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Interplay between COVID-19 outbreak and psychological maladjustment: a brief overview

Soraci P.[1]*, Lagattolla F.[2], Parente G.[3], Guaitoli E.[4], Chiodi D.[5], Cimaglia R.[6], Nesci C.[7], Barreca M.[8], Ascanio C.[5]

[1] Associazione Psicoterapia Cognitivo Comportamentale di Gruppo, Rome, Italy
[2] Servizio di Psiconcologia, IRCCS Istituto Tumori "Giovanni Paolo II" di Bari, Italy
[3] Associazione Matrice Orientamento e Formazione Onlus, Bari, Italy
[4] Chirurgia Generale, Asl Br Ospedale Perrino, Brindisi, Italy
[5] Researcher, Italy
[6] Istituto Romano Psicoterapia Psicodinamica Integrata, Rome, Italy
[7] Scuola di Psicoterapia Analisi Transazionale – Reggio Calabria, Italy
[8] Scuola di Psicoterapia Psicoanalitica e gruppoanalitica – Reggio Calabria, Italy

ABSTRACT

Background: Coronavirus seems to be affecting mental health of many people, especially among healthcare workers. Recent studies show an increase in discomfort, anxiety and depression. Preventive action turns to be necessary as to reduce the risk of suicide during COVID-19 crisis, to decrease stress, fear, anxiety and loneliness and this should be favoured by social media campaigns aimed at promoting mental health and reduce discomfort.
Methods: This study used the following method as inclusion and exclusion criteria: 1) searched for published articles relevant to the treated topic; 2) used the most recent studies in the literature; 3) used articles in both Italian and English languages; 4) articles which were not reviewed by scientific journals or official government sites were excluded; 5) the main search engines used were Google Scholar, PubMed; 6) the keywords used are COVID-19, Suicide, Psychology.
Results: As a result of COVID-19 and subsequent global pandemic, various psychological problems and important mental health consequences have emerged including stress, anxiety, depression, frustration, suicidal behaviors and economic uncertainty.
Conclusions: Basic mental health services, integrated with primary outpatient care, can help to reduce risk and minimize the harmful psychological effects caused by the COVID-19 crisis; screening for anxiety, depression and suicidal feelings could be done in this way.

Keywords: *COVID-19 Outbreak; Psychological Maladjustment; Brief Overview; Suicide*

* *Corresponding author*: Paolo Soraci, Associazione Psicoterapia Cognitivo Comportamentale di Gruppo, Rome, Italy
E-mail address: paolo.soraci85@gmail.com

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Introduction

Starting from year 2019, a new viral pathology named as Coronavirus Disease 2019 (COVID - 19) rapidly spread, causing the infection of millions of people (Hui et al., 2019). A number of 48,763,203 cases of COVID-19 including 1,234,371 deaths were reported during the first days of November 2020. Due to this drastic situation WHO declared, on March 11 2020, the state of Pandemic. Severe clinical manifestations such as respiratory failure, sepsis, septic shock and multiple organ dysfunction syndromes became typical manifestations of COVID-19 (Hui et al., 2019). Scientific evidence and research show how COVID-19 pandemic had, and still has, deep psychological and social effects on the population (Ornell et al., 2020).

Strategies to reduce the virus spread-out, such as the use of masks, frequent hand washing and social distancing, as well as quarantine have been widespread. Quarantine, social distancing and self-isolation have a negative impact on mental health, as also loneliness and reduction of social interactions can result risk factors for many mental disorders such as higher levels of anxiety, depression and psychotic symptoms (Serafini et al., 2020; Panagioti et al., 2020).

Pandemic-related quarantine has been associated with high levels of stress (DiGiovanni et al., 2004; Qiu et al., 2020) and depression (Hawryluck et al., 2004; Santini et al., 2020).

The burgeoning line of research described above clearly showed that COVID-19 may negatively affect individuals' psychological adjustment because they experience impaired quality of sleep uncertainty, fear, anger, and frustration that in turn may lead to undesirable affective states (Brooks et al., 2020; De Giorgio, 2020; Holmes et al., 2020; Rubin & Wessely, 2020; Wang et al., 2020; Cellini, Canale, Mione, & Costa, 2020).

