

Impact of Covid-19 on Mental Health in Ireland: Evidence to Date

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Abstract

There is widespread concern about the impact of Covid-19 and associated restrictions on mental health. Evidence to date shows that the combined effect of the Covid-19 pandemic and associated restrictions is that approximately one person in every five in the general population in Ireland (and elsewhere) has significantly increased psychological distress (e.g. anxiety, depression). Risk factors include being female and living alone. Rates of significant psychological distress among healthcare workers are approximately double those in the general population. To ameliorate this, healthcare staff require careful rostering, ability to take leave, organisational support from employers and, where necessary, “psychological first aid”. Covid-19 infection itself affects mental health both immediately (e.g. depression, anxiety) and, most likely, in the longer term, especially among those hospitalised (e.g. post-traumatic stress, post-viral syndromes). People with pre-existing mental illness are at significantly increased risk of Covid-19 infection and require particular support to maintain wellness during the pandemic.

Introduction

There is widespread concern about the impact of Covid-19 and associated restrictions on mental health in Ireland. This paper outlines existing evidence about the effect on Covid-19 on mental health at time of writing (November 2020) and provides suggestions for ameliorating the negative mental health effects of the pandemic and its associated restrictions.

Mental health effects of the Covid-19 pandemic on the general population

From the start of the Covid-19 pandemic, it was clear that population mental health was going to be affected by both the pandemic itself and the impact of restrictions¹. These effects are now apparent among people with mental illness and general populations around the world².

In China, one study of 1,210 people in 194 cities in January and February 2020 found that 54% rated the psychological impact of the Covid-19 outbreak as moderate or severe, 29% reported moderate to severe anxiety symptoms and 17% reported moderate to severe depressive symptoms³. In Spain, a study of 21,207 people in March 2020 (a week after lockdown began) reported significant psychological impacts on people with no previous mental illness, including depressive responses (41%), avoidant behaviour (39%) and stress (27%)⁴.

In Ireland, Maynooth University and Trinity College studied 1,000 people in March and April 2020 (during the initial restrictions) and found that 41% of respondents reported feeling lonely, 23% reported clinically meaningful depression, 20% reported clinically meaningful anxiety and 18% reported clinically meaningful post-traumatic stress⁵. A peer-reviewed study of 847 members of the public in Ireland between March and June 2020 (during restrictions) also found significant increases in depression, anxiety and stress compared to before restrictions⁶. A survey of 195 psychiatrists by the College of Psychiatrists of Ireland in May and June 2020 found that the majority reported increased referrals for generalised anxiety (79% reported an increase), health anxiety (72%), depression (57%) and panic (54%)⁷.

These findings are likely attributable to a combination of anxiety about Covid-19 and the effects of restrictions, such as quarantine, which can include confusion, anger and post-traumatic stress⁸. Particular stressors include longer duration of quarantine, infection fears, frustration, boredom, inadequate supplies or information, financial loss and stigma.

Mental health service use is not a reliable indicator of need owing to altered patterns of use across many services during the pandemic. For example, provisional figures show hospital presentations for self-harm fell by 25% in April 2020 compared to April 2019, but all-cause presentations fell by 40%, rendering it difficult to interpret service-use data precisely as indicators of need⁹.

It is clear that the combined effect of the Covid-19 pandemic and associated restrictions is that approximately one person in every five in the general population in Ireland and elsewhere has significantly increased psychological distress (e.g. anxiety, depression). Particular risk factors include being female and living alone¹⁰.

Distress associated with restrictions can be diminished by maintaining restrictions for no longer than required, providing clear rationales and information about protocols, ensuring sufficient supplies and reminding the public about the benefits⁸. The needs of most people with continued distress would be best met by expansions of the HSE Counselling in Primary Care and HSE Primary Care Psychology Services, as well as specialist secondary mental health services for those who need them.

Mental health effects of the Covid-19 pandemic on deliberate self-harm and suicide

The effects of the Covid-19 pandemic on suicide are not yet clear because data collection and coroners' reports lag significantly behind events.

The survey of 195 psychiatrists by the College of Psychiatrists of Ireland in May and June 2020 found that 64% reported increased referrals for self-harm/suicidal ideation⁷. There is also evidence of increased lethality of self-harm in at least one Irish hospital¹¹.

Notwithstanding these findings, there is, as yet, no systematic evidence of increases in deliberate self-harm and suicide at national level during the pandemic. Close analysis of incoming data will be required to clarify this situation over the coming months and years. Social and economic supports will be vital, alongside existing suicide prevention strategies, which appear to be working¹².

