were identified from computerised print outs and A&E department daily registers. Episodes where the patient did not wait for treatment were excluded. The estimated response rate across all four trusts was 79% for the period of this report. A recent audit conducted by the mental health liaison teams in North, South and Central Manchester A&E

departments confirmed the comprehensiveness of our data collection methods. The return of forms was significantly different between hospitals ($p = 0.001$). NMGH had a greater proportion of completion of assessments by mental health specialists, but had proportionately less A&E forms compared to other trusts; MRI had proportionately more A&E forms and less psychiatric forms compared to other trusts.

- **Missing data**

Not known categories within episodes were treated as missing data and excluded from the analysis.

2. Social and demographic data

- **Age and Sex**

Sex ratio

Individuals – the ratio of females:male in the individual trusts was 1.3:1 did not differ significantly between trusts.

Table 1.2: Number of Individuals & Episodes

	Male	Female	Total
Episodes	1251	1634	2885
Individuals	1059	1360	2419

Age

Individuals –. Data on age was available for nearly all individuals; the age range was 11 to 91 years with a mean of 32 years. In females the highest number of patients who self harmed were aged 15-24 years and in males, aged between 30-35 years. A comparison of age groups across the four trusts revealed that: NMGH had a higher

proportion of individuals over 35 years (no data was available on children under 15 who self harmed at NMGH); Hope had proportionately more children under 15 years (particularly female); MRI had a greater proportion in 15-24 age group and SMUHT had a higher proportion of 25-29 year olds in both sexes compared to the other trusts; SMUHT had the highest proportion of over 65's, particularly males.

- **Method of harm (all episodes)**

The main method of harm was self poisoning by drugs with 84% (2423/2885) using this method of harm; 49% (1177/2399) of all self poisoning involved paracetamol.

- **Social data (individuals)**

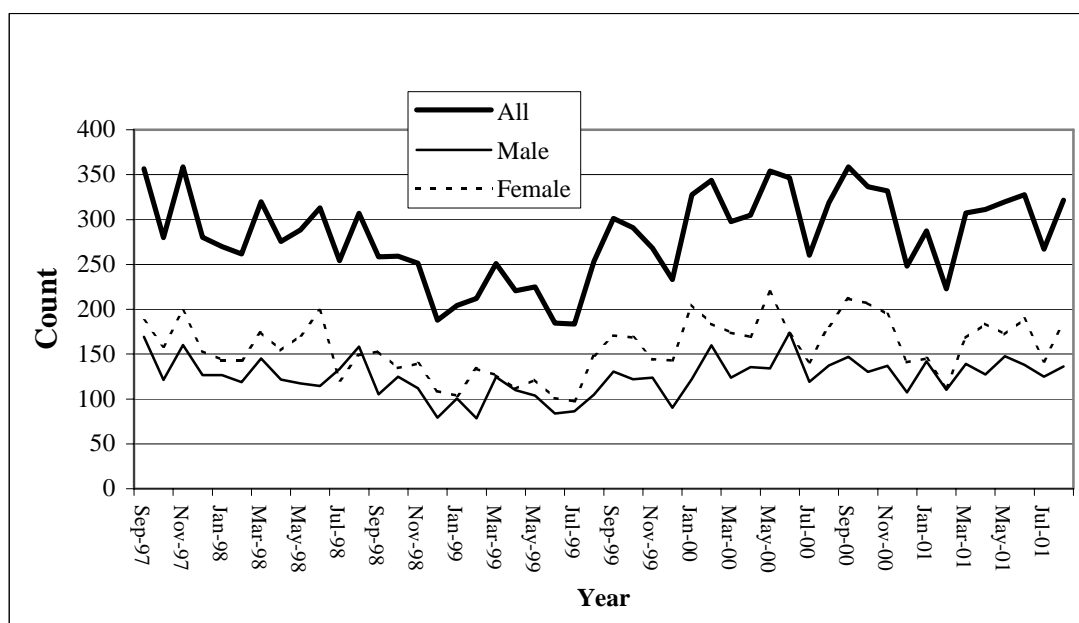
There were 2419 individuals who self harmed during the period of this report, of whom 92% (2177/2355) were white. The largest ethnic minority group was Indian/Pakistani/Bangladeshi at 4% (85/2335). The majority of individuals were single, 55% (1275/2335), and unemployed, 41% (941/2318). 1 in 3 were either living alone, homeless or in hostel accommodation.

- **Trends over time**

Episodes

Number of episodes was weighted by the response rate, to reflect the true count of DSH presentations in the hospitals involved in this study (see fig.1.1).

Fig.1.1: All Trusts: Number of Episodes (weighted by the response rate)



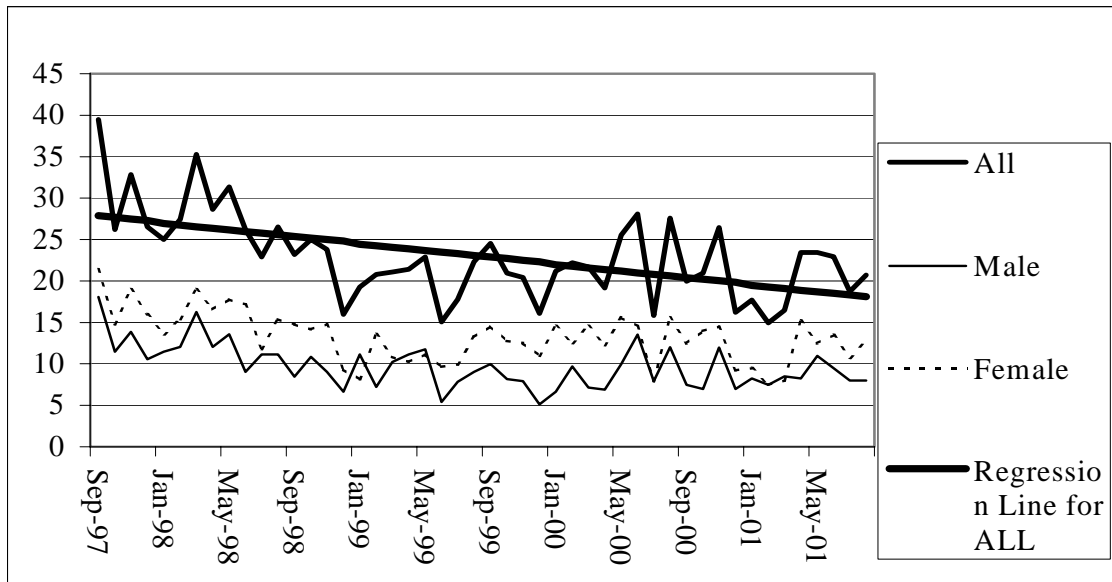
There were no major differences apparent between various hospital trusts over the period 1.9.97 – 31.8.01 (see individual chapters for details). There was a slight dip in the number of DSH presentations around March 1999. This was seen in most of the trusts, but not as apparent in NMGH. The number of male episodes were consistently lower than female episodes. However, changes in episode count occurred simultaneously for both sexes.

Rates of DSH per 100,000 in Manchester post code region

The rates were calculated by first identifying all those who reside within the Manchester postcode region (as derived from Ordnance Survey Address Point) via the postcodes of residence reported for each individual recorded in the MASSH data. The population count was provided by the Office of National Statistics (ONS) and was based on census data. The population estimate used for year 1 and 2 (September 1997 to August 1999) was the mid-1998, for year 3 (September 1999 to August 2000)

the mid-2000 estimate was used, and for year 4 (September 2000 to August 2001) the mid-2001 population estimate was used. The population of Manchester for mid-2001 (aged 15 years and above) was estimated at 346,301 with the female:male ratio of 1.02:1. The crude rate annual rate of DSH for year 4 (aged 15 years and above, both sexes) was 346 per 100,000; 390 and 301 per 100,000 for females and males respectively.

Fig.1.2: Monthly Rates of DSH in Manchester (rates per 100,000, with regression line for all individuals)



The rates of DSH in Manchester seem to have decreased somewhat. Figure 1.2 shows the rates over the months and a regression line for the total rate.

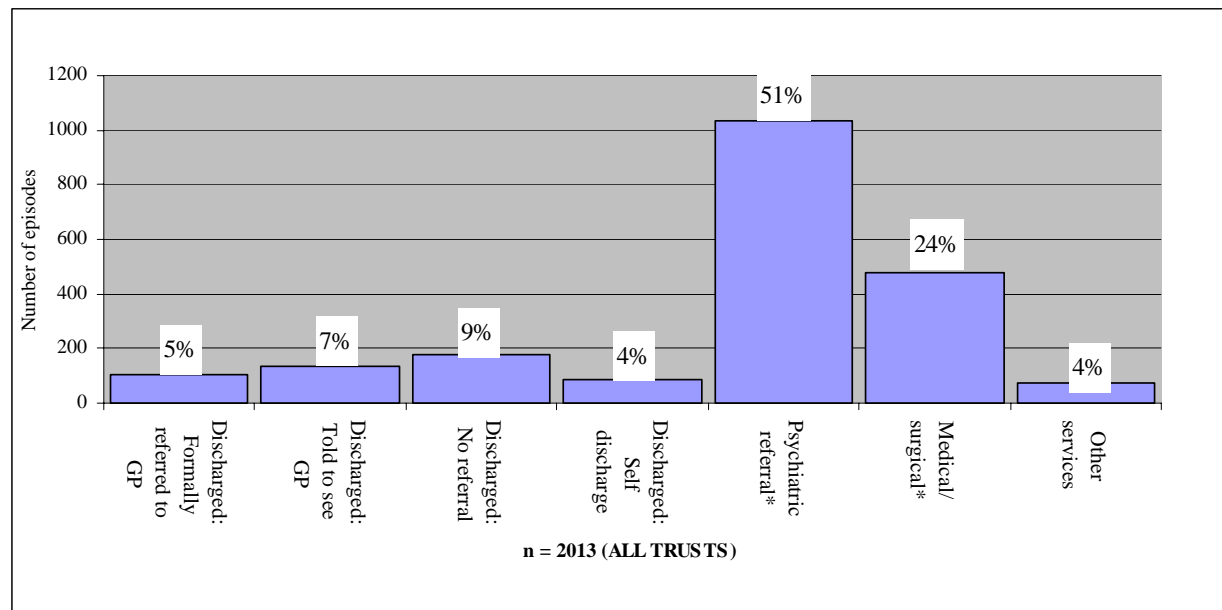
CHAPTER 2

ALL PARTICIPATING TRUSTS

Service Data

The following figures depict the management of episodes of self-harm in all centres.

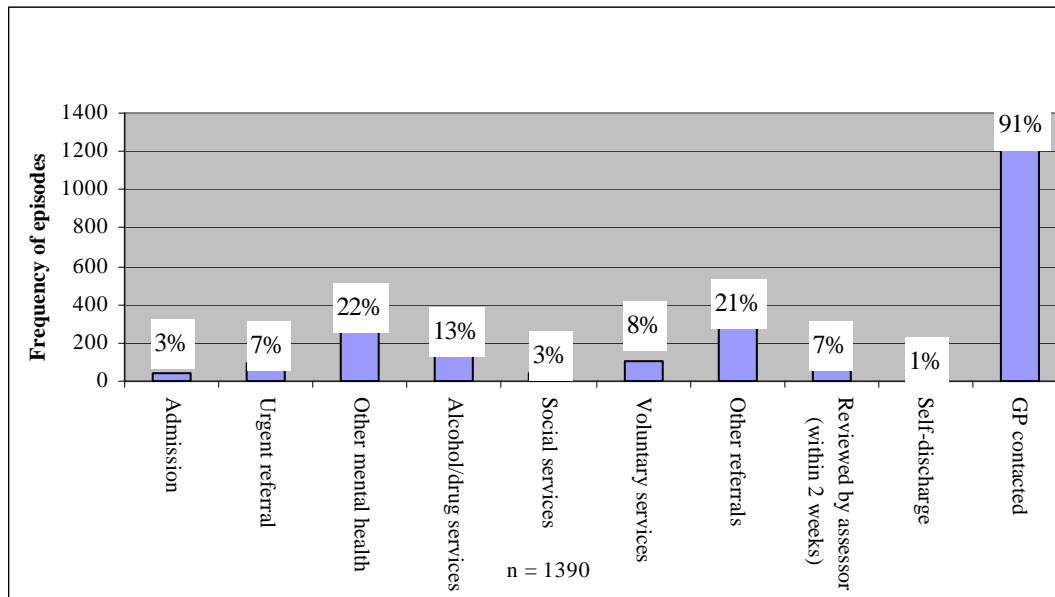
Fig.2.1: Management of deliberate self-harm in A & E Department



* denotes 'high risk management'.

The A & E departments completed forms on 2233 episodes of deliberate self-harm, 2013 (90%) were available for analysis due to incomplete data on clinical management on some forms. High risk management indicates those episodes that were either referred to medical or surgical services or directly to psychiatry from the A&E department; two thirds of episodes were managed in this way. 25% (497/2013) were discharged directly from the A&E department (including self discharge); however, 13% (65/497) were assessed by a mental health specialist prior to discharge.

Fig.2.2: Management of adult self-harm episodes by mental health specialists

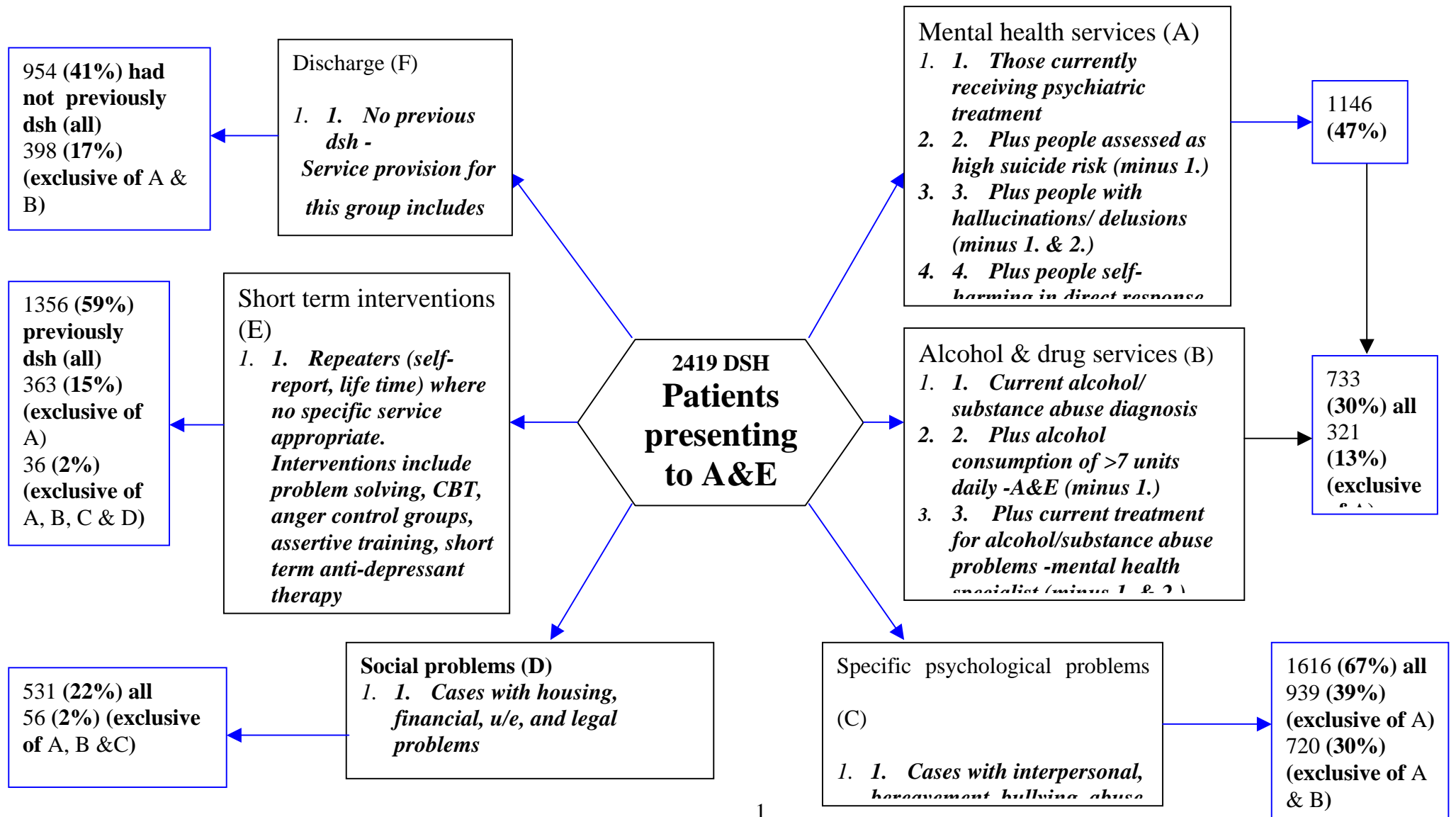


N.B. More than one referral per episode may be made. Referral does not necessarily mean new contact.

In most cases the GP was contacted either by letter or telephone. ‘Other mental health’ relates to either referral to day hospital, community psychiatric team/community mental health team/primary care team or outpatients. Referrals to drug and alcohol teams have been given separately and include 102 episodes (7%) where patients were told to see these services. Out of 41 psychiatric admissions, 5 were formal.

Fig. 2.5 overleaf presents the volume of DSH patients grouped according to service needs, for the period 1st September 2000 to 31st August 2001, in all participating trusts. A striking difference from the previous year data is the increase in patients with alcohol/drug problems.

Fig.2.5: Volume of service needs of DSH patients (all trusts)



CHAPTER 3

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HOPE/MEADOWBROOK HOSPITAL

1. 1. Frequency of persons and episodes

Table 3.1 shows the number of completed assessment forms on patients who had presented to the Emergency Department at Hope Hospital from September '00 to August '01. Figure 3.1 gives the response rate for the number of completed forms compared to the number of deliberate self-harm episodes (see chapter 1 for exclusion criteria).

