FRESH FOCUS

Adaptations and Innovations to Minimize Service Disruption for Patients with Severe Mental Illness during COVID-19: Perspectives and Reflections from an Assertive Community Psychiatry Program

Iline Guan[1] · Nicole Kirwan[2] · Michaela Beder[3] · Matthew Levy[1] · Samuel Law[1,3,4]

Abstract

Changes to community psychiatry during COVID-19 are unprecedented and without clear guidelines. Minimizing disruption, ensuring quality care to the already vulnerable people with serious mental illness is crucial. We describe and reflect our adaptations and innovations at one community psychiatry program, based on three key principles. In (i) *Defining and maintaining essential services while limiting risk of contagion*, we discuss such strategies and ways to assess risks, implement infection control, and other creative solutions. In (ii) *Promoting health and mitigating physical and mental health impacts,* we reflect on prioritizing vulnerable patients, dealing with loss of community resources, adapting group programs, and providing psychoeducation, among others. In (iii) *Promoting staff resilience and wellness*, we describe building on strength of the staff early, addressing staff morale and avoiding moral injury, and valuing responsive leadership. We also identify limitations and potential further improvements, mindful that COVID-19 and similar crises are likely recurring realities.

Keywords Assertive community treatment team · COVID-19 pandemic · Pandemic preparedness · Disaster preparedness · Severe mental illness

✉ Samuel Law
Samuel.Law@Unityhealth.to

Iline Guan
iline.guan@mail.utoronto.ca

Nicole Kirwan
Nicole.Kirwan@unityhealth.to

Michaela Beder
Michaela.Beder@unityhealth.to

Matthew Levy
Matthew.Levy@unityhealth.to

[1] Department of Psychiatry, University of Toronto, Toronto, Canada

[2] Clinical Nurse Specialist, and Administrative Lead, Community Psychiatry Program, St. Michael's Hospital, Toronto, Canada

[3] Department of Psychiatry, St. Michael's Hospital, University of Toronto, Toronto, Canada

[4] Li Ka Shing Knowledge Institute, St. Michael's Hospital Cardinal Carter Wing #17029, 30 Bond Street, Toronto, ON M5B 1W8, Canada

Background

In the months following the outbreak of the COVID-19 pandemic, efforts to curb the spread of the virus have led to far-reaching socioeconomic upheavals and disruptions in the delivery of healthcare (World Health Organization 2020), with unprecedented impact on the practice of community psychiatry. Recent outbreaks such as the Severe Acute Respiratory Syndrome (SARS) in 2003, and the H1N1 influenza in 2009 had significantly disrupted health systems and prompted more planning for pandemic preparedness (Fineberg 2014; Yen et al. 2014; Reidy et al. 2015). However, few specific guidelines existed to help community mental health respond to disruptions at the scale of those generated by the COVID-19 pandemic. Additionally, very little has been written on actual responses to the COVID-19 pandemic in community psychiatry settings, though such work is valuable as this pandemic and similar crises are likely to be recurring realities (Moore et al. 2020). Community psychiatry is often less prioritized in public health pandemic response planning, although it serves vulnerable populations which are typically disproportionately impacted by disasters (Druss 2020). From social justice and clinical

service assurance points of views, minimizing service disruptions, and maintaining high quality of care are important community psychiatry goals. Informed by current literature on COVID-19, this descriptive paper aims to contribute descriptions and reflections of adaptations and innovations encountered from the frontlines of a community mental health program operating in an urban setting in Toronto, Canada.

Overview of the FOCUS Program

The FOCUS program is a combination of an Assertive Community Treatment (ACT) team and an Intensive Case Management (ICM) team into one service entity, informed by the Flexible Assertive Community Treatment (FACT) model (van Veldhuizen 2007). Incorporated in the FACT model is the flexibility to step up (i.e. ACT) or step down (i.e. ICM) the patient's level of care within the same team based on patients current level of need. Like many community psychiatry services, FOCUS has a multidisciplinary team that provides a continuum of services for patients experiencing severe mental illness (SMI), including monitoring and management of SMI symptoms, guidance and practical assistance with daily living, and rehabilitation and recovery support. The program operates seven days per week with 24 h on-call services, and the team holds daily clinical rounds. On average, about 60% of the 200 patients served by the program receive ACT-level support—two to three visits per week with up to daily visits if indicated—and about 40% receive ICM-level support—visits every one to two weeks (Nakhost et al. 2017). About 90% of patients are diagnosed with primary psychotic or major mood disorders, and about 50% have comorbid substance use disorders. Almost all patients are financially supported via the Ontario Disability Support Program. Food insecurity is common. Housing instability is also prevalent; most patients reside in crowded boarding homes and around 10% of patients live in shelters or on the streets. About 15% of patients have severe medical conditions which require intensive support. About 10% patients also have a history of criminal justice involvement. The team staff consists of fourteen case managers with clinical backgrounds in nursing, occupational therapy, social work and recreational therapy, two peer support specialists, three part-time psychiatrists, one clinical psychologist, and inter-professional trainees. Prior to the COVID-19 pandemic, the client-to-provider ratio was on average 14:1.

