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# How mental health care should change as a consequence of the COVID-19 pandemic



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The unpredictability and uncertainty of the COVID-19 pandemic; the associated lockdowns, physical distancing, and other containment strategies; and the resulting economic breakdown could increase the risk of mental health problems and exacerbate health inequalities. Preliminary findings suggest adverse mental health effects in previously healthy people and especially in people with pre-existing mental health disorders. Despite the heterogeneity of worldwide health systems, efforts have been made to adapt the delivery of mental health care to the demands of COVID-19. Mental health concerns have been addressed via the public mental health response and by adapting mental health services, mostly focusing on infection control, modifying access to diagnosis and treatment, ensuring continuity of care for mental health service users, and paying attention to new cases of mental ill health and populations at high risk of mental health problems. Sustainable adaptations of delivery systems for mental health care should be developed by experts, clinicians, and service users, and should be specifically designed to mitigate disparities in health-care provision. Thorough and continuous assessment of health and service-use outcomes in mental health clinical practice will be crucial for defining which practices should be further developed and which discontinued. For this Position Paper, an international group of clinicians, mental health experts, and users of mental health services has come together to reflect on the challenges for mental health that COVID-19 poses. The interconnectedness of the world made society vulnerable to this infection, but it also provides the infrastructure to address previous system failings by disseminating good practices that can result in sustained, efficient, and equitable delivery of mental health-care delivery. Thus, the COVID-19 pandemic could be an opportunity to improve mental health services.

## Introduction

The COVID-19 outbreak was sudden and unexpected in most countries. The first known cases occurred in late December, 2019, and WHO declared it a pandemic on March 11, 2020.<sup>1</sup> The evolution of COVID-19 remains unpredictable, and this unpredictability is exacerbated by the heterogeneity of health systems worldwide and difficulties obtaining accurate infection and immunity numbers. In view of the magnitude of the pandemic, most countries adopted lockdown as a containment strategy.

COVID-19 has resulted in an increase in known risk factors for mental health problems. Together with unpredictability and uncertainty, lockdown and physical distancing might lead to social isolation, loss of income, loneliness, inactivity, limited access to basic services, increased access to food, alcohol, and online gambling, and decreased family and social support, especially in older and vulnerable people. Racial and ethnic disparities in the incidence of COVID-19 (and associated mortality) have been pronounced.<sup>2</sup> The downturn in the economy caused by COVID-19 will lead to unemployment, financial insecurity, and poverty, which hinder access to health services (especially in insurance-based systems), thereby having deleterious effects on physical and mental health and quality of life.<sup>3</sup> These economic factors can induce mental health problems in previously healthy people and negatively affect those with pre-existing mental disorders. The economic breakdown that is likely to occur in the aftermath of the pandemic could exacerbate health-care disparities and will probably disproportionately affect

socially disadvantaged patients, including those from ethnic minorities, who have worse access to health care and receive poorer quality care than white populations.<sup>4</sup> Sooner or later, health systems will be faced with widespread demand to address these COVID-19-related mental health needs. International organisations, including WHO, advocate for integration of mental health and psychosocial support into the COVID-19 response,<sup>5</sup> and a UN policy brief suggests that investments now will reduce the mental health effects later.<sup>6</sup> However, the pandemic-related economic breakdown could impede an adequate mental health response.

In view of the lack of a severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) vaccine, uncertainty about new epidemic waves, and the likelihood of long-term impacts on mental health, we need both short-term adaptations and sustained responses. In this Position Paper, an international group of mental health experts, including service users and carer leaders, reflects on the mental health challenges posed by COVID-19 and how best to address potential changes in services. We describe the mental health needs, potential systems adaptations, and outcome measures that can help to turn a crisis into an opportunity for improvement.

## Potential consequences of COVID-19 for mental health

### General public

Some evidence of COVID-19-related mental health issues has been published (appendix pp 1–6), but it is preliminary and needs to be supported by well designed longitudinal

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studies.<sup>7</sup> Most surveys<sup>8–21</sup> of the general public show increased symptoms of depression, anxiety, and stress related to COVID-19, as a result of psychosocial stressors such as life disruption, fear of illness, or fear of negative economic effects. The results of these surveys are heterogeneous, probably because of differences in methods used, study locations, and the timing of the studies in terms of the course of the pandemic. Phobic anxiety,<sup>22</sup> panic buying,<sup>23</sup> and binge-watching television<sup>24</sup> (which has been associated with mood disturbances, sleep disturbances, fatiguability and impairment in self-regulation) have been reported, and social media exposure has been associated with increased odds of anxiety (odds ratio 1.72 [95% CI 1.31–2.26]) and combined depression with anxiety (1.91 [1.52–2.41]).<sup>10</sup>

Quarantine can also contribute to stress, anger,<sup>8,11,13</sup> and an increase in risky behaviours such as online gambling.<sup>25,26</sup> Young people might be at particular risk. In previous pandemics, quarantined children were more likely to develop acute stress disorder, adjustment disorders, and grief than were those who had not been quarantined.<sup>27</sup> An increase in young people making calls to helplines with symptoms of anxiety has been reported.<sup>28</sup> Increased alcohol sales and alcohol use in the home have also been recorded,<sup>29</sup> which could potentially increase alcohol use disorders and domestic violence (both in young people and in adults).<sup>30</sup> Although published data are few, individuals, including children, could be at increased risk of physical and sexual abuse at home during the pandemic. The pandemic could also exacerbate mental health conditions—and further limit scarce access to mental health services—in people living in humanitarian and conflict settings.<sup>6</sup> Some positive benefits might also accrue from reductions in social pressure and exposure to chronic psychosocial stressors (eg, commuting, office workplaces,<sup>31</sup> bullying<sup>32,33</sup>).

#### People who have or had COVID-19

For people with COVID-19, lack of contact with their families or loved ones during quarantine and hospital stays can produce psychological instability. High rates of post-traumatic symptoms have been reported in clinically stable people discharged from hospital after recovering from COVID-19.<sup>34</sup> In a systematic review,<sup>35</sup> the point prevalence of post-traumatic stress disorders after severe coronavirus infections (ie, severe acute respiratory syndrome and Middle East respiratory syndrome) was 32.2% (95% CI 23.7–42.0), that of depression was 14.9% (12.1–18.2), and that of anxiety 14.8% (11.1–19.4). People who have had COVID-19 can experience post-intensive-care syndrome, which comprises cognitive, psychological, and neurological symptoms.<sup>36</sup> In a study by Helms and colleagues,<sup>37</sup> 15 (33%) of 45 patients who had recovered from COVID-19 after admission to intensive-care units (ICUs) had dysexecutive syndrome after ICU discharge. Emerging reports<sup>38,39</sup> suggest the possibility of a post-viral syndrome that resembles

depression. The possibility that SARS-CoV-2 is neurotropic emphasises the need for evaluation of potential short-term and long-term effects on the nervous system.<sup>40</sup>

#### People with pre-existing mental health disorders

Because of their life circumstances, people with pre-existing mental health disorders might have a higher risk of SARS-CoV-2 infection than those without mental health disorders.<sup>41,42</sup> Risk factors for infection with SARS-CoV-2 and a severe course of COVID-19 include severe mental illness, alcohol or drug misuse, and homelessness, all of which are associated with other risk factors such as comorbid physical conditions.<sup>43–45</sup> People with mental disorders are at increased risk of infections in general (and thereby potentially at increased risk of COVID-19),<sup>46</sup> and are more likely to develop severe organ dysfunction and to die in ICUs than people without mental disorders.<sup>47</sup> SARS-CoV-2 might also cause dysregulation of the stress system, which could contribute to the development or exacerbation of psychiatric disorders.<sup>48</sup> Elderly people are at especially high risk of severe COVID-19 illness and mental-health-related consequences because they might already have some cognitive decline.<sup>49,50</sup> Institutions can become epicentres for infection. Physical distancing can be challenging in these contexts, either because the nature of patients' conditions makes it difficult to manage (eg, people with learning disabilities) or because of overcrowding (eg, prisons). Increased death rates in assisted living facilities have been reported worldwide,<sup>51</sup> especially among older people and people with learning disabilities.<sup>52</sup>

People with pre-existing mental health disorders have reported increased symptoms and poorer access to services and supports since the onset of the COVID-19 pandemic.<sup>41,53–60</sup> Early discharge from psychiatric units and disruption of face-to-face psychiatric care have become common, the negative consequences of which could include relapse, suicidal behaviour, lack of access to medical care, and social isolation.<sup>53</sup> Quarantine and lockdown might particularly affect people with pre-existing mental health problems: increased symptoms of anxiety and depression, and high rates of post-traumatic stress disorder and insomnia have been reported.<sup>54</sup> Simultaneously, physical distancing has reduced the availability of many family, social, and psychiatric supports. People with serious mental illness and associated socioeconomic disadvantages are particularly at risk of both the direct and indirect effects of the pandemic.<sup>55</sup> Similarly, increased symptoms and vulnerability have been reported during the COVID-19 pandemic in people with eating disorders, autism spectrum disorder, dementia, and intellectual and developmental disabilities.<sup>56–61</sup> Confinement at home, disruption of daily routines, and physical distancing could exacerbate all these conditions and represent a challenge for service users and caregivers.<sup>62</sup>

