



The following information resources have been selected by the National Health Library and Knowledge Service Evidence Virtual Team in response to your question. The resources are listed in our estimated order of relevance to practicing healthcare professionals confronted with this scenario in an Irish context. In respect of the evolving global situation and rapidly changing evidence base, it is advised to use hyperlinked sources in this document to ensure that the information you are disseminating to the public or applying in clinical practice is the most current, valid and accurate. For further information on the methodology used in the compilation of this document—including a complete list of sources consulted—please see our [National Health Library and Knowledge Service Summary of Evidence Protocol](#).

## YOUR QUESTION

What is the impact of the COVID-19 pandemic on suicide rates? What impact does social isolation have on the incidence of suicide and self-harm? People with suicidal ideation are not presenting to their GP or to the ED due to movement restrictions. What is the impact of these restrictions?

### IN A NUTSHELL

Secondary consequences of social distancing measures may increase the risk of suicide. Quarantine is often associated with a negative psychological effect<sup>15</sup>. Cheung et al<sup>13</sup> discuss how the SARS outbreak was associated with an increase in older adults' suicide rate in April 2003. Studies have shown that there was a spike in the suicide rate especially among persons aged 65 and over in Hong Kong in 2003—a 31.7% increase from 2002<sup>19</sup>. A 2017 systematic review by Leigh-Hunt et al<sup>18</sup> provides consistent evidence linking social isolation and loneliness to adverse mental health outcomes.

Although loneliness is already highly prevalent in the general population, Courtet et al<sup>6</sup> fear that it may become more pronounced during the COVID-19 quarantine, leading to dramatic effects on the most vulnerable. Psychiatrists must be cautious about the negative short- and long-term psychological consequences of quarantine.

Weise et al<sup>7</sup> note that people with previously subclinical psychotic illnesses are being admitted to psychiatric care for the first time. Liu et al<sup>8</sup> assert that psychotherapy should be considered as an important treatment measure for patients suffering from infectious diseases that are characterized by severe social harm; it is especially important to provide timely and effective psychological counselling for patients who believe they may be responsible for disease transmission. Gunnel<sup>10</sup> postulates that suicide might become a more pressing concern as the pandemic spreads and has longer-term effects on the



general population, the economy and vulnerable groups and that suicide prevention requires urgent consideration.

Ammerman<sup>5</sup> used online surveys to investigate the possible relationship between suicide and COVID-19. Jiang<sup>11</sup> and Zhang<sup>16</sup> both considered the psychological pressures at play in China and the resources being used to combat fear and anxiety in patients. Ahorsu et al<sup>8</sup> have developed a Fear of COVID-19 Scale to assess the fears of the general population regarding the COVID-19 pandemic.

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## IRISH AND INTERNATIONAL GUIDANCE

### What does HSE clinical guidance say?

#### [Managing self-harm and suicidal ideation during the Coronavirus outbreak<sup>1</sup>](#)

To help reduce the spread of COVID-19 all patients should be encouraged to phone their GP or mental health service before they present at the Emergency Department for assessment. For people who self-harm or have suicidal ideation the key to management is ensuring that the person receives a biopsychosocial assessment and a management plan which addresses safety issues and linkage to next care. This is in line with the model of care for the Clinical Programme for the assessment and management of patients presenting to the Emergency Department following self-harm and is pertinent for patients presenting in all settings.

### What does the World Health Organization say?

#### [Mental health and psychosocial considerations during the COVID-19 outbreak<sup>2</sup>](#)

The WHO Department of Mental Health and Substance Abuse developed this guidance to provide information to support mental and psychosocial wellbeing in different groups of people during the COVID-19 outbreak.

### What do the Centers for Disease Control and Prevention (United States) say?

#### [Coronavirus Disease 2019 \(COVID-19\) Stress and Coping<sup>3</sup>](#)

General information on stress and coping with stress, stressful situations and mental health during the COVID-19 outbreak.



## Other

### [Public Health England \(31 March 2020\). Guidance for the public on the mental health and wellbeing aspects of coronavirus \(COVID-19\)<sup>4</sup>](#)

See section on DEALING WITH A MENTAL HEALTH CRISIS OR EMERGENCY: “You may feel great emotional distress or anxiety, feel that you cannot cope with day-to-day life or work, think about self-harm or even suicide, or experience or hear voices [hallucinations]. If this sort of situation happens, you should get immediate expert assessment and advice to identify the best course of action.”