Pandemic Response Strategy

In formulating appropriate COVID-19 responses, we relied on core knowledge of community psychiatry practices, existing and rapidly evolving infection control protocols, frequent

ad-hoc planning meetings, and standard professional regulatory practice guidelines. The scale of the changes was large, and the pace of changes rapid, making it unfamiliar and challenging to the team. Gathering the different and often competing priorities presented by COVID-19, we formulated our response strategies on three key principles: (i) Defining and maintaining essential services while limiting risk of contagion, (ii) promoting health and mitigating physical and mental health impacts on patients, and (iii) promoting staff resilience and wellness.

Defining and Maintaining Essential Services While Limiting Risk of Contagion

Identifying and Deliberating Essential Services in Outreach Services

In mid-March 2020, like most jurisdictions, the Ontario Chief Medical Officer directed that all non-essential and elective health services be suspended or reduced to minimal levels, except for time-sensitive and urgent care, in order to promote appropriate physical distancing and healthcare resource stewardship (Williams 2020). The definition of essential services in community psychiatry is not a clear one, and we relied on our best judgment in determining which services fall in this category, balancing guidelines from model fidelity literature, shifting availability of resources, and latest public health directives. Ethical principles including proportionality, minimizing harm, equity, and reciprocity also helped to guide these decisions (Tauber 2002).

While both ACT and ICM are well established and best researched community psychiatry models of care (Bond et al. 2001; Dieterich et al. 2017), the ACT model provided most useful guidance as the key service features have been studied and integrated into ACT model standards, such as the Dartmouth ACT (DACT) fidelity scale (Bond and Salyers 2004). In this scale, three broad categories outlined high standards of care: 1) Human Resource: structure and composition (i.e. H-criteria, 11-items, including using team approach, having frequent team meetings, and small caseloads, etc.); 2) Organizational Boundaries (i.e. Q-criteria, 7-items, including taking responsibilities for crisis intervention, admission, discharge planning, and defining admission criteria, etc.); and 3) Nature of Services (S-criteria, 10-items, including community-based engagement, assertive outreach, high frequency and intensity of services, etc.). In short, successful community psychiatry's best-practices of care rely on essential services that involved regular, in-person support of patients in the community milieu. Outreach is one of the core components of the ACT (and ICM) service delivery models, and the other fidelity features facilitated this by mandating high provider-to-client ratios, interdisciplinary collaboration and flexible work schedules to allow

for patients' timely access to care. These features have been researched and validated to be associated with positive clinical outcomes (Bond et al. 2001; Dieterich et al. 2017). However, the COVID-19 pandemic has posed a strong and unique challenge to particularly the nature of services involved in community psychiatry. Our outreach-based practice was facing the most potential compromise.

To address this, we deliberated ways to minimize Covid-19 related disruptions. While we were unequivocal in determining community outreach psychiatric care to be an essential service, we accepted that many adaptations and innovations were required.

Protecting Team Capacity to Preserve Essential Services

Staff redeployment, staff illness or self-isolation, and cancellation of learners' clinical rotations caused a significant reduction of available staff members. To prevent further potential loss to wholesale need for isolation of entire staff, and to preserve current capacity for providing essential services, one main adaptive change has been to implement a weekly rotating schedule with half the team working from home and the other half working from the program's offices in order to minimize the risk of exposure and decrease crowding in the shared office space. Two of the five registered nurses were always available to provide office- and community-based nursing care, such as crisis assessments and management, as well as intramuscular medication administration. The part-time psychiatrists maintained their general presence, facilitated by their non-overlapping schedules.

Prioritizing and Improving Skills in Contact Risk Assessments

To optimize safety awareness, we developed a *risk matrix* to define the level of risk associated with different types of visits. Staff received online training on the concept and application of the matrix. In essence, the visually clear matrix contained the latest COVID-19 screening protocols, and graded level of risks associated with visits to offices, hospitals, private homes, apartment buildings, group homes, crowded shelters, and guided in each situation the usage of appropriate personal protective equipment (PPE) for staff, and offering of PPE to patients. It steered all meeting of patients towards larger areas such as building lobbies, hallways, or outside, and sanctioned Level 1 (basic) procedure masks for patients as indicated. It also clarified which visits were appropriate for office, and which ones for telephone check-ins, and considered the likelihood of infection risk against the severity of possible consequences for patients in the absence of a visit. Overall, the matrix has helped clinicians to feel more confident and make better front-line

decisions regarding essential services, and generated useful case discussions when less clear situations arose.

