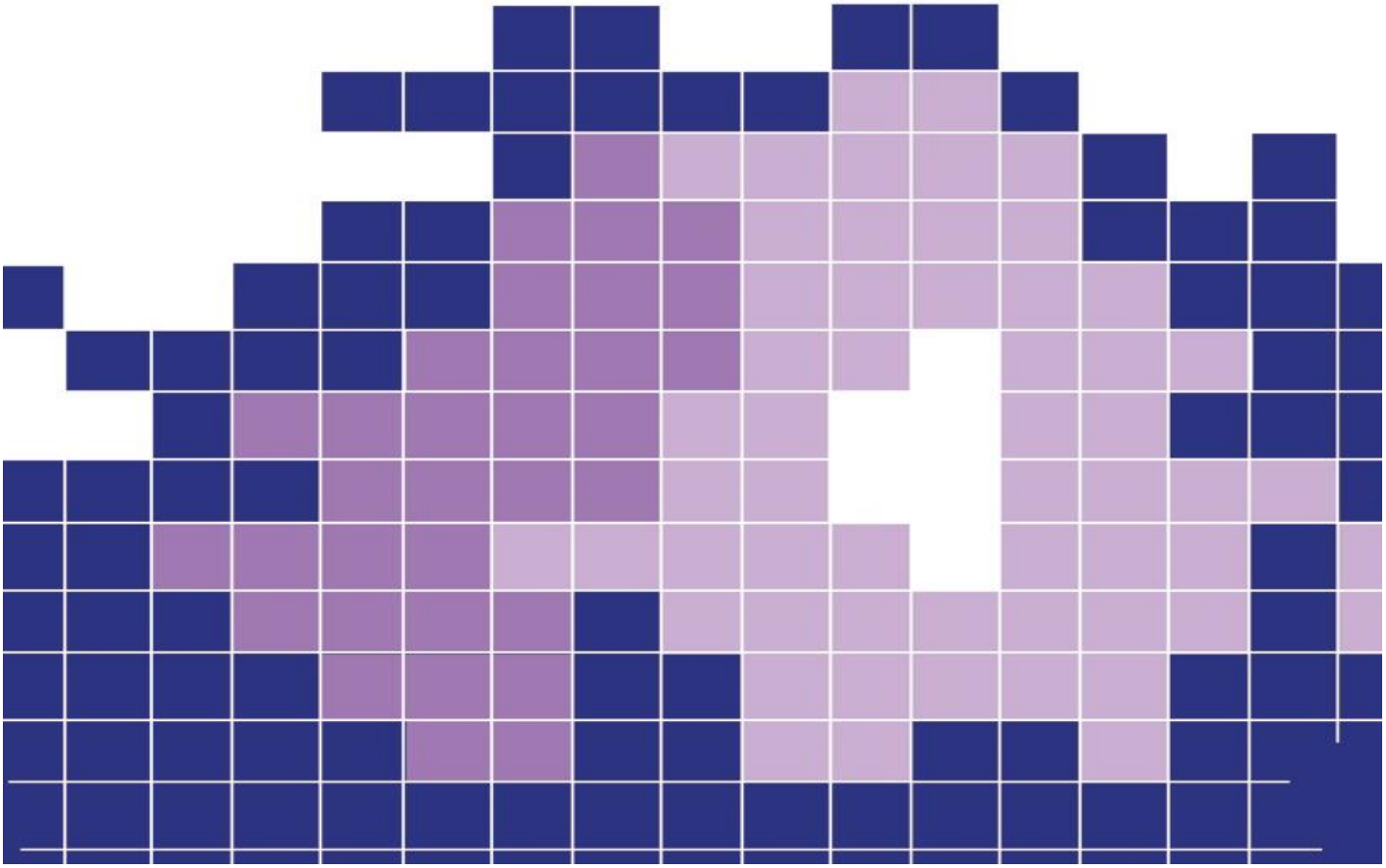
HSC Public Health Agency

Northern Ireland Registry of Self-Harm

Western Area

Supplement 2: Recommended Next Care Following Hospital Treated Self-Harm in the Western Area of Northern Ireland, 2007-2012



HSC Western Health and Social Care Trust

NSRF National Suicide Research Foundation

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1. Executive Summary

In February 2015 the Public Health Agency (PHA) launched a six year review on the incidence of self-harm in the Western Health & Social Care Trust (WHSCT) area of Northern Ireland (NI). This was the fourth report to emerge from the Northern Ireland (NI) Registry of Self-Harm and the first to report on long-term trends (2007 to 2012). A copy of the full report can be accessed at: *http://www.publichealth.hscni.net/publications/northern-ireland-registry-self-harm-western-area-six-year-summary-report-2007%E2%80%932012*

A series of supplements, each looking at a particular aspect of hospital-treated self-harm, was planned to accompany this six-year report. Supplement 1 focused on the issue of repetition of self-harm.

The current supplement (Supplement 2) explores the recommended next care of hospital-treated self-harm in the WHSCT area.

Supplements 3 and 4 will examine methods of self-harm (including alcohol involvement) and socioeconomic factors associated with self-harm, respectively.

Key Outcomes

- Variation in attendances by day and time

Based on the Registry data for 2007-2012, the number of self-harm presentations was highest on Sundays and Mondays, counting for one third of all presentations. The number of presentations for both men and women increased during the day, with just over one-third (34%) of all presentations occurring between the hours of 11pm and 3am.