Thus, it is extremely relevant to understand the factors that draw individuals toward differing levels of psychological maladjustment as to provide more tailored interventions in clinical contexts. Therefore, this current paper intends to provide a comprehensive view of the growing body of literature, examining the individual differences in undesirable psychological state. Specifically, it focused on different dimensions of psychological maladjustment, namely stress, depressive and anxious symptomatology.

Methodology

This study used the following method as inclusion and exclusion criteria (see Table 1 for a summary): 1) Searched for published articles relevant to the treated topic; 2) Used the most recent studies in the literature; 3) Used articles in both Italian and English languages; 4) Articles which were not reviewed by scientific journals or official government sites were excluded; 5) The main search engines used were Google Scholar, PubMed; 6) The keywords used are COVID-19, Suicide, Psychology.

Authors	Topic/Main results	Year
Abbiati et al.	Panic, Fear, depression and trauma-related disorders	2020
Ahorsu et al.	Fear of Covid-19	2020
Bai et al.	Stress reactions among health care workers	2004
Brooks et al.	Psychological impact of quarantine	2020
Cellini et al.	Sleep pattern, sense of time and digital media use	2020
De Giorgio	Psychological Implications	2020
DiGiovanni et al.	Quarantine-related Implications	2004
Goyal et al.	Quarantine-related suicides	2020
Hawryluck et al.	Psychological effects of quarantine	2004
Holmes et al.	Multidisciplinary research priorities for the COVID-19	2020
Killgore et al.	Anxiety, insomnia severity and suicidal ideation	2020
Lai et al.	Mental Health Outcomes Among Health Care Workers	2020
Lee et al.	Stigma	2005
Lieberman et al.	Social isolation, fear of contagion, uncertainty, chronic stress, economic difficulties, suicidal behaviour	2020
Panagioti et al.	Anxiety, depression and psychotic symptoms	2020
Pappas et al.	Social stigmatization	2020
Qiu et al.	Psychological distress	2020
Rubin & Wessely	Psychological effects of quarantining	2020
Serafini et al.	Anxiety, depression and psychotic symptoms	2020
Stankovska et al.	Mental health and psychosocial support	2020
Tucci et al.	Psychiatric manifestations	2017
Wand et al.	Suicidal behaviour	2020
Wang et al.	Psychological impact of Covid-19	2020

Table 1. Summary of the main studies taken into consideration

COVID-19 and psychiatric symptomatology.

On an individual level, outbreaks are associated with a wide range of psychiatric comorbidities including panic, depression and trauma-related disorders (Tucci et al., 2017; Abbiati et al., 2020). The psychological impact of the global pandemic on human well-being, therefore, has implications under various aspects: mental stress, anxiety, loneliness and depression (Stankovska et al., 2020). Number of studies have highlighted the impact of COVID-19 on mental health of the general population, healthcare professionals, and people with psychiatric disorders (Wang et al., 2020). More precisely, a study revealed that 53.8% out of the 1,210 subjects involved, rated the psychological impact of the epidemic as moderate or severe, while 6.5% reported moderate to severe depressive symptoms and 28.8% reported moderate to severe anxiety symptoms and 8.1% reported experiencing moderate to severe anxiety symptoms.

A national survey conducted in China during COVID-19 outbreak by Qiu et al. (2020) on 52,730 participants, found that around 35 % of them suffered from psychological distress. This results consistent with a recent survey indicating that 45% of adults in the United States report that their mental health has been adversely affected due to Coronavirus concern and stress, thus indicating how the disease impacts is transnational (Panchal et al., 2020).

Li et al. (2020), studying online posts published by 17,865 customers on social media before and after the outbreak of COVID-19 in China on January 20, 2020, have observed that negative emotions such as anxiety, depression and anger have increased as opposed to positive emotions such as "life satisfaction". In fact, a notable increase in anxiety and depressive symptoms was expected among people who had no pre-existing mental health conditions, but only some experience of PTSD.

