


## Original Research

# Substance use and self-harm emergency department presentations during COVID19: evidence from a National Clinical Programme for Self-Harm

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### Abstract

**Introduction:** Given the evidence that drinking patterns and self-harm hospital presentations have changed during COVID-19, this study aimed to examine any change in self-harm and suicide-related ideation presentations, together with any possible contribution made by alcohol or substance misuse, to Irish Emergency Departments in 2020, compared with 2018 and 2019.

**Methods:** A population-based cohort with self-harm and suicide-related ideation presenting to Irish hospitals derived from the National Clinical Programme for Self-Harm was analysed. Descriptive analyses were conducted based on sociodemographic variables and types of presentation for the period January to August 2020 and compared with the same period in 2018 and 2019. Binomial regression analyses were performed to investigate the independent effect of demographic characteristics and pre/during COVID-19 periods on the use of substances as contributory factors in the self-harm and suicide-related ideation presentations.

**Results:** 12,075 presentations due to self-harm and suicide-related ideation were recorded for the periods January–August 2018–2020 across nine emergency departments. The COVID-19 year was significantly associated with substances contributing to self-harm and suicide-related ideation ED presentations (OR = 1.183; 95% CI, 1.075–1.301,  $p < 0.001$ ). No changes in the demographic characteristics were found for those with self-harm or suicide-related ideation across the years. Suicide-related ideation seemed to be increased after May 2020 compared with previous years. In terms of self-harm episodes with comorbid drug and alcohol overdose and poisoning, these were significantly increased in January–August 2020, compared with previous timepoints ( $\chi^2 = 42.424$ ,  $df = 6$ ,  $p < 0.001$ ).

**Conclusion:** An increase in suicide-related ideation and substance-related self-harm presentations may indicate longer term effects of the pandemic and its relevant restrictions. Future studies might explore whether those presenting with ideation will develop a risk of suicide in post-pandemic periods.

**Keywords:** Alcohol; COVID-19; emergency department; Liaison Psychiatry; self-harm; substance; suicide-related ideation

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### Introduction

The COVID-19 pandemic has provoked concern as not just a physical health emergency but also a grave threat to mental health, with specific concerns regarding the potential for increased rates of self-harm and suicide (Gunnell *et al.* 2020; Niederkrotenthaler *et al.* 2020). While it is not evident that suicide deaths have increased in the early months of 2020 (Pirkis *et al.* 2021), factors relating to COVID-19 may have influenced the number of self-harm presentations in the early months of the pandemic (Hawton *et al.* 2021b; Smalley *et al.* 2021). Differences in patient

characteristics of suicide-related hospital presentations, compared with previous years, have been noted and attention has been given to the youth population with no history of mental health conditions presenting during COVID19 restrictions (Ridout *et al.* 2021).

In Ireland, one hospital recorded a drop in self-harm presentations in March–April 2020 but a rise in April–May 2020, with an increase in substance misuse presentations when compared with previous years (2020: 30.5% v. 2017–2019: 21.8%; McIntyre *et al.* 2020). Overall studies investigating self-harm hospital presentations during the COVID-19 era, have reported an initial decrease in the early months of the pandemic (March–May 2020) (Hawton *et al.* 2021a; Smalley *et al.* 2021), with a slight increase over a longer period (up to October 2020) (Henry *et al.* 2021; Holland *et al.* 2021; Joyce *et al.* 2021) and a ‘rebound effect’ after an initial lull in presentations (McDowell *et al.* 2021; Balestrieri *et al.* 2021).

Given that chronic or excessive alcohol consumption could increase the risk of COVID-19 related adverse health outcomes (Columb *et al.* 2020), public health restrictions have focussed on

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the potential risk of viral transmission where alcohol is consumed (Reynolds *et al.* 2021). Changes in drinking patterns during COVID-19 restrictions have been noted across Europe, with Belgium and Ireland reporting an increase in alcohol consumption the first couple of months of the pandemic (30 and 22% respectively; Vanderbruggen *et al.* 2020; Reynolds *et al.* 2021). Within the Irish context, the closure of bars during lockdown has changed drinking habits, where a 93% increase in take-home grocery alcohol sales was reported in April–June 2020 (Kantar 2020). Although alcohol misuse has been reported as a COVID-related factor in some self-harm presentations in the initial stages of the pandemic (Smalley *et al.* 2021; McAndrew *et al.* 2021; Hawton *et al.* 2021b), there is a lack of evidence on the role of alcohol consumption in hospital-presenting self-harm cases during the pandemic.