- Recommended next care following hospital-treated self-harm

During the study period, approximately half (54%) of all self-harm presentations resulted in admission to a general ward in the presenting hospital, with just 7% being admitted to a psychiatric ward in the presenting hospital. One in ten patients left the emergency department (ED) without being seen, or refused admission. Under one-third (29%) were discharged from the ED with plans for follow-up care if deemed necessary.

Recommended next care of self-harm varied according to method of self-harm. Admission to a general ward was most common where the presentation was the result of an intentional drug overdose (64%) and least common following self-cutting (18%). Psychiatric admission was most common where a highly lethal method of self-harm was used, with one in four presentations following attempted hanging being admitted to a psychiatric ward (24%). Patients were more likely to refuse admission or leave the ED without being seen where attempted drowning or self-cutting was involved (14%).

The proportion of self-harm presentations resulting in inpatient admission (both general and psychiatric) was relatively similar across all three hospitals in the study area – ranging from 61% in Altnagelvin to 63% in Tyrone County Hospital. Psychiatric admission varied between hospitals – 5% in Altnagelvin, 12% in SWAH and 16% in Tyrone County.

Patterns of recommended next care varied across the study period, with the proportion of presentations not being admitted to the presenting hospital increasing from 19% in 2007 to 31% in 2012. Similarly, presentations resulting in admission (general and psychiatric) decreased from 68% to 60% during the study period. The proportion of patients leaving without being seen/ refusing admission varied between 2007 and 2012 according to the methods of self-harm, increasing by 7% across the time period for persons who engaged in attempted drowning.

Just under half (46%) of all self-harm presentations were due to repeat acts. Recommended next care varied according to the number of previous self-harm presentations a person had made. Self-harm patients who presented multiple times (5 or more presentations) were more likely to leave the ED without being seen or to refuse admission compared to those with less than 5 previous presentations. Risk of leaving without being seen increased with each subsequent presentation (17% for those with at least ten previous presentations).

- Assessment of self-harm patients in the ED

A mental health assessment was recorded as having been carried out for 15% of self-harm patients in the ED. Receiving an assessment in the ED was most likely where a highly lethal method of self-harm was involved (attempted hanging or drowning), or where self-cutting was combined with a drug overdose. In particular, patients presenting outside the hours of 8am-4pm were less likely to receive an assessment.

- Involvement of alcohol

Alcohol was involved in 60% of self-harm presentations, and was highest among those refusing admission and those leaving the ED without being seen. In addition, the involvement of alcohol at the time of the self-harm presentation meant that a patient was less likely to receive a mental health assessment in the ED.

Discussion points

This supplement has, for the first time, examined the recommended next care of self-harm following presentation to hospital EDs in the Western Area of Northern Ireland.

General admission rates were similar to that reported in English studies and lower than those in Ireland.[1,2] The proportion of self-harm patients leaving the ED before being seen/without a recommendation is lower than that recorded in Ireland.[2]

The majority of self-harm presentations to hospital EDs occurred out of normal working hours, and at the weekends, similar to findings in Ireland and England.[2,3] In addition, self-harm patients were more likely to leave the ED without being seen when the presentation occurred outside of normal working hours. This underlines the need for service provision to be designed to ensure psychiatric services are available 24 hours a day, 7 days a week, in line with international guidelines.[4]

[1] Kapur N, Gunnell D, Hawton K, Nadeem S, Khalil S, Longson D, Jordan R, Donaldson I, Emsley R, Cooper J. Messages from Manchester: pilot randomised controlled trial following self-harm. Br J Psychiatry. 2013 Jul;203(1):73-4. doi: 10.1192/bjp.bp.113.126425.

[2] Griffin E, Corcoran P, Cassidy L, O'Carroll A, Perry IJ, Bonner B. 2014. Characteristics of hospital-treated intentional drug overdose in Ireland and Northern Ireland. BMJ Open; 4:e005557.

[3] Gunnell D, Bennewith O, Peters TJ, House A, Hawton K. The epidemiology and management of self-harm amongst adults in England. J Public Health (Oxf). 2005 Mar;27(1):67-73. Epub 2004 Nov 25.

[4] National Institute for Clinical Excellence (2004). Self-harm: The short-term physical and psychological management and secondary prevention of self-harm in primary and secondary carehttps://www.nice.org.uk/guidance/cg16[5] Public Health Agency (2015).

Supplement 1 identified that a relatively large proportion of those who left the ED without being seen were more likely to repeat again within 12 months (26.5%). In particular, those who engaged in self-cutting and frequent repeaters of self-harm were more likely to leave the ED without being seen. Alcohol was also a factor in these presentations. This report has also found that the proportion of patients leaving without being seen has increased over the study period. In particular, this group are at increased risk of both non-fatal and fatal repetition and so these findings highlight the need to implement measures that minimise the risk of patients leaving the ED without being seen and ensure appropriate follow-up for those who leave without being seen. [5, 6, 7]

The proportion of patients receiving a mental health assessment is lower than that recorded in Ireland and in England (Griffin et al, 2014; Cooper et al, 2015).[8,9] However it is important to note that the Registry only records mental health assessments that were conducted in the ED setting, at the time of presentation. Assessments for patients admitted to the hospital may be conducted at a later time, and so would not be captured here. Additionally, the findings of this report are based on data from the years 2007-2012 and so may not reflect current practices. Initial data from recent years shows that the proportion of patients receiving or being referred for a mental health assessment in the ED is increasing.[10]

The NICE guidelines state that all individuals presenting with self-harm should be offered a preliminary psychosocial assessment at triage, and there is evidence that having such an assessment is associated with lower rates of non-fatal repetition.[1,11] The findings from this report suggest that not all individuals who present with self-harm receive such an assessment, underlining the need to have appropriate services in place to offer such an assessment. The Northern Ireland Suicide Prevention Strategy, Protect Life (2006), recommends that the link between the ED and mental health services should be enhanced. Future work should monitor the provision of assessments in the ED.