Table 3.1: Source of forms – all episodes

	TOTAL
Total no. of A&E forms (% of total)	628 (87%)
Total no. of psychiatric forms (% of total)	332 (46%)
Both forms	240
Total no. of episodes	720

The response rate (i.e. number of forms received/number of presentations) over the period covered by this report was 85% (720/842):

Figure 3.1: Monthly Response Rates at Hope Hospital

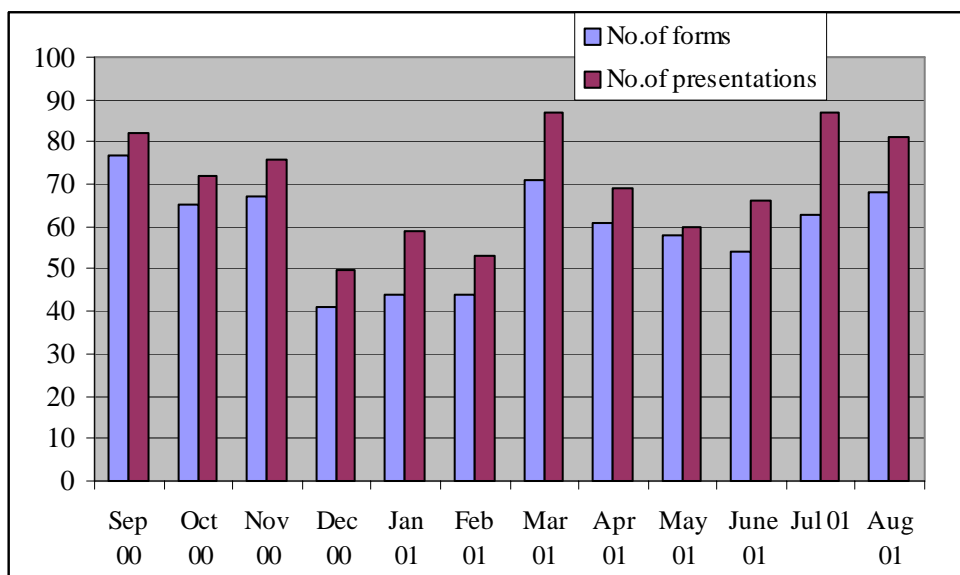


Table 3.2: Number of Individuals and Episodes

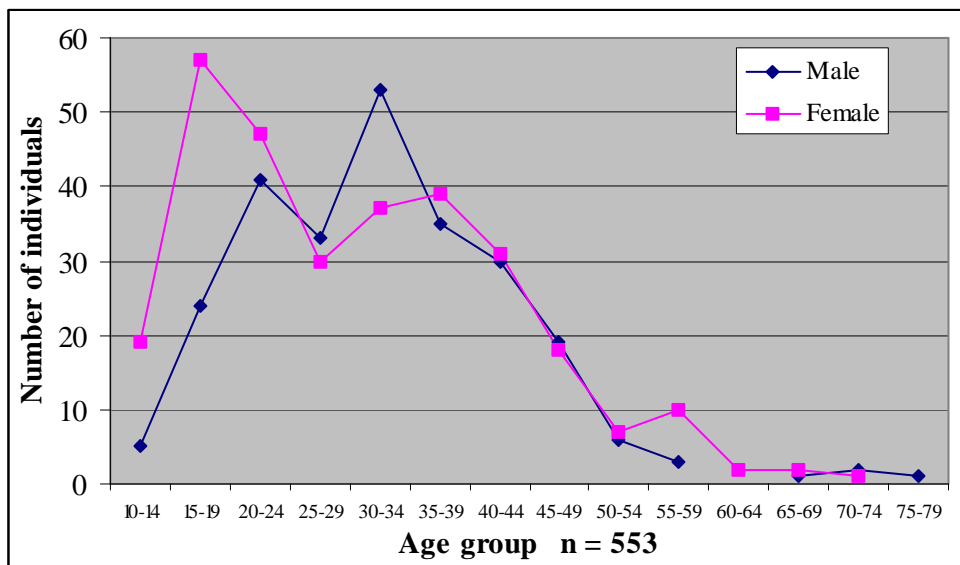
	Male	Female	Total
Episode	323	397	720
Individuals	253	300	553

2. 2. Age and sex of individuals

The female:male ratio of individuals who presented with deliberate self-harm was 1.2:

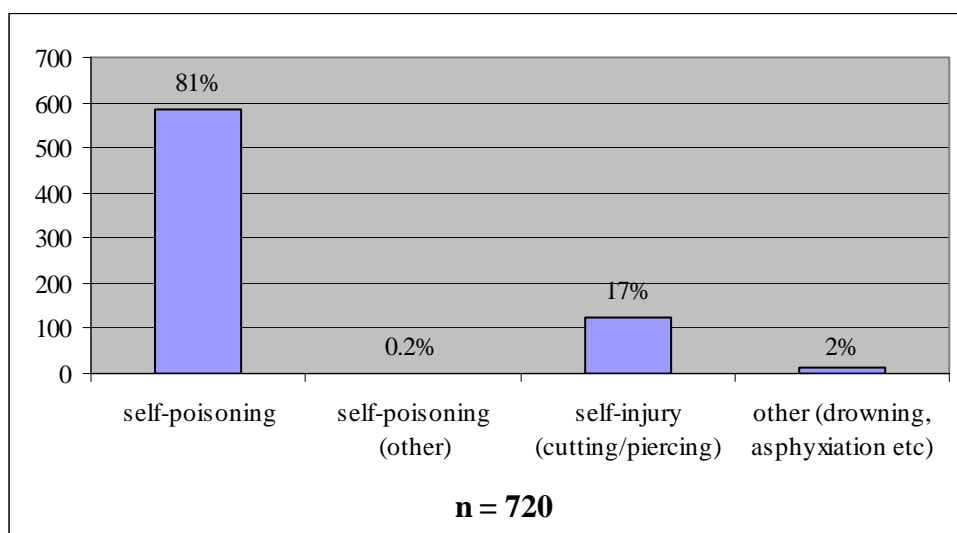
1. The mean age was 32 years, ranging from aged 11 – 77 years. The age distribution differed significantly between the sexes. More females harmed themselves as teenagers, and more males harmed themselves in their early thirties.

Fig 3.2: Deliberate self-harm individuals, by sex and age group



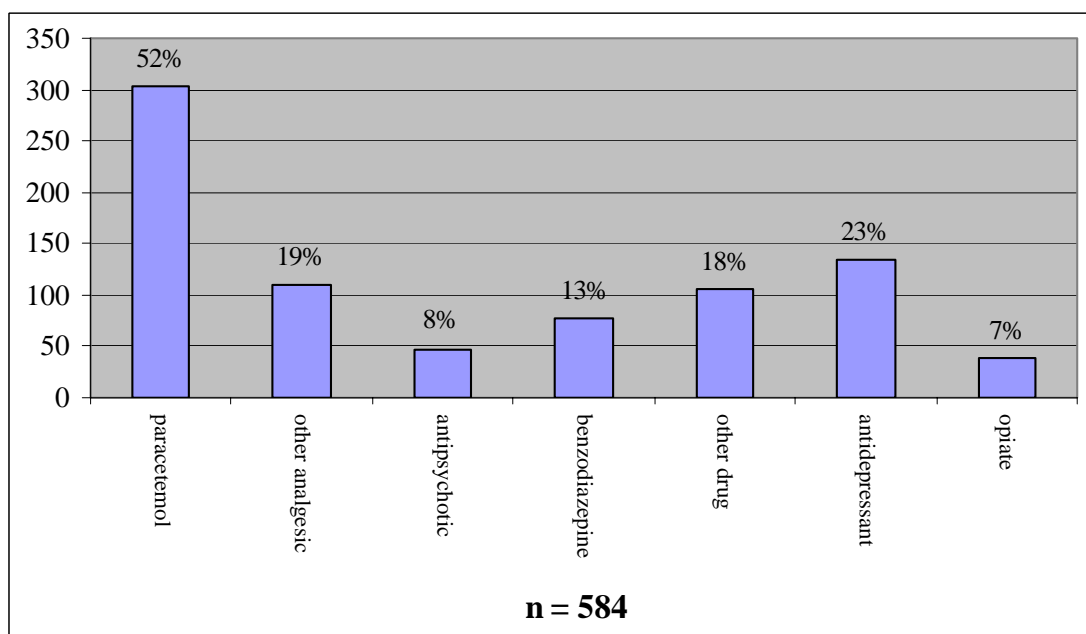
3. 3. Method of self-harm (fig 3.3) – all episodes

Fig.3.3 Main method of harm



22 episodes had more than one method of harm; in 20 episodes self-injury was an additional method used in conjunction with self-poisoning by drugs.

Fig. 3.4: Type of drug used as a method of harm



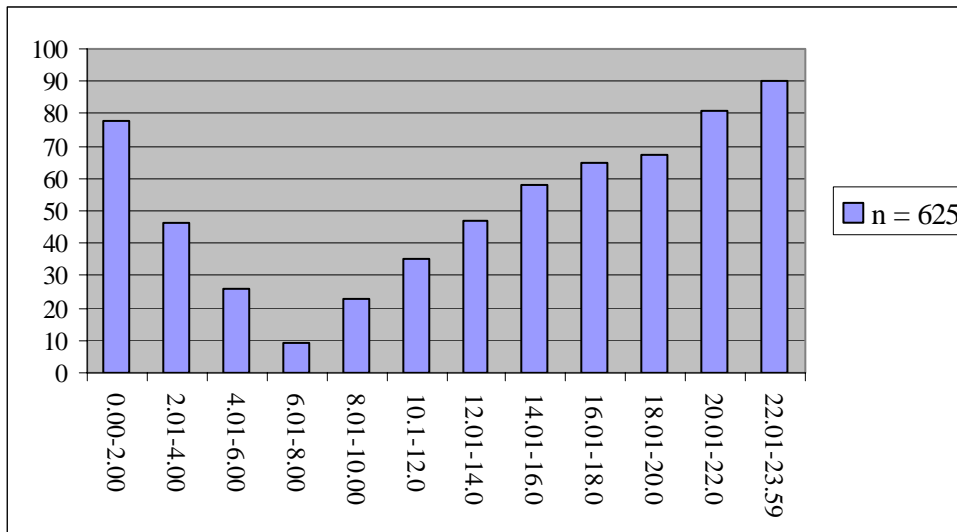
N.B. More than one drug per episode may have been taken

As in all trusts, self-poisoning by drugs was the most common method of harm with paracetamol (including compounds) the most frequently used type of drug.

Alcohol had been consumed with attempt or within 6 hours of the attempt in 56% (355/632) of episodes. A highly significant difference was found between the sexes. 64% (182/284) of males and 50% (173/348) of females used alcohol with the episode of self-harm.

4. 4. Time of presentation following self-harm

Fig. 3.5: Presentation at A & E Department



The time of presentation had been recorded on most assessment forms completed by A&E staff. Half of episodes presented between 8 p.m. and 4 a.m.

Place of harm:- 86% (274/319) of episodes took place in the patients' own home.

5. 5. Demographic, social and clinical characteristics

In the following data cases refer to individuals, rather than episodes.

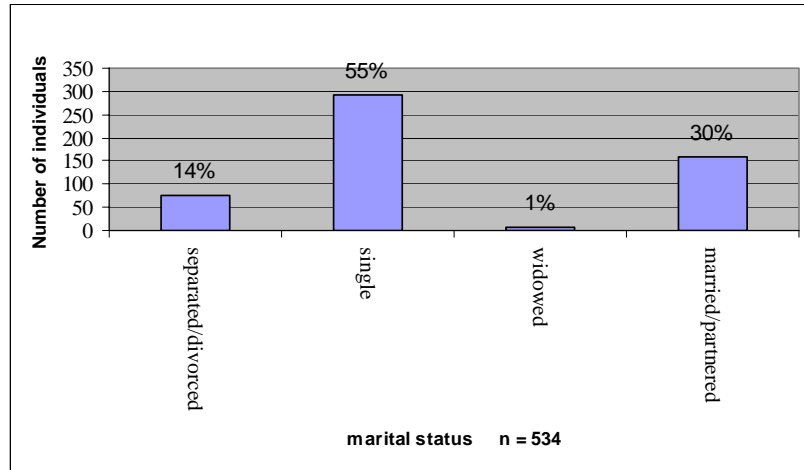
- **Ethnicity**

98% (530/541) of individuals were white. Hope had the lowest proportion of ethnic minorities compared to all trusts.

- • **Marital Status**

As in all trusts, the majority of individuals were single.

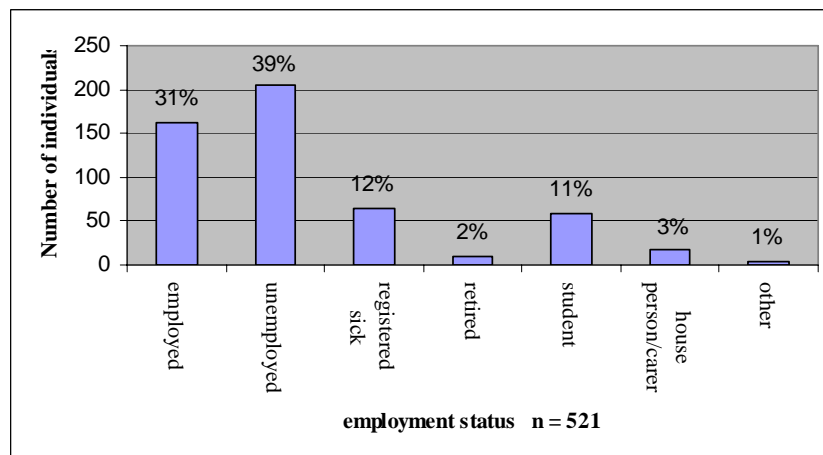
Fig. 3.6: Marital Status



- • **Employment status**

39% of individuals were unemployed (the largest category as in all trusts), with 1 in 8 registered sick and 1 in 9 students/school aged children.

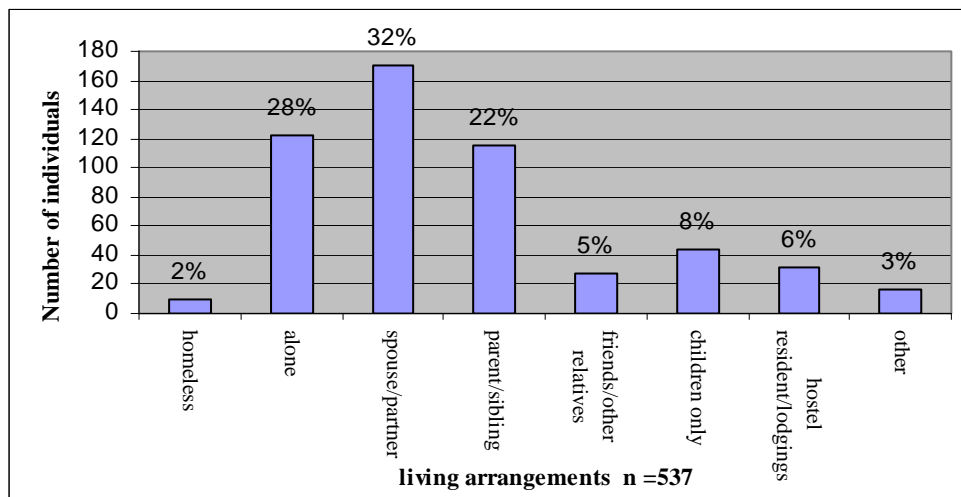
Fig. 3.7 Employment Status



- • **Living circumstances**

30% (162/537) either lived alone, in hostels, supported accommodation or were homeless. This was similar to all trusts and proportionately similar to the previous year.

Fig. 3.8: Living Status



• • **Precipitants (see Fig.3.9 overleaf)**

All episodes

39% of episodes had more than one precipitant, with a range from 1 to 11 and a median of 1.

Individuals

The most common reason given by males and females in most age groups for self-harming was interpersonal problems. This is in keeping with previous years, at this trust and all trusts. Mostly this involved problems with spouse or partner, although teenage girls were significantly more likely than males to have problems with family members. 1 in 11 males had problems related to housing and males were more likely than females to report physical ill health as a problem. 1 in 7 individuals self-harmed as a direct result of their mental symptoms with a similar ratio between the sexes. Work was a problem for both sexes with 1 in 9 males (mostly under 35 years as in previous year) and 1 in 13 females (under 35 and middle aged group) citing this as a problem. Bereavement as a precipitating factor occurred in 1 in 10 (both sexes).

- **Psychiatric Treatment**

37% (194/529) were currently receiving psychiatric treatment. A further 19% (99/518) had previously received psychiatric treatment.

- **Repetition**

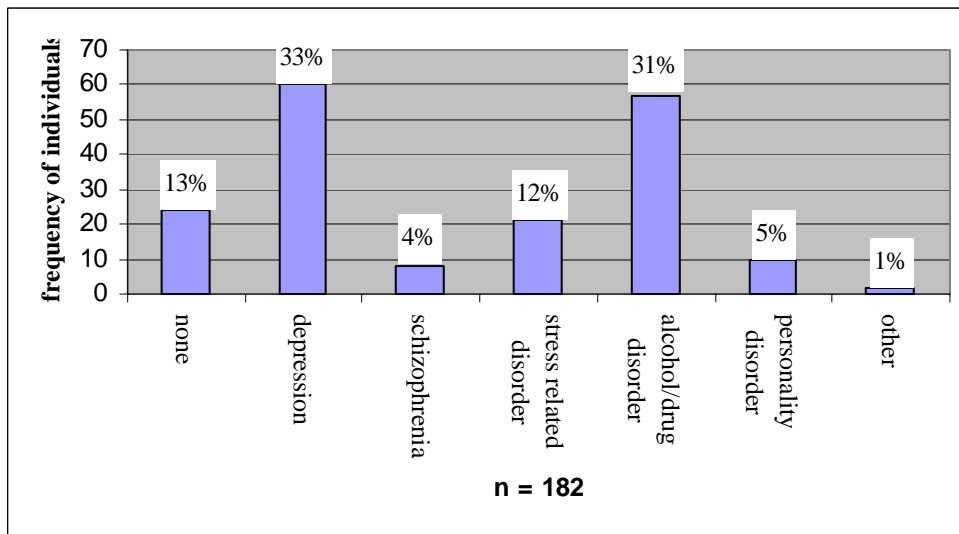
80% (442/553) of individuals presented for the first time on the MASSH data base (i.e. since September 1997). However half of these self reported previous self harm (life time). It may be that these people did not pursue medical intervention or they presented to an A&E department not involved in the project. In all 58% (300/518) of individuals who presented between 1.9.00 to 31.8.01 reported self harm during their lifetime (with or without medical treatment), one third (178/518) stated they had done so in the last year.