Most COVID-19-related studies to date have presented changes of self-harm hospital presentations compared with previous years, as one possible indicator of the COVID-19 pandemic's impact on mental health. There is, however, a dearth of studies examining differences in presentations of self-harm and suicide-related ideation before and during the COVID-19 pandemic in an Irish context. In particular, studies examining the demographic characteristics of those presenting with self-harm and/or suicide-related ideation and investigating substance misuse as a contributory factor are lacking. The current study aimed to examine changes in self-harm and suicide-related ideation presentations in 2020, compared with 2018 and 2019, to nine Irish Emergency Departments (EDs) that are participating in a national dedicated ED service for those with suicidal behaviours and related ideation.

## Methods

### Data source

Anonymised ED presentations were retrieved from the database of the National Clinical Programme for Self-Harm and Suicide-related Ideation (NCPSHI). The rationale for establishing the NCPSHI in Ireland is laid out in its Model of Care (HSE 2016), which notes that people who self-harm have up to 40-fold greater risk of suicide than the general population. The Programme aims to provide a timely, standardised biopsychosocial assessment of all those who present to EDs with suicidal behaviours or thoughts by a qualified Clinical Nurse Specialist (CNS) or psychiatry Non-Consultant Hospital Doctor (NCHD). The Programme is currently implemented in 24 out of 26 adult EDs in the Republic of Ireland and also in three paediatric hospitals. Each month the CNS collect and submit anonymised self-harm and suicide-related ideation presentation data in pre-specified electronic templates, which data are further imported in the programme's database. A complete dataset was available for nine of the 24 participating EDs. Of note, while referrals are made in EDs, the patient may be assessed within the ED or in an acute hospital setting (medical, surgical or intensive care unit ward).

### Measurements

In terms of self-harm related information, the programme collects three mutually exclusive outcomes that were used in current study: self-harm act, which is the direct physical outcome of deliberate self-harm regardless of suicidal intent (including cutting, drug-related acts, attempted hanging, attempted drowning, shooting, jumping from a height and other); suicidal ideation, when someone is thinking about suicide, irrespective of a suicide plan and

intent; and self-harm ideation, when someone is thinking about self-harm without any co-occurring thoughts of suicide.

The NCPSHI clinicians further assess whether the person presenting with either ideation or a non-drug related self-harm had used any substance (alcohol only, drugs only and both alcohol and drug) that contributed to their presentation. These *substance-related* data are routinely recorded as *contributory factors in the NCPSHI dataset* and were also examined in the current analysis.

Based on the sociodemographic information captured in the programme, age, gender and ethnicity data were further analysed. Considering that the NCPSHI holds anonymised information for each presentation, the age of each presented individual is imported in the template in age-bands to avoid potential identification. In the current analysis, 10-year age bands are used. In terms of gender, the template includes male, female and non-binary. As the number of non-binary presentations was small during the study period ( $n = 7$ ), the non-binary gender was excluded from all analyses. The NCPSHI ethnic groups follow the Central Statistics Office categorisation (CSO 2016) and includes the below ethnic groupings: White Irish; White, any other; White Irish Traveller; Asian or Asian Irish – Chinese; Black or Black Irish – any other background; Black or Black Irish – African; Other, mixed background; Unknown/Not Specified.