Adapting New Communication Media

To promote physical distancing, daily clinical meetings were initially briefly suspended and soon later replaced by teleconference meetings (privacy-compliant Zoom) twice per week, then transitioned back to a daily frequency within 6 weeks. Other essential meetings were conducted in larger rooms or virtually when possible, and much of the usual in-person staff-to-staff interactions moved to email. One positive outcome noted is that more clinicians now regularly use the current and archived electronic meeting minutes to update themselves.

Creative Solutions in Keeping Patient Contact

The program shifted to using virtual visits by telephone or online tele-health platforms as much as possible when the clinical situation was appropriate. The reduction of in-person visits has been particularly challenging for patients who did not have access to a telephone or the internet. In response, the team mobilized community resources and received a limited number of mobile phones and tablet computers, with data plans from public and corporate donors. These tools provided additional means for clinicians to check in with vulnerable patients and allowed patients to remain engaged with team, and utilize these for essential tasks such as calling shelters to secure beds or contacting the team for emergencies.

Harnessing Community Resources and Developing New Collaborations

With reduction of staff on the ground, the FOCUS team expanded its network and interconnection with other community resources. We increased communication and reliance on collateral information from patient' family members and housing workers. This expansion has actually improved the model's mandate to be more inclusive and communicative with patients' support network and lived environment, and fostered a stronger sense of community. These approaches have contributed to maintaining medication adherence, continued engagement with care and on-going monitoring of higher risk patients. We also collaborated more with other community-based allied health and social services, making community care less "siloed" and more coordinated. For examples, we created a mutually supportive weekly staff teleconference with a major shelter, and delegated many medication deliveries to local pharmacies, which contributed immensely in minimizing interruptions of care.

On-Going Focus on Infection Control

In collaboration with other local health providers, the FOCUS team jointly established a physical station at the office entrance to screen staff and patients for COVID-19 symptoms and provide appropriate PPE based on the evolving public and occupational health guidelines. We also repurposed an interviewing room to be a "clean room" for interviewing patients who screened positive. The room is cleaned after each use. When possible, pre-screening of patients by phone prior to office or community visits has become standard, and patients are screened again at each in-person contact. For patients who were screened positive, staff used additional PPE precautions, namely: an eye shield, a Level 2 rated procedure mask, a paper gown and gloves. Staff members wore Level 2 rated procedure masks for all in-person visits. For community visits staff carried infection prevention and control kits which contained hand sanitizer bottles, Level 1 and 2 rated procedure masks, disposable gowns, bouffant caps, face shields, gloves and disposable plastic bags. Staff conducted some higher risk home visits in pairs to enable the use of a "buddy system" to ensure safe donning, doffing, and disposal of PPE. In compliance with provincial Health Protection and Promotion Act, staff reported suspected COVID-19 cases and contacted the local public health agency and hospital infection specialists for further support in any ambiguous situation. At the time of writing, the confirmed rate of COVID-19 infection among staff is nil, and for patients has remained extremely low, numbering fewer than 5.

Community Testing and Related Advocacy

Assessing patients for possible COVID-19 in the community has been very challenging. Smoking rates are elevated in people with SMI who experience increased rates of chronic cough and COPD (de Leon and Diaz 2005). Additionally, patients experiencing psychosis or cognitive disabilities may have difficulty in clearly describing symptom onset and severity or possible exposures (Yao et al. 2020). Homelessness and congregate housing posed additional difficulties. For patients who screened positive either objectively or by symptom report COVID-19 virological testing in Ontario was initially only available at hospitals or at designated "COVID Assessment Centers". This required patients to travel to a testing location, stand in line, and, for homeless patients specifically, remain in hospital while awaiting test results. Not all patients had the ability or desire to engage in this process. Advocating for onsite testing of asymptomatic patient in congregate housing and boarding home settings was identified as a priority. FOCUS staff was involved at a municipal level to advocate and implement testing in such settings. While targeted on-site testing only began several

weeks after the outset of the pandemic and was limited to a few select locations across the city, it provided much relief for patients and staff in the sites where testing was made available.