## Health-care workers

Health-care workers,<sup>63–70</sup> especially those working on the frontline, have reported negative consequences as a result of stress exposure and fear of infecting themselves or their loved ones.<sup>63,71,72</sup> In a cross-sectional study<sup>65</sup> of 1257 health-care workers in 34 hospitals in China, 634 (50%) reported symptoms of depression, 560 (45%) reported anxiety, 427 (34%) reported insomnia, and 899 (72%) reported distress. These symptoms were more common in women than in men, in nurses than in physicians, in respondents from Wuhan than in those from other cities, and in frontline workers directly engaged in diagnosis and treatment of COVID-19 or providing nursing care for affected patients than in those fulfilling other health-care roles.<sup>65</sup> Common risk factors included a lack of social support and communication, maladaptive coping strategies, and a lack of training (usually a lack of disaster training).<sup>65,72</sup> Moral injury results when people are forced to take action—or, conversely, are unable to take action—that violates their moral code when they are exposed to trauma for which they are unprepared. These challenges, usually observed in military contexts, have been faced by health-care staff during the COVID-19 pandemic, which has necessitated very difficult decisions about how to prioritise scant or inadequate resources, potentially resulting in deaths that might not have occurred under normal circumstances.<sup>73</sup>

## Mental health service responses to COVID-19

The COVID-19 pandemic could provide an opportunity to improve the scale and cost-effectiveness of different mental health interventions.<sup>74,75</sup> Central to this opportunity is the willingness to rethink conventional approaches to systems planning and greater inclusion of service users, carers, and representatives of populations who experience health disparities (who have been disproportionately affected by the pandemic).

## Public mental health responses and community outreach

After the severe acute respiratory syndrome outbreak in Canada and Hong Kong in 2002–04, most adverse psychological consequences of physical distancing and quarantine resolved without the need for specialised mental health care.<sup>76–79</sup> Problems can persist in some people who are particularly affected by protracted infection-containment strategies and recession-related psychological stress. These people will need professional psychological support and are likely to be affected by public messaging emphasising the usefulness of voluntary quarantine and the altruism of self-isolating.<sup>25</sup> The public health response to COVID-19 should not only provide clear, concise, and accurate information about quarantine and infection rates to reduce uncertainty, but also aim to increase mental health literacy. Education, self-care, and family support should form part of mental health prevention strategies, which should involve multiagency

collaboration among housing, education, and employment services, with support from the voluntary and mental health sectors. These agencies should mobilise social support networks and work with local communities to help address identified stressors and encourage those in need to seek help from mental health services.

Different strategies for community outreach have been used. In the USA, for example, mental health providers and programmes have organised food delivery for vulnerable community members and worked with community leaders to ensure the inclusion of mental as well as physical health concerns in programmes.<sup>80</sup> Voluntary-sector user-run and carer-run service organisations in many countries have organised emergency funds for struggling people, virtual mutual support meetings, community conversations, and online resources.<sup>81,82</sup> Some countries have supplemented community support systems by reassigning staff, and volunteers have boosted staff numbers.<sup>80,83,84</sup>

## Mental health-care settings

Almost all mental health services have implemented infection-control measures.<sup>85–95</sup> Prevention and active surveillance measures adopted include screening patients, staff, and visitors for viral infection, and limiting—or eliminating—visits.<sup>89–93</sup> Measures to promote physical distancing include reducing the number of outpatient appointments,<sup>88,89</sup> the adoption of triage protocols that recommend treating urgent issues only,<sup>94</sup> and restructuring caseloads to minimise contact among patients.<sup>95</sup> Group psychotherapy and peer support meetings have been reduced in size,<sup>88</sup> cancelled,<sup>89</sup> or moved online.<sup>93</sup> Inpatient psychiatric units have encouraged physical distancing by using isolation rooms, decreasing the total number of beds available, placing greater constraints on admission, and reducing admission duration.<sup>92,93</sup> Wards around the world have been converted for use by psychiatric patients with COVID-19 symptoms.<sup>94</sup> These efforts were facilitated by screening patients for SARS-CoV-2 in the emergency department before admission and allocating them to wards on the basis of their infection status. Pre-admission quarantine periods have been effective in some countries,<sup>53,88</sup> but implementation might be problematic in low-income countries, many of which had insufficient bed numbers before the pandemic. Physical-distancing requirements might further decrease their limited capacity.<sup>96</sup> Rapid discharge to minimise the risk of hospital-acquired infection, especially of people who were compulsorily detained, poses broad ethical and practical questions (related to threshold of risk determination, detention periods, and availability of suitable community services, for example).<sup>97</sup> Services for the homeless have implemented mobile testing for SARS-CoV-2 and evacuation to special quarantine facilities.<sup>98,99</sup>

Mental health-care adaptations for infection-control reasons could have been detrimental to people whose treatment has been reduced or who have been confined alone in hospitals with greatly reduced therapeutic

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See Online for appendix

programmes. Services have promoted changes to facilitate access, including widespread use of telehealth and virtual meetings for medication management, nursing, case management, vocational interventions, and peer support.<sup>92,93,100–102</sup> In some cases, these changes have necessitated changes to laws and legislation concerning confidentiality and privacy to enable the wider use of technology.<sup>80,92</sup> Services have also strengthened home-based treatment (including domiciliary care and so-called in-home hospitalisation)<sup>58</sup> in addition to community-based crisis and respite care. Home-based treatment is an essential part of COVID-19 mental health services and will be key to future service configurations to prevent the spread of infection and perhaps also as a more acceptable alternative to inpatient treatment for some service users and their families. Efforts need to be made to maintain community support for people with severe mental illness.<sup>103</sup>

The threshold for hospital admission for mental illness varies among individuals and depends on the risk of hospital-acquired infection, which will change over time. Admission decisions are therefore complex, require continuous adaptation, and should be informed by the availability of community support. Access to appropriate psychiatric (voluntary or involuntary) and medical treatment (including ICU treatment) needs to be guaranteed for SARS-CoV-2-positive patients with mental disorders.

Most countries have strengthened public health protocols, including guidance on how to access mental health support.<sup>88,104</sup> Policy changes have included adjustments to access policies, insurance coverage, privacy laws,<sup>92</sup> and access to controlled drugs.<sup>105</sup> Countries have also allowed pharmacies to accept expired prescriptions<sup>53</sup> and have loosened monitoring requirements for drugs with potential side-effects, such as lithium or clozapine.<sup>106</sup> The consequences of these policies should be evaluated.

#### Mental health needs of special populations

Many countries have dedicated teams (comprising managers and volunteers) to provide mental health support for health-care workers<sup>6,73,107</sup> and psychiatric liaison services.<sup>95</sup> The support needed depends on the stage of the pandemic. Initially, in China, teams set up psychological treatment services for health-care workers, but few people used them.<sup>63</sup> In the UK, a national hotline was established for health-care workers experiencing mental health difficulties, and although it is used, it has not taken the place of local solutions.<sup>73</sup> In light of the Chinese experience,<sup>63</sup> along with some improved contact with families, hospitals in Italy,<sup>108</sup> Spain,<sup>86,95</sup> the UK,<sup>73</sup> and the USA<sup>109</sup> have provided local supportive services for staff (eg, rest and recharge rooms) and implemented strategies to facilitate access to support for the most vulnerable staff. In the UK, these measures proved very popular, with one acute-care hospital noting a footfall of 700 staff through the

room on its third day (Cross S, King's College Hospital, personal communication). Teams of health-care workers should be encouraged to support and monitor each other, and team leaders should be trained to identify serious issues.<sup>73</sup> As stigma related to mental health continues to affect help-seeking in many countries, peer counselling services for clinical staff might also be useful.<sup>110</sup>

For the family members and loved ones of people with COVID-19, coping with the people they care about having to deal with illness alone and possibly dying in isolation is potentially traumatic. Increases in complicated grief are likely to occur due to the circumstances of death during the pandemic.<sup>111</sup> Prevention programmes have been implemented for relatives of people who died from COVID-19 in some countries.<sup>86</sup> In view of the high levels of psychological and cognitive deficits that are expected in people who have recovered from COVID-19 (particularly those who were admitted to ICUs),<sup>35,36,38</sup> the establishment of specialised post-COVID-19 clinics in general hospitals, with multidisciplinary teams encompassing psychiatrists, psychologists and specialists in respiratory and intensive-care medicine, should be considered.