### Statistical analysis

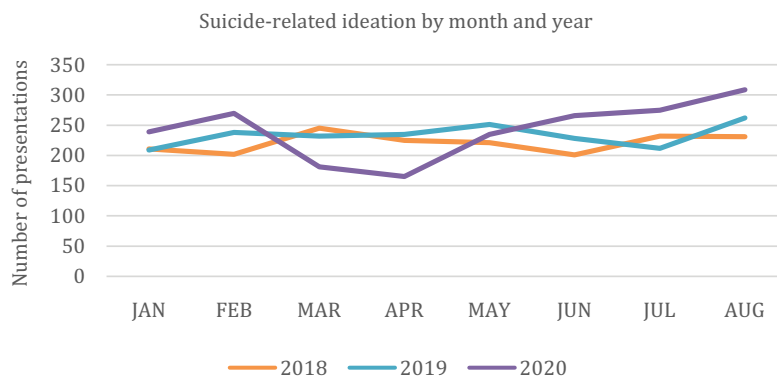
The time period chosen was January to August 2020 and compared with the same months in 2018 and 2019 for nine NCPSHI services. Descriptive statistics, adjusted residuals and effect sizes (ES; Cramér's V) for the level of association in chi squares are presented. A binomial regression model was performed in order to investigate whether the outcomes of self-harm and suicide-related ideation where substances played a contributing role were predicted by the different time points. Demographics characteristics, such as gender, age and ethnicity were also added in the binomial model, as literature suggests that they differentiate the risk of suicidal outcomes (Al-Sharifi *et al.* 2015; O'Connor and Nock 2014). Odds ratios (OR) and 95% CIs are presented. The level of significance was set at  $p < 0.05$  and analysis was performed with the Statistical Package for Social Sciences version 26 (SPSS Inc. Chicago, IL, USA).

## Results

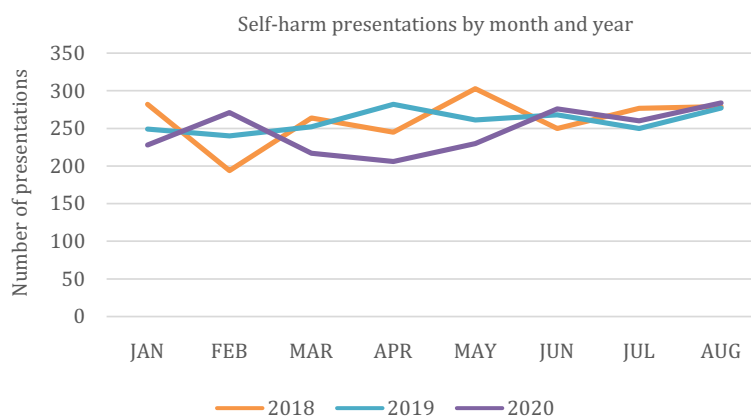
Based on available data from nine hospitals participating in the NCPSHI for the period January to August of three consecutive years (2018–2020), 12,075 presentations were recorded. 6% of all presentations ( $n = 744$ ) were not assessed either because they left ED before assessment, transferred for a mental health assessment offsite or died. Half of presentations were from males (50%) and majority were White Irish (94%), followed by Irish Traveller patients (3%; Supplementary Table 1).

In Jan–Aug 2020 there was a decrease in alcohol use alone as a contributory factor in the presentations (52% v. 55% in 2019 and 60% in 2018) but an increase in the combined use of alcohol and drugs as contributory factors (30% v. 28% in 2019 and 25% in 2018). As presented in Fig. 1, presentations due to suicide-related thoughts showed an increase from May 2020, which differed from previous years ( $\chi^2 = 59.086$ ,  $df = 14$ ,  $p < 0.001$ ). No similar increase was found for self-harm presentations (Fig. 2).

In terms of the demographic characteristics, no significant differences were found between the three timepoints investigated for gender, ethnicity and age-groups based on suicide-related



**Fig. 1.** Presentations of suicide-related ideation from nine Irish ED services by month and year.



**Fig. 2.** Presentations of self-harm from nine Irish ED services by month and year.

ideation presentations (Supplementary Table 2). When investigating the methods of self-harm by year, a significant increase was noted only for the methods involving substances in 2020, mainly drug and alcohol overdose and overdose poisoning (Table 1). These latter self-harm methods seemed to be increased for both males and females (Supplementary Figures 2 & 3).