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## INTERNATIONAL LITERATURE

### What does the international literature say?

#### **[Newly added]** [Sahoo et al \(2020\) Self-Harm and COVID-19 Pandemic: An Emerging Concern: A Report of 2 Cases from India<sup>5</sup>](#)

The COVID-19 pandemic has led to significant fear and anxiety in the general public relating to the transmission of infection and can engender acute stress, anxiety and subsyndromal to syndromal levels of depression in vulnerable individuals. The authors are attempting to raise awareness about the potential increase in suicide and self-harm behaviour as a result of the societal impact of the ongoing pandemic including the identification of risk factors such as prolonged periods of social isolation, fear of unemployment, economic loss or bereavement.

#### **[Newly added]** [Courtet et al \(2020\) \[Comment\] Keep Socially \(But Not Physically\) Connected and Carry On: Preventing Suicide in the Age of COVID-19<sup>6</sup>](#)

Until the beginning of 2020, we believed that society had replaced microbial epidemics with behavioral epidemics such as depression, opioid use and—the most silent—suicide. The lethal behavioral toxins of loneliness and social isolation increase the risk of mortality at a rate comparable with smoking and obesity. This explains why in recent years the World Health Organization declared that social disconnection had become a major new public health challenge. Although loneliness is already highly prevalent in the general population, it is feared that it may become more pronounced during the COVID-



19 quarantine, leading to dramatic effects on the most vulnerable. Psychiatrists must be cautious about the negative short- and long-term psychological consequences of quarantine.

**[Newly added] [Weise et al \(2020\) \[Case Report\] The SARS-CoV-2 Pandemic and an Attempted Suicide of a Patient With Delusional Disorder<sup>7</sup>](#)**

The SARS-CoV-2 pandemic triggered increasing symptoms of an undiagnosed delusional disorder in a 60-year-old woman resulting in attempted suicide. Building a therapeutic relationship and integrating her into an outpatient clinic was possible despite her lack of insight into the illness and her rejection of medical treatment.

**[Newly added] [Liu et al \(2020\) Awareness of mental health problems in patients with coronavirus disease 19 \(COVID-19\): a lesson from an adult man attempting suicide<sup>8</sup>](#)**

Although many studies have reported the clinical characteristics of COVID-19 patients, few have described changes in the mental state of patients. Previous studies have reported that 10 % to 42 % of Middle East respiratory syndrome (MERS) and severe acute respiratory syndrome (SARS) patients were afflicted by anxiety, depression and other mental symptoms which are closely related to the quarantine state. The adverse effects of mental illness on the recovery of COVID-19 patients should be considered, including the possibility of death in some patients. Psychotherapy should be considered as an important treatment measure for patients suffering from infectious diseases that are characterized by severe social harm; it is especially important to provide timely and effective psychological counselling for patients who believe they may be responsible for disease transmission.

**[Newly added] [Mannix et al \(2020\) Coronavirus Disease 2019 \(COVID-19\) and Firearms in the United States: Will an Epidemic of Suicide Follow?<sup>9</sup>](#)**

Since February 2020, as US public health efforts have focused on containing the spread of COVID-19, gun sales in the country have skyrocketed. In March, more than 2.5 million firearms were sold, including 1.5 million handguns. In the best of times, increased gun ownership is associated with a heightened risk for firearm-related suicide. These are not the best of times. The US faces an unprecedented combination of a public health and economic disaster. The physical distancing necessary to curb transmission of SARS-CoV-2 has disrupted social networks. Many people live in isolation and the mental health of the population will suffer.



Combined, these forces create a climate with the potential to increase firearm-related suicides.

**[Newly added] [Gunnell et al \(2020\) Suicide Risk and Prevention During the COVID-19 Pandemic<sup>10</sup>](#)**

The mental health effects of the COVID-19 pandemic might be profound and there are suggestions that suicide rates will rise, although this is not inevitable. Suicide might become a more pressing concern as the pandemic spreads and has longer-term effects on the general population, the economy and vulnerable groups. Preventing suicide needs urgent consideration. The response must capitalise on but extend beyond general mental health policies and practices. There is some evidence that deaths by suicide increased in the USA during the 1918–'19 influenza pandemic and among older people in Hong Kong during the 2003 SARS epidemic. The current context is different and evolving. A wide-ranging interdisciplinary response that recognises how the pandemic might heighten risk and applies knowledge about effective suicide prevention approaches is key.