The findings reiterate from Supplement 1 the importance of implementing and evaluating self-harm awareness training for all ED staff, as supported by international guidelines such as those from the American Association of Suicidology Recommendations by Knesper *et al*., 2010.[12] Raising awareness of the unique needs of self-harm patients should ultimately improve patient experience in the ED setting and also the follow-up care offered to this patient group.

[5]Northern Ireland Registry of Self-Harm Western Area Six Year Summary Report 2007–2012. http://www.publichealth.hscni.net/publications/northern-ireland-registry-self-harm-western-area-six-year-summary-report-2007%E2%80%932012.

[6] Larkin C, Corcoran P, Perry I, Arensman E. Severity of hospital-treated self-cutting and risk of future self-harm: a national registry study. J Ment Health. 2014 Jun;23(3):115-9.

[7] Perry IJ, Corcoran P, Fitzgerald AP, Keeley HS, Reulbach U, Arensman E. The incidence and repetition of hospital-treated deliberate self harm: findings from the world's first national registry. PLoS One. 2012;7(2).

[8] Griffin, E. Corcoran, P. Cassidy, L. O'Carroll, A. Bonner, B. (2014) Characteristics of hospital-treated intentional drug overdose in Ireland and Northern Ireland. *BMJ Open*, 4(7)

[9] Cooper J, Steeg S, Gunnell D, Webb R, Hawton K, Bennewith O, House A, Kapur N. Variations in the hospital management of self-harm and patient outcome: a multi-site observational study in England. J Affect Disord. 2015 Mar 15;174:101-5.

[10] Northern Ireland Registry of Self-Harm Western Area Six Year Summary Report 2007–2012. Public Health Agency. Available at: http://www.publichealth.hscni.net/publications/northern-ireland-registry-self-harm-western-area-six-year-summary-report-2007%E2%80%932012

[11] Bergen H, Hawton K, Waters K, Cooper J, Kapur N. Psychosocial assessment and repetition of self-harm: the significance of single and multiple repeat episode analyses. J Affect Disord. 2010 Dec;127(1-3):257-65.

[12] Knesper, D. J., American Association of Suicidology, & Suicide Prevention Resource Center. (2010) Continuity of care for suicide prevention and research: Suicide attempts and suicide deaths subsequent to discharge from the emergency department or psychiatry inpatient unit. Newton, MA: Education Development Center, Inc

Additional recommendations made by this group relevant to the ED include providing continued care on the way to follow-up care. This would provide a buffer to risk of repeat self-harm acts or indeed suicide for persons who are discharged from the ED following self-harm. Alcohol may be one of the factors underlying the pattern of presentations involving self-harm to the EDs. This further underlines the need for training and specialised expertise among staff, in particular when dealing with dual diagnoses (such as alcohol dependence). The next supplement will include and exploration of the role of alcohol in self-harm presentations.

Recent publications

The six year data from the Western Area of Northern Ireland has recently been included in two peer-reviewed papers, one exploring the incidence of hospital-treated self-harm in the area and the other comparing self-harm involving overdose with the Republic of Ireland.[13,2] Please see Section 4: Appendix for the abstracts from these papers.

Authors

This report was compiled by NSRF in Cork, with input from Dr Eve Griffin, Ms Caroline Daly and Professor Ella Arensman, in collaboration with the PHA in Derry, in particular Mr Brendan Bonner and Dr Denise O'Hagan.

[13] Corcoran P, Griffin E, O'Carroll A, Cassidy L, Bonner B. (2015) Hospital-treated deliberate self-harm in the Western area of Northern Ireland. *Crisis* (Forthcoming)

2. Methodology

2. Methodology

An extensive exploration of the methodology and background of the Registry operations and are detailed in the recent Northern Ireland Registry of Self-Harm Western Area Six Year Summary Report. Below are some additional methodological explanations relevant to this supplement.

Setting, Registry Coverage and Study Period

During the study period, the Western Health and Social Care Trust Area was serviced by three hospital EDs – Altnagelvin Hospital (Londonderry), South West Acute Hospital (formally the Erne, until June 21st, 2012), and Tyrone County Hospital, Omagh (operated until 2010). All three hospitals operated as Type 1 hospitals. Type 1 EDs are those which have major units with consultant-led services and accommodation for patients, in which emergency medicine and surgical services are provided on a 24-hour basis.

Between 2007 and 2012 psychiatric in-patient facilities were provided at Gransha Hospital which provides services to Altnagelvin Acute Hospital, and at the Tyrone and Fermanagh Hospitals which provides services to the other acute hospitals located in Omagh and Fermanagh. It should be noted that since November 2012 a new in-patient psychiatric unit has opened in Grangewood Hospital replacing the former unit at Gransha.

Tyrone County Hospital was downgraded from an ED to an urgent care department in March 2009, after which the number of self-harm presentations were greatly reduced and Registry data collection ceased in December 2010. To this end, this report includes data on self-harm presentations to Tyrone County Hospital for the period January 1st 2007– December 31st 2010, and to Altnagelvin Hospital and South West Acute Hospital (formally the Erne) for January 1st 2007-December 31st 2012.