Mental health effects of the Covid-19 pandemic on healthcare workers

At global level, healthcare workers are at added risk of mental health effects of Covid-19¹³, with up to 86% reporting feeling stressed with regard to changes in work environments and transmission of the virus¹⁴. In China, one study of 1,257 hospital healthcare workers in January and February 2020 found high levels of distress (72%), symptoms of depression (50%), anxiety (45%) and insomnia (34%)¹⁵. These rates are substantially higher than those in the general population. Risk factors for poor mental health outcomes are female gender, being a nurse and being on the frontline. In Ireland, a survey of 370 radiographers between March and May 2020 found that 40% reported burnout symptoms due to the pandemic and 30% considered changing jobs or retiring since the outbreak¹⁶. The survey of 195 psychiatrists by the College of Psychiatrists of Ireland in May and June 2020 found that 61% reported increased workloads; 46% reported decreased well-being; and 51% reported decreased ability to avail of annual leave⁷.

Overall, rates of significant psychological distress among healthcare workers (\approx 40%) are approximately double those in the general population (\approx 20%). To ameliorate this, healthcare staff require careful rostering, ability to take leave, organisational support from employers¹⁷ and, where necessary, “psychological first aid”¹⁸.

Mental health consequences of infection with Covid-19

Infection with Covid-19 affects both physical and mental health. Past experience with severe acute respiratory syndrome (SARS) backs this up. Among patients hospitalised with SARS in Hong Kong in 2003, 59% fulfilled criteria for mental illness 30 months later, mostly depression and post-traumatic stress disorder¹⁹. Emerging evidence across several studies suggests increased levels of depression, anxiety and post-traumatic stress symptoms among people who test positive for Covid-19^{2,20}. One Chinese study of 103 Covid-19-positive patients hospitalised with mild symptoms found that 60% reported depression and 55% reported anxiety, compared to 31% and 22% (respectively) of Covid-19-negative matched controls²¹. Levels of C-reactive protein (a peripheral inflammatory indicator) correlated positively with depression score, linking the infection with the psychological distress. In the longer term, a second wave of psychological morbidity due to Covid-19 might also emerge, as was observed in the aftermath of previous epidemics and pandemics.

Covid-19 infection affects mental health immediately (e.g. depression, anxiety) and will also likely affect mental health in the longer term, especially among those hospitalised (e.g. post-traumatic stress, post-viral syndromes). The best way to prevent the negative mental health effects of Covid-19 infection is by preventing infection in the first place, through public health measures. For those who are infected and hospitalised, liaison psychiatry services are vital for providing care as inpatients; multi-disciplinary follow-up clinics at hospitals are needed after discharge; and primary care and secondary mental health services are needed for management of longer-term psychiatric consequences among all groups (children, adults, older adults, people with intellectual disabilities and others)²².

Effect of mental illness on the distribution of Covid-19 in the population

In addition to Covid-19 contributing to psychological distress and mental illness, it is now clear that pre-existing mental illness also affects the pattern and distribution of Covid-19 across populations. In the United States, the odds of infection with Covid-19 are over seven times greater in people with depression or schizophrenia compared to the general population, even after adjusting for age, gender, ethnicity and medical comorbidities (cancers, cardiovascular diseases, type 2 diabetes, obesity, chronic kidney diseases, chronic obstructive pulmonary disease, asthma, and substance use disorders)²³.

There is every reason to believe that this is also the case in Ireland. In 2019, the Inspector of Mental Health Services, Dr Susan Finnerty, reported that “patients with serious mental illness experience reduced access to health care either through delayed presentation, reduced uptake of health screening and preventive care, difficulty coping with the demands of monitoring and treatment, or misattribution of symptoms” (p.5)²⁴. Reduced access to public health advice is, clearly, a very specific problem during the current pandemic.

Overall, it is clear that people with mental illness are at increased risk of contracting Covid-19. In light of this, community mental health teams need to be strengthened in order to give people with severe mental illness improved access to public health advice. There are also calls to prioritise Covid-19 vaccination for people with severe mental illness in order to both meet their health needs and help prevent further spread of Covid-19 in the general population²⁵.

To conclude, it is clear that protecting mental health is crucial during this period. It is also worth noting that Covid-19 is likely to have other effects on mental health owing to increased rates of domestic violence during the pandemic, altered patterns of alcohol and substance misuse, and various other factors. The full extent of these trends will only become apparent in time.

Conflicts of Interest Declaration:

There are no conflicts of interest.

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References:

1. Kelly BD. Coronavirus disease: challenges for psychiatry. *British Journal of Psychiatry* 2020; 217: 352-3.
2. Hossain MM, Tasnim S, Sultana A, Faizah F, Mazumder H, Zou L et al. Epidemiology of mental health problems in COVID-19: a review. *F1000Research* 2020; 9: 636
3. Wang C, Pan R, Wan X, Tan Y, Xu L, Ho CS et al. Immediate psychological responses and associated factors during the initial stage of the 2019 coronavirus disease (COVID-19) epidemic among the general population in China. *International Journal of Environmental Research and Public Health* 2020; 17: 1729.
4. García-Álvarez L, de la Fuente-Tomás L, García-Portilla MP, Sáiz PA, Lacasa CM, Dal Santo F et al. Early psychological impact of the 2019 coronavirus disease (COVID-19) pandemic and lockdown in a large Spanish sample. *Journal of Global Health* 2020; 10: 020505.
5. Hyland P, Vallières F, Shevlin M, Murphy J, McBride O, Karatzias T et al. COVID-19 mental health survey by Maynooth University and Trinity College finds high rates of anxiety. Maynooth: Maynooth University, 2020.
6. Burke T, Berry A, Taylor LK, Stafford O, Murphy E, Shevlin M et al. Increased psychological distress during COVID-19 and quarantine in Ireland: a national survey. *Journal of Clinical Medicine* 2020; 9: E3481.
7. College of Psychiatrists of Ireland. COVID-19 Impact on Secondary Mental Healthcare Services in Ireland. Dublin: College of Psychiatrists of Ireland, 2020
8. Brooks SK, Webster RK, Smith LE, Woodland L, Wessely S, Greenberg N et al. The psychological impact of quarantine and how to reduce it: rapid review of the evidence. *Lancet* 2020; 395: 912-20.
9. Bracken S. Hospital figures for self-harm fall 25%. *Irish Times*, 12 September 2020.
10. Wong SYS, Zhang D, Sit RWS, Yip BHK, Chung RY, Wong CKM et al. Impact of COVID-19 on loneliness, mental health, and health service utilisation: a prospective cohort study of older adults with multimorbidity in primary care. *British Journal of General Practice* 2020; 70: e817-24.
11. McIntyre A, Tong K, McMahan E, Doherty AM. COVID-19 and its effect on emergency presentations to a tertiary hospital with self-harm in Ireland. *Irish Journal of Psychological Medicine* 2020 (Epub ahead of print) (<https://doi.org/10.1017/ipm.2020.116>)

12. Kelly BD. Are we finally making progress with suicide and self-harm? An overview of the history, epidemiology and evidence for prevention. *Irish Journal of Psychological Medicine* 2018; 35: 95-101.
13. Vizheh M, Qorbani M, Arzaghi SM, Muhidin S, Javanmard Z, Esmaeili M. The mental health of healthcare workers in the COVID-19 pandemic: a systematic review. *Journal of Diabetes and Metabolic Disorders* 2020 (Epub ahead of print) (<https://doi.org/10.1007/s40200-020-00643-9>).
14. Coto J, Restrepo A, Cejas I, Prentiss S. The impact of COVID-19 on allied health professions. *PLoS ONE* 2020; 15: e0241328.
15. Lai J, Ma S, Wang Y, Cai Z, Hu J, Wei N et al. Factors associated with mental health outcomes among health care workers exposed to coronavirus disease 2019. *JAMA Network Open* 2020; 3: e203976.
16. Foley SJ, O'Loughlin A, Creedon J. Early experiences of radiographers in Ireland during the COVID-19 crisis. *Insights into Imaging* 2020; 11: 104.
17. Gavin B, Hayden J, Adamis D, McNicholas F. Caring for the psychological well-being of healthcare professionals in the Covid-19 pandemic crisis. *Irish Medical Journal* 2020; 113: 51
18. Minihan E, Gavin B, Kelly BD, McNicholas F. COVID-19, mental health and psychological first aid. *Irish Journal of Psychological Medicine* 2020 (Epub ahead of print) (<https://doi.org/10.1017/ipm.2020.41>).
19. Mak IW, Chu CM, Pan PC, Yiu MG, Chan VL. Long-term psychiatric morbidities among SARS survivors. *General Hospital Psychiatry* 2009; 31: 318-26.
20. Taquet M, Luciano S, Geddes JR, Harrison PJ. Bidirectional associations between COVID-19 and psychiatric disorder: retrospective cohort studies of 62354 COVID-19 cases in the USA. *Lancet Psychiatry* 2020 (Epub ahead of print) ([https://doi.org/10.1016/S2215-0366\(20\)30462-4](https://doi.org/10.1016/S2215-0366(20)30462-4)).
21. Guo Q, Zheng Y, Shi J, Wang J, Li G, Li C et al. Immediate psychological distress in quarantined patients with COVID-19 and its association with peripheral inflammation: a mixed-method study. *Brain, Behavior, and Immunity* 2020; 88: 17-27.
22. O'Connor K, Wrigley M, Jennings R, Hill M, Niazi A. Mental health impacts of COVID-19 in Ireland and the need for a secondary care mental health service response. *Irish Journal of Psychological Medicine* 2020 (Epub ahead of print) (<https://doi.org/10.1017/ipm.2020.64>).
23. Wang Q, Xu R, Volkow ND. Increased risk of COVID-19 infection and mortality in people with mental disorders: analysis from electronic health records in the United States. *World Psychiatry* 2020 (Epub ahead of print) (<https://doi.org/10.1002/wps.20806>).
24. Finnerty S. *Physical Health of People with Severe Mental Illness*. Dublin: Mental Health Commission, 2019.
25. De Hert M, Mazereel V, Detraux J, Van Assche K. Prioritizing COVID-19 vaccination for people with severe mental illness. *World Psychiatry* 2020 (Epub ahead of print) (<https://doi.org/10.1002/wps.20826>).