



Research paper

The paradox of public holidays: Hospital-treated self-harm and associated factors



Eve Griffin^{a,*}, Christina B. Dillon^a, Grace O'Regan^a, Paul Corcoran^{b,c}, Ivan J. Perry^b,
Ella Arensman^{a,b}

^a National Suicide Research Foundation, Cork, Ireland

^b Department of Epidemiology and Public Health, University College Cork, Ireland

^c Department of Obstetrics and Gynaecology, University College Cork, Ireland

ARTICLE INFO

Keywords:

Self-harm
Public holidays
Alcohol consumption
Mental health

ABSTRACT

Background: Recent research on the patterns of self-harm around public holidays is lacking. This study used national data to examine the patterns of hospital-treated self-harm during public holidays, and to examine associated factors.

Methods: Data on self-harm presentations to all emergency departments were obtained from the National Self-Harm Registry Ireland. The association between self-harm presentations and public holidays was examined using univariate and multivariate Poisson regression analyses.

Results: A total of 104,371 presentations of self-harm were recorded between 2007 and 2015. The mean number of self-harm presentations was 32 on public holidays. St. Patrick's Day had the highest number of presentations compared to all other public holidays, with a daily mean of 44 presentations. Across all years, self-harm presentations during public holidays had a 24% increased risk of involving alcohol consumption compared to all other days and this effect was most pronounced during the Christmas period. The association with alcohol remained significant at a multivariate level. Presentations on public holidays were more likely to attend out of normal working hours. An increase in male presentations involving self-cutting was observed on public holidays and there was an over-representation of males presenting for the first time.

Limitations: It is likely that extent of alcohol involvement in self-harm presentations reported here is an underestimate, as it was dependent on the information being recorded by the attending clinician.

Conclusions: Public holidays are associated with an elevated number of self-harm presentations to hospital, with presentations to hospital involving alcohol significantly increased on these days. Hospital resources should be targeted to address increases during public holidays, including during out-of-hours. Involvement of alcohol may delay delivery of care to these patients in emergency settings.

1. Introduction

The impact of self-harm in terms of morbidity and mortality is significant. An estimated 1 in 25 patients presenting to hospital for self-harm will die by suicide in the following 5 years, while the one-year rate of non-fatal repetition is 16% (Carroll et al., 2014). Self-harm is now as much a public health issue as it is a mental health one, and prevention strategies focus on general awareness campaigns as well as interventions for high-risk groups (Hegerl et al., 2009; WHO, 2014). National descriptive data on hospital-treated self-harm have highlighted peaks in self-harm attendances to hospital emergency departments during national public holidays (Griffin et al., 2016) and this provides an opportunity to further research the patterns of self-harm

during these periods of the year.

Previous research on the temporal variation of suicidal behaviour has primarily been concerned with the timing of suicides over the year (Beauchamp et al., 2014; Cavanagh et al., 2016; Corcoran et al., 2004). Few studies have explored these patterns in relation to self-harm – focusing on general patterns of self-harm during public holidays (Jessen et al., 1999) or on specific holidays periods (e.g. Bergen and Hawton, 2007). Outcomes from these studies indicate that the incidence of self-harm is low in the days leading up to a holiday period, and increase at the end of the holiday period. The seasonal distribution of self-harm has also been investigated, but the findings are less consistent. Peaks in self-harm have been reported from early spring to late autumn (Jessen et al., 1999; Subba et al., 2009; Valtonen et al., 2006; Yip and Yang, 2004).

* Correspondence to: National Suicide Research Foundation, 4.28 Western Gateway Building, University College Cork, Ireland.
E-mail address: evgriffin@ucc.ie (E. Griffin).

Two studies from England found significant associations between suicide and self-harm around the Christmas period (Bergen and Hawton, 2007; Cavanagh et al., 2016).

In particular, recent research on this topic is lacking. Previous studies have been limited by sample size, a focus on specific holiday periods or not adjusting for seasonal trends or characteristics of the self-harm act. Importantly, the factors associated with increased peaks during public holidays have not been well explored. Alcohol is frequently involved in self-harm acts (Ness et al., 2015; Perry et al., 2012) and evidence indicates that there are seasonal variations in alcohol consumption (Silm and Ahas, 2005). Alcohol has been shown to be a common feature of public holidays (Bellis et al., 2015; Jessen et al., 1999; Lloyd et al., 2013), however evidence to support the relationship between alcohol consumption and self-harm during public holidays is limited (Bergen and Hawton, 2007). Sex differences in relation to seasonality have also been reported, but the findings are contradictory (Preti and Miotto, 1998; Valtonen et al., 2006).

This is the first study to use national data to examine the patterns of hospital-treated self-harm during public holidays as well as associated factors. The specific aims of this study were to investigate the prevalence of self-harm during public holidays compared to other days, and to examine the factors associated with self-harm during public holidays.