Promoting Health and Mitigating Physical and Mental Health Impacts on Patients

Systemically Prioritizing the Most Vulnerable

Previous research has called for increased attention to people with SMI in the context of epidemics (Druss 2020; Kozloff et al. 2020; Yao et al. 2020). Patients with SMI have higher rates of respiratory, cardiovascular and metabolic illnesses, poor housing, and limited support systems, making them vulnerable to relapses or symptom exacerbations, and suffer a wide range of negative health and psychosocial impacts during public health crises (de Leon and Diaz 2005; Yao et al. 2020). Uptake of protective measures can also be more difficult due to impairment in insight and decision-making capacity (Maguire et al. 2019); and there are elevated risks related to barriers in accessing health services (Goering 2004; Brooks et al. 2020). A recent review of the current pandemic's implications for people with schizophrenia highlights that abrupt changes to mental health services could increase the risk of service disengagement, medication non-adherence, distress, and relapse (Kozloff et al. 2020). Informed by these concerns, we have consistently identified the most vulnerable patients in team meetings and dedicated tracking records to target our attention and limited resources. The FOCUS program's FACT model of care, which encourages regularly adjusting patients' service intensity according to need and resource availability, has been helpful in this regard (van Veldhuizen 2007; Nakhost et al. 2017).

Addressing Loss of Community Resources

Suspension or closure of resources such as drop-in centers, places of worship, libraries and other public spaces can disproportionately affect people with SMI who depend on these services for social support, daytime resting, as well as for essential hygiene measures such as handwashing. Additionally, general health care is also affected as most non-essential hospital care is pared down and emergency rooms can be perceived as risky. These losses are overwhelming to many, and their impact is likely to slowly manifest in longer time horizons. We made efforts to ameliorate these by actively curating and circulating lists of currently available local resources, such as functioning neighborhood community health centers, COVID-19 testing centers, overdose prevention sites, food banks, emergency shelters, WIFI access points, and washrooms. The team also collected and

set up a small collection of perishable and non-perishable foods and clothing which were offered to patients in need of basic necessities. Our team has tracked patients with prior poor social connections and physical health conditions more closely and planned for closer follow-up appointments by special outreach visits and phone even when they were not symptomatic, in order to minimize long-term impact from disruptions of routine services.

Patient Support and Group Activities Re-Imagined

The COVID-19 pandemic also impacted the usual provision of group therapy programs. Patients with SMI are more likely to be living alone or with unrelated adults, and to have limited support systems or reduced autonomy (Douglas et al. 2009; Huremović 2019). Physical distancing measures to prevent the spread of COVID-19 added further barriers to the maintenance of social interactions for many people with SMI. Informed by this understanding, the team has dedicated most staff's in-home work assignments to phone-based support and counselling, maintained the on-call 24/7 pager system, increased monitoring of voicemails, and encouraged patients to call the team for support. In addition, the team implemented a new online weekly exercise group and a virtual live Bingo program for those who could participate.

On-Going Psychoeducation on Illness Management and Coping

People with SMI are disproportionately impacted in times of crisis (Ahmed et al. 2020; Pirisi 2000). With limited access and ability to process complex, rapidly changing information, many people with SMI are more vulnerable to being under-informed, misinformed and miscommunicated (Zhou et al. 2020). To address this, alongside screening, the FOCUS team has made COVID-19-related psychoeducation a priority in all encounters, taking an active role in providing clear, accurate and updated health information to patients. As care providers, we have also found studying and updating our knowledge empowering, and we have benefited from provider experiences described in other jurisdictions heavily affected by the pandemic (Liu et al. 2020; Zhou et al. 2020).

Maintaining Preventative and Medical Legal Measures

For those who are vulnerable to relapses and difficult to reach, we have often used various Mental Health Act forms, such as applications for mandatory psychiatric assessment (Form 1 in Ontario), and Community Treatment Order (CTO), also known as Outpatient Commitment, which is known to be generally helpful for enhancing treatment adherence in our setting, despite mixed results in research (Kisely et al. 2017). During the COVID-19 crisis, balancing

procedural justice, individual rights, and need for clinical stability in an unstable time has been more nuanced and thought provoking (Wales et al. 2010; Pridham et al. 2016), and we have generally continued our usage of such medical legal measures, along with close collaboration with mobile crisis teams and police officers.