Mental Health Assessment

A mental health assessment includes a review or assessment by the health care professionals in the presenting hospital ED. An assessment can occur at different stages of a patient's journey depending on the nature of their presentation and also their willingness to stay for an assessment. These assessments vary in nature across each hospital. Data collected in this report includes mental health assessments conducted for those patients in the ED at the time of presentation. For patients who are admitted to a general ward this assessment may be carried out on the ward on subsequent days and is not captured within this report. People who leave the ED prior to being seen by ED staff or before decisions are made will not have the opportunity to have an assessment carried out. In some cases ED staff can determine that a patient is low risk and can be discharged with the plan to return for a psychiatric assessment the following day, via what is known as the Card Before You Leave Scheme.

During the initial part of the 2007-12 period in Altnagelvin Hospital a mental health practitioner was only available to perform assessments between the hours of 9am and 1 am 7-days a week. However, during that period the Trust have since made a number of service enhancements to ensure there is now assessments available 24/7 at Altnagelvin. In the former Erne and Tyrone County Hospitals assessments which were covered in the report were only available between 9am to 10 pm. Since the opening of the new South West Acute Hospital, a practitioner is now available until

10.30pm and the Trust are currently reviewing demands in terms of extension of the service in future.

Hospital recommended next care

Hospital admission is for the benefit of those service users whose circumstances or acute care needs are such that they cannot, at that time, be treated and supported appropriately at home or in an alternative, less restrictive, community-based residential setting.

General admission: This category refers to patient admission to an on-site medical ward in the presenting hospital.
Psychiatric admission: This category refers to admission to an on-site or affiliated psychiatric award within the presenting hospital.
*Refused to be admitted: This category refers to patients who refused to be admitted as recommended by ED hospital staff.
*Left before being seen: This category refers to patients who leave the ED before being seen by an ED doctor.
Not admitted: This category refers to patients who were not admitted to either a general or psychiatric ward. This group includes patients whose physical health needs have been dealt with by ED staff and have been subsequently discharged. A patient who is not admitted can be assigned to community care groups or home treatment pathways. Home Treatment teams support service users in their own homes avoiding admission to, or after discharge from hospital.

*Due to small numbers persons who refused admission and who left before being seen were combined to allow for accurate analysis. Breakdown is cited within the text but not within tables.

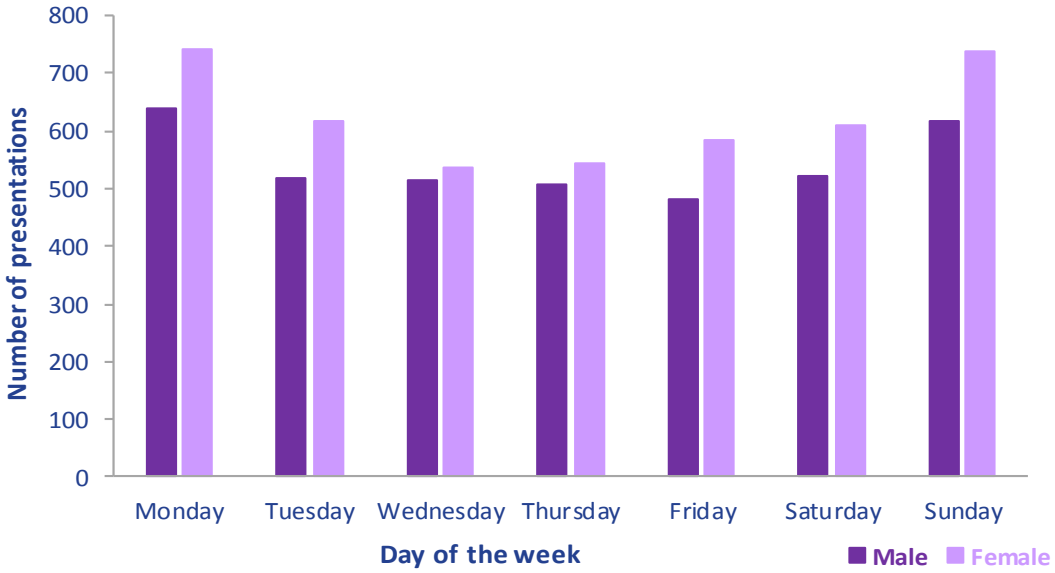
3. Hospital Next Care Following Self-Harm

3. Hospital recommended next care following self-harm

Day and time of presentation

Between 2007 and 2012, 4,733 individuals were treated for 8,175 self-harm episodes. The number of self-harm presentations was highest on Sunday and Monday, accounting for 34% (n=2,739) of all presentations. There were on average 282 additional self-harm presentations on both Sundays and Mondays, when compared to the remaining weekdays. The number of self-harm presentations fell midweek, with the lowest number of presentations occurring on Thursdays (n=1,051).

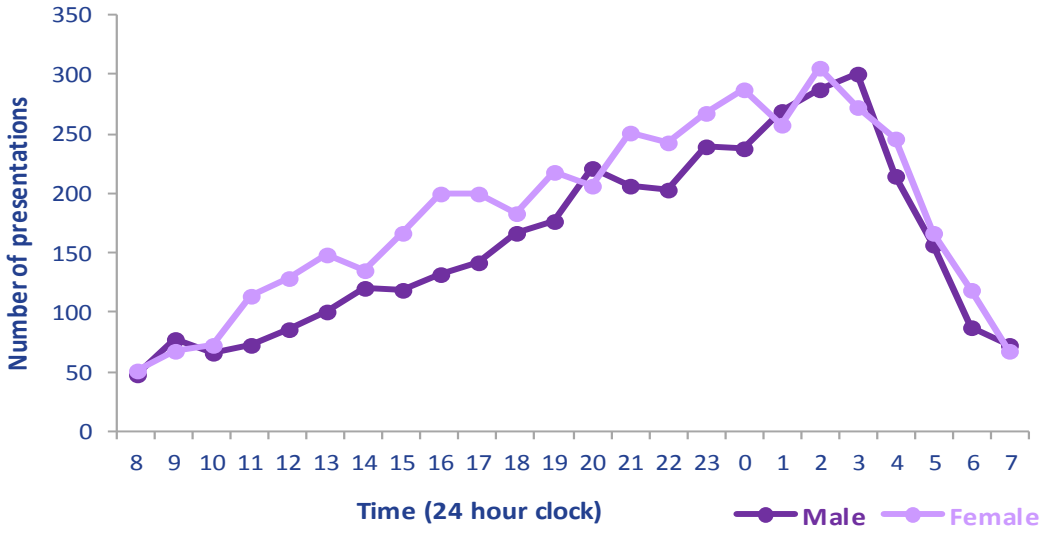
Figure 1: Number of presentations by day of the week, 2007-2012