A binomial logistic regression was performed with the binary dependent variable of 'substances recorded as contributory factors in the presentation' (Y/N) and timepoint, gender, age-group and ethnicity as predictors. The Jan–Aug 2020 timepoint significantly predicted the role of substances as a contributory role in the NCP SHI presentations (OR = 1.183; 95% CI, 1.075–1.301,  $p < 0.001$ ; Table 2). Being male and older than 20 years of age significantly increased the risk of having substances contributing to any type of presentation. The ethnic group of Irish Traveller had the highest OR among all independent predictors explored (OR = 3.732; 95% CI, 2.478–5.621,  $p < 0.001$ ).

## Discussion

Our study identified an increase in the presentations of those with thoughts of self-harm or suicide after May 2020, when compared to previous years, but no similar increase on those presenting with self-harm. Similar to other studies, we did not observe any changes in the demographics of those presenting during the pandemic (Dragovic *et al.* 2020; Hawton *et al.* 2021b; Lee *et al.* 2021; Shields *et al.* 2021). The contributory role of alcohol and drugs (as a sole use or in combination) in self-harm or ideation

presentations seem to be associated with the Jan–Aug 2020 timepoint. As previous studies confirm, being male, older than 20 years of age and White or Irish Traveller further predicted the use of substances in the ED presentations explored (Ceniti *et al.* 2020; Tanner and Doherty 2021).

The increase of suicide-related ideation in 2020, may represent a rebound effect as the impact of stressors such as social disconnect and unemployment may have begun to be felt. Although a U.S study of 20 EDs proposed that 'stay at home' orders appeared to result in reduced ED presentations for suicidal ideation (Smalley *et al.* 2021), our findings are in consistent with other studies highlighting a significant increase in suicidal thinking during the pandemic. More specifically, Killgore *et al.* (2020) found that suicidal ideation increased in the first three months of the pandemic for those leaving in U.S communities under lockdown restrictions in place. Lu *et al.* (2021) further noted a higher prevalence in suicidal ideation among those infected with COVID-19, compared with non-infected (16.0% v. 10.7%). A U.S. study pinpointed that adults – but not adolescents- feeling socially isolated were at greater risk of suicidal thinking during the pandemic (Fortgang *et al.* 2021). A recent systematic review of suicidal ideation, self-harm and suicides during the pandemic, that estimated a pooled prevalence of 12.1% (CI 9.3–15.2) for suicidal ideation, suggested that social support, quarantine, loneliness, and mental health difficulties were among the risk factors (Farooq *et al.* 2021). The risk factors associated with increased suicidality in this latter review may be likely related with the increase of suicide-related presentations in our study.

**Table 1.** Self-harm methods with comorbid substance use in nine NCP SHI services for years 2018–2020

	Jan–Aug 2018 n (%)	Jan–Aug 2019 n (%)	Jan–Aug 2020 n (%)	Sig. level	Cramér's V <sup>b</sup>
Drug and alcohol overdose <sup>1</sup> A.R. <sup>a</sup>	105 (8%) –1.5	93 (7%) –3.0	146 (13%) 4.6	$\chi^2 = 42.424$ , $df = 6$ , $p < 0.001$	0.07
Drug-overdose <sup>2</sup> A.R.	1020 (81%) 2.8	1028 (81%) 3.0	839 (73%) –5.9		
Overdose poisoning <sup>3</sup> A.R.	73 (6%) –2.6	84 (7%) –1.2	114 (10%) 3.9		
Multiple methods with at least one method involving substances A.R.	60 (5%) –0.1	60 (5%) –0.1	57 (5%) –0.2		

<sup>a</sup>A.R. = Adjusted residuals; <sup>b</sup>Cramer's V interpretation:  $ES \leq 0.2$  = weak,  $0.2 < ES \leq 0.6$  = moderate,  $ES > 0.6$  = strong

<sup>1</sup>Drug and alcohol overdose = use of tablets and alcohol with the intention of causing harm.

<sup>2</sup>Drug overdose = use of prescribed and non-prescribed drugs bought over the counter or on the street with the intention of causing harm.

<sup>3</sup>Overdose poisoning = using substance that is not a drug or medication, e.g. household bleach with the intention of causing harm.