### Sustainable adaptations of mental health delivery

#### Ethics-driven and rights-driven considerations

COVID-19 raises numerous ethical questions and dilemmas, including potential discrimination (related to both SARS-CoV-2 status and mental ill health) in adjudicating access to insufficiently available health interventions and applying and weighing the added risk of SARS-CoV-2 exposure in decisions about involuntary institutionalisation.<sup>6,112–114</sup> Service users and family organisations have expressed concerns about potential future service cuts, disproportionate additional illness burden, reduced service access, inadequate financial support, exacerbation of inequalities in access to health care, and the need for greater family and carer support.<sup>115</sup> Some service-user groups have noted an erosion in involvement and co-production efforts,<sup>116</sup> both in countries where such involvement was common and in those without a strong history of involvement, that has persisted through the pandemic.

Ethnic and racial disparities in access to mental health care raise numerous social justice concerns about the distribution of resources and underlying social drivers of inequality. The emergence of the second wave of the Black Lives Matter movement has drawn attention to how systemic racism and discrimination affect health outcomes and other domains central to recovery from the COVID-19 pandemic (eg, employment, education, housing).<sup>117,118</sup> These racial disparities also affect service-user involvement schemes, and the lack of representation and influence that Black and other ethnic minority populations have needs to be addressed.<sup>119,120</sup>

### Service user knowledge and involvement

For the best outcomes, the users of mental health services and their families need to feel empowered to take ownership of their healing journey.<sup>121</sup> This requirement is arguably more important now than ever, when service access is limited and face-to-face contact is often unavailable. The relative risks and benefits of treatment changes to limit potential exposure to SARS-CoV-2 (eg, for users receiving clozapine, injectable medications, or electroconvulsive therapy) should be considered. Treatment plans might need to be rapidly renegotiated, and should be based on best practices. There is thus a need to enhance and create robust resources to support shared decision making.

Service users should be centrally involved in the development of mental health-care services and systems. The role of service users in guiding person-centred approaches in mental health services is well established (if not consistently implemented) in Australia, Canada, New Zealand, the UK, and the USA,<sup>122</sup> is rapidly becoming more common in Switzerland,<sup>123</sup> and is developing slowly in some Asian and Latin American countries.<sup>124–126</sup> The need for rapid decision making should not be used to justify the circumvention of co-production protocols, and in countries where such involvement is not the norm, the COVID-19 pandemic and the renewed discussion of racial inequalities and inequalities in the availability of adequate and adapted health-care access should be viewed as an opportunity to build user-involvement support and infrastructure.<sup>119,120,127</sup>

Clinical service design and delivery can also be strengthened by increased peer worker involvement in the co-design of adapted services and by increasing the number of peer workers involved in service delivery, particularly in countries with limited resources for mental health. Most importantly, decision makers must commit to maintaining adequate mental health service provision for current and future needs.

### Longer-term mental health needs

Many questions remain about how to mitigate the mental health effects of the COVID-19 pandemic. Community monitoring and mental health screening could be implemented in selected groups, or digital health and digital phenotyping could be used to switch from individual-based approaches to population-wide screening.<sup>128</sup> After local needs have been clarified, stakeholder groups (including service users and families) could update available services, develop new ones, identify and arrange for the training of potential providers, seek additional funding to expand services, and establish evaluation protocols for all novel interventions to regularly revise or terminate the interventions on the basis of their efficacy. Mental health professionals with experience in social sciences and community-based services should also advise regulators to develop, implement, and assess strategies for dealing with the pandemic and its aftermath.

For people experiencing acute distress who are at risk of developing long-term conditions and those who do not trust or engage with mainstream mental health services, the facilitation of diverse and flexible access to mental health care is particularly important. Local community-led, user-led, and family-led organisations and small independent peer-support initiatives have quickly mobilised to provide immediate help and guidance during the pandemic.<sup>129</sup> These community support services have proactively responded to COVID-19 differently from mainstream clinical services, and could expand cost-effectively to support an expected increase in demand for services.<sup>130</sup> However, they might not be appropriate or sufficient for everyone, and thus should complement, but not replace, mainstream mental health care.

In many countries, resources have been diverted from other areas to the COVID-19 response. Vulnerable populations, including patients with mental health issues, have been disproportionately affected by changes to public transportation systems, housing and emergency shelter infrastructure, and unemployment, as well as by social isolation and loneliness.<sup>25,131</sup> The people who are most likely to require mental health support as a result of the social and economic consequences of the pandemic and pre-existing health-care inequalities—eg, ethnic minorities, people living in poverty, people living in conflict situations—are also the people who have been hit hardest by COVID-19.<sup>99,132</sup> In the UK and the USA, grassroots and community organisations run by and for Black and other racial minority communities, who have been disproportionately affected by COVID-19, are providing mental health support.<sup>133</sup> Health-care systems should anticipate an increase in unmet mental health needs in these vulnerable groups and promote adaptations that narrow gaps in access to care.

### Remote therapy

Remote community treatment and support has long been suggested, but has not previously been implemented widely because of barriers and challenges from both health-care staff and service users. Since the onset of the COVID-19 pandemic, the situation has changed in most countries.<sup>134</sup> To fill the gaps in face-to-face care, telehealth was rapidly adopted, with remote video or phone conferencing, online blended or coached therapies, and self-help therapies provided through apps. There is already some evidence of short-term success,<sup>100,135</sup> and remote service delivery could also have longer-term advantages, especially in countries with low investment in mental health services and low capacity.<sup>136</sup>

However, there are also challenges and drawbacks associated with the use of remote therapies, especially in people who might be in most need. Potential issues include access to the requisite technology (and the knowledge to use this technology), internet access, data allowance costs, and privacy and data security. Digital

	Potential negative effects	Potential positive effects
Focus of health-care system on identification, prevention, and management of COVID-19	Main educational focus on physical health; focus on social distancing instead of physical distancing while staying connected; resource reallocation to physical health-care needs; fewer in-person meetings within and across treatment teams; physical and mental strain on health-care workers; shortages of health-care workers	Education about mental health effects of COVID-19 could increase overall mental health literacy in the population; opportunity to emphasise the importance of self-care, coping strategies, and family support; stimulation of non-profit or non-governmental organisation support for mental health services and multiagency efforts to mobilise social support networks; leveraging of technology to facilitate rapid, flexible, and efficient methods of team communication and cohesion within and across teams (eg, mental health and primary care); promotion of healthy physical and mental lifestyle measures; provision of low-threshold, destigmatised psychosocial evaluation and support services; peer-support systems; mobilisation of volunteers and retirees; hiring of new personnel
Restricted access to other types of health care as a key method for controlling the spread of COVID-19	Triage protocols limiting cases to urgent issues only; reduced outpatient visits (including for prescription or dispensing of medication), emergency room visits, inpatient care, and access to pharmacies; cancellation or reduction in size of group psychoeducation, group psychotherapy, and peer-support groups; decreased opportunities for cardiometabolic and adverse effect monitoring; reduction in total inpatient beds; constraints on hospital admission; curtailed hospital stays; premature discharge to minimise risk of hospital-acquired infection, especially for people who were compulsorily detained	Reassessment of appropriate provision, delivery, data protection policies, and reimbursement of telemedicine and video-medicine, digital health care, and at-home treatment options; adjustments in access policies (eg, online formats), insurance coverage, privacy laws, flexible prescription coverage, and use of controlled substances; increased acceptability of phone-in prescriptions and long-acting injectable medications; development of group outpatient treatments with online formats; less risk-averse approaches to monitoring of side-effects (with a greater focus on shared decision making and biometric monitoring); less crowding on inpatient units; reassessment of necessary length of inpatient stays; re-evaluation of need for compulsory treatment

Table: Potential effects of health service changes on access to, and quality and outcomes of, mental health care during and after the COVID-19 pandemic

therapies thus might not be appropriate for older people, people with reading difficulties, poor people, or people who are not technologically adept.<sup>137</sup> People who find remote communication more challenging than face-to-face interactions might disengage from treatment, and their loneliness could increase without this in-person contact. Knowledge from countries with a history of deploying digital services for widely dispersed populations (eg, Australia, Canada) should be harnessed. Australian research<sup>138</sup> suggests that information technology staff should be available to offer technical support during the early stages of switching to video-conferencing to deliver treatment, particularly for older people or people with low technological literacy. Free internet is sometimes available in public places, but gatherings of people at these sites to access this service could complicate physical distancing. Homeless people and asylum seekers generally do not have internet access, and when they do, it tends not to be private. A systematic approach to internet and device access is suggested for vulnerable populations,<sup>139</sup> and needs to be a key funding consideration. In addition to technological proficiency, therapists and others offering support need to develop a so-called webside manner to support and maintain the important therapeutic alliance that mediates recovery.

The rules governing remote therapy in countries including the USA have been relaxed, so that some medications can be prescribed remotely without the need for routine face-to-face contact.<sup>140</sup> However, it is unclear whether telehealth services will be reimbursed differently from face-to-face services, which will probably increase inequalities in fractured health-care systems. If telehealth care is to be continued, the minimum acceptable levels of privacy and security need to be clearly defined, as do the processes by which this flexible form of care can be securely organised and reimbursed.