- **Drug and alcohol use**

23% (95/410) of individuals with assessments by A&E staff consumed 7 or more units of alcohol per day, indicating high alcohol misuse. 35% (100/274) assessed by mental health specialists had current alcohol abuse. In total, 45% (229/511) of all individuals misused alcohol (classified by mental health specialists as having current alcohol abuse or by A&E staff as consuming on average 7 or more units per day). The proportion with alcohol problems at the time of self harm has increased compared to the previous year. 9% (39/415) currently used street drugs at least once weekly, according to A&E assessors. 13% (36/272) of individuals were assessed by mental health specialists as having current substance abuse.

- • **Psychiatry: primary diagnosis**

Fig.3.10: Psychiatric diagnosis by mental health specialists

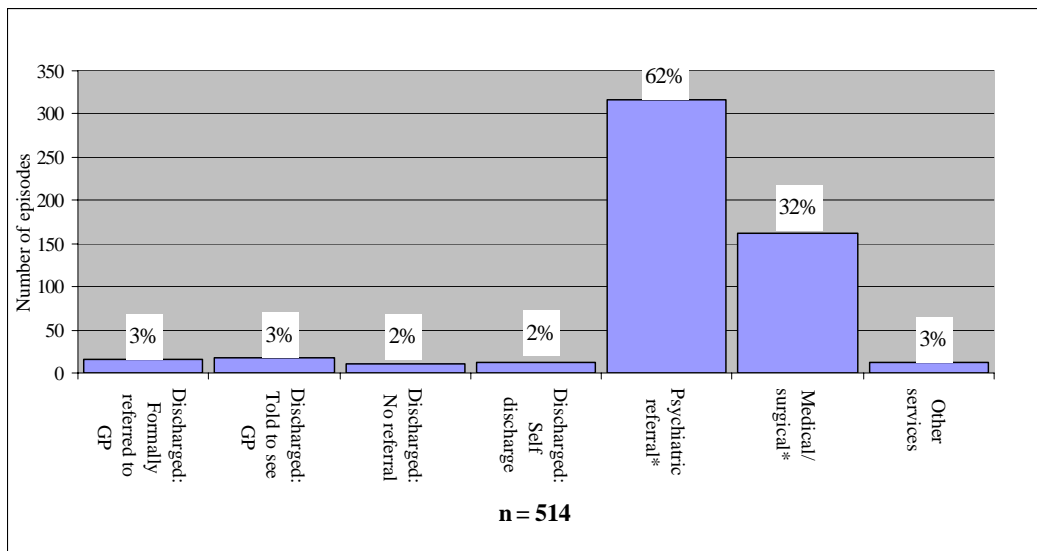


279 individuals (51%) were assessed by mental health specialists. The proportional figures of those with a diagnosis are shown as many assessments did not record a diagnosis (35%). As in the previous year, the most common was affective disorder (33%), proportionately greater in females, followed by alcohol and substance misuse (31%), proportionately greater in males.

6. 6. Service data

The following data depict the management of self-harm (all episodes).

Fig.3.11: Management of deliberate self-harm in A & E Department



A&E staff assessed 628 episodes. 77% (481/628) were assessed by a Senior House Officer, 20% (123/628) by a Registrar and 2% (11/628) by a Consultant. Percentages of known data are given. Data on clinical management was available on 82% of forms and 93% recorded a clinical assessment of risk. 63% (456/514) of episodes assessed by A&E staff were managed as 'high risk'; this includes referral to either the psychiatric services or other medical/surgical services.

Fig.3.12: Assessment of risk in A&E department

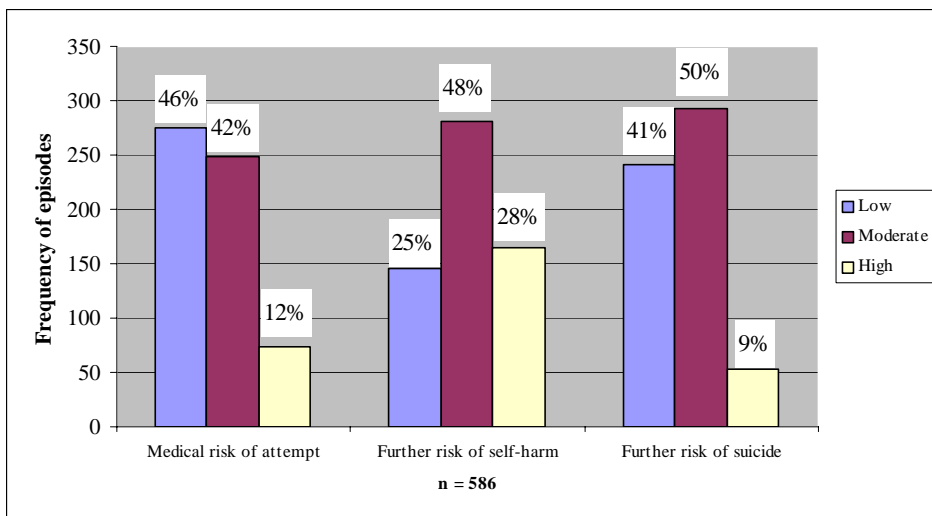
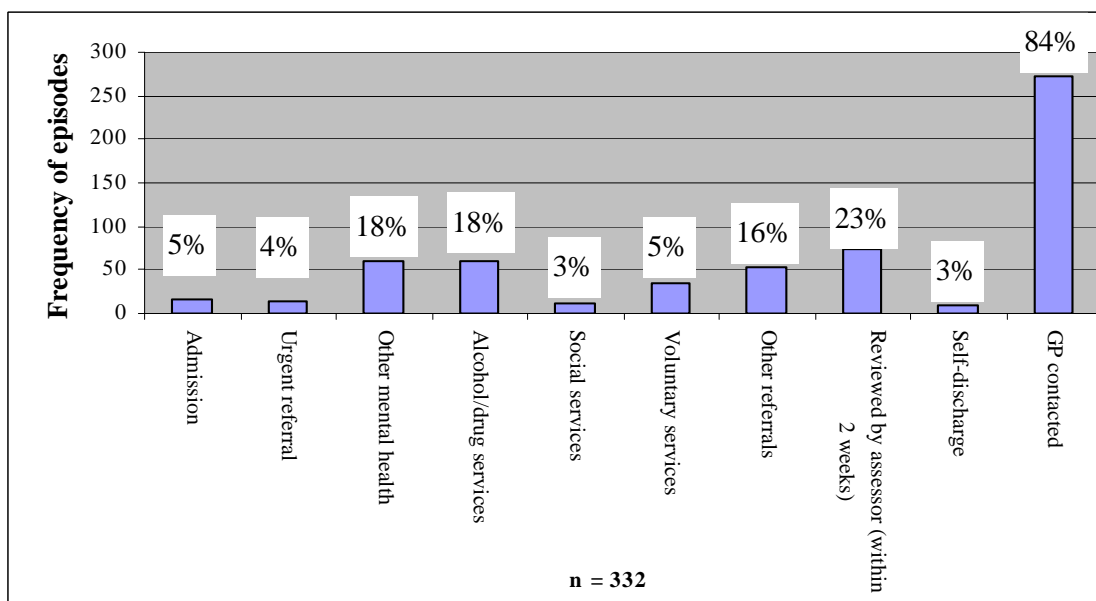


Fig.3.13: Management of adult self-harm by mental health specialists

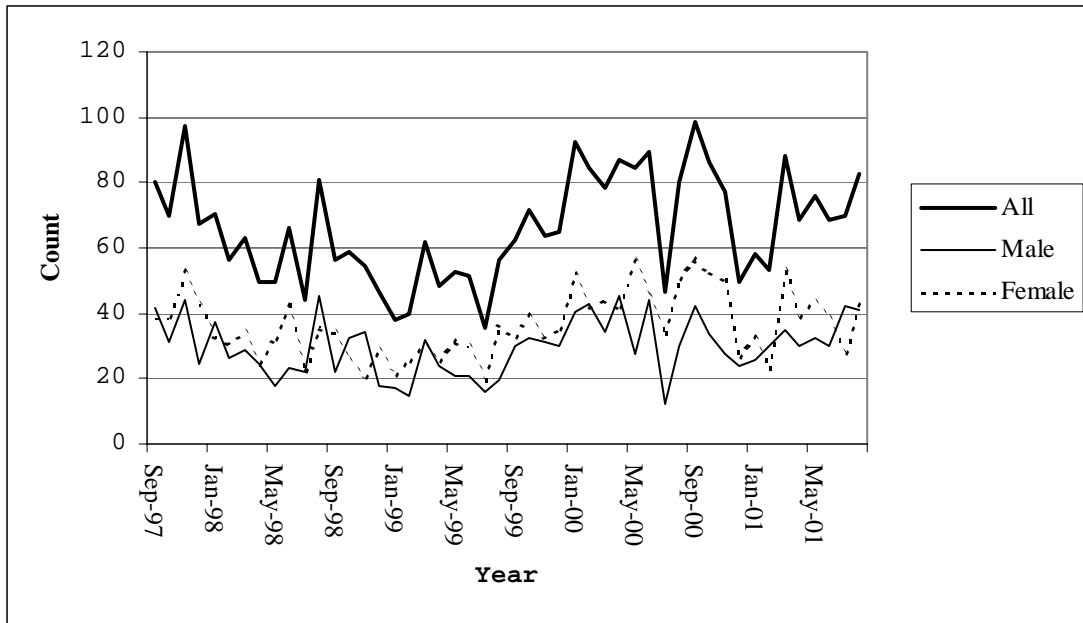


The management of episodes by mental health specialists is shown in figure 3.13. Percentages of the total number of episodes with a specialist assessment are given. The first assessment by a mental health specialist following an episode of deliberate self-harm, treated in the emergency department at Hope hospital, was usually undertaken by the A&E nurse liaison team. The proportion of admissions to the psychiatric unit has continued to decline since the start of data collection in 1997. 3 admissions to the psychiatric unit in the period under study in this report, were formal admissions. 36 episodes (11%) were referred to the drug and alcohol teams by letter or phone, in a further 24 episodes (7%), patients were told to contact these services. In most cases the mental health specialist contacted the general practitioner before discharge. 'Discharged, no referral' means that no further follow up was arranged other than to the general practitioner or the patient was told to see a service or organisation. 'Other' includes referrals that do not fit into any of the specified categories, for example, counselling that is provided through employment or education, prison services, or psychology that is not part of the statutory services. These are not mutually exclusive categories.

7. 7. Trends over time

The number of episodes was weighted by the response rate, to reflect the true count of DSH presentations to Hope A&E department. Seasonal changes may be responsible for changing patterns of DSH presentations, with notable increases in the autumn.

Figure 3.14: HOPE: Number of Episodes (weighted by the response rate)



- • **Prediction of repetition within 6 months (period 1.9.97 – 28.2.01)**

Table 3.3

Positive predictive value = given that A&E doctors identified the patient as being at high risk what is the probability of that patient repeating self harm within 6 months	20% (102/510)
Negative predictive value = given that A&E doctors identified the patient as being at low risk what is the probability of that patient not repeating self harm within 6 months	90% (141/157)
Sensitivity = given that the patient repeated self harm within 6 months, what is the probability of the A&E doctor having assessed them as being high risk	86% (102/118)
Specificity = given that the patient did not repeat self harm within 6 months, what is the probability of the A&E doctor having assessed them as being low risk	26% (141/549)

Most individuals that repeat self harm within 6 months were assessed as high risk of further self harm by A&E doctors, although many that were identified as high risk did not go on to repeat.

Summary of differences between other trusts and Hope/ Meadowbrook

- • The proportion of patients assessed by mental health specialists as currently misusing alcohol was higher than other trusts, and an increase on the previous year.
- • Admissions to psychiatric hospital decreased from previous years and bringing it in line with other trusts.
- • A higher proportion of patients were reviewed by the mental health specialist conducting the initial assessment (23% compared to previously 4%).
- • Hope had the lowest proportion of patients from ethnic minority groups compared to other trusts
- • Psychosocial assessments were completed on the majority of DSH patients who presented to the A&E department.

CHAPTER 4

NORTH MANCHESTER HOSPITAL TRUST

1. 1. Frequency of persons and episodes

Table 4.1 shows the number of completed forms during the fourth year from September '00 to August '01 at North Manchester General Hospital (NMGH). Figure 4.1 gives the response rate for the number of completed forms compared to the number of deliberate self-harm episodes (see chapter 1 for exclusion criteria).

Table 4.1: Source of forms – all episodes

	TOTAL
Total no.of A&E forms (% of total)	326 (54%)
Total no.of psychiatric forms (% of total)	392 (65%)
Both forms	115
Total no. of episodes	603

The average response rate (i.e. number of forms received/number of presentations) over the period covered by this report was 71% (603/855):

Figure 4.1: Monthly Response rates at NMGH

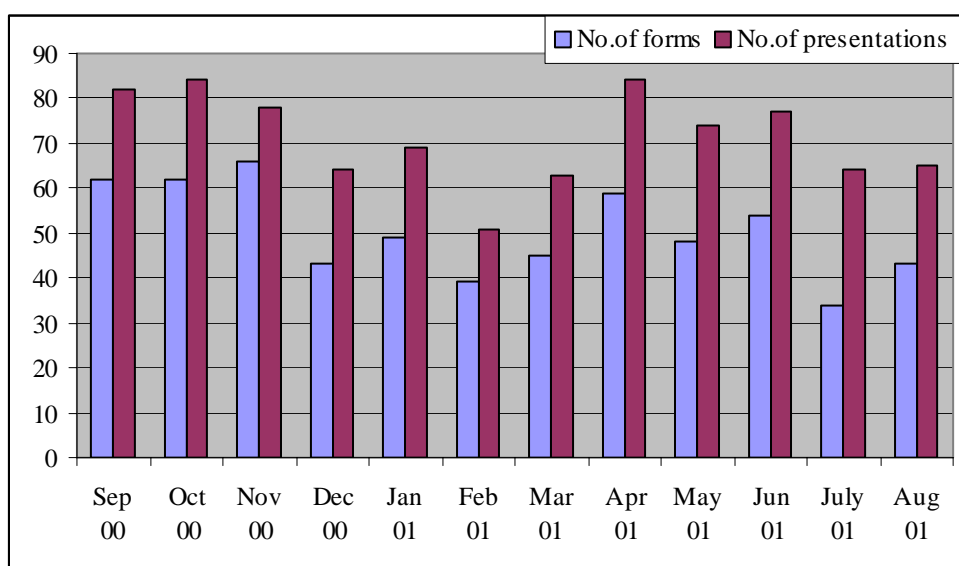


Table 4.2 shows the number of persons carrying out deliberate self-harm and the number of episodes during the same one year period.

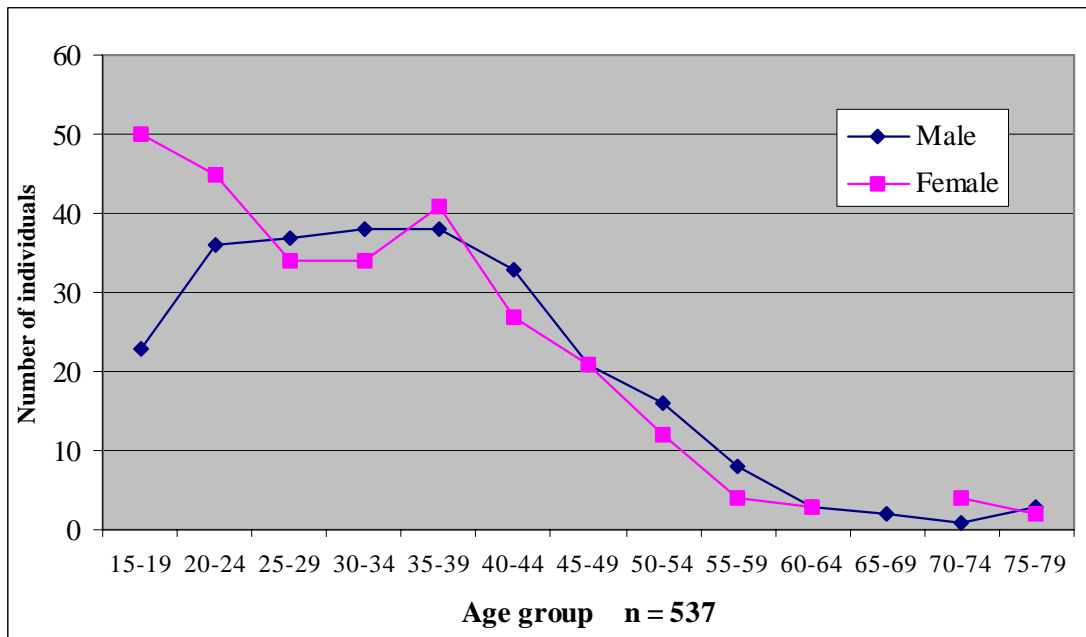
Table 4.2: Number of Individuals and Episodes

	Male	Female	Total
Episode	282	321	603
Individuals	259	278	537

2. 2. Age and sex of individuals

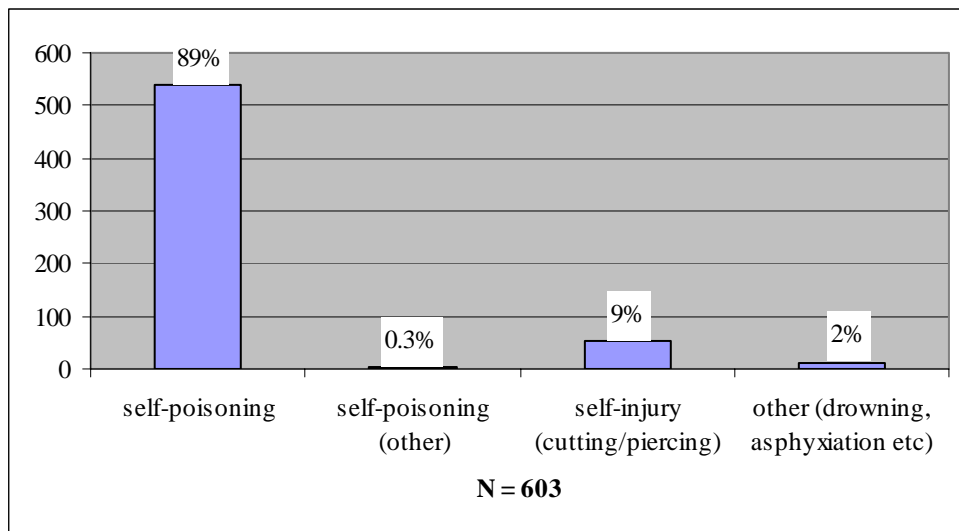
The female:male ratio of deliberate self-harm persons was 1.07:1. The mean age was 34 years, ranging from 15 – 78 years. The highest incidence of deliberate self-harm in females was in the 15-19 year age group followed by 20-24 year olds (as in the previous year). In males the highest incidence was in the between 20 – 40 year age group. Differences between age and sex was not statistically significant, even when accounting for the difference in incidence of DSH between males and females.