COVID-19 and Suicidal behaviour

The health emergency caused a greater psychosocial impact during the restrictive quarantine measures (Brooks et al., 2020), causing stigmatization, insomnia and irritability (Killgore et al., 2020; Lee et al., 2005). Killgore et al. (2020) measured COVID-19 related anxiety, insomnia severity and suicidal ideation in 1,013 US adults during the first weeks of the nationwide lockdown. The results indicate that insomnia severity is associated with COVID-19 fears and suicidal ideation, suggesting that interventions aimed at improving sleep may be useful in reducing the risk of suicide during current pandemic (Killgore et al., 2020).

A broad line of research (eg. Lieberman et al., 2020) has indicated numerous risk factors for a greater possibility of suicidal behavior, such as social isolation, fear of contagion, uncertainty, chronic stress, economic difficulties, pre-existing psychiatric disorders, low levels of resilience, living in areas with a high rate of contagiousness from COVID-19 and continuous contact with individuals affected by this disorder. Goyal et al. (2020) have reported some cases of quarantine-related suicides. Being quarantined is associated with acute stress and trauma disorders, particularly in specific at-risk populations such as healthcare professionals (Bai et al., 2004; Wu et al., 2009; Lai et al., 2020). The category of healthcare professionals is more exposed to the risk of stress deriving from the COVID-19 pandemic (Rodríguez & Sánchez, 2020).

In line with previous research (Huang et al., 2020) which indicates that healthcare professionals are more likely to have poor sleep quality than other occupational groups, other authors (Lai et al., 2020) during COVID-19 pandemic, investigated the mental health status of 1,257 Chinese health professionals. Results found that a state of depression was reported by 50.4%, 71, 5% reported distress, 44.6% anxiety and 34.0% insomnia. In particular, front-line health care workers caring for COVID-19 patients, were at greater risk of developing anxiety, depression, insomnia and distress more than other medical professions. The impact of the COVID-19 pandemic has greatly affected not only the general population, but also the psychiatric population. Specifically, Hao et al. (2020) compared the impact of the COVID-19 epidemic on a psychological level on individuals with or without mood and anxiety disorders, noting that impulsivity, anger and suicidal ideation, were

higher in psychiatric patients than in the healthy population. It has been suggested that if mental health is not seen as a priority, or if preventive activities are not carried out at the community level, the risk of suicide during the COVID-19 pandemic will increase (Wasserman et al., 2020).

In several States such as the United Kingdom, Italy, the United States, Germany, Bangladesh, India and other countries, cases of COVID-related suicides have been reported in the mass media and in the psychiatric literature (Mamun et al, 2020). In addition, during the current COVID-19 outbreak, in the United States, there has been a huge increase in calls to dedicated suicide prevention lines (Dunmore, 2020).

Severe forms of COVID-19 constitute a serious risk factor for the onset of suicidal behavior (Wand et al., 2020). Specifically, a study shows that 96.2% of COVID-19 patients in China reported post-traumatic stress symptoms during recovery. Learning that you have contracted COVID-19 is also a stressful experience (Thakur et al., 2020). In addition, the symptoms of the disease, hospitalization, access to intensive care, job loss are conditions that can lead to higher levels of post-traumatic symptoms (Wand et al., 2020).

In 25% of COVID-19 patients, the brain exhibits neurological conditions including acute ischemic stroke, dizziness, ataxia, seizures with headache and headache, which are associated with higher suicidal behaviours (Asadi-Pooya & Simani, 2020; Wasserman et al., 2020; Friedman et al., 2017; Sher, 2019).

Fear of COVID-19

During previous epidemics, fear was found to be, in comorbidities with other symptoms such as anxiety and depression, the main psychological disorder that negatively affected people's quality of life. (Ahorsu et al., 2020, Soraci et al., 2020). These symptoms appear to be particularly relevant in the context of the current COVID-19 pandemic as it has previously been shown that social isolation (in this case, resulting from mandatory social distancing policies enacted by governments) is strongly intertwined with symptoms of anxiety and depression (Santini et al., 2020). The fear of COVID-19 is linked to the speed of transmission of the virus, to COVID morbidity, and to the fact that it is invisible (Ahorsu et al., 2020). In addition, other psychosocial challenges, due to the virus, are fuelling the Fear, including social stigmatization, discrimination and the loss of a relative friend or family member (Pappas et al., 2020).