In addition to telehealth, there are opportunities for digital services to track health via passive and active

monitoring.<sup>141</sup> These tools have promise, but the long-term usefulness of these complementary therapies is unclear in view of data suggesting poor adherence without human support.<sup>142</sup> Service users have been enthusiastic about these tools, but only as adjuncts of face-to-face care, and in some countries they are increasingly promoted as best practice.<sup>143,144</sup> Telehealth and digital services should not replace face-to-face treatment for patients in need—particularly those requiring intensive mental health treatment and support—when in-person contact is once again safe.

### Ways of working

The COVID-19 pandemic has been difficult for everyone working in mental health services. The need to be flexible has required rapidly and constantly adapting teamworking and problem solving in response to changing needs. Teams have had to develop efficient, multipronged communication strategies, which are especially valuable in times of confusion. Experience from previous pandemics and global research have provided mental health teams with the information needed to adapt services. Strategies that mental health service users have successfully used to adapt to coping during the pandemic, at least during the acute phase, should be researched and leveraged.<sup>7</sup>

Technological solutions to support collaboration between general practice and community and inpatient teams have advanced,<sup>145</sup> and facilitate moves between different services. Similarly, liaison psychiatry has increased collaboration with other medical specialties and helps to organise the services required to support mental health teams, patients, and their families.<sup>86</sup>

### Assessment of mental health outcomes in clinical practice

Adaptations have been implemented in response to the COVID-19 crisis (table), and it is essential to systematically assess their effects on defined indicators and outcomes

**Panel: Proposed intermittent monitoring for COVID-19-related mental health issues****COVID-19 monitoring and use of mental health services in individuals with pre-existing mental disorders**

The availability and uptake of COVID-19 related health information; the prevalence of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) diagnostic tests, antibody tests, and vaccination (if and when available); and, among people who test positive for SARS-CoV-2, the prevalence of outpatient, inpatient, intensive-care, and ventilator treatment for COVID-19, and COVID-19 mortality, should be assessed on an ongoing basis in clearly defined cohorts of persons with pre-existing mental disorders and cognitive or intellectual disabilities (including psychiatric inpatients and outpatients and people with mental or cognitive disorders in residential settings, prisons, etc). These data should be compared with the corresponding data in the general population.

The frequency of face-to-face, video, and telephone contact with different types of mental health providers; rates of prescription and use of psychiatric medication; rates of emergency mental health treatment and psychiatric hospitalisation; and the proportion of patients with severe mental disorders lost to follow-up should be compared with the corresponding data from before the pandemic.

**Mental health outcomes**

In people with pre-existing mental or cognitive disorders, the incidence and prevalence of changes in the severity of the underlying disorder, medication or treatment adherence, social or occupational dysfunction, and suicidal behaviour, and the potential emergence of comorbid substance use problems should be compared with the incidence and prevalence of these outcomes before the emergence of COVID-19 (objective and subjective measures should be used).

In people with no pre-existing mental or cognitive disorders (and people with previously resolved mental disorders)—both the general population and specifically people at high risk of psychological problems (eg, frontline health-care workers, isolated elderly people, relatives of people who died from

COVID-19)—the incidence, severity, and duration of all types of mental disorders, including common mental disorders (primarily anxiety and depression), post-traumatic stress disorder, substance use disorders, behavioural disorders, (in children and adolescents), and suicidal behaviour should be compared to the incidence, severity, and duration of these outcomes before the emergence of COVID-19.

**Provision of mental health care**

The following indicators should be continuously assessed during and after the pandemic and compared with corresponding indicators before the COVID-19 pandemic to establish COVID-19-related changes in local and national delivery systems for mental health:

- The proportion of all mental health services provided in inpatient, emergency, institutional (eg, prisons), outpatient, community, and home-based settings
- Rates of face-to-face, video, and telephone contact with different types of mental health providers
- Rates of prescription and use of psychiatric medication
- Access to, and use of, different mental health services both by people with pre-existing mental health disorders and those with new incident cases of mental illness, and the sociodemographic characteristics of these users
- Quality of care of different mental health services (including acceptability and satisfaction with health-care providers), with a focus on user expectations and satisfaction and on functional, vocational, and clinical outcomes (including families' or carers' views)
- Disparities in mental health care, with socioeconomic, race, and ethnicity data linked to quality measures
- Integration of mental health services with general health services, social welfare, and other institutions (eg schools, prisons) and community associations
- Governmental and non-governmental financial support for mental health and social care services, and for research focusing on the monitoring and improvement of mental health services

before new long-term mental health practices are planned and developed. Comparison of data for the transmission of SARS-CoV-2 and COVID-19 morbidity and mortality in people with mental health disorders with the corresponding data in the general population by country and region should help to elucidate which procedures effectively control disease spread in mental health settings, which approaches have the greatest positive effect on COVID-19-associated morbidity and mortality (panel), and which strategies should be prioritised should a similar situation occur in the future. Similarly to Holmes and colleagues,<sup>7</sup> we consider prevalence assessments of mental health outcomes and comorbidities in different populations to be essential in the post-COVID-19 era. These data will aid the design and development of

appropriate mental health treatments and help to identify patients with a continued need for care.

In this new climate, the use and effectiveness of mental health services—including those already available and new or adapted services—should be regularly monitored. This monitoring should focus on accessibility (especially for elusive populations, such as frontline workers, people with severe mental disorders, and racial minorities) and clinical outcomes associated with different mental health services before, during, and after the pandemic. Routine monitoring of health-care disparities that links socioeconomic, race, and ethnicity data with measures of quality measures is also crucial (panel).<sup>146</sup>

There is an opportunity to replace the old way of managing the gap between the supply of and demand for



### Search strategy and selection criteria

In April and May, 2020, an international panel of mental health experts, service users, and family carers from 14 countries, acting in a personal capacity and as representatives of two international patient organizations (Global Alliance of Mental Illness Advocacy Networks-Europe and EUFAMI), assembled to assess the potential effects of the COVID-19 pandemic on community mental health and changes to mental health services. We systematically searched MEDLINE with the terms [(coronavirus OR covid\* OR SARS-CoV-2) AND (anxiety OR depress\* OR mania OR manic OR psych\* OR schiz\* OR attention OR autism OR "intellectual disability" OR oppositional OR conduct OR emotion\* OR stress\* OR alcohol OR abus\* OR addiction OR "use disorder\*" OR suicid\* OR injur\* OR behav\* OR neuro\* OR brain OR cogniti\* OR psychol\* OR psychiatric\* OR mental\* OR prevent\* OR outcome OR social OR psychosocial OR neurobehavioral OR adaptation OR coping OR resilience)] for articles published in any language up to May 15, 2020 (the date of our final search). We included 28 articles about mental health issues related to COVID-19 and 24 about adaptations of mental health services during the COVID-19 pandemic from this search.

mental health care (ie, rationing) with a system that prioritises high-quality and equitable care rather than focusing only on how much work is done. Subjective experience and acceptability of new approaches should guide changes and inform the need to adapt to changing mental health needs. Service users and carers have identified clinical outcome measures that adequately capture their experiences.<sup>147</sup> These groups should be involved in the design of mental health services and in monitoring the quality of these services. This approach requires a reorientation towards user-defined outcomes, including the family view, and mechanisms to collect service users' views on evolving expected outcomes. The outcomes of regular monitoring should be reported, along with outcomes of the other measures proposed.

### Conclusion

The COVID-19 pandemic has already affected mental health, and some of these effects might persist. The psychological toll of the disease is already apparent both in the general population and specifically in people with mental disorders (particularly those with severe mental illness and cognitive impairment) and frontline workers. Mental health systems have rapidly changed during the pandemic and a sustained response to the challenges posed by COVID-19 needs to be coordinated. Despite heterogeneity in political, social, and health systems, mental health services worldwide have implemented acute responses that focus on infection control, continuity of care for mental health service users, and facilitating access to mental health assessment and care for patients with new-onset issues and high-risk patients.

Some new approaches that have been developed seem efficacious, but they might still be associated with risks. Implementation of a COVID-19-related physical and mental health monitoring system that includes outcomes related to mental health service use would inform practice, and could help to shape optimal mental health care for the times to come. Retaining existing services and promoting new practices that expand access and provide cost-effective delivery of effective mental health services to individuals who already have mental disorders or who have developed them during the pandemic should be a priority. Service provision needs to be individualised: effective practices already in place should be refined and scaled up, and both the usefulness and limitations of peer support and remote health delivery should be recognised. A focus on accountability based on routine measurement of meaningful and valued outcomes, co-production of service design and evaluation with expansion of health insurance coverage of mental health, and promotion of primary care support and its greater integration with secondary care could further help to sustain mental health care in the aftermath of the pandemic.

The economic implications of the COVID-19 pandemic are serious. It is important to be cognisant of the risks of promoting cheap solutions to broadening access to mental health care. Low-quality mental health care based on affordability without assessment of quality or monitoring of needs and efficiency will only contribute to increasing inequalities and worsening mental health globally. Now more than ever, we need to put in place service provision that targets health needs and reduces disparities, both globally and within individual countries. Despite substantial cross-national differences in social and mental health systems, we believe that such an approach is feasible with some location-specific adaptations. It could even turn the COVID-19 pandemic into an opportunity to improve mental health care for everyone.