Fig.4.2: Deliberate self-harm individuals by sex and age group



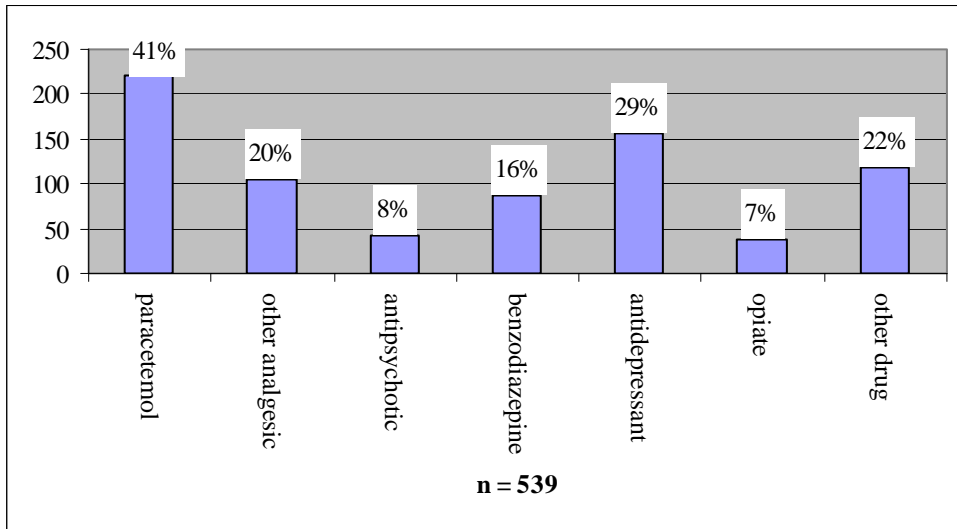
3. 3. Method of harm – all episodes

Fig. 4.3: Main method of self-harm



- • 21 episodes involved more than one method of harm; self-injury in addition to self-poisoning by drugs.
- • Self-poisoning by drugs was the most common method of harm (89% of all episodes) and paracetamol (including compounds) the most frequently used drug (41% of all episodes where drugs were a method of harm).

Fig. 4.4: Type of drug used as a method of harm

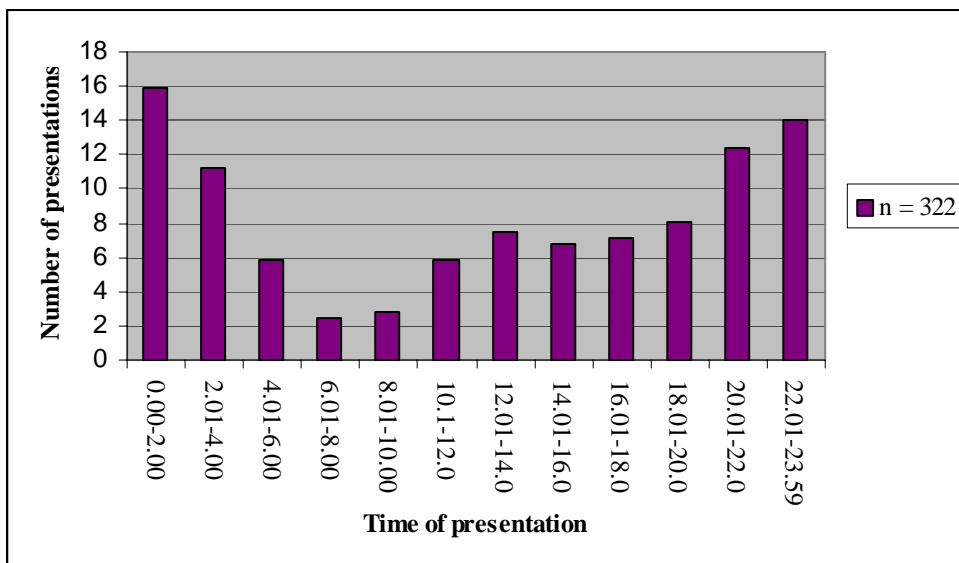


N.B. More than one drug per episode may have been taken.

Alcohol was consumed with the attempt or within 6 hours of the attempt in 57% (326/570) of episodes; 60% of males (161/270) and 55% of females (165/300). This represents an increase from previous years. The difference between the sexes was not significant.

4. 4. Time of presentation following self-harm

Fig.4.5: Presentation at A & E Department



Time of presentation to the A&E department was only available on patients with a completed A&E assessment form. A&E doctors completed assessment forms on 54%

of episodes on the MASSH database. Over half of these presentations occurred between 8pm and 4am.

Place of harm:- 83% of episodes of self-harm took place in their own home.

5. 5. Demographic, social and clinical characteristics

In the following data, cases refer to individuals, rather than episodes.

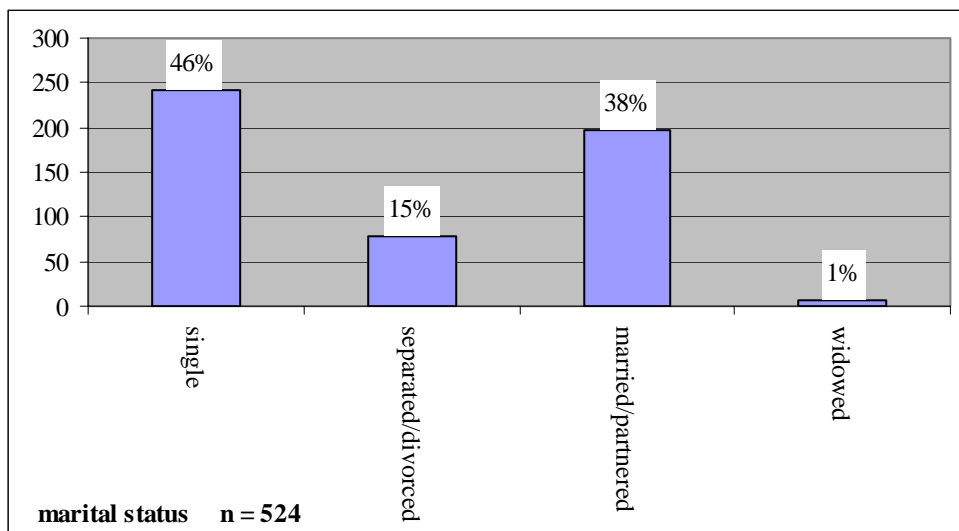
- • **Ethnicity:**

95% were white, a slightly higher percentage than in all trusts. 3% (14) were Indian, Pakistani or Bangladeshi.

- • **Marital Status**

The majority of individuals were single; 62% (327/524) were not married.

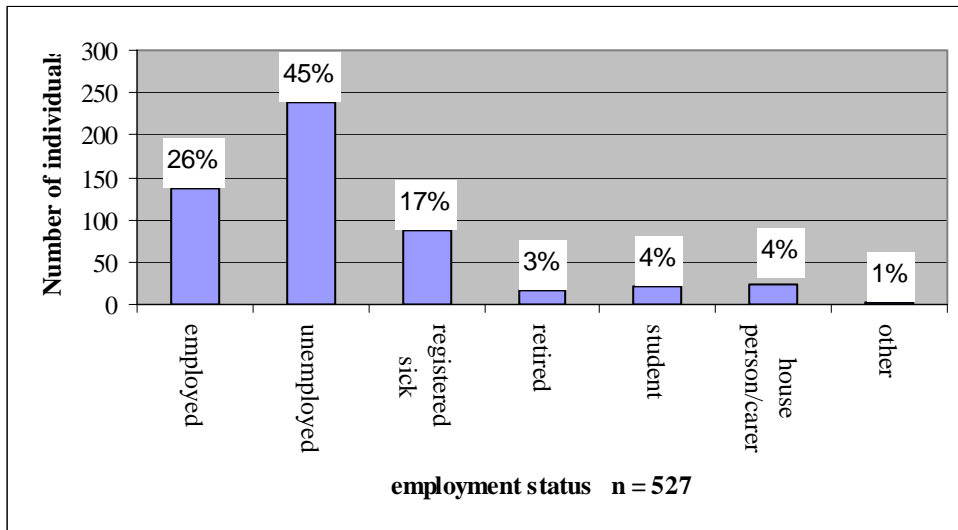
Fig.4.6: Marital Status



- • **Employment status**

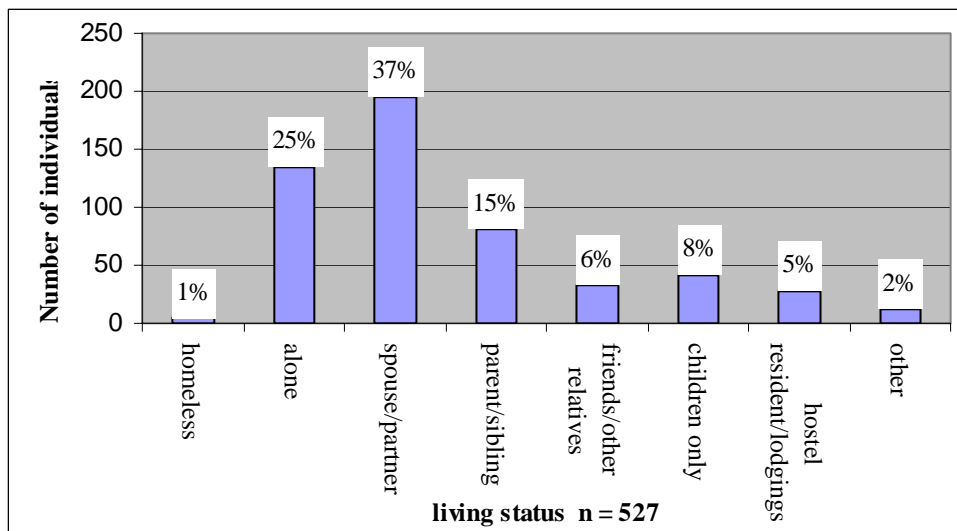
The majority of individuals were unemployed (45%), as in all trusts. 1 in 4 were employed and 1 in 6 registered sick.

Fig.4.7: Employment Status



• • **Living circumstances**

Fig.4.8: Living Status



Similar to the previous year, 31% (166/527) were either living alone, homeless or in lodgings, indicating poor social support.

- • **Precipitants (see Fig.4.9 overleaf)**

All episodes

48% of episodes had more than one precipitant, ranging between 1-8 with a median of 1.

Individuals

Relationship problems overall and in particular with partner (boy/girlfriend) were the most common reason given as a precipitant to self-harm, for both males and females, as in all trusts. Females were significantly more likely than males to report relationship difficulties with family or others as being precipitant factors in their self-harming behaviour as in the previous years. Males were significantly more likely than females to report having problems with work, physical health and legal problems. Financial difficulties were more common in males, although the difference was not

significant. Females were more likely to cite abuse or bullying as a precipitating factor compared to males. Both sexes equally reported having self-harmed due to bereavement, housing problems or as a direct result of their mental symptoms, according to their assessor.

- • **Psychiatric treatment**

34% (178/529) were currently receiving psychiatric treatment and a further 18% (95/519) had previously received psychiatric treatment.

- • **Repetition**

62% (323/523) self-reported previously self-harming (with or without seeking medical treatment), 33% (171/523) in the preceding year.

- • **Drug and alcohol use**

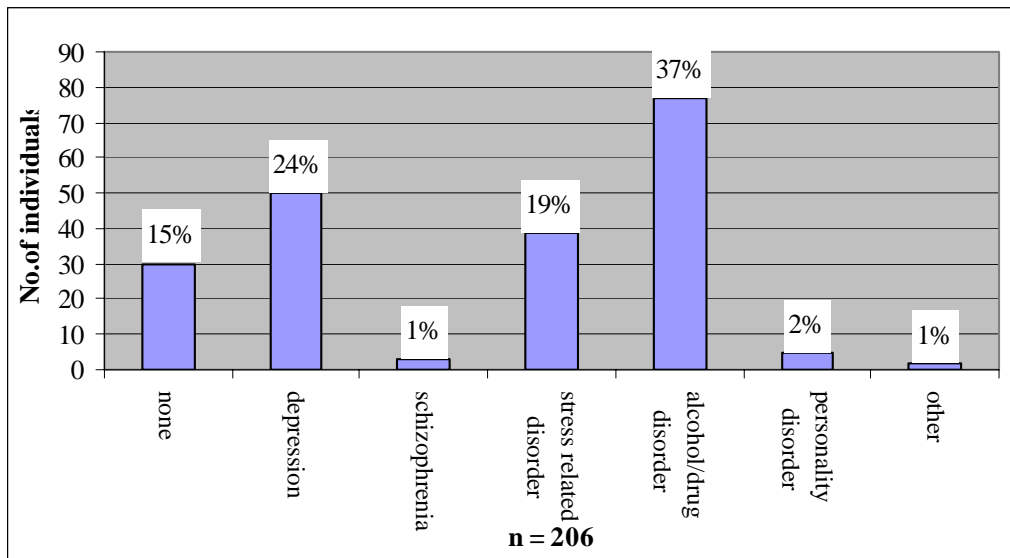
21% (52/245) of patients assessed by A & E doctors consumed at least 7 units of alcohol a day, indicating harmful use. The clinical management of the majority of these patients involved further referral either for specialist psychiatric or medical treatment. 11% (27/244) of patients assessed by A&E doctors, reported using street drugs at least once per week.

Mental health specialists assessed 353 individuals. 27% (96/353) were currently misusing alcohol; 13% (12/96) of these were receiving treatment at the time of harm and a further 15% (14/96) had received treatment for their alcohol problems in the last year. 11% (38/353) of individuals assessed by mental health specialists, currently abused drugs.

- • **Psychiatry: primary diagnosis**

353 cases were assessed by mental health specialists; of these 206 cases were assessed for a psychiatric diagnosis (see Figure 4.10). 15% had no psychiatric disorder. The most common diagnosis was alcohol and/or substance abuse followed by depression and neurotic and/or stress related disorder. Males were more likely to be given a diagnosis of alcohol or substance abuse, and females a neurotic/ stress related disorder or no mental disorder.

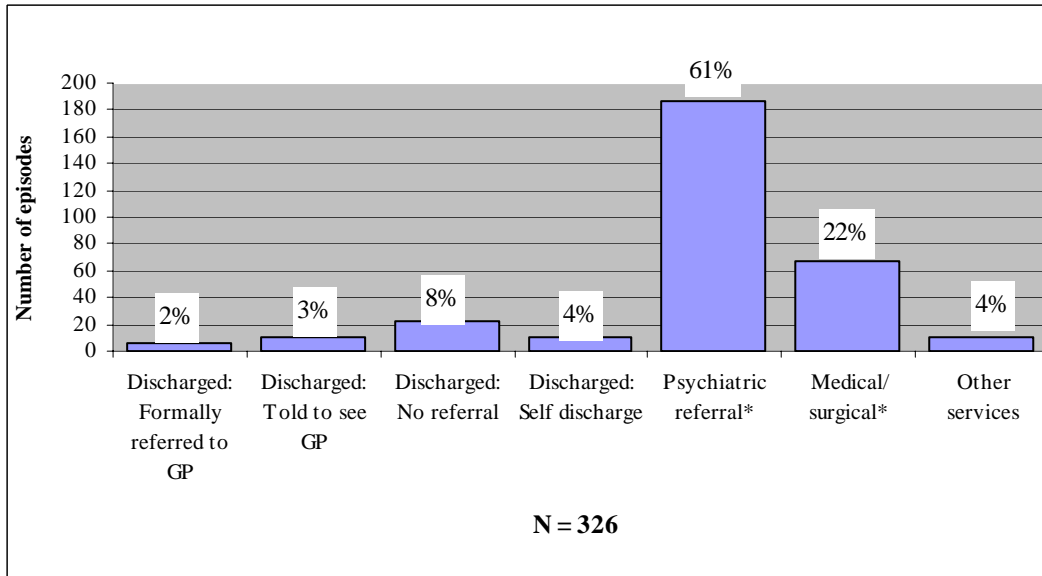
Fig.4.10: Psychiatric diagnosis by mental health specialists



6. 6. Service data –

The following data depicts the management of self-harm (all episodes).