Conclusion

Preventing suicide during COVID-19 time seems a difficult and important matter. Research studies on how to tone down the consequences on mental health during and after the pandemic are deemed

necessary. It is hoped that the efforts of doctors, researchers and policymakers help to produce prevention, diagnosis and treatment of mental health in the context of the COVID-19 pandemic.

Economic decline during and after the COVID-19 pandemic is likely to have a powerful and damaging effect on mental health with a consequent increase of psychiatric disorders and suicidal behaviors (Holmes et al., 2020). It is to be considered that financial problems can reduces the chance to psychiatric care. Since we do not know how long the pandemic will last, the preventive aspect on the risk factors of suicide turns out to be fundamental. It is suggested to focus on psychological well-being, on coping processes and on emotional intelligence, as this already occurs during very serious illnesses (Mikolajczak, Petrides, & Hurry, 2009; Domínguez-García & Fernández-Berrocal, 2018; Barberis, Verrastro, Papa, & Quattropani, 2020). Based on previous epidemics experiences such as SARS, H1N1, Ebola and on the ongoing COVID-19 experience in Italy, in the United States and the United Kingdom, for the first time COVID-19 was related not only to individual trauma but also to a collective trauma: this is a current and future issue which researchers will need to deal with in global research. A future direction for clinical interventions could aim to reconnect the dissociated parts in both the individual and society, with a focus on, for example, traumatic pain in people who have lost loved ones, loss of role and identity due to the economic crisis (Masiero et al., 2020). Especially in times of economic recession, psychosocial support programs should be developed to mitigate the negative effects on both individuals and their families, it is precisely through preventive strategies that social awareness on the concept of suicide can be developed and implemented. Psychosocial support can be implemented to combat the epidemic of loneliness caused by COVID-19 through various ways so that people, while remaining confined, maintain contact with loved ones via telephone, with social networks, with psychologists and through culture; all this can improve individual and social well-being by creating a network with a telephone helpline managed by health professionals and set up specifically for those in quarantine. Because human beings who are facing such a crisis can thus feel that they are not alone (Courtet et al., 2020).

Basic mental health services, integrated with primary outpatient care, can help to reduce risk and minimize the harmful psychological effects caused by the COVID- 19 crisis; screening for anxiety, depression and suicidal feelings could be done in this way, as well as governments or NGOs should provide financial support to people in need (Moutier, 2020).

Regarding psychosocial interventions during COVID-19 period, Sankvovska et al. (2020), report the importance for training and supervising operators as for them to be capable of providing psychosocial support for mental health.

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References

Abbiati A.F., Soraci P., Lagattolla F.,Parente G., De Pace R. (2020). COVID-19 - A Short-review of the pandemic's mental health impact, personality traits, economics, eating disorder, homeless and education. *Psychology Hub*, 37(2), 41-46. https://doi.org/10.13133/2724-2943/17162

Ahorsu, D. K., Lin, C., Imani, V., Saffari, M., Griffiths, M. D., & Pakpour, A. H. (2020). The Fear of COVID-19 Scale: Development and Initial Validation. *International Journal of Mental Health and Addiction*. https://doi.org/10.1007/s11469-020-00270-8

Asadi-Pooya, A. A., & Simani, L. (2020). Central nervous system manifestations of COVID-19: a systematic review. *Journal of the Neurological Sciences*, 116832. https://doi.org/10.1016/j.jns.2020.116832

Bai YM, Lin CC, Lin CY, Chen JY, Chue CM, Chou P. (2004) Survey of stress reactions among health care workers involved with the SARS outbreak. *Psychiatric Service,* 55(9), 1055-1057. https://doi.org/10.1176/appi.ps.55.9.1055

Barberis, N., Verrastro, V., Papa, F., & Quattropani, M. (2020). Suicidal ideation and psychological control in emerging adults: The role of trait EI. *Maltrattamento e abuso all'infanzia*, (2), 13–28. https://doi.org/10.3280/mal2020-002002

Brooks, S. K., Webster, R. K., Smith, L. E., Woodland, L., Wessely, S., Greenberg, N., et al. (2020). The psychological impact of quarantine and how to reduce it: rapid review of the evidence. *Lancet*, 395, 912–920. https://doi.org/10.1016/S0140-6736(20)30460-8