**[Newly added] [Monteith et al \(2020\) Preventing Suicide in Rural Communities During the COVID-19 Pandemic<sup>11</sup>](#)**

Individuals in rural communities are at increased risk of suicide. While the impact of COVID-19 continues to unfold, it is likely that suicide risk factors among individuals residing in rural areas will be exacerbated and suicide rates may subsequently increase. Awareness of these factors is essential to ensure the appropriate steps are taken to prevent suicide in rural communities, both during and in the aftermath of the pandemic.

**[Newly added] [Holmes et al \(2020\) Multidisciplinary Research Priorities for the COVID-19 Pandemic: A Call for Action for Mental Health Science<sup>12</sup>](#)**

There is an urgent need for the discovery, evaluation and refinement of mechanistically driven interventions to address the psychological, social and neuroscientific aspects of this pandemic. This includes psychological interventions to boost wellbeing and minimise mental health risks across society, including in vulnerable groups; and experimental studies to validate clinical biomarkers and repurpose new treatments for the potentially neurotoxic effects of the virus. There is an urgent need for research to address the effect of repeated pandemic-related media consumption and to optimise health messaging around COVID-19. Rising to this challenge will require integration across disciplines and sectors, including industry and health and social care.



**[Newly added] [Townsend \(2020\) Key ethical questions for research during the COVID-19 pandemic<sup>13</sup>](#)**

This paper reflects on ethical issues to consider when conducting research on self-harm, suicide, and the broader impacts of COVID-19.

**[Newly added] [Montemurro \(2020\) The emotional impact of COVID-19: from medical staff to common people<sup>14</sup>](#)**

In March 2020, the World Health Organization declared COVID-19 a pandemic, pointing to over 110 countries and territories around the world where the coronavirus illness is present. Infectious disease outbreaks such as COVID-19 can cause emotional distress and anxiety.

**[Newly added] [Shigemura et al \(2020\) \[Letter\] Public responses to the novel 2019 coronavirus \(2019-nCoV\) in Japan: mental health consequences and target populations<sup>15</sup>](#)**

The authors note that a government worker who had been in charge of isolated returnees died from apparent suicide. "As we write this letter, the coronavirus emergency is rapidly evolving. Nonetheless, we can more or less predict expected mental/physical health consequences [among] the most vulnerable populations." Negative societal behaviours will be driven by fear and distorted perceptions of risk. These experiences might evolve to include a broad range of public mental health concerns including: distress reactions such as insomnia, anger and extreme fear of illness; health risk behaviours such as increased use of alcohol and tobacco, and social isolation; mental health disorders such as post-traumatic stress disorder, anxiety disorders, depression and somatization; and lowered perceived health. It is essential for mental health professionals to provide necessary support to those exposed and to those who deliver care.

**[Newly added] [Lee \(2020\) Coronavirus Anxiety Scale: A Brief Mental Health Screener for COVID-19 Related Anxiety<sup>16</sup>](#)**

Mental health concerns of people impacted by the coronavirus pandemic have not been adequately addressed. The objective of this study was to develop and evaluate the properties of the Coronavirus Anxiety Scale (CAS), a brief mental health screener to identify probable cases of dysfunctional anxiety associated with the COVID-19 crisis. This 5-item scale demonstrated solid reliability and validity. Elevated CAS scores were found to be associated with coronavirus diagnosis, impairment, alcohol or drug coping, negative religious coping, extreme hopelessness and suicidal ideation. The CAS discriminates well between persons



with and without dysfunctional anxiety using an optimized cut score of  $\geq 9$  [90% sensitivity and 85% specificity].