Adapting Pharmacotherapy

With fewer available supports, some decline in medication adherence for patients with SMI is anticipated (Kozloff et al. 2020). When safe and possible to do so, the duration of patients' prescriptions was proactively lengthened and the number of available medication refills was increased. We also switched as many patient as possible from oral antipsychotics to long-acting injection (LAI) formulations, or changed LAIs to longer-acting counterparts to enhance mediation adherence and convenience (Correll et al. 2016). For example, over ten patients were transitioned from shorter-acting formulations of paliperidone to the three-month formulation. Our *risk matrix* accentuated the longer-term benefits of such changes, despite the need for in-person contact for LAI administration. For medications that require monitoring such as lithium or clozapine, we increased monitoring for clinical signs and symptoms as many patients were unable to safely complete blood tests in a timely fashion. In Canada, Clozapine bloodwork monitoring guidelines were temporarily modified to a new maximum interval of every 3 months from the usual requirement of 1 to 4 weeks (Cozaril Support and Assistant Network 2020). This adaptation also contributed to better informing clinicians on the epidemiology of agranulocytosis and infection monitoring. We also mobilized certain patients requiring urgent bloodwork to complete this at our on-site laboratory or with laboratories that offer home-testing services. Our experience shows that most patients readily accepted these aforementioned recommendations and showed resilience and ability to cope and collaborate with the team in the face of these changes.

Promoting Staff Resilience and Wellness

Learning from Experience and Fostering Staff Resilience Proactively

The pandemic is not only testing the capacity of healthcare systems, but also the resilience of individual healthcare providers. Infectious disease outbreaks are associated with increased mental distress in healthcare providers, although in most cases symptoms will remit over time even without significant interventions, suggesting healthy baseline states and adaptability in most (Huremović 2019). COVID-19 is likely to be an extended crisis and international experiences have highlighted that maintaining staff mental health

is crucial (Chen et al. 2020; Xiang et al. 2020). Toronto was heavily affected by SARS in 2003, and local lessons learned from the SARS outbreak has helped inform strategies to promote coping in healthcare staff (Maunder et al. 2004). Maunder et al. suggest a shift away from models of clinical intervention in favor of models of adaptation and resilience, working with the strength of psychologically healthy people early on to mitigate pandemic-related stress and enhance resilience in healthcare workers (Maunder et al. 2008). Our team's general approach to fostering staff resilience valued this philosophy, and was also informed by the *Psychological First Aid* model (Brymer et al. 2006) and the frameworks for stress appraisal and coping (Folkman and Greer 2000). The *First Aid* model involved three main components. The first is *problem appraisal*—learning, breaking it into smaller parts to solve, and focusing on things one can control. The second is *recognizing emotions*—avoiding blame and criticism, offering and accepting of help, keeping a sense of humor, and staying healthy in day-to-day sleep and exercises. The third is *being mindful about meaning*—enhancing values and spirituality that one holds dear, reflecting on the purpose of being a health professional, and accepting personal limits. Regular psychological check-ins and mindful reflections on "positive moments" in all clinical work are built into our clinical meetings. Our program was also mindful of fostering organizational resilience through factors such as effective training and support, building material and relational reserves, effective leadership, and a culture of organizational justice (Maunder et al. 2004, 2008). General informal survey has shown that team morale and spirit, as well as views towards the organization have been positive.

Addressing Staff Morale and Avoiding Moral Injury

The COVID-19 pandemic's uncertain scope and duration has undoubtedly produced anxiety for many. Staff are affected by the fear of contagion and increased possibility of infecting family members, colleagues, and patients. They are also faced with the uncertainty of possible redeployment, increased workload, and facing many new and unfamiliar responsibilities. Pressure to make decisions on how to keep safe with rapidly changing epidemiological information, how to allocate limited equipment and resources among staff and patients, how to balance one's own physical and mental healthcare needs with those of patients', how to balance a desire and duty to serve with the need for safety and self-care, and how to manage competing duties to patients versus those to family and friends can be emotionally taxing. These challenges are known to cause a sense of moral injury or mental health problems (Greenberg et al. 2020). Our approaches to mitigate these challenges have included an open acknowledgment to promote awareness of such pitfalls, and creating a safe space to deal with potential issues.

There has been increased regular communication acknowledging the work and efforts made by staff. We have also come to appreciate the advantages of community psychiatry principles that are built into team operations, such as: task and burden sharing, a relative horizontal organizational hierarchical structure, mutual support, quick responsiveness, and practical and timely problem solving, to name a few (Bond et al. 2001; Bond and Salyers 2004). We have also noted an increased sense of professional identity, partly derived from the satisfaction and sense of competence in coping under unusual circumstances, performing valuable health care work. We are mindful that maintaining staff wellness through the pandemic and its aftermath will be an ongoing challenge.