Fig. 4.11: Management of deliberate self-harm in A & E Department



* Some episodes were referred to both medical/surgical departments and psychiatry.

15% (50/326) were discharged from the emergency department with either no follow up or only a referral to their general practitioner. 75% (246/326) of all episodes at NMGH were either referred to psychiatric or medical and surgical services.

Figure 4.12: Clinical assessment of risk in A & E departments

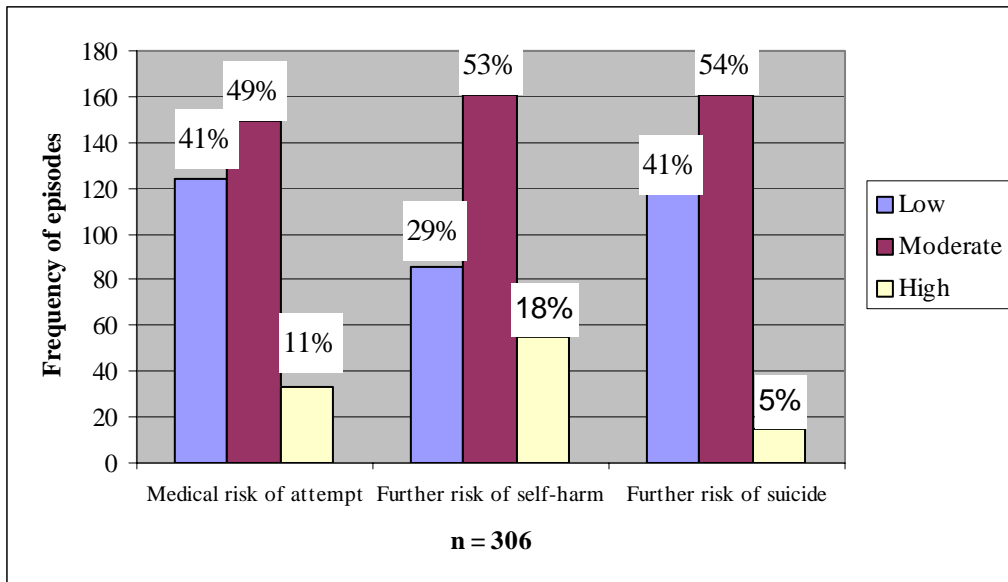
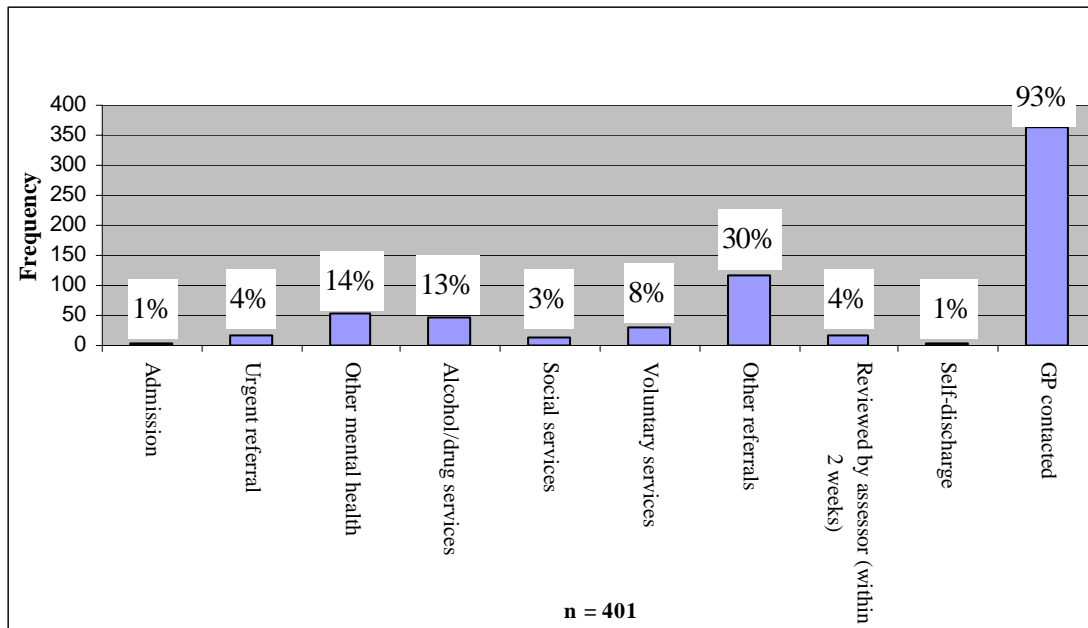


Fig.4.12 shows the assessment of risk in the A & E Department; the shortfall in 20 episodes was due to the failure to record clinical assessment of risk.

Figure 4.13: Management of adult self-harm by mental health specialists

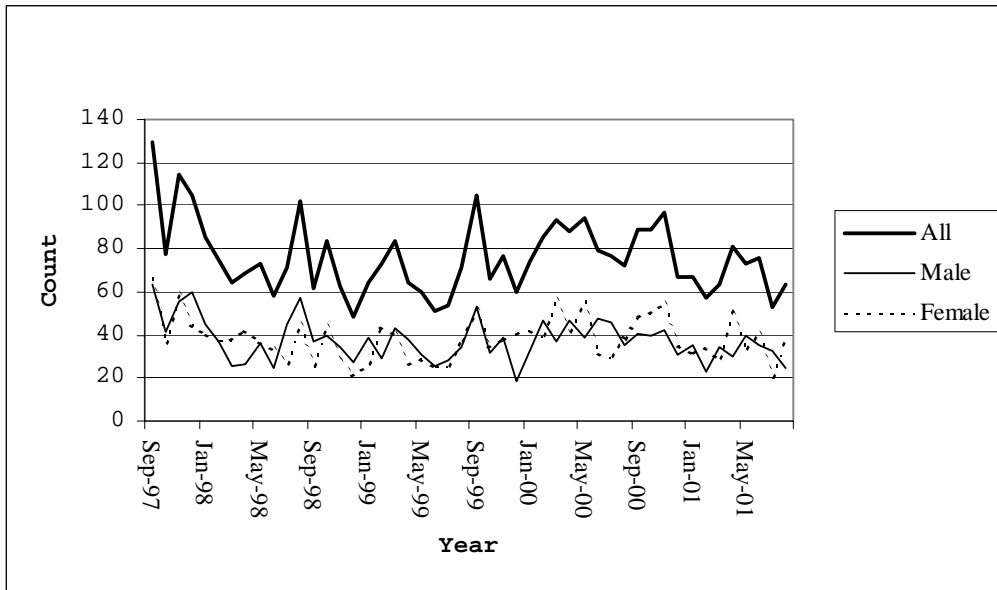


98% of mental health specialist assessment forms were completed by psychiatric nurses. Only 3 episodes were admitted to a psychiatric ward, the lowest number of psychiatric admissions of all trusts.

8. 7. Trends over time

Number of episodes was weighted by the response rate, to reflect the true count of DSH presentations in NMGH (see figure 4.14).

Figure 4.14: NMGH: Number of Episodes (weighted by the response rate)



- • **Prediction of repetition within 6 months (period 1.9.97 – 28.2.01)**

Table 4.3

Positive predictive value = given that A&E doctors identified the patient as being at high risk what is the probability of that patient repeating self harm within 6 months	23% (77/331)
Negative predictive value = given that A&E doctors identified the patient as being at low risk what is the probability of that patient not repeating self harm within 6 months	91% (132/145)
Sensitivity = given that the patient repeated self harm within 6 months, what is the probability of the A&E doctor having assessed them as being high risk	86% (77/90)
Specificity = given that the patient did not repeat self harm within 6 months, what is the probability of the A&E doctor having assessed them as being low risk	34% (132/386)

Most individuals that repeat self harm within 6 months were assessed as high risk of further self harm by A&E doctors, although many that were identified as high risk did not go on to repeat.

Summary of differences between other trusts and NMGH

- • Source of assessment forms differed at NMGH. A&E staff completed 54% of the total, and mental health specialists completed 65%. In other trusts the A&E department completed over 80% and mental health specialists completed between 37 – 53%
- • NMGH had the highest proportion of married (38%) compared to other trusts (24 – 30%).
- • In contrast to all other trusts, alcohol and drug misuse was the most common primary psychiatric diagnosis for DSH patients.
- • NMGH had the lowest number of psychiatric admissions compared to other trusts.

CHAPTER 5

CENTRAL MANCHESTER UNIVERSITY HOSPITAL TRUST

2. 1. Frequency of persons and episodes

Table 5.1 shows the number of completed assessment forms for patients who presented to the Emergency Department at Central Manchester University Hospital Trust (MRI) from September '00 to August '01. Figure 5.1 gives the response rate for the number of completed forms compared to the number of deliberate self-harm episodes (see chapter 1 for exclusion criteria).

Table 5.1: Source of forms

	TOTAL
Total no. of A&E forms (% of total)	731 (83%)
Total no. of psychiatric forms (% of total)	328 (37%)
Both forms	174
Total no. of episodes	885

The average response rate (i.e. number of forms received/number of presentations) over the period covered by this report was 78%.

Figure 5.1: Monthly Response Rates at MRI

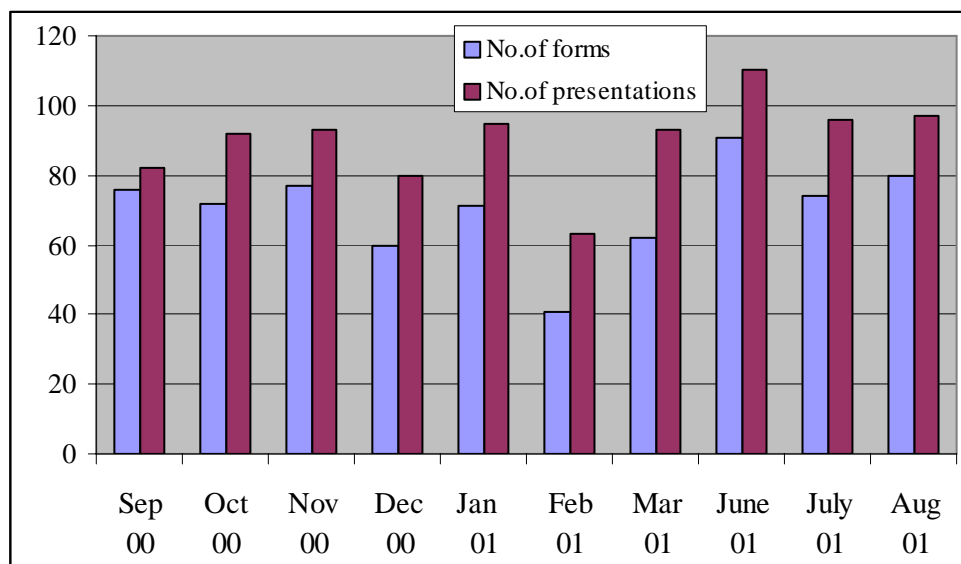


Table 5.2: Number of Individuals and Episodes

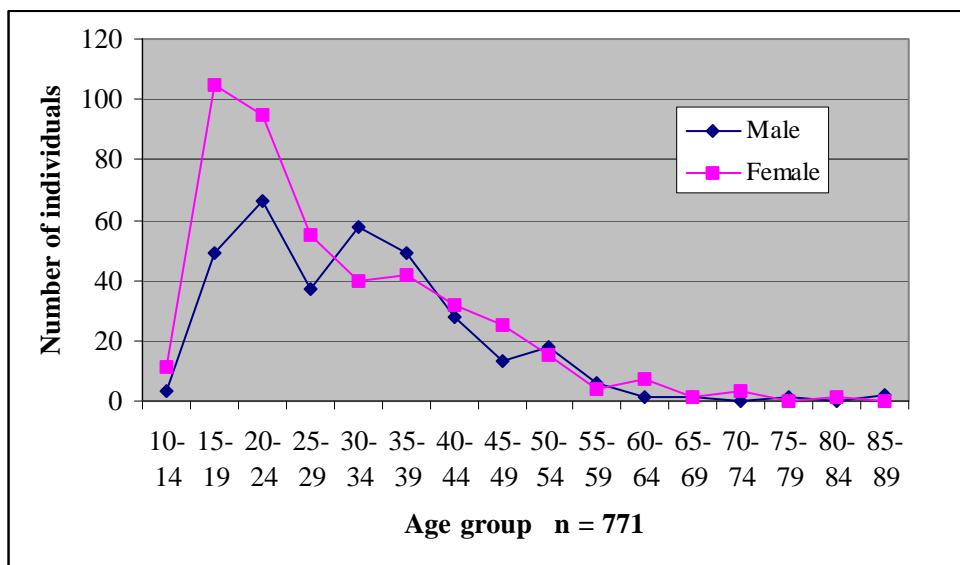
	Male	Female	Total
Episode	389	496	885
Individuals	334	437	771

Table 5.2 above shows the number of individuals on the MASSH database and the number of presentations for each month of the study period.

3. 2. Age and sex of individuals

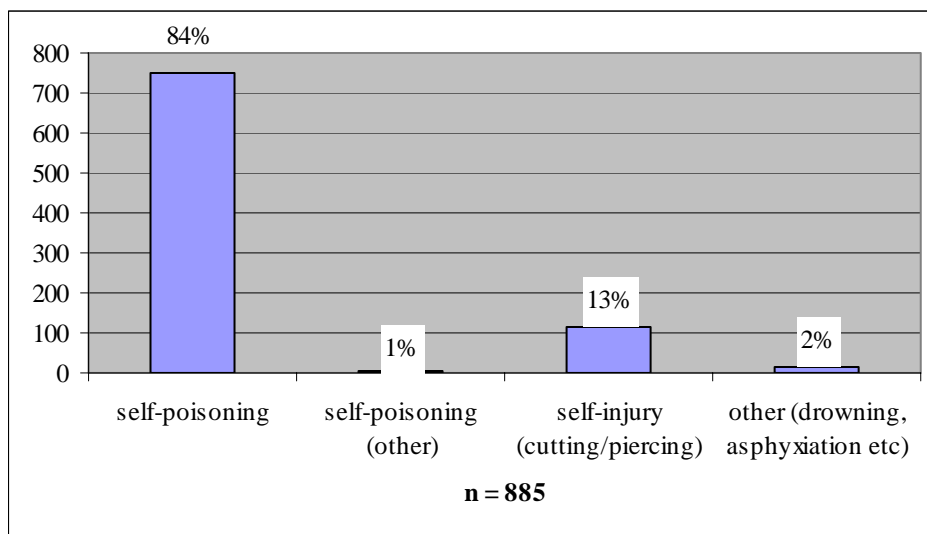
The female:male ratio of individuals who deliberately self-harm was 1.3:1. The mean age was 31 years, ranging from 11-88 years. The highest prevalence of deliberate self harm in MRI overall and in males was in 20 – 24 age group. In females, this was in 15 – 19 age group.

Fig 5.2: Deliberate self-harm individuals, by age group and sex



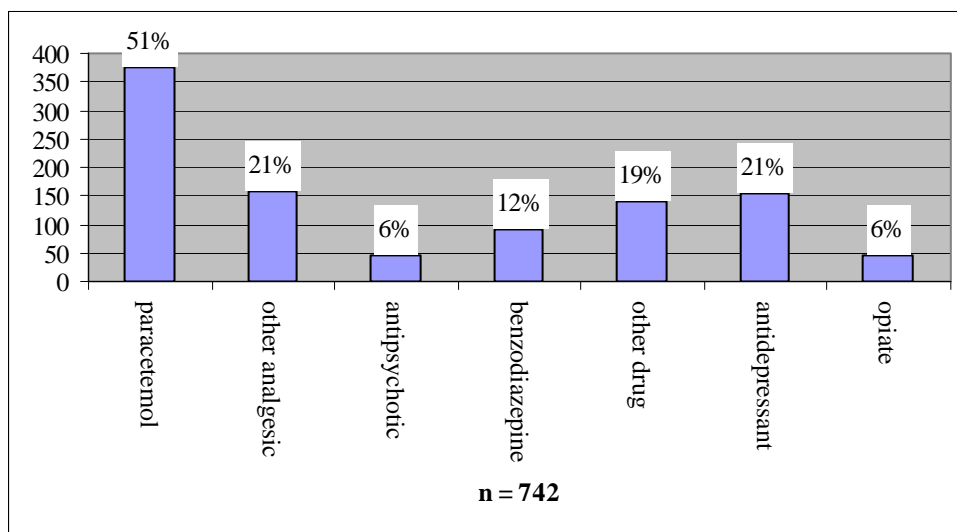
4. 3. Method of self-harm - all episodes

Fig.5.3: Method of harm



There were 34 episodes where more than one method of harm was used. The most common combination was self-poisoning by drugs with cutting. Poisoning by drugs was the most common method of harm (86%).

Fig. 5.4: Type of drug used as a method of harm (all episodes)



Drugs were used as the main method of harm in 748 episodes and in 3 episodes as the second method. In 9 episodes type of drug was not known.