### [\*\*Ammerman et al \(2020\) Preliminary Investigation of the Association Between COVID-19 and Suicidal Thoughts and Behaviors in the US<sup>17</sup>\*\*](#)

Evidence suggests that the negative consequences of COVID-19 may extend far beyond its considerable death toll, having a significant impact on psychological well-being. Prior work has highlighted that previous epidemics are linked to elevated suicide rates; however, there is no research to date on the relationship between the COVID-19 pandemic and suicidal thoughts and behaviors. Utilizing an online survey, the current study aimed to better understand the presence and extent of the association between COVID-19-related experiences and past-month suicidal thoughts and behaviors among adults in the United States.

### [\*\*Reger et al \(2020\) Suicide Mortality and Coronavirus Disease 2019: A Perfect Storm?<sup>18</sup>\*\*](#)

This article discusses suicide rates in the US which have increased in the last two decades and the effect of the public health action of social distancing during the coronavirus outbreak on the potential for adverse outcomes on suicide risk. The authors look at the secondary consequences of social distancing. Social isolation can be associated with suicidal thoughts and suicidal behaviour, so the use of social distancing as a public health action is a concern for suicide prevention. The authors also mention community and religious support such as weekly attendance at religious services or meetings which are now not available. Physical health problems and the cancellation of clinics as well as the prevailing national anxiety can all have an effect on mental health. The author also discusses suicide rates among health care workers and the increased risk presently to HCWs; the importance of continuing suicide prevention by using telehealth and tele-mental health treatments; increased access to mental health care; media reporting and the use of reporting guidelines. The author concludes that implementation of COVID-19 public health measures should be comprehensive and include multiple health priorities to including suicide prevention.

### [\*\*Mamun et al \(2020\) First COVID-19 Suicide Case in Bangladesh Due to Fear of COVID-19 and Xenophobia: Possible Suicide Prevention Strategies<sup>19</sup>\*\*](#)

The suicide of a 50-year-old man in India may be one of the first suicide victims of COVID-19. Due to social avoidance and the attitudes by others around him, the man committed suicide in the village near his house. Subsequently, an autopsy



showed that the victim did not have COVID-19. The main factor that drove the man to suicide was prejudice by the others in the village who thought that he had COVID-19 even though there was no diagnosis.

### [Ahorsu et al \(2020\) The Fear of COVID-19 Scale: Development and Initial Validation](#) <sup>20</sup>

The emergence of the COVID-19 and its consequences has led to fears, worries and anxiety among individuals worldwide. The present study developed the Fear of COVID-19 Scale (FCV-19S) to complement the clinical efforts in preventing the spread and treating of COVID-19 cases. The Fear of COVID-19 Scale, a seven-item scale, has robust psychometric properties. It is reliable and valid in assessing fear of COVID-19 among the general population and will also be useful in allaying COVID-19 fears among individuals.

### [IASC \(2020\) Briefing note on addressing mental health and psychosocial aspects of COVID-19 outbreak. Version 1.1](#) <sup>21</sup>

This briefing note summarises key mental health and psychosocial support considerations in relation to COVID-19 outbreak.

### [Okusaga et al \(2020\) Association of seropositivity for influenza and coronaviruses with history of mood disorders and suicide attempts](#) <sup>22</sup>

Influenza A, B and coronavirus antibody titers were measured in 257 subjects with recurrent unipolar and bipolar disorder and healthy controls by SCID. Tests and logistic regression models were used to analyze associations between seropositivity for coronaviruses, influenza A and B viruses and the following: history of recurrent mood disorders; having attempted suicide in the past; uni- vs. bi-polarity; and presence of psychotic symptoms during mood episodes. Seropositivity for influenza A ( $p=0.004$ ), B ( $p<0.0001$ ) and coronaviruses ( $p<0.0001$ ) were associated with history of mood disorders but not with the specific diagnosis of unipolar or bipolar depression. Seropositivity for influenza B was significantly associated with a history of suicide attempt ( $p=0.001$ ) and history of psychotic symptoms ( $p=0.005$ ).

The association of seropositivity for influenza and coronaviruses with a history of mood disorders and influenza B with suicidal behavior require replication in larger longitudinal samples. The need for these studies is additionally supported by the high incidence of these viral infections, the high prevalence of mood disorders and resilience of suicide epidemics.