### Contributors

CM and CA conceived the Position Paper and did the literature search. All authors attended two online meetings to establish the structure and scope of the Position Paper. Thereafter, participants joined one of six writing groups to produce the first draft. CM and CA participated in all meetings to ensure coherence and continuity, and drafted the final manuscript. CM coordinated the writing and editing of the Position Paper, which was reviewed, revised, and approved by all authors.

### Declaration of interests

CM reports personal fees from Janssen, Angelini, Servier, Nuvelution, Otsuka, and Lundbeck. SG reports personal fees from Lundbeck, Janssen, Sunovion, Gedeon Richter-Recordati, and Angelini; and has consulted or served on advisory boards for Millennium Pharmaceuticals, Innova Pharma-Recordati Group, Janssen, Gedeon Richter-Recordati, and Angelini; and non-financial support from Gedeon Richter-Recordati. CUC has been a consultant or advisor for Alkermes, Allergan, Angelini, Boehringer-Ingelheim, Gedeon Richter-Recordati, Gerson Lehrman, Indivior, IntraCellular Therapies, Janssen, Johnson & Johnson, LB Pharma, Lundbeck, MedAvante-ProPhase, Medscape, Merck, Neurocrine, Noven, Otsuka, Pfizer, Rovi, Servier, Sumitomo Dainippon, Sunovion, Supernus, Takeda, and Teva; has received honoraria from Angelini, Gedeon Richter-Recordati, IntraCellular Therapies, Janssen, Johnson & Johnson, Lundbeck, Otsuka, Pfizer, Sumitomo Dainippon,

and Sunovion; provided expert testimony for Janssen and Otsuka; served on data safety monitoring boards for Lundbeck, Rovi, Supernus, and Teva; received grant support from Janssen and Takeda; and holds stock options in LB Pharma. PG received fees for presentations at congresses or participation in scientific boards from Alcediag-Alcen, Angelini, GlaxoSmithKline, Janssen, Lundbeck, Otsuka, SAGE, and Servier. EYHC reports grants from Janssen and Otsuka; personal fees and non-financial support from Janssen, Otsuka, and DSK BioPharma; and received support for a psychoeducation programme from Janssen and DSK BioPharma. JHK reports personal fees from AstraZeneca, Biogen, Biomedisyn, Bionomics, Boehringer Ingelheim, COMPASS Pathways, Concert, Epiodyne, EpiVario, Heptares, Janssen Research & Development, Perception Neuroscience, Spring Care, Sunovion, Takeda, Taisho, Bioasis, Biohaven, BioXcel, BlackThorn Therapeutics, Cadent Therapeutics, Cerevel Therapeutics, Lohocla, Novartis, PsychoGenics, and *Biological Psychiatry*; holds stock in Biohaven, Sage, and Spring Care; holds stock options in Biohaven, BlackThorn Therapeutics, EpiVario, and Terran Life Sciences; has served as a consultant for Otsuka; and has served on science advisory boards for Terran Life Sciences. Additionally, JHK holds patents related to the treatment of mental disorders (US patent numbers 5 447 948 and 8 778 979 B2; US application numbers 14/197 767, 14/197 767; provisional use patent application number 61/973/961; and US Patent and Trademark Office docket number Y008770116US00), and two other patents are pending (US provisional patent application numbers 62/444 552 and 62/719 935). JL has received grants and non-financial support from Alkermes, Boehringer Ingelheim, Lilly/DeNovo, Teva, and Taisho, non-financial support from Alkermes, Boehringer Ingelheim, IntraCellular Therapies, Karuna, Lilly/DeNovo, Pierre Fabre, Teva, and Taisho, and medication supplies for investigator-initiated research from Lilly/DeNovo; has served as an advisory board member for IntraCellular Therapies, Karuna, and Pierre Fabre; and has a patent to Repligen issued. HU reports grants and personal fees from Eisai, Otsuka, Sumitomo Dainippon, and Meiji-Seika. EV reports personal fees from Abbott, Allergan, Angelini, Janssen, Lundbeck, Sage, and Sanofi, and grants from Sumitomo Dainippon, Ferrer, and Janssen. AV reports personal fees from Angelini, Innovapharma, Janssen-Cilag, Lundbeck, Otsuka, and Recordati, and grants from Boehringer Ingelheim, Janssen-Cilag, Lundbeck, Otsuka, and Takeda. CA reports personal fees from Acadia, Angelini, Gedeon Richter, Janssen Cilag, Lundbeck, Minerva, Otsuka, Roche, Sage, Servier, Shire, Schering Plough, Sumitomo Dainippon, Sunovion, and Takeda. All other authors declare no competing interests.

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#### References

- Cucinotta D, Vanelli M. WHO declares COVID-19 a pandemic. *Acta Biomed* 2020; **91**: 157–60.
- Webb Hooper M, Nápoles AM, Pérez-Stable EJ. COVID-19 and racial/ethnic disparities. *JAMA* 2020; **323**: 2466–67.
- Roca M, Gili M, Garcia-Campayo J, García-Toro M. Economic crisis and mental health in Spain. *Lancet* 2013; **382**: 1977–78.
- Cook BL, Trinh NH, Li Z, Hou SS, Progovac AM. Trends in racial-ethnic disparities in access to mental health care, 2004–2012. *Psychiatr Serv* 2017; **68**: 9–16.
- Adhanom Ghebreyesus T. Addressing mental health needs: an integral part of COVID-19 response. *World Psychiatry* 2020; **19**: 129–30.
- UN. United Nations Policy Brief: COVID-19 and the need for action on mental health. [https://www.un.org/sites/un2.un.org/files/un\\_policy\\_brief-covid\\_and\\_mental\\_health\\_final.pdf](https://www.un.org/sites/un2.un.org/files/un_policy_brief-covid_and_mental_health_final.pdf) (accessed May 24, 2020).
- Holmes EA, O'Connor RC, Perry VH, et al. Multidisciplinary research priorities for the COVID-19 pandemic: a call for action for mental health science. *Lancet Psychiatry* 2020; **7**: 547–60.
- Li J, Yang Z, Qiu H, et al. Anxiety and depression among general population in China at the peak of the COVID-19 epidemic. *World Psychiatry* 2020; **19**: 249–50.
- Cao W, Fang Z, Hou G, et al. The psychological impact of the COVID-19 epidemic on college students in China. *Psychiatry Res* 2020; **287**: 112934.
- Gao J, Zheng P, Jia Y, et al. Mental health problems and social media exposure during COVID-19 outbreak. *PLoS One* 2020; **15**: e0231924.
- Lei L, Huang X, Zhang S, Yang J, Yang L, Xu M. Comparison of prevalence and associated factors of anxiety and depression among people affected by versus people unaffected by quarantine during the COVID-19 epidemic in Southwestern China. *Med Sci Monit* 2020; **26**: e924609.
- Liu N, Zhang F, Wei C, et al. Prevalence and predictors of PTSS during COVID-19 outbreak in China hardest-hit areas: gender differences matter. *Psychiatry Res* 2020; **287**: 112921.
- Qiu J, Shen B, Zhao M, Wang Z, Xie B, Xu Y. A nationwide survey of psychological distress among Chinese people in the COVID-19 epidemic: implications and policy recommendations. *Gen Psychiatr* 2020; **33**: e100213.
- Tang W, Hu T, Hu B, et al. Prevalence and correlates of PTSD and depressive symptoms one month after the outbreak of the COVID-19 epidemic in a sample of home-quarantined Chinese university students. *J Affect Disord* 2020; **274**: 1–7.
- Xiao H, Zhang Y, Kong D, Li S, Yang N. Social capital and sleep quality in individuals who self-isolated for 14 days during the coronavirus disease 2019 (COVID-19) outbreak in January 2020 in China. *Med Sci Monit* 2020; **26**: e923921.
- Yuan S, Liao Z, Huang H, et al. Comparison of the indicators of psychological stress in the population of Hubei province and non-endemic provinces in China during two weeks during the coronavirus disease 2019 (COVID-19) outbreak in February 2020. *Med Sci Monit* 2020; **26**: e923767.
- Fullana MA, Hidalgo D, Vieta E, Radua J. Coping behaviors associated with decreased anxiety and depressive symptoms during the COVID-19 pandemic and lockdown. *J Affect Disord* 2020; **275**: 80–81.
- González-Sanguino C, Ausin B, Castellanos MA, et al. Mental health consequences during the initial stage of the 2020 coronavirus pandemic (COVID-19) in Spain. *Brain Behav Immun* 2020; **87**: 172–76.
- Zhang Y, Ma ZF. Impact of the COVID-19 pandemic on mental health and quality of life among local residents in Liaoning province, China: a cross-sectional study. *Int J Environ Res Public Health* 2020; **17**: 2381.
- Wang C, Pan R, Wan X, 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. *Int J Environ Res Public Health* 2020; **17**: 1729.
- Hamel L, Lopes L, Muñana C, Kates J, Michaud J, Brodie M. KFF coronavirus poll: March 2020. <https://www.kff.org/coronavirus-covid-19/poll-finding/kff-coronavirus-poll-march-2020/> (accessed May 24, 2020).