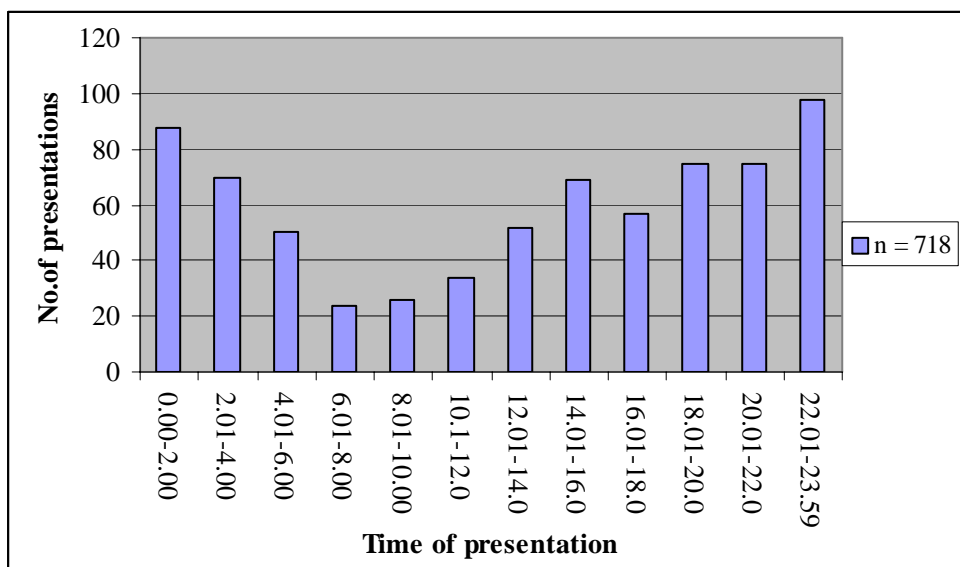
*** More than one type of drug may have been taken as a method of harm**

Paracetamol (including compound drugs) was used in 51% of episodes where self poisoning with drugs was a method of harm.

Alcohol was consumed with the attempt or within 6 hours of the attempt in 51% (387/760) of episodes. The median number of units consumed was 10, and ranged from 1 to 90 units. Significantly more males than females were associated with alcohol consumption ($p = 0.003$; odds ratio 1.54, confidence interval 1.16 – 2.06).

5. 4. Time of presentation following self-harm

Fig.5.5: Presentation at A & E Department



Time of presentation was noted on 98% of the 731 completed A&E assessment forms. Over one third of the presentations occurred between 20.00 hrs and 4.00 hrs.

Place of harm: - 81% (258/318) of episodes took place in their own home.

6. 5. Demographic, social and clinical characteristics

In the following data cases refer to individuals ($n = 885$), rather than episodes. The shortfall in numbers given is due to missing data for that item.

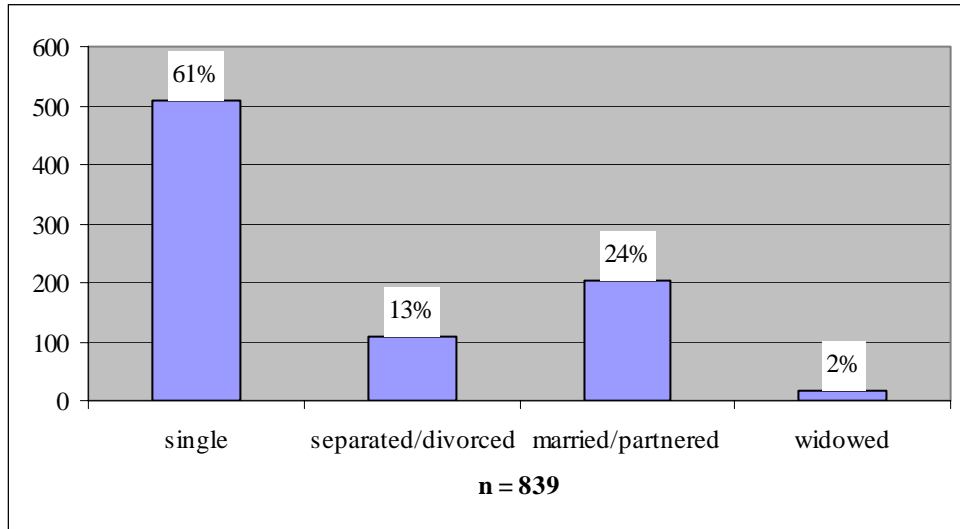
- • **Ethnicity**

86% (728/847) were white, 7% (55/847) were of Indian, Pakistani or Bangladeshi origin.

- • **Marital Status**

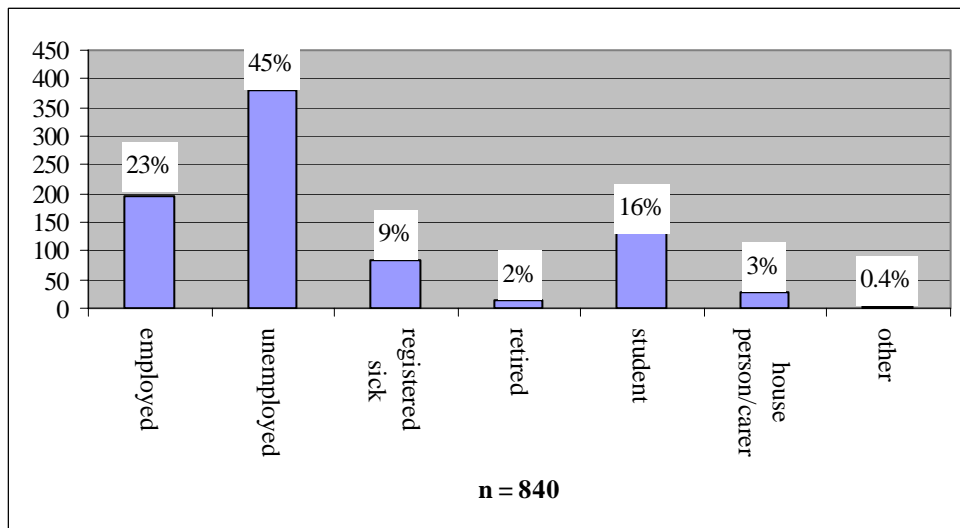
The greatest proportion were single.

Fig.5.6: Marital Status



- • **Employment status**

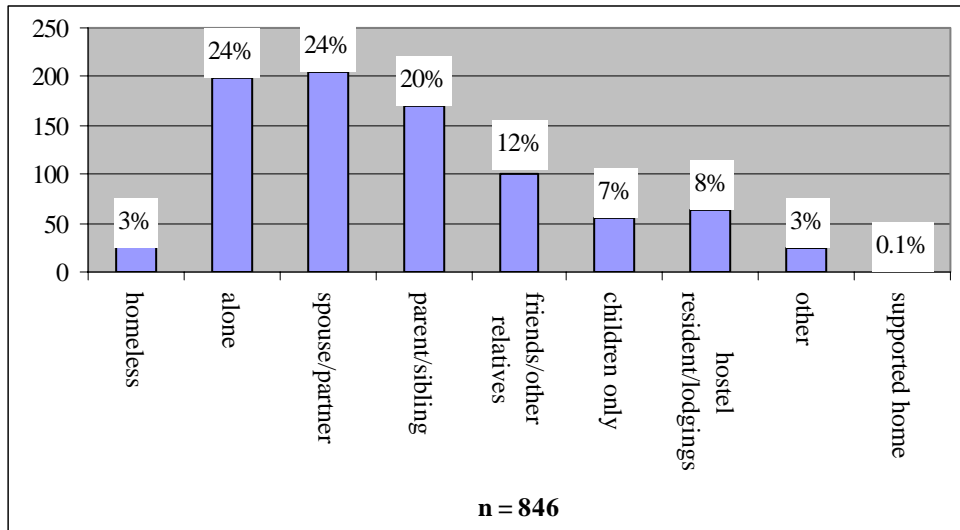
Fig.5.7: Employment Status



The majority of individuals were unemployed (45%). 1 in 10 were registered sick and 1 in 6 were students.

- • **Living circumstances**

Fig.5.8: Living Status



34% (290/846) were either homeless, lived alone or in hostel accommodation.

- • **Precipitants (see Fig.5.9 overleaf)**

All episodes

36% had more than one precipitant; the range was from 1 to 11 with a median of 1.

Individuals

Relationship problems continued to be cited as the main problem for both sexes compared to other precipitants, but were significantly more common for females compared to males. Males were twice as likely to have housing problems compared to females. Females were significantly more likely to name physical, emotional or sexual abuse as the precipitating problem.

- • **Psychiatric treatment**

39% (323/840) were currently receiving psychiatric treatment and a further 18% (148/840) had received psychiatric treatment in the past, similar to all trusts.

- • **Repetition**

75% (660/885) of individuals presented for the first time on the MASSH data base

(that is, since September 1997). However 63% had self reported previous deliberate self-harm (with or without medical treatment). Between 1.9.97 and 28.2.01 15.4% of episodes repeated within 6 months.

- • **Drug and alcohol use**

A&E assessments

21% (139/649) were assessed in the emergency department as high alcohol users (7 or more units per day), nearly two thirds of these were referred to medical/surgical services or directly to mental health services. 11% (70/654) of patients assessed at MRI emergency department used street drugs at least once per week.

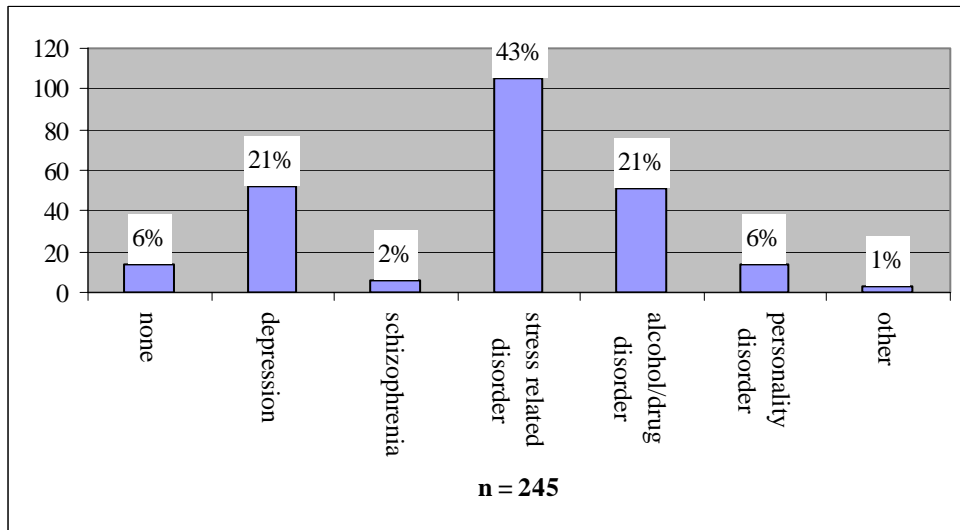
Mental health specialist assessments

30% (96/324) of patients assessed by the psychiatric services had current alcohol misuse. The majority of these were referred to psychiatric services, and 38% (37/96) to the alcohol and drug specialist services. 26% (25/96) had no referral. The general practitioner was notified in writing in all but 4 cases. 20% (63/323) had misused drugs currently or in the previous 12 months.

- • **Psychiatry: primary diagnosis**

Assessments were received from mental health specialists at MRI for 37% (328/885) of individuals. Three quarters of these individuals were assessed for a psychiatric diagnosis. The most common diagnosis was stress related disorders (ICD 10 'neurotic, stress-related and somatoform disorders'). See figure 5.10.

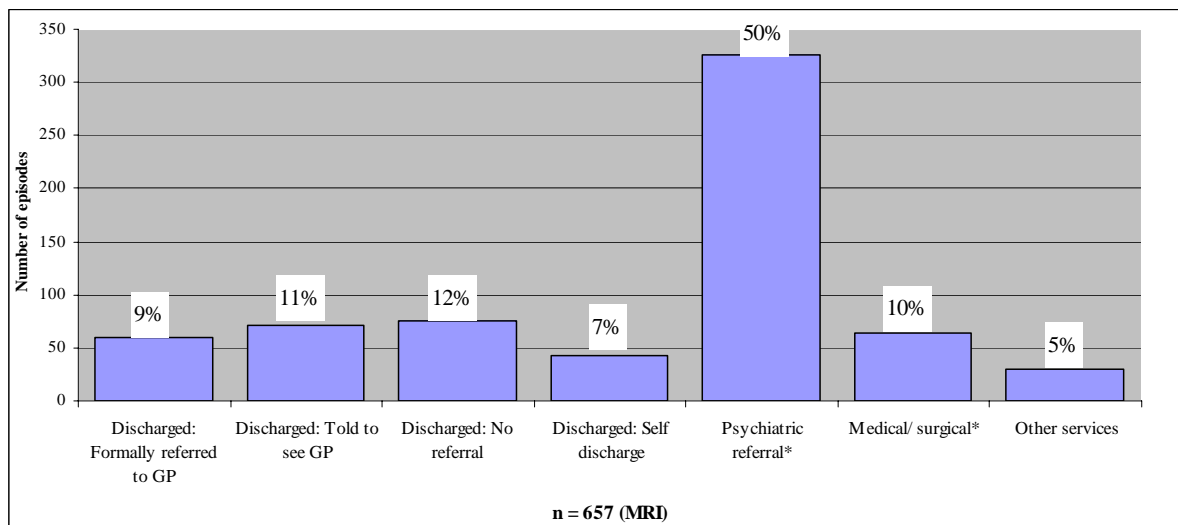
Fig.5.10: Psychiatric diagnosis by mental health specialists



6. 6. Service data

The following data depicts the management of self-harm (all episodes).

Fig.5.11: Management of deliberate self-harm in A & E Department



731 episodes of deliberate self-harm were assessed in the emergency department.

Data on clinical management was available on 90% of forms and clinical assessment of risk was recorded on 95% of forms. 38% (250/657) were discharged directly from the emergency department (including self discharge). 70% of A&E assessments were made by Senior House Officers.

Figure 5.12: Clinical assessment of risk in A & E departments (MRI)

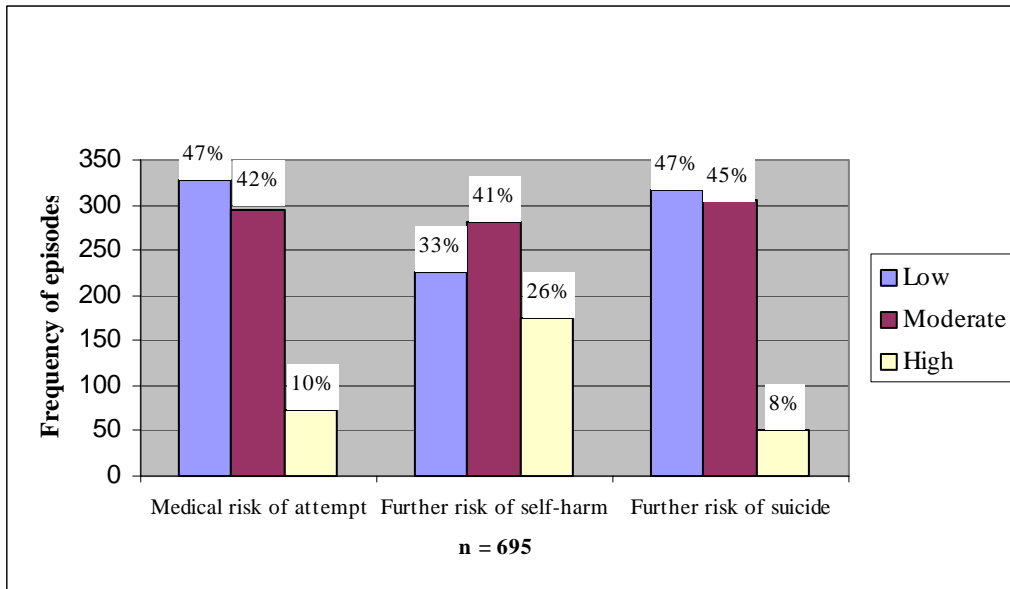
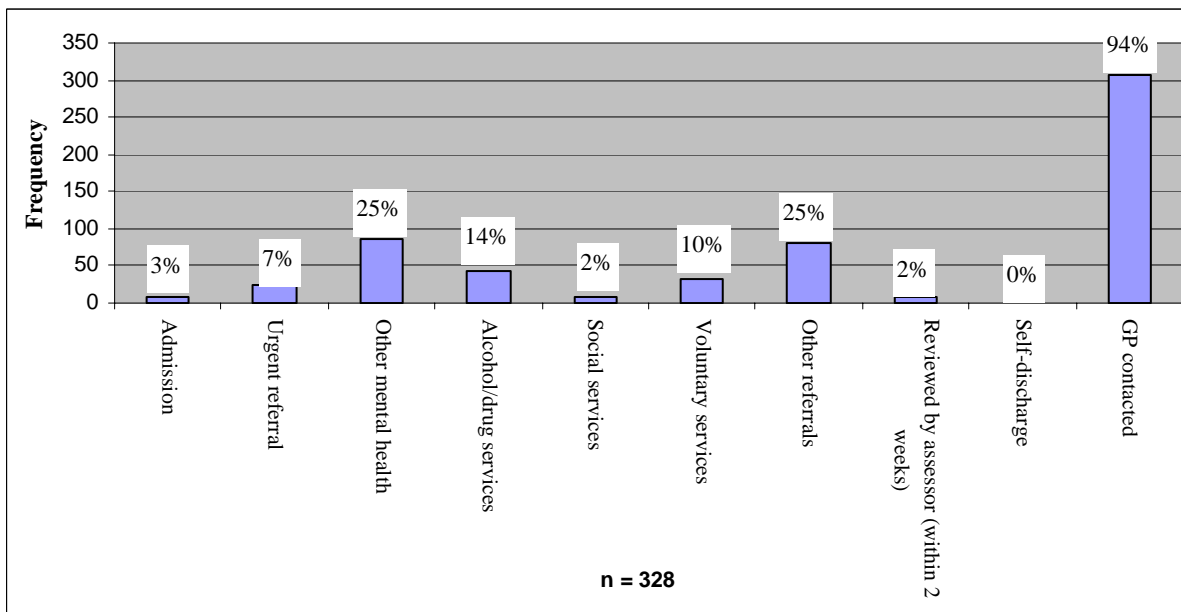


Fig.5.13: Management of adult self-harm by mental health specialists

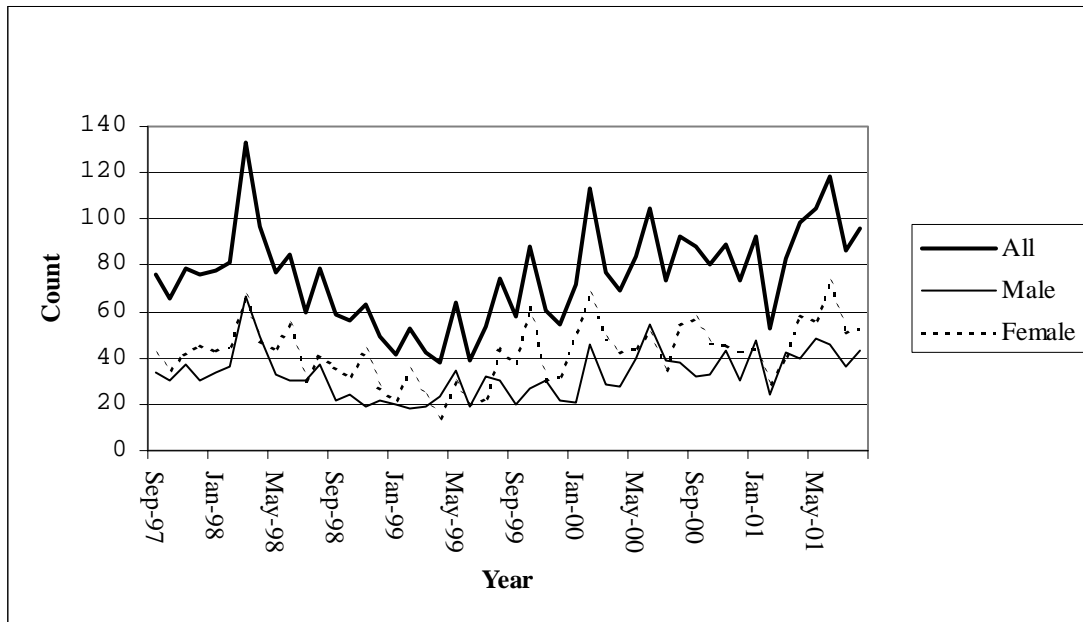


In just over half of episodes additional referrals were made (either by letter or phone) other than to the patients' general practitioner. 9 episodes resulted in admission to a psychiatric ward, one of which was a formal admission.

