Planned Psychiatric Admissions to Reduce Emergency Presentations: A Retrospective Cohort Study of Adolescents

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Self-harm in young people has significant costs to the individual, family, community, and the health care system. Evidence-based strategies to address this issue is limited. Our study aims to present evidence for the strategy of utilizing planned admissions to reduce emergency presentations of adolescents who self-harm. A retrospective cohort study of individuals who were offered planned admissions to the state wide inpatient adolescent psychiatric unit in South Australia. Of the participants studied, there was a mean reduction of 50% presentations to the emergency department following planned admission. Overall, there was a 64% reduction in emergency representations in this cohort. This study presents evidence for planned admissions as a means of reducing emergency presentation in adolescents who self-harm.

Keywords: self-harm, adolescents, planned admissions, emergency department, management

Introduction

The prevalence of self-harming behaviour in the adolescents in the community is around 18.8% (Judi, Jon, Glyn, Jonathan, & David, 2012). This may be higher as many adolescents do not report their self-harm behavior (Hawton, Rodham, Evans, & Weatherall, 2002). Self-harming behaviour can have significant costs to the individual, their family and careers, and to the health care industry (Centre for Suicide Prevention Studies, 2010). Self-harm is one of the major predictors for completed suicides (Hawton & Zahl, 2003). A British study stated that 7% of those people that had previously self-harmed completed suicide within nine years (Owens, Horrocks, & House, 2002). In the UK, nearly 10% of workload of emergency department is subsumed by self-harm behaviours (Greaves, Goodacre, & Grout, 1996). Over 10,000 presentations in a year to the emergency department are due to self-harm behaviour in the young (Greaves, Goodacre, & Grout, 1996). However, adolescents who self-harm face attitudinal barriers to seek help and find presenting to emergency

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departments as stigmatizing (Shyama, Dianne, & Karen, 2003). In spite of the high costs to the individual and health care system, the evidence for the management of self-harm behaviour is limited (Centre for Suicide Prevention Studies, 2010; Australian and New Zealand Clinical Practice Guidelines for the Management of Adult Deliberate Self-Harm, 2004). Psychiatric admissions for self-harm are not generally encouraged. There is very limited evidence for planned admissions as a management option for adolescents who self-harm.

In this paper, we present evidence for planned psychiatric admissions as a therapeutic strategy to reduce the emergency presentations of adolescents with self-harm.

For the purpose of this study, deliberate self-harm includes intentional injury or self-poisoning.

Study Site

Boylan ward is the state wide inpatient psychiatric unit for children and adolescents in South Australia. It serves a population of approximately 370,000 young people. The unit provides services for both planned and emergency psychiatric admissions. Planned admissions can be offered for a variety of reasons, most commonly for a longitudinal observational assessment, as in our under 12 programme. However, we offer planned admissions to young people that have a history of presenting to the emergency department with self-harming behaviours.

Adolescents can be referred to the inpatient unit either through the state-wide CAMHS (Child and Adolescent Mental Health Service) or Emergency Mental Health Nurses. The patient is initially discussed with the inpatient multidisciplinary team comprising of psychiatrists, nurses and psychologist and the offer of planned admission is suggested to the patient and their carers.

The admission is for 48 hours duration, usually starting every two weeks and the patient is admitted voluntarily during office hours. The aim of this timed intervention is to promote engagement with the community team and shift the patients thinking about their need to utilise services in hospital. As they progress, their planned admissions are spaced out from three weeks to four weeks and/or can be reduced in length to 24 hours, or as a day patient. The admission duration and overall plan is individualised and tailored specifically for the young person in question focusing on their needs at any given time. At times of crisis, we respond in a timely fashion without the need for the young person to revert back to using primitive coping strategies of self-harm. The follow-up care of the patient is provided by the CAMHS Community team.

Literature Review

A literature review was conducted using Medline, PsychInfo and CINAHL (Cumulative Index to Nursing and Allied Health Literature), to find evidence for psychiatric admissions to reduce self-harm or emergency presentations in adolescents. There is a paucity of literature for planned admissions as a treatment strategy for reducing self-harm or emergency presentations. Our study appears to be the first such research.

Methodology

We conducted a retrospective cohort study of all the patients who were offered planned admissions during the period January 2008 till September 2010. Ethical approval was obtained through the Hospital Ethics Committee at Women's and Children's Hospital. The cohort was followed up from their first presentation with self-harm up to a year post intervention. The primary outcome measure used was the number of presentations to the emergency department.