Cellini, N., Canale, N., Mioni, G., & Costa, S. (2020). Changes in sleep pattern, sense of time and digital media use during COVID-19 lockdown in Italy. *Journal of Sleep Research*, 29(4), 1-5. https://doi.org/10.1111/jsr.13074

Courtet, P., Olié, E., Debien, C., & Vaiva, G. (2020). Keep socially (but not physically) connected and carry on: preventing suicide in the age of COVID-19 . *The Journal of Clinical Psychiatry*, *81*(3), 20com13370. https://doi.org/10.4088/JCP.20com13370

De Giorgio, A. (2020). Global Psychological Implications of Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) and Coronavirus Disease-2019 (COVID-19). What Can Be Learned from Italy. *Reflections, Perspectives, Opportunities. Frontiers in Psychology*, 11, 1836. https://doi.org/10.3389/fpsyg.2020.01836

DiGiovanni, C., Conley, J., Chiu, D., & Zaborski, J. (2004). Factors influencing compliance WITH quarantine in Toronto during the 2003 SARS Outbreak. *Biosecurity and Bioterrorism: Biodefense Strategy, Practice, and Science, 2*(4), 265-272. https://doi.org/10.1089/bsp.2004.2.265

Domínguez-García, E., & Fernández-Berrocal, P. (2018). The Association Between Emotional Intelligence and Suicidal Behavior: A Systematic Review. *Frontiers in Psychology*, 9. https://doi.org/10.3389/fpsyg.2018.02380

Dunmore R. Coronavirus-related suicides surface amid increased anxiety. Newsone, April 2020. https://www.google.com/amp/s/newsone.com/3921332/coronavirus-related-suicides-amid-anxiety/amp

Friedman, L. E., Gelaye, B., Bain, P. A., & Williams, M. A. (2017). A Systematic Review and Meta-Analysis of Migraine and Suicidal Ideation. *The Clinical Journal of Pain*, 33(7), 659–665. https://doi.org/10.1097/AJP.0000000000000440

Serafini, G., Parmigiani, B., Amerio, A., Aguglia, A., Sher, L., & Amore, M. (2020). The psychological impact of COVID-19 on the mental health in the general population. *QJM: An International Journal of Medicine*, *113*(8), 531-537. https://doi.org/10.1093/qjmed/hcaa201

Goyal, K., Chauhan, P., Chhikara, K., Gupta, P., & Singh, M. P. (2020). Fear of COVID 2019: First suicidal case in India! *Asian Journal of Psychiatry*, 49, 101989. https://doi.org/10.1016/j.ajp.2020.101989

Hao, F., Tan, W., Jiang, L., Zhang, L., Zhao, X., Zou, Y., Hu, Y., Luo, X., Jiang, X., McIntyre, R. S., Tran, B., Sun, J., Zhang, Z., Ho, R., Ho, C., & Tam, W. (2020). Do psychiatric patients experience more psychiatric symptoms during COVID-19 pandemic and lockdown? A case-control study with service

and research implications for immunopsychiatry. *Brain, Behavior, and Immunity*, *87*, 100-106. https://doi.org/10.1016/j.bbi.2020.04.069

Hawryluck L, Gold WL, Robinson S, Pogorski S, Galea S, Styra R. (2004) SARS control and psychological effects of quarantine, Toronto, Canada. *Emerging Infectious Diseases,* 10(7), 1206-12. https://dx.doi.org/10.3201%2Feid1007.030703

Holmes, E. A., O'Connor, R. C., Perry, V. H., Tracey, I., Wessely, S., Arseneault, L., . . . Bullmore, E. (2020). Multidisciplinary research priorities for the COVID-19 pandemic: A call for action for mental health science. *The Lancet Psychiatry*, 7(6), 547-560. https://doi.org/10.1016/S2215-0366(20)30168-1

Huang, Y., & Zhao, N. (2020). Generalized anxiety disorder, depressive symptoms and sleep quality during COVID-19 outbreak in China: a web-based cross-sectional survey. *Psychiatry research*, *288*, 112954. https://doi.org/10.1016/j.psychres.2020.112954