Valuing Responsive and Responsible Leadership

The FOCUS program has historically enjoyed strong and effective clinical and administrative leadership, and this has proven to be invaluable during the COVID-19 crisis. Continued learning, timely responsiveness, creative problem-solving and a willingness to innovate have characterized our leadership responses. To deal with the large amount and rapidly changing information, clear and transparent communications with the team using regular and emergency meetings has been an important adaptation. This ensured the evolving new clinical directives and strategies are consistently carried out. Developing trust is crucial (Oxfam 2007), as is regularly soliciting feedback from staff, including fears, vulnerabilities and concerns. Modifying work hours and arrangement of shifts to optimize safety while preserving capacity to support patients adequately—for example, dividing the team to have half of the staff work from office and half from home—was among one of the first responses. Reduction of noncritical work activities was also quickly implemented to promote safety and mental well-being. Other notable decisions included prioritizing a safe workspace, securing available and providing clear guidelines for PPE, encouraging self-care and rest, and making staff aware of available wellness and psychological supports are some examples (Maunder et al. 2008; Dewey et al. 2020). These were overall felt to be very well received and appreciated by staff.

Limitations

Our descriptions and reflections aimed to contribute to maintaining important care for the vulnerable SMI population, but we are limited by the fact that it is based on a single program, lacking in empirical data, and a large reliance on informal impressions. This paper aims to provide timely sharing of experiences to promote similar adaptations and reflections in other community mental health

care settings when applicable, and is part of an on-going effort to better protect the health and wellbeing of community psychiatry patients and providers alike. We recognize these limitations, and identify the following recommendations to stimulate further discussion on the pandemic response in community psychiatry settings: increasing evidence-based research on the definition of essential services in community psychiatry; providing culturally- and linguistically-adapted information for the marginalized populations; ongoing collaborative work with public health and other agencies to ensure better access to testing, and support for self and monitored isolation, hospital visits or admission; ensuring that all patients have access to a phone at the minimum; ensuring adequate PPE availability; widening the training and provision of psychological first aid or psychological interventions where indicated; and advocating with government and health authorities to specifically include broader supports for vulnerable peoples with SMI (for examples: housing, emergency income relief, and food security).

Conclusion

There are unprecedented COVID-19 related changes in community psychiatry. Our descriptions and reflections may contribute to the field to promote prioritizing the care of an already vulnerable SMI population. We also highlight the importance of a discussion on the definition and how to preserve essential services in community psychiatry. Various responses and adaptations followed the evolving infection control directives and were informed by current literature on pandemic preparedness and response. We demonstrated how our responses interacted with the built-in features of community psychiatry service models such as ICM and ACT. Our responses also relied on creative, reimagined approaches in patient care. Ongoing obstacles are anticipated as the public health situation progresses. Our team's response may provide helpful guidance for the development of organizational strategies and the identification of service areas that require targeted adaptations. A more detailed evaluation of the responses and the long-term effectiveness and impact is warranted. Responses in each clinical environment are likely different, and it will be helpful to review other pandemic responses to optimize adaptations and improve community psychiatry's preparedness for future crises.

Compliance with Ethical Standards

References

Ahmed, F., Ahmed, N., Pissarides, C., & Stiglitz, J. (2020). Why inequality could spread COVID-19. *The Lancet Public Health*. https ://doi.org/10.1016/S2468-2667(20)30085-2.

Bond, G. R., Drake, R., Mueser, K., & Latimer, E. (2001). Assertive community treatment for people with severe mental illness. *Disease Management and Health Outcomes, 9*, 141–159. https://doi.org/10.2165/00115677-200109030-00003.

Bond, G. R., & Salyers, M. P. (2004). Prediction of outcome from the Dartmouth assertive community treatment fidelity scale. *CNS Spectrums, 9*(12), 937–942. https://doi.org/10.1017/s109285290 0009792.

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. *The Lancet, 395*(10227), 912–920. https://doi.org/10.1016/S0140 -6736(20)30460-8.

Brymer, M., Layne, C., Jacobs, A., Pynoos, J., Steinberg, A., Vernberg, E., & Watson, P. (2006). Psychological first aid: field operations guide: 2nd Edition. National child traumatic stress network, national center for PTSD. https://doi.org/10.1037/e536202011 -001

Chen, Q., Liang, M., Li, Y., Guo, J., Fei, D., Wang, L., et al. (2020). Mental health care for medical staff in China during the COVID-19 outbreak. *The Lancet Psychiatry, 7*(4), e15–e16. https://doi.org/10.1016/S2215-0366(20)30078-X.

Correll, C. U., Citrome, L., Haddad, P. M., Lauriello, J., Olfson, M., Calloway, S. M., et al. (2016). The use of long-acting injectable antipsychotics in schizophrenia: evaluating the evidence. *The Journal of Clinical Psychiatry, 77*(suppl 3), 3–24. https://doi.org/10.4088/JCP.15032su1.