**Table 2.** Binomial logistic regression for the relationship of demographic characteristics and year of presentation with substances used as contributory factors in self-harm and suicide-related ideation

Variables (reference group)	Substances contributing to the NCP SHI presentation*		
	OR	95% CI	<i>p</i>
Year of presentation (Jan–Aug 2018)			
Year of presentation Jan–Aug 2020	1.183	1.075–1.301	<0.001
Year of presentation Jan–Aug 2019	1.060	0.964–1.165	=0.232
Gender (Female)			
Male	2.179	2.016–2.354	<0.001
Age-groups (60+)			
<19	0.985	0.813–1.194	=0.881
20–29	2.451	2.073–2.899	<0.001
30–39	2.581	2.171–3.069	<0.001
40–49	2.661	2.227–3.180	<0.001
50–59	2.097	1.736–2.534	<0.001
Ethnic groups (Asian, Black, Mixed)			
White or White Irish	2.730	1.928–3.867	<0.001
Irish Travellers	3.732	2.478–5.621	<0.001

\*Self-harm with drugs or/and alcohol have been excluded from this variable.

The increase noted for overdose poisoning with non-drug-related substances (e.g. household bleach) may be due to restrictions limiting shopping to essential retailers only. Regarding self-harm methods using substances, our findings indicated that drugs and alcohol (combined) and overdose poisoning were increased in 2020 ED presentations. As strict geographical restrictions on movement were in place for much of the period March to August 2020, access to illicit drugs may have been reduced in this regard, causing a reduction on presentations with intentional drug (only) overdose. It is therefore possible that the increase in combined drug and alcohol overdose involved prescription drugs rather than illicit substances. McAndrew *et al.* (2021) noted a significant reduction in those with alcohol disorder seeking psychiatric evaluation in the initial lockdown period, possibly due to increased alcohol consumption at home. The increase in self-harm presentations with comorbid substance use, however, has been

reported elsewhere. McIntyre *et al.* (2020) noted an increase in self-harm presentations to one Irish ED in the initial months of the pandemic in those with a primary psychiatric diagnosis of substance misuse disorder. Similarly, while overall psychiatric presentations decreased in the weeks following the COVID-19 outbreak, the proportion of presentations with comorbid substance use disorder increased in one American (McDowell *et al.* 2021) and nine Italian EDs (Balestrieri *et al.* 2021). Seifert *et al.* (2021) further noted that those with substance misuse disorders were more likely to present with suicidal ideation and to be acutely intoxicated with alcohol on presentation to the ED in 2020 versus 2019. The implication is that while persons with affective, psychotic or other psychiatric disorders may have stayed away from Emergency Departments when restrictions were first imposed, those with substance misuse disorders seeking psychiatric evaluation were not so deterred.

### Limitations

This study examines self-harm presentations reviewed in acute hospital settings only. We know that the majority of those with suicidality do not seek professional support and thus the data set analysed examines one subset of those with suicidal ideation and behaviours. One of the main limitations of this study is that the data are based on presentations and not individuals, therefore a person could be seen more than once in each ED. No information on previous self-harm or suicide-related ideation is captured in the NCP SHI and we could not investigate whether COVID19 was related with the ED presentations or whether the people presented had a self-harm related history in pre-pandemic periods. When the study was conducted, only 9 out of the 24 participating NCP SHI hospitals had a complete dataset for the specific months and years investigated and our results can not be generalised to all the NCP SHI participating services. Furthermore it should be noted that the HSE National Clinical Programme for Self-harm and Suicide-related Ideation (NCP SHI) database, from which this study is derived, is not a national surveillance system as it only covers EDs operating 24/7. Currently the Republic of Ireland has one of the oldest surveillance systems, the National Self-harm Registry Ireland (NSHRI), that records the occurrence of hospital-presented self-harm (but not suicide-related ideation) in a national level (33 hospitals, including EDs without 24/7 coverage).