Hui, D., & Zumla, A. (2019). Severe Acute Respiratory Syndrome: Historical, Epidemiologic, and Clinical Features. *Infectious Disease Clinics of North America*, *33*(4), 869–889. https://doi.org/10.1016/j.idc.2019.07.001

Killgore, W. D. S., Cloonan, S. A., Taylor, E. C., Fernandez, F., Grandner, M. A., & Dailey, N. S. (2020). Suicidal ideation during the COVID-19 pandemic: The role of insomnia. *Psychiatry Research*, *290*, 113134. https://doi.org/10.1016/j.psychres.2020.113134

Lai, J., Ma, S., Wang, Y., Cai, Z., Hu, J., Wei, N., … Hu, S. (2020). Factors Associated With Mental Health Outcomes Among Health Care Workers Exposed to Coronavirus Disease 2019. *JAMA Network Open*, *3*(3). https://doi.org/10.1001/jamanetworkopen.2020.3976

Lee, S., Chan, L. Y. Y., Chau, A. M. Y., Kwok, K. P. S., & Kleinman, A. (2005). The experience of SARS-related stigma at Amoy Gardens. *Social Science & Medicine*, *61*(9), 2038–2046. https://doi.org/10.1016/j.socscimed.2005.04.010

Li, S., Wang, Y., Xue, J., Zhao, N., & Zhu, T. (2020). The Impact of COVID-19 Epidemic Declaration on Psychological Consequences: A Study on Active Weibo Users. *International journal of environmental research and public health*, *17*(6), 2032. https://doi.org/10.3390/ijerph17062032

Lieberman JA, Olfson M. Meeting the Mental Health Challenge of the COVID-19 Pandemic. (2020) *Psychiatric Times*. https://www.psychiatrictimes.com/coronavirus/meeting-mental-health-challenge-CoViD-19-pandemic

Mamun, M. A., & Griffiths, M. D. (2020). First COVID-19 suicide case in Bangladesh due to fear of COVID-19 and xenophobia: Possible suicide prevention strategies. *Asian Journal of Psychiatry*, *51*, 102073. https://doi.org/10.1016/j.ajp.2020.102073

Masiero, M., Mazzocco, K., Harnois, C., Cropley, M., & Pravettoni, G. (2020). From Individual To Social Trauma: Sources Of Everyday Trauma In Italy, The US And UK During The CoViD-19 Pandemic. *Journal of Trauma & Dissociation*, *21*(5), 513-519. https://doi.org/10.1080/15299732.2020.1787296

Mikolajczak, M., Petrides, K. V., & Hurry, J. (2009). Adolescents choosing self-harm as an emotion regulation strategy: The protective role of trait emotional intelligence. *British Journal of Clinical Psychology*, 48(2), 181-193. https://doi.org/10.1348/014466508x386027

Miller JR. British teen dies after suicide attempt due to coronavirus fears (2020). *New York Post*, 25 March 2020. https://nypost.com/2020/03/25/british-teen-dies-after-suicide-attempt-dueto-coronavirus-fears

Moutier, C. (2020). Suicide Prevention in the COVID-19 Era. *JAMA Psychiatry*. https://doi.org/10.1001/jamapsychiatry.2020.3746

Ornell, F., Schuch, J. B., Sordi, A. O., & Kessler, F. (2020). "Pandemic fear" and COVID-19: mental health burden and strategies. *Revista brasileira de psiquiatria*, *42*(3), 232-235. https://doi.org/10.1590/1516-4446-2020-0008

Panagioti, M., Geraghty, K., Johnson, J., Zhou, A., Panagopoulou, E., Chew-Graham, C., Peters, D., Hodkinson, A., Riley, R., & Esmail, A. (2018). Association Between Physician Burnout and Patient Safety, Professionalism, and Patient Satisfaction: A Systematic Review and Meta-analysis. *JAMA internal medicine*, *178*(10), 1317-1331. https://doi.org/10.1001/jamainternmed.2018.3713

Panchal N, Kamal R, Orgera K, Cox C, Garfield R, Hamel L, et al. The Implications of COVID-19 for Mental Health and Substance Use. Kaiser Family Foundation. 21 April 2020. https://www.kff.org/coronavirus-CoViD-19/issue-brief/the-implications-ofCoViD-1-for-mental-health-and-substance-use/