All patients who were offered planned admissions to reduce self-harm presentations to the emergency department were included in the study.

Results

Patient Characteristics

A total of 19 patients were included in the study (see Table 1). This represents all the patients who were offered planned admissions. The characteristics of the patients are out-lined in Tables 1 and 2. Of the 19 patients, 17 were female and 2 were male (see Figure 3). The youngest of the cohort was 12 years and 9 months. The oldest patient remained as part of the planned admission programme until they were 18 years and 2 months old (see Figure 2). The predominant diagnosis in this group was adjustment disorder (see Figure 4).

The referrals all came through the emergency department in the first instance. The main methods of self-harm were intentional overdose and cutting. Some patients used more than one method of self-harm (see Table 2). Three of the patients were under the guardianship of the minister and one was adopted; rest of the cohort (15) remained in the care of at least one parent.

Table 1

Number of Presentations

Patient	Total presentations PED	Before planned admissions	During planned admissions	After planned admissions
1	7	4	3	0
2	7	2	5	0
3	8	3	3	2
4	7	3	4	0
5	4	1	3	0
6	4	2	1	1
7	10	1	9	0
8	2	0	2	0
9	75	19	56	2
10	11	4	5	2
11	13	8	2	3
12	1	1	0	0
13	9	9	0	0
14	2	1	1	0
15	3	1	0	2
16	59	26	17	16
17	4	2	1	1
18	2	2	0	0
19	4	4	0	0

Table 2

Self Harm Modalities

Overdoses	15
Cutting	9
Attempted hanging	4
Starvation	2
Attempted drowning	1

Of the general population of under 18 in South Australia, 0.5% is looked after by the guardianship of the minister. However this group is overrepresented with our planned admissions programme with almost 16% being accounted in this study.

Figure 1. Presentations comparisons.

Figure 2. Age of presentation.

Figure 3. Gender.

Figure 4. Diagnosis.

Utilization of Emergency Department

Of the total cohort, 13 had two or more presentations to the emergency department with self-harm. Two amongst these had more than 18 presentations individually, prior to the planned admissions.

During the planned admission programme, most of the cohort presented to the emergency department at least once. But we found with the intervention of the planned admission, these presentations continued to reduce. The method of self-harm reduced in lethality, which did not necessitate medical admissions.

One of these patients had 56 presentations during the programme and was offered nine unplanned additional admissions alongside the programme. Generally, additional admissions to psychiatric unit were not routinely offered to those in the programme, unless significant risks were identified. They were encouraged to continue with the planned admissions.

Following the intervention of planned admissions, all the patients had reduced emergency presentation with self-harm. A median reduction of 50% was found in our study. In addition, the lethality of self-harm had reduced from overdoses to self-cutting.

After the planned admission programme was completed, eight of the patients had at least one presentation

to the emergency department. But overall, there was a 64% reduction in emergency presentations in this cohort (see Figure 1).

Discussion

This appears to be the first study on planned admissions in adolescents with self-harming behaviours. The study was naturalistic and possibly represents the general characteristics of patients in other places. This study only measured the emergency department presentations with self-harm. We did not aim to measure any reduction in self-harm. But it may be cautiously interpreted as reducing the lethality of para-suicide acts.

Our study had only a small sample size and included patients up to 18 years of age.

However, we think this model is useful for the patients we have seen. We hypothesize that it increases resilience in the young person, by providing a supportive, non-punitive environment. It serves to reduce stigma of self-harm. The ward offers containment with firm boundaries and a team approach that enables the patient to form a safe attachment. The planned admissions work in conjunction with the young person giving them power and choice in their individualised care plan.

From the CAMHS system, it assists our colleagues with another perspective, and an opportunity to provide an in-depth understanding on the dynamics surrounding the patient.

We also found out that for the emergency department, this programme provides a clearer communication pathway and a management plan when they do present. It has the potential to reduce the workload for the emergency department. The cost of self-injury to the Australian Healthcare system was reported to be over \$14,000,000 in a four-week period (Centre for Suicide Prevention Studies, 2010).

This could be considered as an example for an integrated medical and psychiatric management of self-harm, which provides a safe environment as recommended in the Australian and New Zealand Clinical Practice Guidelines (Australian and New Zealand Clinical Practice Guidelines for the Management of Adult Deliberate Self-Harm, 2004).

Our programme provides ongoing support, diagnostic clarification, strategies to manage behaviours and the risk.

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