## Conclusion

Drugs and alcohol (combined) and overdose poisoning were increased in 2020 ED presentations for suicide-related ideation and self-harm compared with previous years. An increase in the suicide-related ideation and substance-related self-harm presentations may indicate longer term effects of the pandemic and its relevant restrictions. Future studies might explore whether there is an increase in suicide deaths in patients presenting with self-harm and suicide-related ideation during the pandemic periods.

**Supplementary material.** To view supplementary material for this article, please visit <https://doi.org/10.1017/ipm.2022.36>

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**Conflicts of interest.** None

**Ethical standards.** The authors assert that all procedures contributing to this work comply with the ethical standards of the relevant national and institutional committee on human experimentation with the Helsinki Declaration of 1975, as revised in 2008. The authors assert that ethical approval for publication of this review was granted by the Saolta Group Clinical Research and Ethics Committee, Galway University Hospitals on 23<sup>rd</sup> June 2020.

## References

- Al-Sharifi A, Krynicki CR, Upthegrove R (2015). Self-harm and ethnicity: a systematic review. *International Journal of Social Psychiatry* **61**, 600–612. DOI [10.1177/0020764015573085](https://doi.org/10.1177/0020764015573085).
- Balestrieri M, Rucci P, Amendola D, Bonizzoni M, Cerveri G, Colli C, *et al.* (2021). Emergency psychiatric consultations during and after the COVID-19 lockdown in Italy: a multicentre study. *Frontiers in Psychiatry* **12**, 697058. DOI [10.3389/fpsy.2021.697058](https://doi.org/10.3389/fpsy.2021.697058).
- Ceniti AK, Heinecke N, McInerney SJ (2020). Examining suicide-related presentations to the emergency department. *General Hospital Psychiatry* **63**, 152–157. DOI [10.1016/j.genhosppsych.2018.09.006](https://doi.org/10.1016/j.genhosppsych.2018.09.006).
- Central Statistics Office (2016). Census of Population (<https://www.cso.ie/en/releasesandpublications/ep/p-cp8iter/p8iter/p8e/>). Accessed 13 July 2022.
- Columb D, Hussain R, O’Gara C (2020). Addiction psychiatry and COVID-19: impact on patients and service provision. *Irish Journal of Psychological Medicine* **37**, 164–168. DOI [10.1017/ipm.2020.47](https://doi.org/10.1017/ipm.2020.47).
- Dragovic M, Pascu V, Hall T, Ingram J, Waters F (2020). Emergency department mental health presentations before and during the COVID-19 outbreak in Western Australia. *Australasian Psychiatry: Bulletin of Royal Australian and New Zealand College of Psychiatrists* **28**, 627–631. DOI [10.1177/1039856220960673](https://doi.org/10.1177/1039856220960673).
- Farooq S, Tunmore J, Ali W, Ayub M (2021). Suicide, self-harm and suicidal ideation during COVID-19: a systematic review. *Psychiatry Research* **306**, 114228. DOI [10.1016/j.psychres.2021.114228](https://doi.org/10.1016/j.psychres.2021.114228).
- Fortgang R, Wang SB, Millner AJ, Reid-Russell A, Beukenhorst A, Kleiman EM, *et al.* (2021). Increase in suicidal thinking during COVID-19. *Clinical Psychological Science* **2021**;9, 482–488.
- Gunnell D, Appleby L, Arensman E, Hawton K, John A, Kapur N, Pirkis J (2020). Suicide risk and prevention during the COVID-19 pandemic. *Lancet Psychiatry* **7**, 468–471. DOI [10.1016/s2215-0366\(20\)30171-1](https://doi.org/10.1016/s2215-0366(20)30171-1).
- Hawton K, Casey D, Bale E, Brand F, Ness J, Waters K, Kelly S, Geulayov G (2021a). Self-harm during the early period of the COVID-19 pandemic in England: comparative trend analysis of hospital presentations. *Journal of Affective Disorders* **282**, 991–995. DOI [10.1016/j.jad.2021.01.015](https://doi.org/10.1016/j.jad.2021.01.015).
- Hawton K, Lascelles K, Brand F, Casey D, Bale L, Ness J, Kelly S, Waters K (2021b). Self-harm and the COVID-19 pandemic: a study of factors contributing to self-harm during lockdown restrictions. *Journal of Psychiatric Research* **137**, 437–443. DOI [10.1016/j.jpsychires.2021.03.028](https://doi.org/10.1016/j.jpsychires.2021.03.028).
- Henry N, Parthiban S, Farroha A (2021). The effect of COVID-19 lockdown on the incidence of deliberate self-harm injuries presenting to the emergency room. *International Journal of Psychiatry in Medicine* **56**(4), 266–277. DOI [10.1177/0091217420982100](https://doi.org/10.1177/0091217420982100).
- Holland KM, Jones C, Vivolo-Kantor AM, Idaikkadar N, Zwald M, Hoots B, *et al.* (2021). Trends in US emergency department visits for mental health, overdose, and violence outcomes before and during the COVID-19 pandemic. *JAMA Psychiatry* **e204402**, 372. DOI [10.1001/jamapsychiatry.2020.4402](https://doi.org/10.1001/jamapsychiatry.2020.4402).