Attendance to the ED varied throughout the day with the majority of presentations occurring at night time. The number of presentations peaked for females at 2am, and for males at 3am. Over a third of all presentations occurred between 11pm and 3am (34%; n=2,725). This was in contrast with the quietest periods, between 7am and 11am, accounting for just 9% of presentations (n=707).

The majority of patients were brought to hospital by ambulance (67%, n=3,990), and 14% (n=863) were brought by other emergency services such as the Police. The proportion brought by ambulance varied over the course of the day from 58% between noon and 4pm to 73% between 4am and 8am.

Figure 2: Number of presentations by time of attendance, 2007-2012



Recommended next care

Table 1 illustrates the recommended next care for self-harm presentations made over the period 2007 to 2012. Admission to either a general or psychiatric ward occurred in 61% of presentations (n=5,011). One in every two self-harm presentations resulted in admission to a general ward (54%; n=4,414) with a further 7% resulting in psychiatric admission (n=597). Just under one-third (29%; n=2,358) of cases of self-harm were not admitted. In 7% (n=592) of self-harm presentations, the patient left the ED before a next care recommendation could be made and just 3% (n=214) of presentations resulted in a patient refusing to be admitted. Overall, recommended next care was broadly similar for both males and females.

Table 1: Recommended next care by gender, 2007-2012

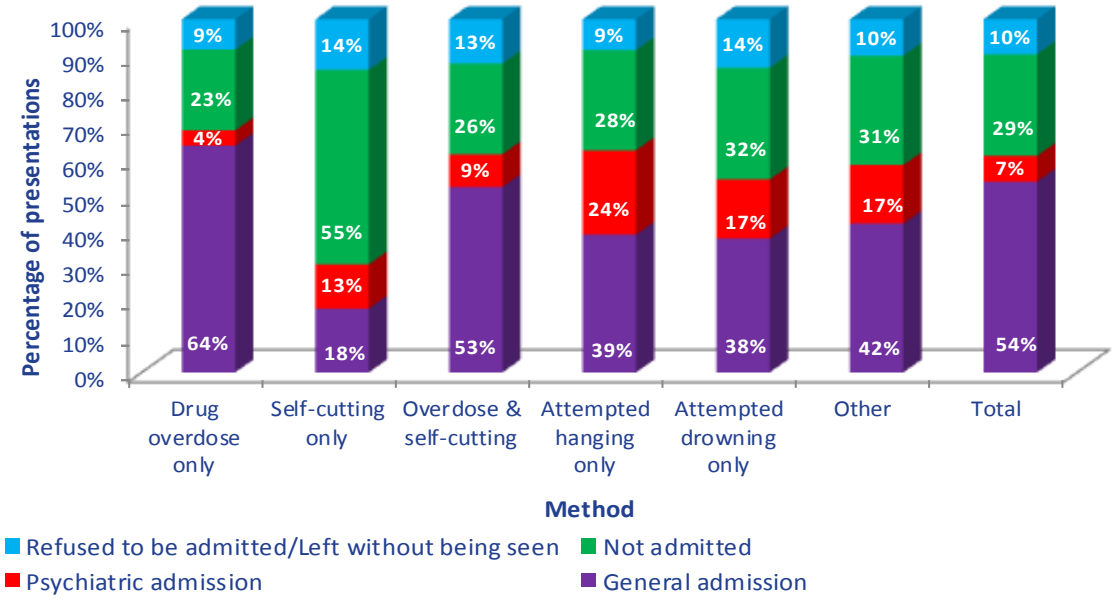
	General admission	Psychiatric admission	Left without being seen/Refused admission	Not admitted	Total
Male	2051	309	410	1032	3802
	(54%)	(8%)	(11%)	(27%)	(100%)
Female	2363	288	396	1326	4373
	(54%)	(7%)	(9%)	(30%)	(100%)
Total	**4414**	**597**	**806**	**2358**	**8175**
	(54%)	**(7%)**	**10%**	**(29%)**	**(100%)**

Recommended next care by method

Recommended next care varied depending on the presenting method of self-harm used (Figure 3). General admission was most common following presentations involving intentional drug overdose only, or where combined with self-cutting (64%; n=3,693 and 53%; n=135, respectively). General admission was least common for patients who presented with self-cutting only (18%; n=230). These patients were most often not admitted (55%; n=700).

Psychiatric admission was most common in presentations involving highly lethal methods of self-harm, in particular following attempted hanging, with one in four resulting in admission to a psychiatric ward (24%; n=52). Patients were most likely to refuse admission or leave the ED without being seen following attempted drowning (14%; n=42), if the presentation involved self-cutting only (14%; n=181) or where drug overdose and self-cutting were combined (13%; n=32).