- 22 Tian F, Li H, Tian S, Yang J, Shao J, Tian C. Psychological symptoms of ordinary Chinese citizens based on SCL-90 during the level I emergency response to COVID-19. *Psychiatry Res* 2020; **288**: 112992.
- 23 Sim K, Chua HC, Vieta E, Fernandez G. The anatomy of panic buying related to the current COVID-19 pandemic. *Psychiatry Res* 2020; **288**: 113015.
- 24 Dixit A, Marthoenis M, Arafat SMY, Sharma P, Kar SK. Binge watching behavior during COVID 19 pandemic: a cross-sectional, cross-national online survey. *Psychiatry Res* 2020; **289**: 113089.
- 25 Brooks SK, Webster RK, Smith LE, et al. The psychological impact of quarantine and how to reduce it: rapid review of the evidence. *Lancet* 2020; **395**(10227): 912-20.
- 26 King DL, Delfabbro PH, Billieux J, Potenza MN. Problematic online gaming and the COVID-19 pandemic. *J Behav Addict* 2020; published online May 1. <https://doi.org/10.1556/2006.2020.00016>
- 27 Sprang G, Silman M. Posttraumatic stress disorder in parents and youth after health-related disasters. *Disaster Med Public Health Prep* 2013; **7**: 105-10.
- 28 Weale S. Sharp rise in number of calls to ChildLine over coronavirus. <https://www.theguardian.com/world/2020/mar/27/sharp-rise-in-number-of-calls-to-childline-over-coronavirus> (accessed May 26, 2020).
- 29 Clay JM, Parker MO. Alcohol use and misuse during the COVID-19 pandemic: a potential public health crisis? *Lancet Public Health* 2020; **5**: e259.
- 30 Usher K, Bhullar N, Durkin J, Gyamfi N, Jackson D. Family violence and COVID-19: increased vulnerability and reduced options for support. *Int J Ment Health Nurs* 2020; published online April 22. <https://doi.org/10.1111/inm.12735>.
- 31 Health and Safety Executive. Work-related stress, anxiety or depression statistics in Great Britain. London: Health and Safety Executive, 2019.
- 32 The Children's Society. The impact of COVID-19 on children and young people. <https://www.childrenssociety.org.uk/sites/default/files/the-impact-of-covid-19-on-children-and-young-people-briefing.pdf> (accessed May 24, 2020).
- 33 Young Minds. Coronavirus: impact on young people with mental health needs. [https://youngminds.org.uk/media/3708/coronavirus-report\\_march2020.pdf](https://youngminds.org.uk/media/3708/coronavirus-report_march2020.pdf) (accessed May 24, 2020).
- 34 Bo HX, Li W, Yang Y, et al. Posttraumatic stress symptoms and attitude toward crisis mental health services among clinically stable patients with COVID-19 in China. *Psychol Med* 2020; published online March 29. <https://doi.org/10.1017/S0033291720000999>.
- 35 Rogers JP, Chesney E, Oliver D, et al. Psychiatric and neuropsychiatric presentations associated with severe coronavirus infections: a systematic review and meta-analysis with comparison to the COVID-19 pandemic. *Lancet Psychiatry* 2020; **7**: 611-27.
- 36 Rawal G, Yadav S, Kumar R. Post-intensive care syndrome: an overview. *J Transl Int Med* 2017; **5**: 90-92.
- 37 Helms J, Kremer S, Merdji H, et al. Neurologic features in severe SARS-CoV-2 infection. *N Engl J Med* 2020; **382**: 2268-70.
- 38 Troyer EA, Kohn JN, Hong S. Are we facing a crashing wave of neuropsychiatric sequelae of COVID-19? Neuropsychiatric symptoms and potential immunologic mechanisms. *Brain Behav Immun* 2020; **87**: 34-39.
- 39 Lyons D, Frampton M, Naqvi S, Donohoe D, Adams G, Glynn K. Fallout from the Covid-19 pandemic—should we prepare for a tsunami of post viral depression? *Ir J Psychol Med* 2020; published online May 15. <https://doi.org/10.1017/ijpm.2020.40>.
- 40 Ng Kee Kwong KC, Mehta PR, Shukla G, Mehta AR. COVID-19, SARS and MERS: a neurological perspective. *J Clin Neurosci* 2020; **77**: 13-16.
- 41 Yao H, Chen J-H, Xu Y-F. Patients with mental health disorders in the COVID-19 epidemic. *Lancet Psychiatry* 2020; **7**: e21.
- 42 Cohen S. Keynote presentation at the Eight International Congress of Behavioral Medicine: the Pittsburgh common cold studies: psychosocial predictors of susceptibility to respiratory infectious illness. *Int J Behav Med* 2005; **12**: 123-31
- 43 Momen NC, Plana-Ripoll O, Agerbo E, et al. Association between mental disorders and subsequent medical conditions. *N Engl J Med* 2020; **382**: 1721-31.
- 44 European Society of Cardiology. Covid-19 and cardiovascular disease. *BMJ* 2020; **369**: m1997.
- 45 Lighter J, Phillips M, Hochman S, et al. Obesity in patients younger than 60 years is a risk factor for COVID-19 hospital admission. *Clin Infect Dis* 2020; published online April 10. <https://doi.org/10.1093/cid/ciaa415>.
- 46 Zhu Y, Chen L, Ji H, Xi M, Fang Y, Li Y. The risk and prevention of novel coronavirus pneumonia infections among inpatients in psychiatric hospitals. *Neurosci Bull* 2020; **36**: 299-302.
- 47 Shen HN, Lu CL, Yang HH. Increased risks of acute organ dysfunction and mortality in intensive care unit patients with schizophrenia: a nationwide population-based study. *Psychosom Med* 2011; **73**: 620-26.
- 48 Steenblock C, Todorov V, Kanczkowski W, et al. Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and the neuroendocrine stress axis. *Mol Psychiatry* 2020; published online May 7. <https://doi.org/10.1038/s41380-020-0758-9>.
- 49 Webb L. COVID-19 lockdown: a perfect storm for older people's mental health. *J Psychiatr Ment Health Nurs* 2020; published online May 1. <https://doi.org/10.1111/jpm.12644>.
- 50 Brown EE, Kumar S, Rajji TK, Pollock BG, Mulsant BH. Anticipating and mitigating the impact of the COVID-19 pandemic on Alzheimer's disease and related dementias. *Am J Geriatr Psychiatry* 2020; published online April 26. <https://doi.org/10.1016/j.jagp.2020.04.010>.
- 51 Connolly K. Care homes across globe in spotlight over Covid-19 death rates. <https://www.theguardian.com/world/2020/apr/09/care-homes-across-globe-in-spotlight-over-covid-19-death-rates> (accessed June 16, 2020).
- 52 Mencap. Mencap sounds the alarm as higher proportion of people with a learning disability dying with Covid-19 than people in care homes. <https://www.mencap.org.uk/press-release/mencap-sounds-alarm-higher-proportion-people-learning-disability-dying-covid-19> (accessed June 16, 2020).
- 53 Chevance A, Gourion D, Hoertel N, et al. Ensuring mental health care during the SARS-CoV-2 epidemic in France: a narrative review. *Encephale* 2020; **46**: 193-2013.
- 54 Hao F, Tan W, Jiang L, et al. 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 Behav Immun* 2020; **87**: 100-06.
- 55 Kozloff N, Mulsant BH, Stergiopoulos V, Voineskos AN. The COVID-19 global pandemic: implications for people with schizophrenia and related disorders. *Schizophr Bull* 2020; published online April 29. <https://doi.org/10.1093/schbul/sbaa051>.
- 56 Fernandez-Aranda F, Casas M, Claes L, et al. COVID-19 and implications for eating disorders. *Eur Eat Disord Rev* 2020; **28**: 239-45.
- 57 Cortese S, Asherson P, Sonuga-Barke E, et al. ADHD management during the COVID-19 pandemic: guidance from the European ADHD Guidelines Group. *Lancet Child Adolesc Health* 2020; **4**: 412-14.
- 58 Garriga M, Agasi I, Fedida E, et al. The role of mental health home hospitalization care during the COVID-19 pandemic. *Acta Psychiatr Scand* 2020; **141**: 479-80.
- 59 Narzisi A. Handle the autism spectrum condition during coronavirus (COVID-19) stay at home period: ten tips for helping parents and caregivers of young children. *Brain Sci* 2020; **10**: 207.
- 60 Wang H, Li T, Barbarino P, et al. Dementia care during COVID-19. *Lancet* 2020; **395**: 1190-91.
- 61 Banerjee DD. The other side of COVID-19: impact on obsessive compulsive disorder (OCD) and hoarding. *Psychiatry Res* 2020; **288**: 112966.
- 62 Cluver L, Lachman JM, Sherr L, et al. Parenting in a time of COVID-19. *Lancet* 2020; **395**: e64.
- 63 Chen Q, Liang M, Li Y, et al. Mental health care for medical staff in China during the COVID-19 outbreak. *Lancet Psychiatry* 2020; **7**: e15-16.
- 64 Du J, Dong L, Wang T, et al. Psychological symptoms among frontline healthcare workers during COVID-19 outbreak in Wuhan. *Gen Hosp Psychiatry* 2020; published online May 10. <https://doi.org/10.1016/j.genhosppsych.2020.03.011>.
- 65 Lai J, Ma S, Wang Y, et al. Factors associated with mental health outcomes among health care workers exposed to coronavirus disease 2019. *JAMA Netw Open* 2020; **3**: e203976.