- HSE. (March 2016). National clinical programme for self-harm model of care. Available at: <https://www.hse.ie/eng/services/publications/clinical-strategy-and-programmes/national-clinical-programme-for-the-assessment-and-management-of-patients-presenting-to-emergency-departments-following-self-harm.pdf>.
- Joyce LR, Richardson SK, McCombie A, Hamilton GJ, Ardagh MW (2021). Mental health presentations to Christchurch Hospital Emergency Department during COVID-19 lockdown. *Emergency Medicine Australasia: EMA* **33**, 324–330. DOI [10.1111/1742-6723.13667](https://doi.org/10.1111/1742-6723.13667).
- Kantar (2020). Signs of cautious optimism in Irish grocery market (<https://www.kantar.com/uki/inspiration/fmcg/signs-of-cautious-optimism-in-irish-grocery-market?par=ie/Press-Releases/Signs-of-cautious-optimism-in-grocery-market>). Accessed 14 April 2021.
- Killgore W, Cloonan SA, Taylor EC, Allbright MC, Dailey NS (2020). Trends in suicidal ideation over the first three months of COVID-19 lockdowns. *Psychiatry Research* **293**, 113390. DOI [10.1016/j.psychres.2020.113390](https://doi.org/10.1016/j.psychres.2020.113390).
- Lee J, Kim D, Lee WJ, Woo SH, Jeong S, Kim SH (2021). Association of the COVID-19 pandemic and low-rescue suicide attempts in patients visiting the emergency department after attempting suicide. *Journal of Korean Medical Science* **36**, e243. DOI [10.3346/jkms.2021.36.e243](https://doi.org/10.3346/jkms.2021.36.e243).
- Lu X, Xie Y, Feng H, Liu Z, Ouyang K, Hou B, Wang M, Kong Z, Zhu Z, Dao W, Zhou Y, Cao J, Long J, Xu Y, Liu Y, Yin X (2021). Psychological impact on COVID-19 patients during the outbreak in China: a case-control study. *Psychiatry Research* **305**, 114180. DOI [10.1016/j.psychres.2021.114180](https://doi.org/10.1016/j.psychres.2021.114180).
- McAndrew J, O’Leary J, Cotter D, Cannon M, MacHale S, Murphy KC, Barry H (2021). Impact of initial COVID-19 restrictions on psychiatry presentations to the emergency department of a large academic teaching hospital. *Irish Journal of Psychological Medicine* **38**, 108–115. DOI [10.1017/ipm.2020.115](https://doi.org/10.1017/ipm.2020.115).
- McDowell MJ, Fry CE, Nisavic M, Grossman M, Masaki C, Sorg E, Bird S, Smith F, Beach SR (2021). Evaluating the association between COVID-19 and psychiatric presentations, suicidal ideation in an emergency department. *PLoS One* **16**, e0253805. DOI [10.1371/journal.pone.0253805](https://doi.org/10.1371/journal.pone.0253805).
- McIntyre A, Tong K, McMahon E, Doherty A (2020). COVID-19 and its effect on emergency presentations to a tertiary hospital with self-harm in Ireland. *Irish Journal of Psychological Medicine*, 1–20. DOI [10.1017/ipm.2020.116](https://doi.org/10.1017/ipm.2020.116).
- Niederkrotenthaler T, Gunnell D, Arensman E, Pirkis J, Appleby L, Hawton K, John A, Kapur N, Khan M, O’Connor RC, Platt S, International COVID-19 Suicide Prevention Research Collaboration, 2020 Suicide research, prevention, and COVID-19. *Crisis* **41**, 321–330. DOI [10.1027/0227-5910/a000731](https://doi.org/10.1027/0227-5910/a000731).
- O’Connor RC, Nock MK (2014). The psychology of suicidal behaviour. *The Lancet Psychiatry* **1**, 73–85. DOI [10.1016/S2215-0366\(14\)70222-6](https://doi.org/10.1016/S2215-0366(14)70222-6).
- Pirkis J, John A, Shin S, DelPozo-Banos M, Arya V, Analuisa-Aguilar P, *et al.* (2021). Suicide trends in the early months of the COVID-19 pandemic: an interrupted time-series analysis of preliminary data from 21 countries. *The Lancet Psychiatry* **8**(7), 579–588. DOI [10.1016/S2215-0366\(21\)00091-2](https://doi.org/10.1016/S2215-0366(21)00091-2).
- Reynolds C, Purdy J, Rodriguez L, McAvoy H (2021). Factors associated with changes in consumption among smokers and alcohol drinkers during the COVID-19 ‘lockdown’ period. *European Journal of Public Health* **ckab050**, 1084–1089. DOI [10.1093/eurpub/ckab050](https://doi.org/10.1093/eurpub/ckab050).
- Ridout KK, Alavi M, Ridout SJ, Koshy MT, Awsare S, Harris B, Vinson DR, Weisner CM, Sterling S, Iturralde E (2021). Emergency department encounters among youth with suicidal thoughts or behaviors during the COVID-19 pandemic. *JAMA Psychiatry* **78**, 1319. DOI [10.1001/jamapsychiatry.2021.2457](https://doi.org/10.1001/jamapsychiatry.2021.2457).
- Seifert J, Meissner C, Birkenstock A, Bleich S, Toto S, Ihlefeld C, Zindler T (2021). Peripandemic psychiatric emergencies: impact of the COVID-19 pandemic on patients according to diagnostic subgroup. *European Archives*