9. 7. Trends over time

Number of episodes was weighted by the response rate, to reflect the true count of DSH presentations to MRI.

Figure 5.14: MRI: Number of Episodes (weighted by the response rate)



Seasonal changes may be responsible for changing patterns of DSH presentations, with notable increases in the spring.

• • Prediction of repetition within 6 months (period 1.9.97 – 28.2.01)

Most individuals that repeat self harm within 6 months were assessed as high risk of further self harm by A&E doctors, although many that were identified as high risk did not go on to repeat.

Table 5.3

Positive predictive value = given that ED doctors identified the patient as being at high risk what is the probability of that patient repeating self harm within 6 months	20% (137/695)
Negative predictive value = given that ED doctors identified the patient as being at low risk what is the probability of that patient not repeating self harm within 6 months	90% (257/285)
Sensitivity = given that the patient repeated self harm within 6 months, what is the probability of the ED doctor having assessed them as being high risk	83% (137/165)
Specificity = given that the patient did not repeat self harm within 6 months, what is the probability of the ED doctor having assessed them as being low risk	32% (257/815)

Summary of differences between other trusts and MRI

- • MRI had the highest number of presentations of DSH compared to other trusts.
- • MRI had a higher proportion of patients from ethnic minority groups compared to other trusts
- • This trust had the highest proportion of patients that were single. There were a larger number of patients who were students.
- • They had the lowest proportion of patients who were employed or married and the highest proportion of homelessness.
- • They had the highest proportion of patients who were discharged directly from the A&E department. (N.B. this trust operates a designated outreach DSH team.)

CHAPTER 6

SOUTH MANCHESTER UNIVERSITY HOSPITAL TRUST

3. 1. Frequency of persons and episodes at SMUHT

Table 6.1 shows the number of completed assessment forms during the fourth year from September '00 – August '01 at South Manchester University Hospital Trust, including the psychiatric unit at Duchess of York Hospital. Figure 6.1 gives the response rate for the number of completed forms compared to the number of deliberate self-harm episodes (see chapter 1 for exclusion criteria).

Table 6.1: Source of forms

	TOTAL
Total no. of A&E forms (% of total)	554 (81%)
Total no. of psychiatric forms (% of total)	359 (53%)
Both forms	230
Total no. of episodes	683

The average response rate (i.e. number of forms received/number of presentations) over the period covered by this report was 84%.

Figure 6.1: Monthly Response Rates at SMUHT

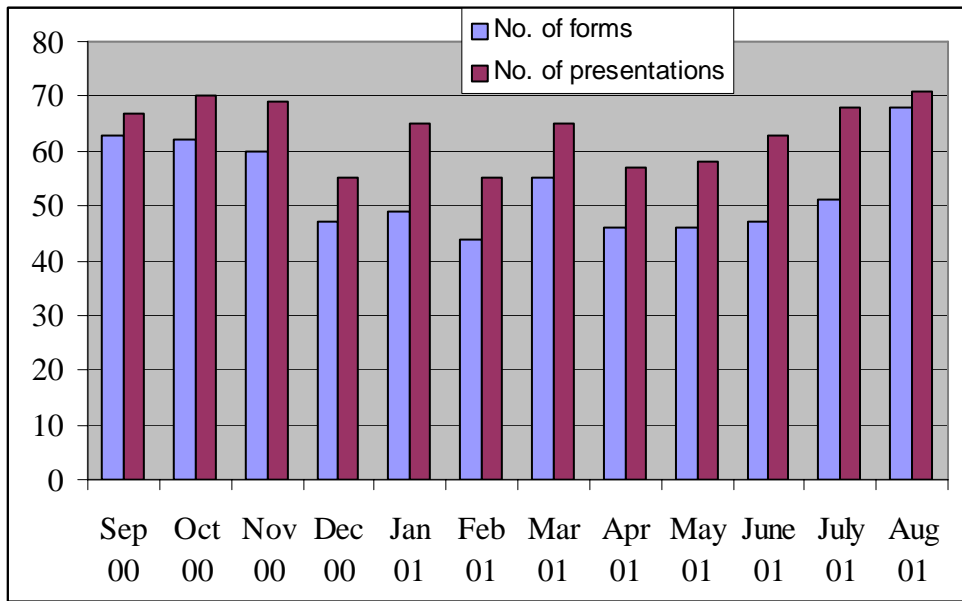


Table 6.2: Number of Individuals and Episodes

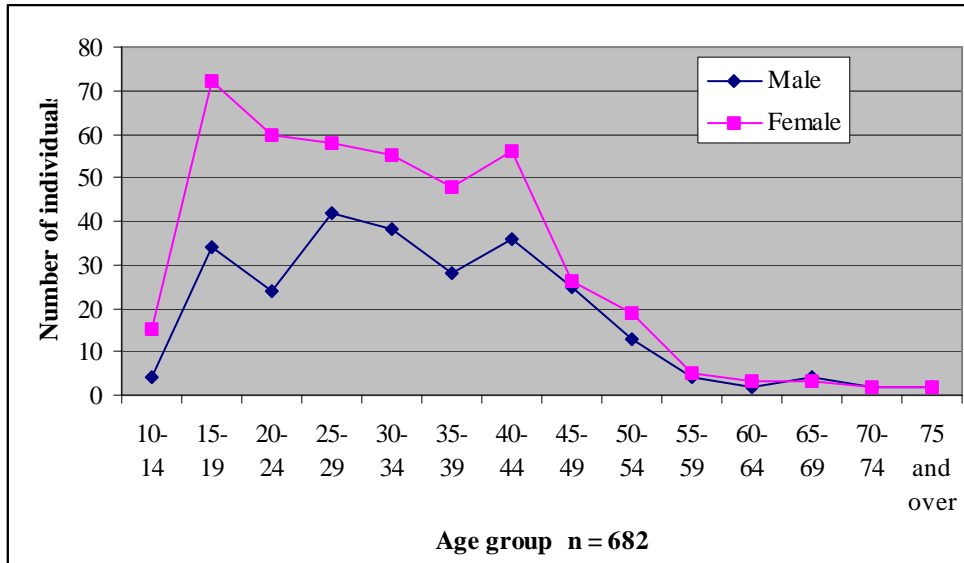
	Male	Female	Total
Episode	258	417	663
Individuals	214	350	564

Table 6.2 above shows the number of persons on MASSH database and the number of episodes during the same one year period under study in this report.

7. 2. Age and sex of individuals

The female:male ratio of individuals who presented with self-harm was 1: 1.6, the ratio of females to males was similar to the previous years although greater than all other trusts. The mean age was 33 years, ranging from 12-91 years.

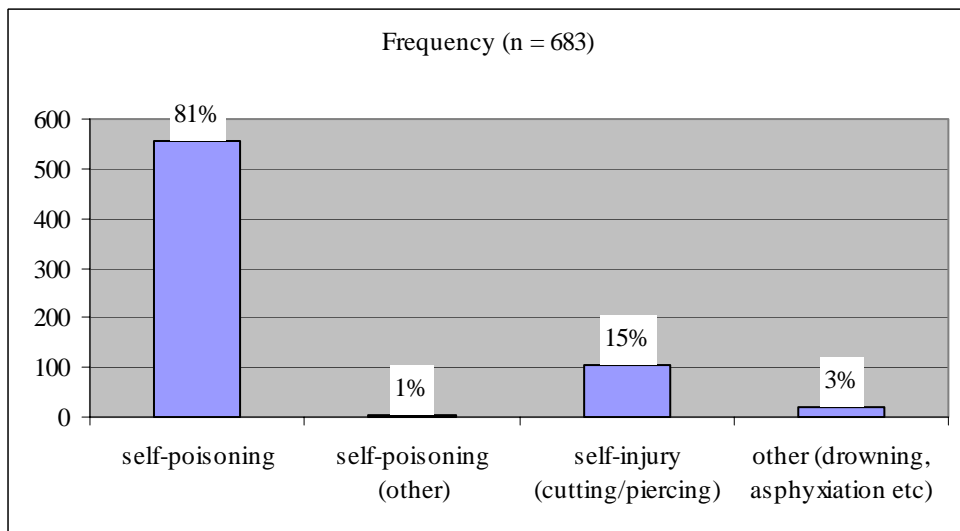
Figure 6.2: Deliberate self-harm individuals, by sex and age group



The highest frequency of deliberate self-harm with a greater proportion than expected was in females in the 15-19 age group, and the older 30-34 age group in males as in previous years.

8. 3. Method of self-harm - all episodes

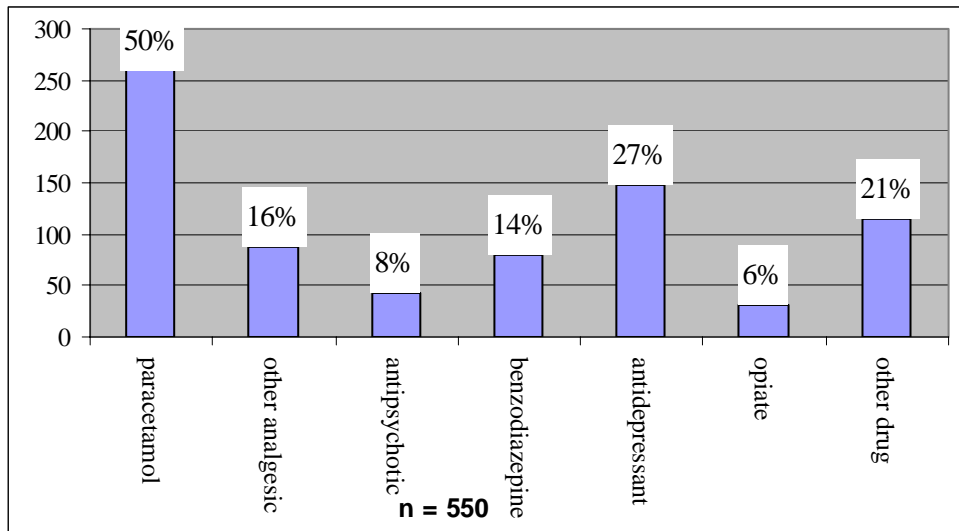
Fig.6.3: Main method of harm



Poisoning by drugs was the most common method of harm, followed by self-injury, usually due to cutting, similar to previous years of data collection. 18 episodes involved more than one method of harm. 3 episodes consisted of self poisoning other

than by drugs and were considered secondary to main method. 15 episodes used cutting as a secondary method of harm, usually in combination with drugs.

Figure 6.4: Type of drug used as a method of harm

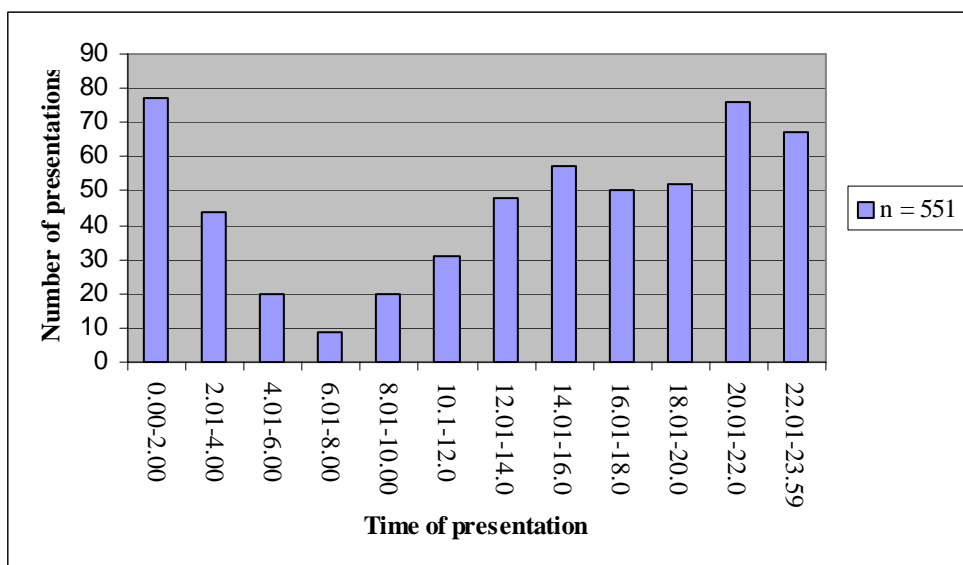


N.B. More than one drug per episode may have been taken as a method of harm. Type of drug not known in 5 episodes.

Alcohol was consumed with the attempt or within 6 hours of the attempt in 60% (262/440) of cases. Males were significantly more likely to use alcohol than females ($p = 0.03$) with 67% of males (105/158) and 56% of females (157/282) used alcohol with their attempt.

4. 4. Time of presentation following self-harm – all episodes

Fig. 6.5: Presentation at A & E Department



Time of presentation to the emergency department was known for 81% (551/683) of episodes. 40% of presentations occurred between the hours of 8 p.m. and 2 a.m.; similar to the previous year's data

Place of harm:- 80% (288/359) of episodes of self-harm took place in their own home. Only 5% occurred in a public place

5. 5. Demographic, social and clinical characteristics

In the following data cases refer to individuals, rather than episodes.

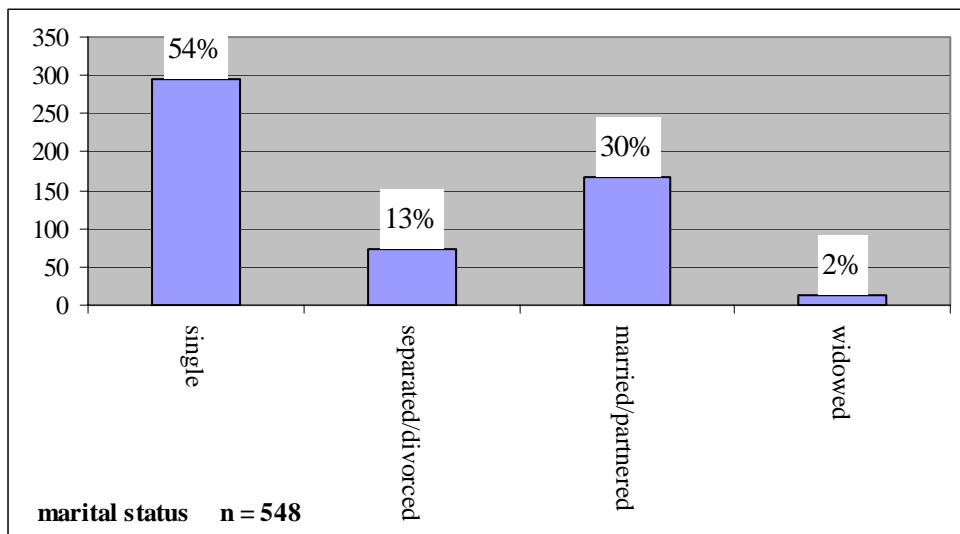
- • **Ethnicity**

95% (522/548) of individuals were white.

- • **Marital Status**

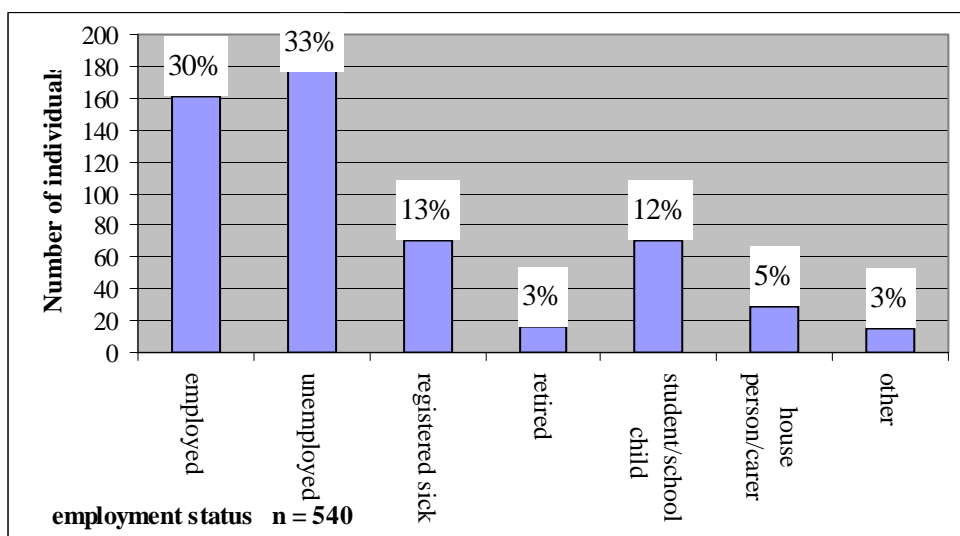
As in all trusts and similar to previous years data collection, the majority of individuals were single (see fig. 6.6).