- 66 Liang Y, Chen M, Zheng X, Liu J. Screening for Chinese medical staff mental health by SDS and SAS during the outbreak of COVID-19. *J Psychosom Res* 2020; **133**: 110102.
- 67 Xiao H, Zhang Y, Kong D, Li S, Yang N. The effects of social support on sleep quality of medical staff treating patients with coronavirus disease 2019 (COVID-19) in January and February 2020 in China. *Med Sci Monit* 2020; **26**: e923549.
- 68 Zhang WR, Wang K, Yin L, et al. Mental health and psychosocial problems of medical health workers during the COVID-19 epidemic in China. *Psychother Psychosom* 2020; **89**: 242–50.
- 69 Zhang SX, Liu J, Afshar Jahanshahi A, et al. At the height of the storm: healthcare staff's health conditions and job satisfaction and their associated predictors during the epidemic peak of COVID-19. *Brain Behav Immun* 2020; **87**: 144–46.
- 70 Tang HH, Lu XY, Cai SX, Gong J, Wang L, Li X. Investigation and analysis on mental health status of frontline nurses in Wuhan during COVID-19 epidemic. *Int Infect Dis* 2020; **9**: 296–97.
- 71 Ho CS, Chee CY, Ho RC. Mental health strategies to combat the psychological impact of COVID-19 beyond paranoia and panic. *Ann Acad Med Singapore* 2020; **49**: 155–60.
- 72 Naushad VA, Bierens JJ, Nishan KP, et al. A systematic review of the impact of disaster on the mental health of medical responders. *Prehosp Disaster Med* 2019; **34**: 632–43.
- 73 Greenberg N, Docherty M, Gnanapragasam S, Wessely S. Managing mental health challenges faced by healthcare workers during COVID-19 pandemic. *BMJ* 2020; **368**: m1211.
- 74 Carvalho PMM, Moreira MM, de Oliveira MNA, Landim JMM, Neto MLR. The psychiatric impact of the novel coronavirus outbreak. *Psychiatry Res* 2020; **286**: 112902.
- 75 Stefana A, Youngstrom EA, Jun C, et al. The COVID-19 pandemic is a crisis and opportunity for bipolar disorder. *Bipolar Disord* 2020; published online June 9. <https://doi.org/10.1111/bdi.12949>.
- 76 Maunder RG. Was SARS a mental health catastrophe? *Gen Hosp Psychiatry* 2009; **31**: 316–17.
- 77 Lee AM, Wong JG, McAlonan GM, et al. Stress and psychological distress among SARS survivors 1 year after the outbreak. *Can J Psychiatry* 2007; **52**: 233–40.
- 78 Mak IW, Chu CM, Pan PC, Yiu MG, Ho SC, Chan VL. Risk factors for chronic post-traumatic stress disorder (PTSD) in SARS survivors. *Gen Hosp Psychiatry* 2010; **32**: 590–98.
- 79 Mak IW, Chu CM, Pan PC, Yiu MG, Chan VL. Long-term psychiatric morbidities among SARS survivors. *Gen Hosp Psychiatry* 2009; **31**: 318–26.
- 80 Bartels SJ, Baggett TP, Freudenreich O. Case study of Massachusetts COVID-19 emergency policy reforms to support community-based behavioral health and reduce mortality of people with serious mental illness. *Psychiatr Serv* 2020; published online June 3. <https://doi.org/10.1176/appips.202000244>.
- 81 Fisher EB, Miller SM, Evans M, et al. COVID-19, stress, trauma, and peer support—observations from the field. *Transl Behav Med* 2020; published online June 22. <https://doi.org/10.1093/tbm/ibaa056>.
- 82 Behbahani S, Smith CA, Carvalho M, Warren CJ, Gregory M, Silva NA. Vulnerable immigrant populations in the New York metropolitan area and COVID-19: lessons learned in the epicenter of the crisis. *Acad Med* 2020; published online May 22. <https://doi.org/10.1097/ACM.0000000000003518>.
- 83 Dyer C. COVID-19: 15 000 deregistered doctors are told, “Your NHS needs you”. *BMJ* 2020; **368**: m1152.
- 84 Mahase E. COVID-19: medical students to be employed by NHS. *BMJ* 2020; **368**: m1156.
- 85 Poremski D, Subner SH, Lam GFK, et al. Effective infection prevention and control strategies in a large, accredited, psychiatric facility in Singapore. *Infect Control Hosp Epidemiol* 2020; published online April 23. <https://doi.org/10.1017/ice.2020.163>.
- 86 Vieta E, Perez V, Arango C. Psychiatry in the aftermath of COVID-19. *Rev Psiquiatr Salud Ment* 2020; **13**: 105–10.
- 87 Li S, Zhang Y. Mental healthcare for psychiatric inpatients during the COVID-19 epidemic. *Gen Psychiatr* 2020; **33**: e100216.
- 88 Li L. Challenges and priorities in responding to COVID-19 in inpatient psychiatry. *Psychiatr Serv* 2020; **71**: 624–26.
- 89 Starace F, Ferrara M. COVID-19 disease emergency operational instructions for mental health departments issued by the Italian Society of Epidemiological Psychiatry. *Epidemiol Psychiatr Sci* 2020; **29**: e116.
- 90 Druss BG. Addressing the COVID-19 pandemic in populations with serious mental illness. *JAMA Psychiatry* 2020; published online April 3. <https://doi.org/10.1001/jamapsychiatry.2020.0894>.
- 91 Wang CJ, Ng CY, Brook RH. Response to COVID-19 in Taiwan: big data analytics, new technology, and proactive testing. *JAMA* 2020; published online March 4. <https://doi.org/10.1001/jama.2020.3151>.
- 92 Goldman ML, Druss BG, Horvitz-Lennon M, et al. Mental health policy in the era of COVID-19. *Psychiatr Serv* 2020; published online June 10. <https://doi.org/10.1176/appi.ps.202000219>.
- 93 Pinals DA, Hepburn B, Parks J, Stephenson AH. The behavioral health system and its response to COVID-19: a snapshot perspective. *Psychiatr Serv* 2020; published online April 25. <https://doi.org/10.1176/appi.ps.202000264> (preprint).
- 94 Percudani M, Corradin M, Moreno M, Indelicato A, Vita A. Mental health services in Lombardy during COVID-19 outbreak. *Psychiatry Res* 2020; **288**: 112980.
- 95 Arango C. Lessons learned from the coronavirus health crisis in Madrid, Spain: how COVID-19 has changed our lives in the last 2 weeks. *Biol Psychiatry* 2020; published online April 8. <https://doi.org/10.1016/j.biopsych.2020.04.003>.
- 96 Lora A, Hanna F, Chisholm D. Mental health service availability and delivery at the global level: an analysis by countries' income level from WHO's Mental Health Atlas 2014. *Epidemiol Psychiatr Sci* 2017; **29**: e2.
- 97 Beck A, Wykes T. What can pandemics teach us about mental health act admissions? The BMJ opinion. <https://blogs.bmj.com/bmj/2020/05/15/what-can-pandemics-teach-us-about-mental-health-act-admissions/> (accessed May 24, 2020).
- 98 Mosites E, Parker EM, Clarke KEN, et al. Assessment of SARS-CoV-2 infection prevalence in homeless shelters—four US cities, March 27–April 15, 2020. *MMWR Morb Mortal Wkly Rep* 2020; **69**: 521–22.
- 99 Tsai J, Wilson M. COVID-19: a potential public health problem for homeless populations. *Lancet Public Health* 2020; **5**: e186–87.
- 100 Liu S, Yang L, Zhang C, et al. Online mental health services in China during the COVID-19 outbreak. *Lancet Psychiatry* 2020; **7**: e17–18.
- 101 Torous J, Jan Myrick K, Rauseo-Ricupero N, Firth J. Digital mental health and COVID-19: using technology today to accelerate the curve on access and quality tomorrow. *JMIR Ment Health* 2020; **7**: e18848.
- 102 Tabari P, Amini M, Moghadami M, Moosavi M. International public health responses to COVID-19 outbreak: a rapid review. *Iranian J Med Sci* 2020; **45**: 157–69.
- 103 The Lancet Psychiatry. Mental health and COVID-19: change the conversation. *Lancet Psychiatry* 2020; **7**: 463.
- 104 Fonseca L, Diniz E, Mendonca G, Malinowski F, Mari J, Gadelha A. Schizophrenia and COVID-19: risks and recommendations. *Braz J Psychiatry* 2020; published online April 9. <https://doi.org/10.1590/1516-4446-2020-0010>.
- 105 Green TC, Bratberg J, Finnell DS. Opioid use disorder and the COVID 19 pandemic: a call to sustain regulatory easements and further expand access to treatment. *Subst Abuse* 2020; **41**: 147–49.
- 106 Siskind D, Honer WG, Clark S, et al. Consensus statement on the use of clozapine during the COVID-19 pandemic. *J Psychiatry Neurosci* 2020; **45**: 222–23.
- 107 Kang L, Li Y, Hu S, et al. The mental health of medical workers in Wuhan, China dealing with the 2019 novel coronavirus. *Lancet Psychiatry* 2020; **7**: e14.
- 108 Sani G, Janiri D, Di Nicola M, Janiri L, Ferretti S, Chieffo D. Mental health during and after the COVID-19 emergency in Italy. *Psychiatry Clin Neurosci* 2020; **74**: 372.
- 109 Krystal JH, McNeil RL, Jr. Responding to the hidden pandemic for healthcare workers: stress. *Nat Med* 2020; **26**: 639.
- 110 Isaksson K, Veggeland F, Aaslanda OG. Peer counselling for doctors in Norway: a qualitative study of the relationship between support and surveillance. *Soc Sci Med* 2016; **162**: 193–200.
- 111 Eisma MC, Boelen PA, Lenferink LIM. Prolonged grief disorder following the coronavirus (COVID-19) pandemic. *Psychiatry Res* 2020; **288**: 113031.
- 112 Emanuel EJ, Persad G, Upshur R, et al. Fair allocation of scarce medical resources in the time of COVID-19. *N Engl J Med* 2020; **382**: 2049–55.