- of *Psychiatry and Clinical Neuroscience* **271**, 259–270. DOI [10.1007/s00406-020-01228-6](https://doi.org/10.1007/s00406-020-01228-6).
- Shields C, Bernard J, Mirza OI, Reeves D, Wells A, Heagerty A** (2021). COVID-19, lockdown and self-isolation: evaluation of deliberate self-harm admissions. *Frontiers in Psychiatry* **12**, 662885. DOI [10.3389/fpsy.2021.662885](https://doi.org/10.3389/fpsy.2021.662885).
- Smalley CM, Malone DA Jr, Meldon SW, Borden BL, Simon EL, Muir MR, Fertel BS** (2021). The impact of COVID-19 on suicidal ideation and alcohol presentations to emergency departments in a large healthcare system. *The American Journal of Emergency Medicine* **41**, 237–238. DOI [10.1016/j.ajem.2020.05.093](https://doi.org/10.1016/j.ajem.2020.05.093).
- Tanner B, Doherty AM** (2021). Suicidal ideation and behaviors among Irish travellers presenting for emergency care. *Crisis-the Journal of Crisis Intervention and Suicide Prevention*, 1–8. DOI [10.1027/0227-5910/a000769](https://doi.org/10.1027/0227-5910/a000769).
- Vanderbruggen N, Matthys F, Van Laere S, Zeeuws D, Santermans L, Vandenberghe S, Crunelle CL** (2020). Self-reported alcohol, tobacco, and cannabis use during COVID-19 lockdown measures: results from a web-based survey. *European Addiction Research* **26**(6), 309–315. DOI [10.1159/000510822](https://doi.org/10.1159/000510822).