Fig 6.6: Marital Status



- • **Employment status**

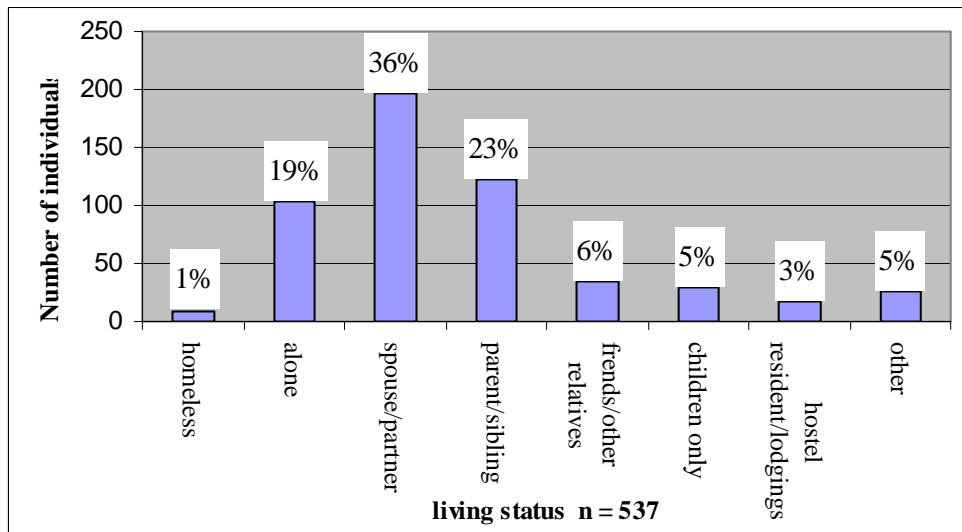
Fig 6.7: Employment Status



One in eight were students (including school children). One in three were unemployed, similar to the previous years; the proportion of employed and unemployed were comparable.

- • **Living circumstances**

Fig. 6.8: Living status



One in 4 either lived alone, or were homeless or in lodgings.

• • Precipitants – see Fig.6.9 overleaf

All episodes

40% of all episodes had more than one precipitant; the range was from 1 to 6 with a median of 1. Selecting those cases referred to Duchess of York (15 episodes), 71% had more than one precipitant with a range from 1 to 5 and a median of 2.

Individuals

Individuals at S.M.U.H.T. as in all trusts, reported interpersonal problems as the main precipitant to self-harm. Predominantly this was due to conflict with boy/girlfriend/partner which is reported equally by both sexes. Females were more likely to have family problems. Males reported work related problems and to a lesser extent financial and housing problems (see fig.6.9 overleaf).

Duchess of York

Child mental health assessment forms were received for 15 children (10 girls and 5 boys) during the 4th year of data collection. Two of the children had harmed themselves previously. Problems with family were commonly cited as a precipitant. Half of the children self-harmed due to school-work problems, according to their assessors.

• • Psychiatric Treatment

40% (214/533) were currently receiving psychiatric treatment and a further 15% (81/533) had previously received psychiatric treatment.

• • Repetition

82% (464/564) of individuals presented for the first time in the 4th year of the project. 57% (302/535) individuals self-reported to having harmed themselves during their lifetime (with or without seeking medical treatment), 28% (133/535) stated this was in the last year.

• • Drug and alcohol use

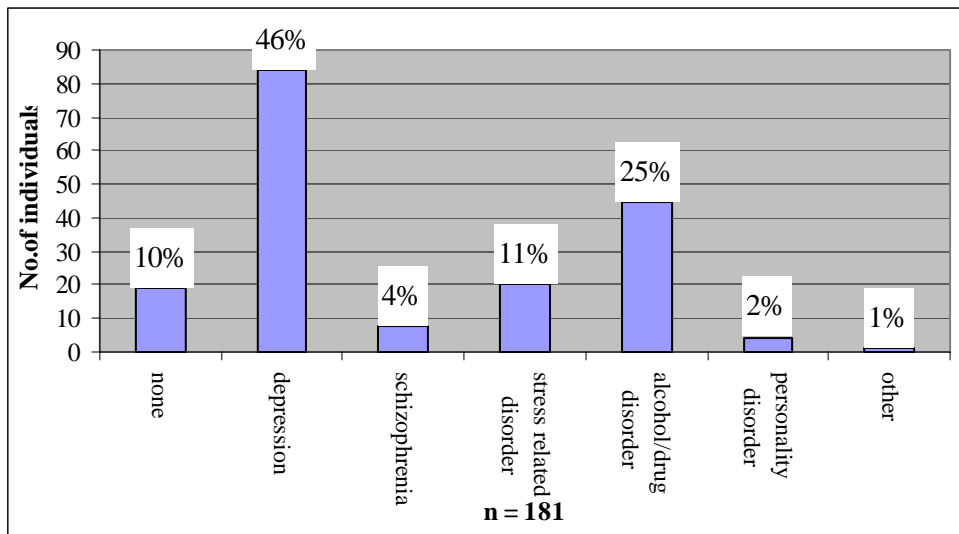
26% (92/348) of individuals with assessments by A&E staff consumed 7 or more units of alcohol per day indicating high alcohol use. 32% (91/283) assessed by mental health specialists had current alcohol abuse. 28% (144/506) of all individuals misused alcohol (classified by mental health specialists as having current alcohol abuse or by A&E staff as consuming on average 7 or more units per day).

9% (31/348) currently used street drugs at least once weekly, according to A&E assessors. 15% (41/281) of individuals assessed by mental health specialists were recorded as having current substance abuse.

According to the assessors at the Duchess of York, substance abuse was only a problem for one of the children who had self harmed and none had alcohol problems.

- • **Psychiatry: primary diagnosis**

Fig. 6.10: Psychiatric diagnosis by mental health specialists

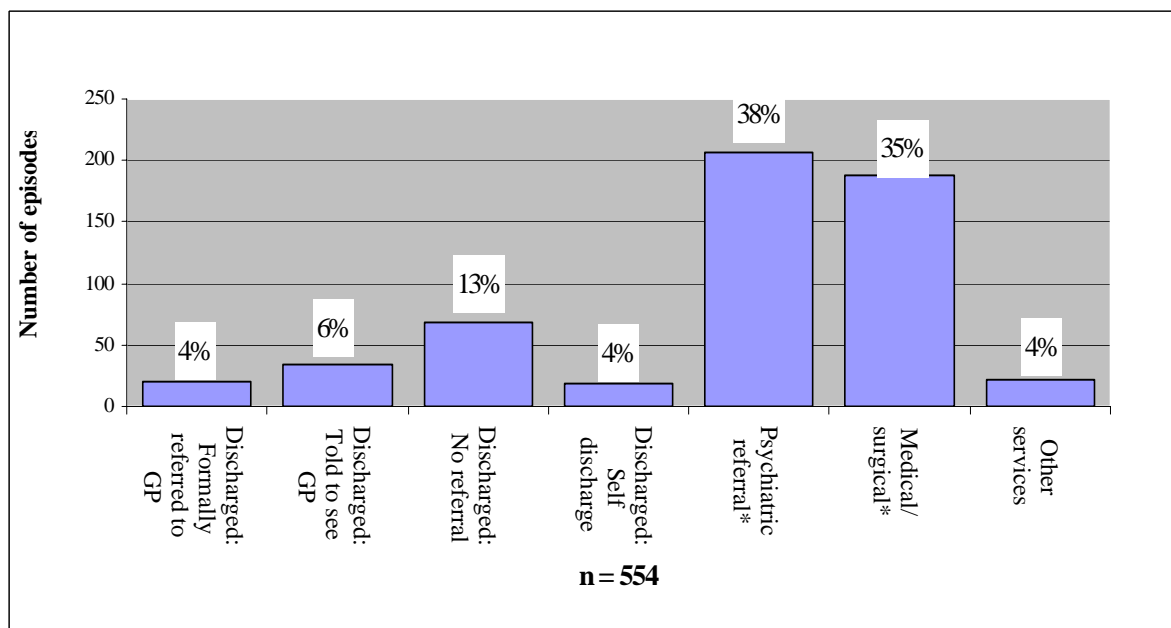


289 adults who deliberately self-harmed were assessed by mental health specialists. The proportional figures of those with a diagnosis are shown as only 63% had a psychiatric diagnosis according to ICD-10 recorded. The most common disorder was depression followed by alcohol or substance harmful use/dependence.

6. 6. Service data

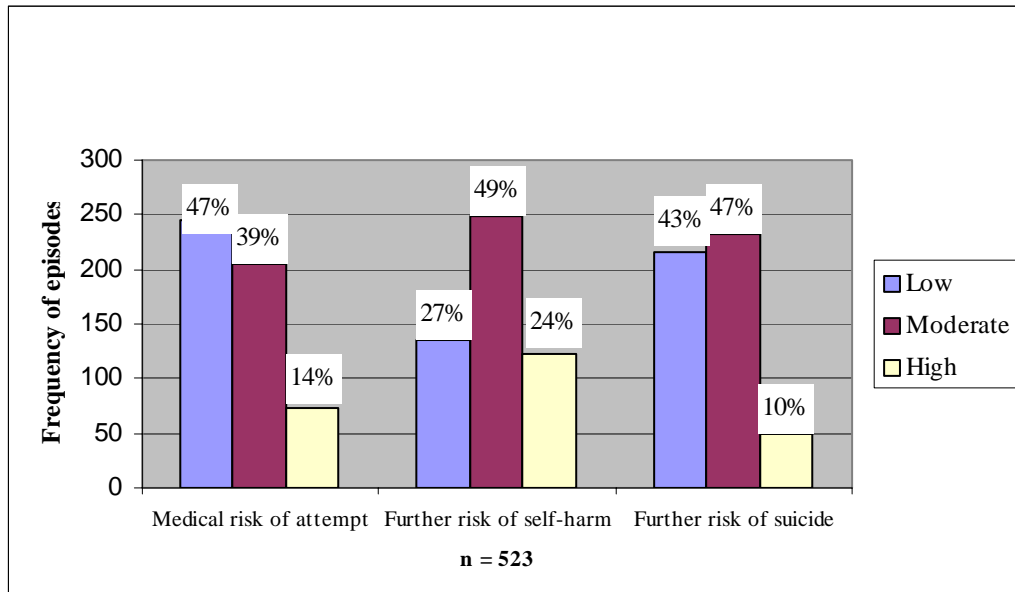
The following graphs depicts the management of self-harm, all episodes.

Figure 6.11: Management of deliberate self-harm in A & E Department



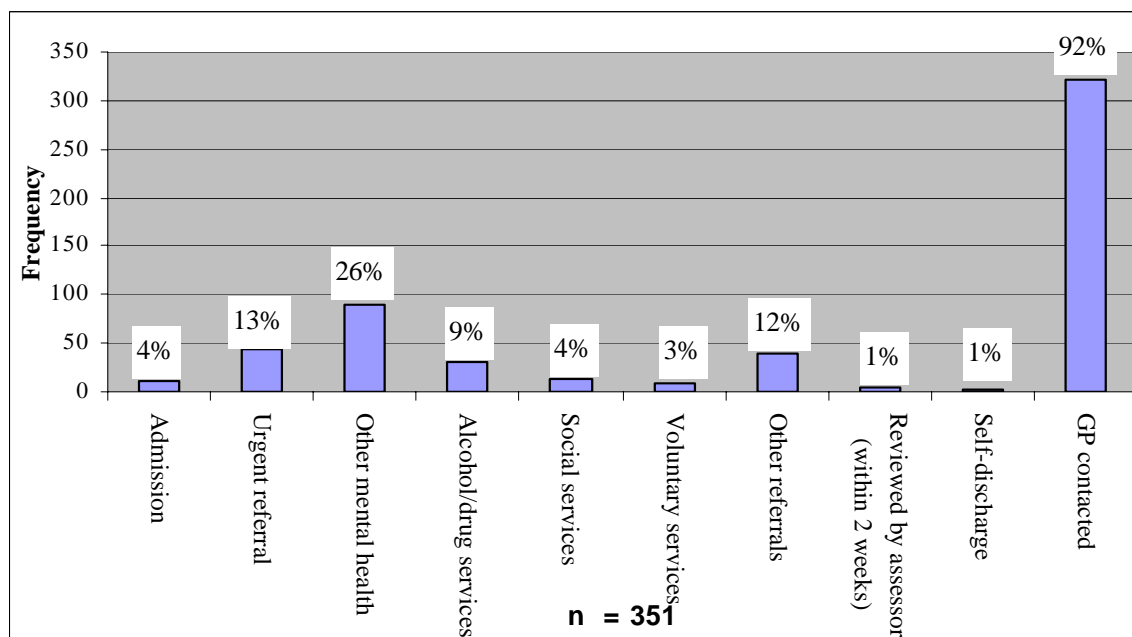
69% (384/554) were either referred from the A&E department directly to the psychiatric services or to medical/surgical services. 26% (142/554) were discharged directly from the A&E department. Compared to other trusts, a similar percentage were assessed as high risk of suicide.

Figure 6.12: Clinical assessment of risk in A & E departments



554 episodes of self-harm were assessed in the emergency departments at S.M.U.H.T; 94% of forms recorded a clinical assessment of risk (see fig. 6.12).

Figure 6.13: Management of adult self-harm by mental health specialists



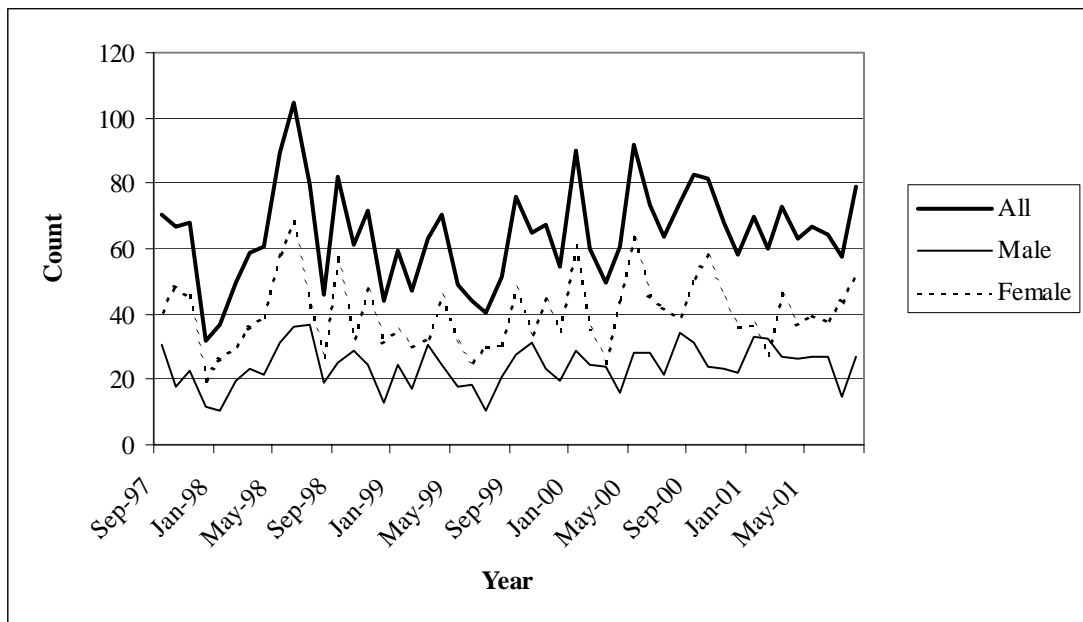
53% (359/683) of episodes were assessed by mental health specialist, an increase on previous years. Within this self-harming group there were 12 admissions to the psychiatric in-patient service, one which was formal.

In two thirds of cases at the Duchess of York, the assessor reviewed the patient within two weeks. Most had a referral other than to the general practitioner. There were no admissions to a psychiatric unit.

10.7. Trends over time

The number of episodes was weighted by the response rate, to reflect the true count of DSH presentations in SMUHT.

Figure 6.14: SMUHT: Number of Episodes (weighted by the response rate)



The number of female episodes of DSH is consistently higher in females compared to males in SMUHT.

- **Prediction of repetition within 6 months (period 1.9.97 – 28.2.01)**

Most individuals that repeat self harm within 6 months were assessed as high risk of further self harm by A&E doctors, although many that were identified as high risk did not go on to repeat.

Table 6.3

Positive predictive value = given that ED doctors identified the patient as being at high risk what is the probability of that patient repeating self harm within 6 months	24% (153/627)
Negative predictive value = given that ED doctors identified the patient as being at low risk what is the probability of that patient not repeating self harm within 6 months	94% (197/210)
Sensitivity = given that the patient repeated self harm within 6 months, what is the probability of the ED doctor having assessed them as being high risk	92% (153/166)
Specificity = given that the patient did not repeat self harm within 6 months, what is the probability of the ED doctor having assessed them as being low risk	36% (197/549)

Summary of differences between all trusts and SMUHT

Unlike other trusts we have compiled data from mental health forms completed by the Child psychiatric unit at Duchess of York.

- • SMUHT had a greater proportion of females compared to other trusts.
- • The proportion of patients living alone, homeless or in lodgings was the

lowest of all trusts.

- • A much higher proportion had a diagnosis of depression compared to other trusts
- • A greater proportion of referrals by mental health specialists were recorded as urgent compared to other trusts.