### [\*\*Jiang et al \(2020\) Psychological Crisis Intervention During the Outbreak Period of New Coronavirus Pneumonia From Experience in Shanghai<sup>23</sup>\*\*](#)

Since the middle of December 2019, human-to-human transmission of novel coronavirus pneumonia (NCP) has occurred among close contacts. At the same time, greater attention should be paid to psychological crisis intervention (PCI) among affected populations for the timely prevention of inestimable damage from a secondary psychological crisis. PCI has been initiated via remote [telephone and Internet] and onsite medical services to help medical workers, patients and others affected to overcome any psychological difficulties. This paper outlines experiences based on the work of the Shanghai Medical Team.

### [\*\*Li et al \(2020\) Progression of Mental Health Services during the COVID-19 Outbreak in China<sup>24</sup>\*\*](#)

Patients, health professionals and the general public are under insurmountable psychological pressure which may lead to various psychological problems such as anxiety, fear, depression and insomnia. Psychological crisis intervention plays a pivotal role in the overall deployment of the disease control.

### [\*\*Cheung et al \(2008\) A Revisit on Older Adults' Suicides and \[the\] Severe Acute Respiratory Syndrome \(SARS\) Epidemic in Hong Kong<sup>25</sup>\*\*](#)

The SARS epidemic was associated with an increase in older adults' suicide rate in April 2003 and some suicide deaths in June 2003 might have been brought forward. Moreover, an increase in the annual older adults' suicide rate in 2003 was observed and the rate in 2004 did not return to the level of 2002. Loneliness and disconnectedness among the older adults in the community were potentially associated with the excess of older adults' suicides in 2003. Maintaining and enhancing mental wellbeing of the public over the period of epidemic is as important as curbing the spread of the epidemic. Attention and effort should also be made to enhance the community's ability to manage fear and anxiety, especially in vulnerable groups over the period of epidemic to prevent tragic and unnecessary suicide deaths.

### [\*\*Usher et al \(2020\) Life in the Pandemic: Social Isolation and Mental Health<sup>26</sup>\*\*](#)

The serious outcomes associated with isolating large numbers of people in quarantine means that such decisions are only made in the most serious of situations. Social isolation associated with quarantine can be the catalyst for many mental health sequelae even in people who were previously well. These can include acute stress disorders, irritability, insomnia, emotional distress, mood disorders, including depressive symptoms, fear and panic, anxiety and



stress because of financial concerns, frustration and boredom, loneliness, lack of supplies and poor communication.

### [Brooks et al \(2020\) The psychological impact of quarantine and how to reduce it: rapid review of the evidence<sup>27</sup>](#)

During major infectious disease outbreaks, quarantine can be a necessary preventive measure. However, this review suggests that quarantine is often associated with a negative psychological effect. During the period of quarantine this negative psychological effect is unsurprising, yet the evidence that a psychological effect of quarantine can still be detected months or years later — albeit from a small number of studies — is more troubling and suggests the need to ensure that effective mitigation measures are put in place as part of the quarantine planning process.

### [Zhang et al \(2020\) Recommended psychological crisis intervention response to the 2019 novel coronavirus pneumonia outbreak in China: a model of West China Hospital<sup>28</sup>](#)

The novel coronavirus pneumonia (COVID-19) epidemic has brought serious social psychological impact to the Chinese people, especially those quarantined and thus with limited access to face-to-face communication and traditional social psychological interventions. To better deal with the urgent psychological problems of people involved in the COVID-19 epidemic, we developed a new psychological crisis intervention model by utilizing Internet technology. This new model integrates physicians, psychiatrists, psychologists and social workers into Internet platforms to carry out psychological intervention to patients, their families and medical staff.

### [Calati et al \(2019\) Suicidal Thoughts and Behaviors and Social Isolation: A Narrative Review of the Literature<sup>29</sup>](#)

Social isolation is one of the main risk factors associated with suicidal outcomes. The aim of this narrative review was to provide an overview on the link between social isolation and suicidal thoughts and behaviours.



### [Leigh-Hunt et al \(2017\) An Overview of Systematic Reviews on the Public Health Consequences of Social Isolation and Loneliness<sup>30</sup>](#)

Social isolation and loneliness have been associated with ill health and are common in the developed world. A clear understanding of their implications for morbidity and mortality is needed to gauge the extent of the associated public health challenge and the potential benefit of intervention. This systematic overview highlights that there is consistent evidence linking social isolation and loneliness to worse cardiovascular and mental health outcomes.