- 113 UK National Survivor User Network. COVID-19: the coronavirus bill. <https://www.nsun.org.uk/News/covid-19-the-coronavirus-bill> (accessed May 24, 2020).
- 114 Human Rights Watch. Human rights dimensions of the COVID-19 response. <https://www.hrw.org/news/2020/03/19/human-rights-dimensions-covid-19-response> (accessed May 24, 2020).
- 115 Onwumere J. Informal carers in severe mental health conditions: issues raised by the United Kingdom SARS-CoV-2 (COVID-19) pandemic. *Int J Soc Psychiatry* 2020; published online May 10. <https://doi.org.10.1177/0020764020927046>.
- 116 Pring J. User-led sector 'faces threat of extinction'. Disability News Service. <https://www.disabilitynewsservice.com/user-led-sector-faces-threat-of-extinction/> (accessed July 6, 2020).
- 117 Jee-Lyn Garcia J, Sharif MZ. Black lives matter: a commentary on racism and public health. *Am J Public Health* 2015; **105**: e27–30.
- 118 Bassett MT. #BlackLivesMatter—a challenge to the medical and public health communities. *N Engl J Med* 2015; **372**: 1085–87.
- 119 Cosgrove L, Mills C, Amsterdam J, et al. Global mental health. *Lancet* 2019; **394**: 117–18.
- 120 Kalathil J, Jones N. Unsettling disciplines: madness, identity, research, knowledge. *Philosophy Psychiatry Psychology* 2016; **23**: 183–88.
- 121 WHO. User empowerment in mental health: a statement by the WHO regional office for Europe. Copenhagen: World Health Organization, 2010.
- 122 Omeni E, Barnes M, MacDonald D, Crawford M, Rose D. Service user involvement: impact and participation: a survey of service user and staff perspectives. *BMC Health Serv Res* 2014; **14**: 491.
- 123 Burr C, Rother K, Elhilali L, et al. Peer support in Switzerland—results from the first national survey. *Int J Mental Health Nursing* 2019; **29**: 212–13.
- 124 Tse S, Cheung E, Kan A, Ng R, Yau S. Recovery in Hong Kong: service user participation in mental health services. *Int Rev Psychiatry* 2012; **24**: 40–47.
- 125 Aikawa A, Yasui N. Becoming a consumer-provider of mental health services: dialogical identity development in prosumers in the United States of America and Japan. *Am J Psychiatr Rehabil* 2017; **20**: 175–91.
- 126 Stastny P. Introducing peer support work in Latin American mental health services. *Cad Saúde Colet* 2012; **20**: 473–81.
- 127 Rose D. Service user/survivor-led research in mental health: epistemological possibilities. *DisabilSoc* 2017; **32**: 773–89.
- 128 Nature Medicine. Keep mental health in mind. *Nat Med* 2020; **26**: 631.
- 129 Hearing Voices Network. COVID-19: surviving lockdown with voices and visions 2020. <http://www.hearing-voices.org/resources/covid-survival/> (accessed May 24, 2020).
- 130 Carr S. Marginalised communities: balancing self-organisation, micro-provision and mainstream support. <https://www.birmingham.ac.uk/Documents/college-social-sciences/social-policy/HSMC/publications/PolicyPapers/policy-paper-18-sarah-carr.pdf> (accessed May 24, 2020).
- 131 Courtet P, Olie E, Debien C, Vaiva G. Keep socially (but not physically) connected and carry on: preventing suicide in the age of COVID-19. *J Clin Psychiatry* 2020; published online April 17. <https://doi.org.10.4088/JCP.20com13370>.
- 132 Williamson E, Walker AJ, Bhaskaran KJ, et al. OpenSAFELY: factors associated with COVID-19-related hospital death in the linked electronic health records of 17 million adult NHS patients. *medRxiv* 2020; published online May 7. <https://doi.org/10.1101/2020.05.06.20092999> (preprint).
- 133 Georghiou T, Appleby J. Are more black, Asian and minority ethnic people dying with COVID-19 than might be expected? <https://www.nuffieldtrust.org.uk/news-item/are-more-black-asian-and-minority-ethnic-people-dying-with-covid-19-than-might-be-expected> (accessed May 24, 2020).
- 134 Shore JH, Schneck CD, Mishkind MC. Telepsychiatry and the coronavirus disease 2019 pandemic—current and future outcomes of the rapid virtualization of psychiatric care. *JAMA Psychiatry* 2020; published online May 12. <https://doi.org.10.1001/jamapsychiatry.2020.1643>.
- 135 Jimenez-Molina A, Franco P, Martinez V, Martinez P, Rojas G, Araya R. Internet-based interventions for the prevention and treatment of mental disorders in Latin America: a scoping review. *Front Psychiatry* 2019; **10**: 664.
- 136 Naslund JA, Aschbrenner KA, Araya R, et al. Digital technology for treating and preventing mental disorders in low-income and middle-income countries: a narrative review of the literature. *Lancet Psychiatry* 2017; **4**: 486–500.
- 137 Yang Y, Li W, Zhang Q, Zhang L, Cheung T, Xiang Y-T. Mental health services for older adults in China during the COVID-19 outbreak. *Lancet Psychiatry* 2020; **7**: e19.
- 138 Banbury A, Parkinson L, Gordon S, Wood D. Implementing a peer-support programme by group videoconferencing for isolated carers of people with dementia. *J Telemed Telecare* 2019; **25**: 572–77.
- 139 Humphry J. 'Digital first': homelessness and data use in an online service environment. *Commun Res Pract* 2019; **5**: 172–87.
- 140 US Food and Drug Administration. Policy for certain REMS requirements during the COVID-19 public health emergency guidance for industry and health care professionals. <https://www.fda.gov/media/136317/download> (accessed May 24, 2020).
- 141 Hidalgo-Mazzei D, Murru A, Reinares M, Vieta E, Colom F. Big data in mental health: a challenging fragmented future. *World Psychiatry* 2016; **15**: 186–87.
- 142 Simblett S, Greer B, Matcham F, et al. Barriers to and facilitators of engagement with remote measurement technology for managing health: systematic review and content analysis of findings. *J Med Internet Res* 2018; **20**: e10480.
- 143 Productivity Commission. Mental health, draft report. Canberra, ACT: Commonwealth of Australia, 2019.
- 144 Torous J, Wykes T. Opportunities from the coronavirus disease 2019 pandemic for transforming psychiatric care with telehealth. *JAMA Psychiatry* 2020; published online May 12. <https://doi.org.10.1001/jamapsychiatry.2020.1640>.
- 145 Hilty DM, Sunderji N, Suo S, Chan S, McCarron RM. Telepsychiatry and other technologies for integrated care: evidence base, best practice models and competencies. *Int Rev Psychiatry* 2018; **30**: 292–309.
- 146 Fiscella K, Sanders MR. Racial and ethnic disparities in the quality of health care. *Annu Rev Public Health* 2016; **37**: 375–94.
- 147 Crawford MJ, Robotham D, Thana L, et al. Selecting outcome measures in mental health: the views of service users. *J Ment Health* 2011; **20**: 336–46.

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