Figure 3: Recommended next care by self-harm method, 2007-2012



Alcohol was present in 60% of all self-harm presentations (n=4,883). Alcohol involvement was higher in males at 66% compared to females (55%). Alcohol involvement was highest among those who refused to be admitted or left without being seen (65%; n=525). In addition, 64% (n=2,831) of patients admitted to a general ward had alcohol on board.

Recommended next care by hospital

As shown in Table 2, recommended next care for patients presenting following self-harm varied according to the presenting hospital. Approximately three-quarters of presentations (71%; n=5,760) recorded during the period 2007 to 2012 presented to Altnagelvin hospital. The SWAH (formally the Erne) had 1,898 such presentations (23%), and the remaining 6% of presentations (n=517) were recorded in Tyrone County Hospital.

The proportion of self-harm presentations resulting in inpatient admission (both general and psychiatric) was relatively similar across all three hospitals – 63% in Tyrone County, 62% in the SWAH and 61% in Altnagelvin. General admission was proportionately highest in Altnagelvin at 56% (n=3,217) and lowest in Tyrone County at 47% (n=244). In the SWAH one in two presentations resulted in admission to a general ward (50%; n=953). Psychiatric admission varied between the three hospitals with 16% of Tyrone County (n=80) cases receiving this next care compared to 12% in the SWAH (formally the Erne) (n=234) and just 5% in Altnagelvin (n=283). The proportion of patients refusing admission or leaving the ED without being seen was highest in Altnagelvin hospital (11% vs. 9% and 6% in Tyrone County and the SWAH, respectively) [X^2 for trend(1)=4.32, p<0.05].

Table 2: Recommended next care by hospital, 2007-2012

	General admission	Psychiatric admission	Left without being seen/Refused admission	Not admitted	Total
Altnagelvin	3217	283	640	1620	5760
	(56%)	(5%)	(11%)	(28%)	(100%)
Tyrone County	244	80	48	145	517
	(47%)	(16%)	(9%)	(28%)	(100%)
SWAH	953	234	118	593	1898
	(50%)	(12%)	(6%)	(31%)	(100%)
Total	**4414**	**597**	**806**	**2358**	**8175**
	(54%)	**(7%)**	**(10%)**	**(29%)**	**(100%)**

Recommended next care by time of presentation

Overall, recommended next care of self-harm didn't vary according to whether the person presented between 9am-5pm or outside of these hours. However, the proportion of patients refusing admission/ leaving without being seen was slightly higher after 5pm (11% vs. 7%).

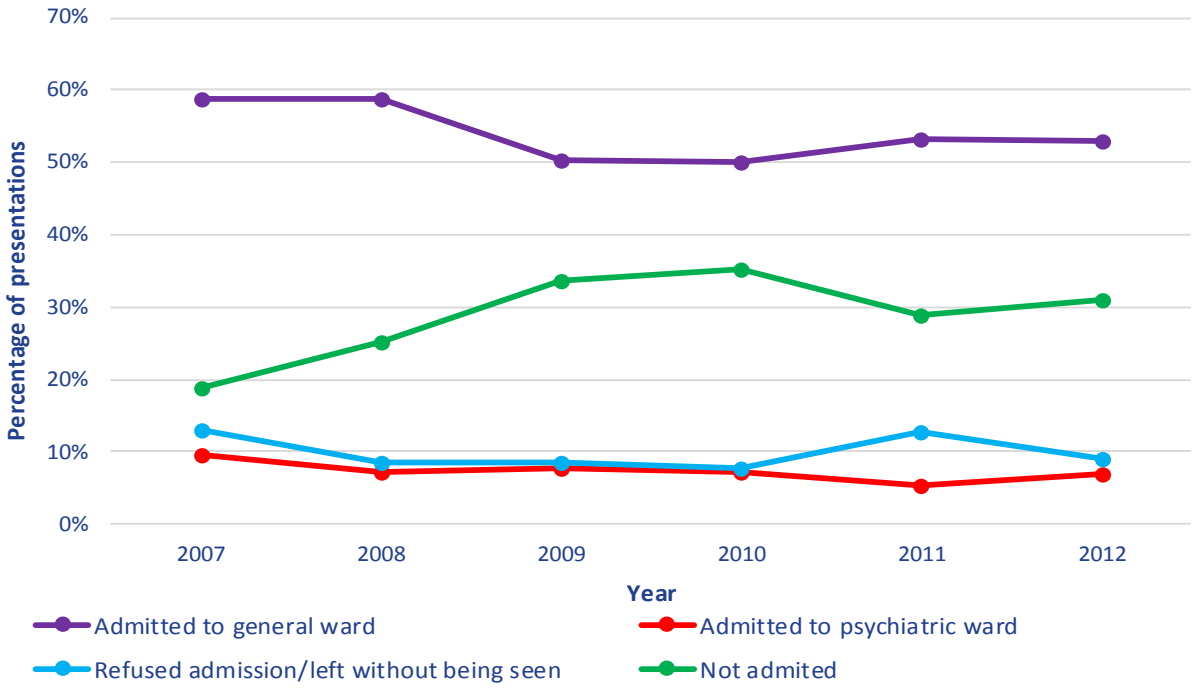
Trends in recommended next care, 2007-2012

Patterns of recommended next care varied between 2007 and 2012 [X^2 for trend(1)=38.13, p<0.001]. Over the course of the study period, the proportion of presentations not being admitted to the presenting hospital increased from 19% in 2007 to 31% in 2012. The proportion of presentations resulting in both general and psychiatric admission decreased over the six-year period, with general admission rates falling from 59% in 2007 to 53% in 2012. There was little variation in the proportion of presentations refusing admission or leaving without being seen (range: 8% to 13%).