### [Yip et al \(2010\) The impact of epidemic outbreak: the case of severe acute respiratory syndrome \(SARS\) and suicide among older adults in Hong Kong<sup>31</sup>](#)

According to the World Health Organization, SARS claimed 299 lives in Hong Kong from 1 November 2002 to 7 August 2003. The case-fatality ratio for SARS using survival analysis was 15% in Hong Kong. However, the case-fatality ratio for patients younger than 60 was only 6.8% and for patients older than 60 it was 55%. This high fatality rate among older SARS patients not only posed a serious threat to the physical health of the elderly population, but also resulted in rising concerns over their state of mind. While Hong Kong and other Chinese societies are well-known for the relatively higher elderly suicide rate compared to those in the West, the SARS epidemic seemed to deeply exacerbate matters. Studies showed that there was a spike in the suicide rate especially among persons aged 65 and over in Hong Kong in 2003: a 31.7% increase from 2002. Results showed that the rise in older adult suicide deaths in 2003 was in fact statistically significant, and that the peak of suicide deaths in this age group coincided with the majority of the SARS cases in April 2003. This raises the question of the relationship between SARS and the etiology of suicide — particularly among older adults in Hong Kong. A previous study had found that there were more suicide completers with critical physical illnesses during the peri-SARS period, but more completers had non-severe illnesses during the post-SARS period. In this study, a more in-depth investigation was carried out by identifying SARS-related older adult suicide deaths based on suicide death notes and witness reports of family members of the deceased. Case studies and quantitative analyses were then carried out to better understand the impact of the SARS epidemic on older adults. We hypothesized factors such as fear of the SARS epidemic, disconnectedness of older adults in the community and feelings of being a burden to the family as risk factors attributable to elderly SARS-related suicide cases.



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## OTHER

### [Panayi \(2020\) \[Blog\] COVID-19 Is Likely to Lead to an Increase in Suicides \(Scientific American Blog\)<sup>32</sup>](#)

The author discusses news reports of suicides linked to the COVID-19 outbreak. The suicide of a 50-year-old man in India may be the first suicide victim of COVID-19. He had followed news reports, became convinced that he had contracted COVID-19 and was afraid for his family and community. A 19-year-old in the UK was another person who died by suicide linked to the lockdown and impeding isolation. Two health care workers working on the frontline took their own lives. A German Finance Minister was also found dead in a suspected suicide. The author states that attention should be paid to this vulnerable section of society with more mental health initiatives and assistance. Mental health surveillance of at-risk populations, and interventions to minimize suicidal ideation.



Produced by the members of the National Health Library and Knowledge Service Evidence Team<sup>†</sup>. Current as at 30.04.2020. This evidence summary collates the best available evidence at the time of writing and **does not replace clinical judgement or guidance**. Emerging literature or subsequent developments in respect of COVID-19 may require amendment to the information or sources listed in the document. Although all reasonable care has been taken in the compilation of content, the National Health Library and Knowledge Service Evidence Team makes no representations or warranties expressed or implied as to the accuracy or suitability of the information or sources listed in the document. This evidence summary is the property of the National Health Library and Knowledge Service and subsequent re-use or distribution in whole or in part should include acknowledgement of the service.

The following PICO(T) was used as a basis for the evidence summary:

<b>P</b> Population person location condition/patient characteristic	
<b>I</b> Intervention length location type	CORONAVIRUS
<b>C</b> Comparison another intervention no intervention location of the intervention	
<b>O</b> Outcome	SUICIDE; SUICIDE IDEALATION; SELF-HARM

The following resources were used: EMBASE, Medline, PubMed, PsycINFO, SOCINDEX, Google, Google Scholar

The following search strategy was used:

- Medline
1. (mh "coronavirus+")
  2. COVID-19 or coronavirus or "corona virus" or (wuhan n2 virus) or (("2019-ncov" or "2019 ncov")) or "severe acute respiratory syndrome coronavirus 2" or (("2019" and (new or novel) and coronavirus)
  3. 1 or 2
  4. (mh suicide")
  5. Suicide or suicidal ideation or suicidality or suicidal behaviour
  6. 4 or 5
  7. 3 or 6

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