Pappas, G., Kiriaze, I. J., Giannakis, P., & Falagas, M. E. (2009). Psychosocial consequences of infectious diseases. *Clinical Microbiology and Infection*, 15(8), 743-747. https://doi.org/10.1111/j.1469-0691.2009.02947.x

Qiu, J., Shen, B., Zhao, M., Wang, Z., Xie, B., & Xu, Y. (2020). A nationwide survey of psychological distress among Chinese people in the COVID-19 epidemic: implications and policy recommendations. *General Psychiatry*, *33*(2), e100213. https://doi.org/10.1136/gpsych-2020-100213

Rodríguez, B. O., & Sánchez, T. L. (2020). The Psychosocial Impact of COVID-19 on health care workers. *International Brazilian Journal of Urology*, *46*(1), 195-200. https://doi.org/10.1590/S1677-5538.IBJU.2020.S124

Rubin, G. J., and Wessely, S. (2020). The psychological effects of quarantining a city. *BMJ* 368:m313. https://doi.org/10.1136/bmj.m313

Santini, Z. I., Jose, P. E., Cornwell, E. Y., Koyanagi, A., Nielsen, L., Hinrichsen, C., et al. (2020). Social disconnectedness, perceived isolation, and symptoms of depression and anxiety among older Americans (NSHAP): A longitudinal mediation analysis. *Lancet Public Health*, 5(1), e62–e70. https://doi.org/10.1016/S2468-2667(19)30230-0

Sher L. (2019) Resilience as a focus of suicide research and prevention. *Acta Psychiatrica Scandinavica*, 140(2), 169-180. https://doi.org/10.1111/acps.13059

Stankovska, I.Memedi, D. Dimitrovski (2020). Coronavirus COVID-19 disease, mental health and psychosocial support. *Society Register*, 4(2), 33-48. https://doi.org/10.14746/sr.2020.4.2.03

Soraci, P., Ferrari, A., Abbiati, F. A., Del Fante, E., De Pace, R., Urso, A., & Griffiths, M. D. (2020). Validation and Psychometric Evaluation of the Italian Version of the Fear of COVID-19 Scale. *International Journal of Mental Health and Addiction*, 1-10. Advance online publication. https://doi.org/10.1007/s11469-020-00277-1

Thakur, V., & Jain, A. (2020). COVID 2019-suicides: A global psychological pandemic. *Brain, Behavior, and Immunity*, *88*, 952–953. https://doi.org/10.1016/j.bbi.2020.04.062

Tucci, V., Moukaddam, N., Meadows, J., Shah, S., Galwankar, S. C., & Kapur, G. B. (2017). The forgotten plague: Psychiatric manifestations of ebola, zika, and emerging infectious diseases. *Journal of Global Infectious Diseases*, *9*(4), 151. https://doi.org/10.4103/jgid.jgid_66_17

Wand, Anne & Zhong, Bao-Liang & Chiu, Helen & Draper, Brian & De Leo, Diego. (2020). COVID-19: the implications for suicide in older adults. *International Psychogeriatrics*, 1-16. https://doi.org/10.1017/S1041610220000770

Wang, C., Pan, R., Wan, X., Tan, Y., Xu, L., Ho, C. S., & Ho, R. C. (2020). 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*, *17*(5), 1729. https://doi.org/10.3390/ijerph17051729

Wasserman, D., Iosue, M., Wuestefeld, A., & Carli, V. (2020). Adaptation of evidence-based suicide prevention strategies during and after the COVID-19 pandemic. World psychiatry: official journal of the *World Psychiatric Association* (WPA), 19(3), 294-306. https://doi.org/10.1002/wps.20801

Wu, P., Fang, Y., Guan, Z., Fan, B., Kong, J., Yao, Z., … Hoven, C. W. (2009). The Psychological Impact of the SARS Epidemic on Hospital Employees in China: Exposure, Risk Perception, and Altruistic Acceptance of Risk. *The Canadian Journal of Psychiatry*, *54*(5), 302–311. https://doi.org/10.1177/070674370905400504

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