Recommended next care according to method of self-harm also varied across the study period. The proportion of presentations admitted to a general ward following drug overdose combined with self-cutting decreased by 21%, and the proportion of these cases refusing admission or leaving the ED

without being seen increased by 6% [X^2 for trend(1)=11.45, p<0.001]. For cases of attempted drowning, the proportion admitted to a psychiatric ward decreased by 21% between 2007 and 2012, with the proportion leaving without being seen or refusing admission increasing by 7% [X^2 for trend(1)=9.35, p<0.01].

Figure 4: Recommended next care, 2007-2012



Recommended next care and repetition of self-harm

Just under half of all self-harm presentations were due to repeat acts (46%; n=3,982). As illustrated in Table 3, recommended next care varied according to the number of previous self-harm presentations compared to patients presenting for the first time, those with a history of multiple self-harm presentations were less likely to be admitted to a general ward. Over half (56%) of all index episodes of self-harm resulted in general admission, compared with just 38% who had made at least ten previous presentations. Self-harm patients who had presented multiple times were also more likely to leave the ED without being seen, and risk of leaving without being seen increased with subsequent presentations. Approximately one in ten patients who had made at least one previous presentation left the ED without being seen, compared with 17% of those who made at least ten previous presentations.

Table 3: Recommended next care, by number of repeat self-harm presentations, 2007-2012

	Admitted to general ward	Admitted to psychiatric ward	Left without being seen/Refused admission	Not admitted	Total
1st	2669 (56%)	306 (7%)	378 (8%)	1380 (29%)	4733 (100%)
2nd	702 (55%)	93 (7%)	127 (10%)	356 (28%)	1278 (100%)
3rd	313 (52%)	57 (9%)	81 (13%)	157 (26%)	608 (100%)
4th	200 (53%)	39 (11%)	42 (11%)	95 (25%)	376 (100%)
5th-9th	336 (50%)	54 (8%)	94 (14%)	186 (28%)	670 (100%)
10th+	194 (38%)	48 (9%)	84 (17%)	184 (36%)	510 (100%)
Total	**4414 (54.0%)**	**597 (7.3%)**	**806 (9.9%)**	**2358 (28.8%)**	**8175 (100%)**

Mental health assessment

Information on mental health assessments was recorded only for patients who received an assessment in the ED setting (see Section 2 for further detail). In total 15% of self-harm patients received an assessment in the ED at the time of presentation (n=1,239). The majority of patients did not receive an assessment in the ED.

Mental health assessments were most common following presentations where intentional drug overdose and self-cutting were combined (23%, n=59), and where the presentation involved attempted hanging (23%, n=48). Approximately one in five presentations following attempted drowning presentations involved a mental health assessment (20%; n=59). Just 14% (n=768) of drug overdose only presentations were assessed.

Whether a mental health assessment was conducted in the ED or not was associated with age. Approximately 10% of presentations made by persons less than 15 years and those over 65 years did involve a mental health assessment in the ED. The proportion of presentations receiving a mental health assessment in the ED was highest among those aged 15-24 years (18%; n=414).

Multivariate analysis: Factors affecting mental health assessment status

A multivariate analysis was conducted to identify the factors most strongly associated with receiving a mental health assessment at the time of presentation to the ED (Table 4). The results showed that the likelihood of receiving an assessment varied according to time of presentation, method of self-harm and whether alcohol was involved in the presentation. The factor most strongly associated with receiving an assessment during the study period was time of presentation to the ED. Overall, patients presenting outside the hours of 8am and 4pm were less likely to receive an assessment. In particular, those presenting between in the evening and through the night (8pm to 4am) were least

likely to receive an assessment (8pm<midnight OR=0.29, 95% CI=0.22-0.39). Patients who presented themselves to the ED were more likely to receive an assessment, when compared with those arriving by ambulance (1.21, 1.01-1.45).

Method of self-harm was also strongly associated with receiving an assessment. Compared to presentations involving drug overdose only, presentations involving attempted hanging (2.03, 1.40-2.95), attempted drowning (1.79, 1.25-2.56), self-cutting (1.71, 1,41-2.07) and other methods (1.83, 1.34-2.49) were significantly more likely to receive an assessment. In particular, an assessment was most likely received when drug overdose was combined with self-cutting (2.40, 1.71-3.34). Those patients who had also used alcohol at the time of self-harm were less likely to receive an assessment (0.68, 0.58-0.79).

Gender, residence (city or not) and whether a persons presented at a weekend or not did not appear to affect if an individual received a mental health assessment at the ED. Similarly, while an association between age and assessment was found, this was attenuated when the model was adjusted for other confounding variables. A weak association was found between self-harm history and assessment – those with a history of three or more episodes of self-harm during the last year – were less likely to receive an assessment (0.76, 0.60-0.96).