2. Methods

2.1. National Self-Harm Registry Ireland

Data on self-harm presentations to all emergency departments (EDs) from January 2007 to December 2015 were obtained from the National Self-Harm Registry Ireland. The Registry is a national system that records and monitors all self-harm presentations to EDs across the Republic of Ireland. Data are collected by data registration officers using standardised case-definitions and inclusion and exclusion criteria. A case of self-harm is defined as “an act with non-fatal outcome in which an individual deliberately initiates a non-habitual behaviour, that without intervention from others will cause self-harm, or deliberately ingests a substance in excess of the prescribed or generally recognised therapeutic dosage, and which is aimed at realising changes that the person desires via the actual or expected physical consequences” (Platt et al., 1992). Self-harm cases are identified through a combination of manually checking consecutive presentations to EDs, selecting potential cases on the basis of keyword searches and triage coding by hospital staff.

2.2. Self-harm data

The Registry has a core dataset including: sex, age, day and hour of attendance at hospital and method(s) of self-harm according to the tenth revision of the WHO's International Classification of Disease codes for intentional injury (X60-X84). Whether or not alcohol was consumed as part of the self-harm act was ascertained through hospital case notes – if it was recorded on registration by the attending clinician or if present on toxicology reports.

2.3. Public holidays

There are nine official public holidays in Ireland each year: four bank holidays (first Monday in May, June and August and last Monday in October); New Year's Day (1st January); St. Patrick's Day (17th March); Easter Monday; Christmas Day (25th December) and St. Stephen's Day (26th December). The following days were also included: Good Friday, Easter Saturday and Easter Sunday; Christmas Eve (24th December); New Year's Eve (31st December). In order to attribute alcohol-related attendances in the early hours of the morning to the preceding evening we defined a day as running from 6 am to 6 am

instead of 12 am to 12 am – a technique previously used (e.g. Foster et al., 2015).

2.4. Statistical analyses

Descriptive analyses were used to examine patterns of self-harm presentations across public holidays compared to all other days in the year. Univariate Poisson regression analyses were used to explore the association between self-harm and alcohol consumption on public holidays at a univariate level. Multivariate Poisson regression analyses were subsequently performed to identify the factors independently associated with self-harm presentations during public holidays, providing Risk Ratios (RR). These analyses were stratified by sex and adjusted for year of presentation, season and day of the week. Both univariate and multivariate analyses were replicated for the day preceding (lead) and following (lag) a public holiday where non-consecutive events occurred, as outlined by Lloyd et al. (2013), to establish whether observed associations were found in the days around the public holiday itself. Statistical analyses were completed using Stata version 12.

2.5. Ethical approval

The National Research Ethics Committee of the Faculty of Public Health Medicine, Dublin granted ethical approval for the National Self-Harm Registry Ireland. The Registry has also received ethical approval from the relevant hospitals and Health Service Executive (HSE) ethics committees.

3. Results

3.1. Descriptive statistics

A total of 104,371 presentations of self-harm were recorded between January 1st, 2007 and December 31st, 2015. The majority of presentations were made by females ($n=56,215$; 54%) and almost two-thirds ($n=96,150$; 92%) were aged under 55 years. The most common method of self-harm recorded was intentional drug overdose ($n=72,391$; 69%) followed by self-cutting ($n=24,587$; 24%). While rare as a sole method of self-harm, alcohol was present in 38% of presentations ($n=39,949$) and more common among males than females (42% vs. 35%; $X^2(1) 395.52$, $p < 0.001$).

The occurrence of self-harm presentations varied according to day of the week. The number of presentations steadily increased over the course of the week for both males and females, peaking on Sundays and Mondays. This was more pronounced when alcohol was involved and for female presentations (see Fig. 1). Alcohol involvement was most common among presentations made on Saturdays and Sundays (44% for males and 41% for females).

3.2. Self-harm presentations on public holidays

The mean number of self-harm presentations was 32 (15 for males and 17 for females) on public holidays and 27 (13 for males and 15 for females) on all other days. Across all years, St. Patrick's Day had the highest number of presentations compared to all other public holidays, with a mean of 44 presentations (21 for males and 23 for females). New Year's Day had a mean of 41 presentations (males: 20; females: 21). Despite this overall increase in presentations on public holidays, the Christmas period was associated with a decreased number of presentations. The mean number of presentations on Christmas Eve was 22 (males: 11; females: 11) and for Christmas Day was 23 (males: 10; females 13) (see Table 1).

Alcohol was present in 43% of all self-harm presentations on public holidays compared to 38% on all other days [$X^2=42.8$, $p < 0.001$]. Self-harm presentations during public holidays had a 24% increased risk of involving alcohol [Risk Ratio (RR): 1.24; 95% Confidence

Download English Version:

<https://daneshyari.com/en/article/5721927>

Download Persian Version:

<https://daneshyari.com/article/5721927>

[Daneshyari.com](https://daneshyari.com)