Cozaril Support and Assistant Network. (2020). Health Canada guidance regarding CLOZARIL® blood test monitoring during emergency precautions for COVID-19. https://clozaril.ca/wp-content/uploads/2020/04/COVID-19_FINAL_EN.pdf

de Leon, J., & Diaz, F. J. (2005). A meta-analysis of worldwide studies demonstrates an association between schizophrenia and tobacco smoking behaviors. *Schizophrenia Research, 76*(2), 135–157. https://doi.org/10.1016/j.schres.2005.02.010.

Dewey, C., Hingle, S., Goelz, E., & Linzer, M. (2020). Supporting clinicians during the COVID-19 pandemic. *Annals of Internal Medicine, 172*(11), 752–753. https://doi.org/10.7326/M20-1033.

Dieterich, M., Irving, C. B., Bergman, H., Khokhar, M. A., Park, B., & Marshall, M. (2017). Intensive case management for severe mental illness. *The Cochrane Database of Systematic Reviews, 1*, CD007906. https://doi.org/10.1002/14651858.CD007906.pub3.

Douglas, P. K., Douglas, D. B., Harrigan, D. C., & Douglas, K. M. (2009). Preparing for pandemic influenza and its aftermath: Mental health issues considered. *International Journal of Emergency Mental Health, 11*(3), 137–144.

Druss, B. G. (2020). Addressing the COVID-19 pandemic in populations with serious mental illness. *Jama Psychiatry, Published Online.*. https://doi.org/10.1001/jamapsychiatry.2020.0894.

Fineberg, H. V. (2014). Pandemic preparedness and response—lessons from the H1N1 influenza of 2009. *New England Journal of Medicine, 370*(14), 1335–1342. https://doi.org/10.1056/NEJMr a1208802.

Folkman, S., & Greer, S. (2000). Promoting psychological well-being in the face of serious illness: When theory, research and practice inform each other. *Psycho-Oncology, 9*(1), 11–19. https://doi.org/10.1002/(sici)1099-1611(200001/02)9:1<11:aid-pon424>3.0.co;2-z.

Goering, P. (2004). Making a Difference: Ontario's Community Mental Health Evaluation Initiative (p. 52). https://ontario.cmha.ca/wp-content/uploads/2017/03/Making_a_Difference_CMHEI_Final_Project.pdf

Greenberg, N., Docherty, M., Gnanapragasam, S., & Wessely, S. (2020). Managing mental health challenges faced by healthcare workers during covid-19 pandemic. *British Medical Journal (Clinical Research Ed.), 368*, m1211. https://doi.org/10.1136/bmj.m1211.

Huremović, D. (2019). Psychiatry of pandemics: A mental health response to infection outbreak (Ed.), Springer International Publishing. https://doi.org/10.1007/978-3-030-15346-5

Kisely, S. R., Campbell, L. A., & O'Reilly, R. (2017). Compulsory community and involuntary outpatient treatment for people with severe mental disorders. *The Cochrane Database of Systematic Reviews, 3*, CD004408. https://doi.org/10.1002/14651858.CD004408.pub5.

Kozloff, N., Mulsant, B. H., Stergiopoulos, V., & Voineskos, A. N. (2020). The COVID-19 global pandemic: Implications for people with schizophrenia and related disorders. *Schizophrenia Bulletin*. https://doi.org/10.1093/schbul/sbaa051.

Liu, S., Yang, L., Zhang, C., Xiang, Y.-T., Liu, Z., Hu, S., et al. (2020). Online mental health services in China during the COVID-19 outbreak. *The Lancet Psychiatry, 7*(4), e17–e18. https://doi.org/10.1016/S2215-0366(20)30077-8.

Maguire, P. A., Reay, R. E., & Looi, J. C. (2019). Nothing to sneeze at – uptake of protective measures against an influenza pandemic by people with schizophrenia: Willingness and perceived barriers. *Australasian Psychiatry, 27*(2), 171–178. https://doi.org/10.1177/1039856218815748.

Maunder, R. G., Lancee, W. J., Rourke, S., Hunter, J. J., Goldbloom, D., Balderson, K., et al. (2004). Factors associated with the psychological impact of severe acute respiratory syndrome on nurses and other hospital workers in Toronto. *Psychosomatic Medicine, 66*(6), 938–942. https://doi.org/10.1097/01.psy.0000145673.84698.18.