Table 4: Factors associated with receiving a mental health assessment, 2007-2012

Variable	Category	Assessed, N (%)	Crude OR	(95% CI)	Adjusted OR	(95% CI)
Sex	Male	587 (15.5%)	1.00	(Ref)	0.97	(0.84-1.12)
	Female	657 (15.1%)	0.98	(0.86-1.09)	1.00	(Ref)
Age	< 25 years	423 (17.5%)	1.00	(Ref)	1.00	(Ref)
	25-34 years	284 (14.6%)	0.81**	(0.69-0.95)	0.88	(0.75-1.12)
	35-44 years	262 (13.8%)	0.76**	(0.64-0.89)	0.92	(0.90-1.33)
	45-54 years	196 (14.6%)	0.81*	(0.67-0.97)	0.99	(0.80-1.24)
	55 years +	79 (15.6%)	0.87	(0.67-1.13)	0.94	(0.69-1.29)
City Resident	No	598 (15.5%)	1.00	(Ref)	1.00	(Ref)
	Yes	646 (15.2%)	0.98	(0.87-1.10)	0.95	(0.83-1.10)
Weekend	No	862 (15.2%)	1.00	(Ref)	1.00	(Ref)
	Yes	382 (15.5%)	1.02	(0.89-1.16)	1.02	(0.88-1.19)
Time	8am < Noon	135 (24.0%)	1.00	(Ref)	1.00	(Ref)
	Noon < 4pm	204 (20.5%)	0.82	(0.64-1.04)	0.84	(0.63-1.12)
	4pm < 8pm	262 (18.7%)	0.73**	(0.57-0.92)	0.73**	(0.55-0.96)
	8pm < midnight	167 (9.1%)	0.32***	(0.25-0.41)	0.29***	(0.22-0.39)
	Midnight < 4am	249 (11.3%)	0.40***	(0.32-0.51)	0.42***	(0.32-0.56)
	4am < 8am	227 (20.2%)	0.80	(0.63-1.02)	0.89	(0.67-1.19)
Method	Drug OD only	769 (13.5%)	1.00	(Ref)	1.00	(Ref)
	Self-cutting only	232 (18.3%)	1.44***	(1.23-1.69)	1.71***	(1.41-2.07)
	OD and self-cutting	59 (23.0%)	1.93***	(1.43-2.60)	2.40***	(1.71-3.38)
	Attempted hanging	49 (22.6%)	1.88***	(1.35-2.60)	2.03***	(1.40-2.95)
	Attempted drowning	59 (19.4%)	1.55**	(1.15-2.08)	1.79**	(1.25-2.56)
	Other	76 (20.8%)	1.69***	(1.30-2.19)	1.83***	(1.34-2.49)
Alcohol	No	593 (18.1%)	1.00	(Ref)	1.00	(Ref)
	Yes	651 (13.4%)	0.70***	(0.62-0.79)	0.68***	(0.58-0.79)
Self-harm in previous year	None	845 (15.4%)	1.00	(Ref)	1.00	(Ref)
	One	196 (16.4%)	1.08	(0.91-1.28)	1.04	(0.85-1.27)
	Two	80 (15.8%)	1.03	(0.80-1.32)	0.98	(0.73-1.30)
	Three or more	123 (13.1%)	0.83	(0.68-1.01)	0.76*	(0.60-0.96)
Method of arrival to ED	Ambulance	593 (15.0%)	1.00	(Ref)	1.00	(Ref)
	Other	66 (18.5%)	1.29	(0.98-1.71)	1.09	(0.81-1.46)
	Self-referred	220 (19.5%)	1.38***	(1.16-1.64)	1.21*	(1.01-1.45)
	Police	104 (21.0%)	1.51**	(1.19-1.90)	1.24	(0.95-1.63)

P<0.05*; p<0.01**; p<0.001

4. Appendix: Recent Publications

Hospital-treated deliberate self-harm in the Western area of Northern Ireland

Corcoran P, Griffin E, O'Carroll A, Cassidy L, Bonner B. 2015. *Crisis.*

Aims: The study aimed to establish the incidence of hospital-treated deliberate self-harm in the Western Area of Northern Ireland, and to explore the profile of such presentations.

Methods: Deliberate self-harm presentations made to the three hospital EDs operating in the area during the period 2007–2012 were recorded.

Results: There were 8,175 deliberate self-harm presentations by 4,733 individuals. Respectively, the total, male and female age-standardised incidence rate was 342, 320 and 366 per 100,000 of the population. City council residents had a far higher self-harm rate. The peak rate for women was among 15–19 year olds (837 per 100,000) and for men was among 20–24 year olds (809 per 100,000). Risk of repetition was higher in 35–44 year-old patients and where self-cutting was involved, but was most strongly associated with the number of previous self-harm presentations.

Conclusion: The incidence of hospital-treated self-harm in Northern Ireland is far higher than in the Republic of Ireland and more comparable to that in England.

Characteristics of hospital-treated intentional drug overdose in Ireland and Northern Ireland

Griffin E, Corcoran P, Cassidy L, O'Carroll A, Perry IJ, Bonner B. 2014. *BMJ Open*; 4:e005557.

Objectives: This study compared the profile of intentional drug overdoses (IDOs) presenting to EDs in the Republic of Ireland and the Western Trust Area of Northern between 2007 and 2012. Specifically, the study aimed to compare characteristics of patients involved, explore the factors associated with repeated IDO and report the prescription rates of common drug types in the population.

Methods: We utilised data from two comparable registries that monitor the incidence of hospital-treated self-harm, recording data from deliberate self-harm presentations involving an IDO to all hospital EDs for the period 1 January 2007 to 31 December 2012.

Results: Between 2007 and 2012, the registries recorded 56,494 self-harm presentations involving an IDO. The study showed that hospital-treated IDOs were almost twice as common in Northern Ireland as they were in the Republic of Ireland (278 v 156 per 100,000 respectively).

Conclusions*:* Despite the overall difference in IDO rates, the profile of such presentations was remarkably similar in both countries. Minor tranquillisers were the drugs most commonly involved in IDOs. National campaigns are required to address the availability and misuse of minor tranquillisers, both prescribed and non-prescribed.

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