Maunder, R. G., Leszcz, M., Savage, D., Adam, M. A., Peladeau, N., Romano, D., et al. (2008). Applying the lessons of SARS to pandemic influenza. *Canadian Journal of Public Health, 99*(6), 486–488. https://doi.org/10.1007/BF03403782.

Moore, K. A., Lipsitch, M., Barry, J. M., & Osterholm, M. T. (2020). COVID-19: The CIDRAP viewpoint Part 1: The future of the COVID-19 pandemic: Lessons learned from pandemic influenza. https://www.cidrap.umn.edu/sites/default/files/public/downloads/cidrap-covid19-viewpoint-part1_0.pdf. Accessed 30 April 2020.

Nakhost, A., Law, S. F., Francombe Pridham, K. M., & Stergiopoulos, V. (2017). Addressing complexity and improving access in community mental health services: An inner-city adaptation of flexible ACT. *Psychiatric Services, 68*(9), 867–869. https://doi.org/10.1176/appi.ps.201700195.

Oxfam. (2007). Building Trust in Diverse Teams: The toolkit for emergency response Oxfam Policy & Practice. Policy & Practice. https://policy-practice.oxfam.org.uk/publications/*

Pirisi, A. (2000). Low health literacy prevents equal access to care. *The Lancet, 356*(9244), 1828. https://doi.org/10.1016/S0140-6736(05)73297-9.

Pridham, K. M. F., Berntson, A., Simpson, A. I. F., Law, S. F., Stergiopoulos, V., & Nakhost, A. (2016). Perception of coercion among patients with a psychiatric community treatment order: A literature review. *Psychiatric Services, 67*(1), 16–28. https://doi.org/10.1176/appi.ps.201400538.

Reidy, M., Ryan, F., Hogan, D., Lacey, S., & Buckley, C. (2015). Preparedness of hospitals in the republic of ireland for an influenza pandemic, an infection control perspective. *BMC Public Health*. https://doi.org/10.1186/s12889-015-2025-6.

Tauber, A. I. (2002). Medicine, public health, and the ethics of rationing. *Perspectives in Biology and Medicine, 45*(1), 16–30. https://doi.org/10.1353/pbm.2002.0018.

van Veldhuizen, J. R. (2007). FACT: A dutch version of ACT. *Community Mental Health Journal, 43*(4), 421–433. https://doi.org/10.1007/s10597-007-9089-4.

Wales, H. W., Hiday, V. A., & Ray, B. (2010). Procedural justice and the mental health court judge's role in reducing recidivism. *International Journal of Law and Psychiatry, 33*(4), 265–271. https://doi.org/10.1016/j.ijlp.2010.06.009.

Williams, D. C. (2020). COVID-19 Directive #2 for Health Care Providers (Regulated Health Professionals or Persons who operate a Group Practice of Regulated Health Professionals) Issued under Section 77.7 of the Health Protection and Promotion Act (HPPA), R.S.O. 1990, c. H.7. Ontario Ministry of Health and Long-Term Care. https://www.ctcmpao.on.ca/resources/CMOH_Directive_2-RHPA_professionals_2020-03-19.pdf

World Health Organization. (2020). Coronavirus disease (COVID-19) Situation Report – 117. Coronavirus Disease (COVID-19) Situation Report – 117. https://www.who.int/docs/default-source/coronavirus/situation-reports/20200516-covid-19-sitrep-117.pdf?sfvrsn=8f562cc_2

Xiang, Y.-T., Yang, Y., Li, W., Zhang, L., Zhang, Q., Cheung, T., et al. (2020). Timely mental health care for the 2019 novel coronavirus outbreak is urgently needed. *The Lancet Psychiatry, 7*(3), 228–229. https://doi.org/10.1016/S2215-0366(20)30046-8.

Yao, H., Chen, J.-H., & Xu, Y.-F. (2020). Patients with mental health disorders in the COVID-19 epidemic. *The Lancet Psychiatry, 7*(4), e21. https://doi.org/10.1016/S2215-0366(20)30090-0.

Yen, M.-Y., Chiu, A. W.-H., Schwartz, J., King, C.-C., Lin, Y. E., Chang, S.-C., et al. (2014). From SARS in 2003 to H1N1 in 2009: Lessons learned from Taiwan in preparation for the next pandemic. *Journal of Hospital Infection, 87*(4), 185–193. https://doi.org/10.1016/j.jhin.2014.05.005.

Zhou, X., Snoswell, C. L., Harding, L. E., Bambling, M., Edirippulige, S., Bai, X., et al. (2020). The role of telehealth in reducing the mental health burden from COVID-19. *Telemedicine and E-Health*. https://doi.org/10.1089/tmj.2020.0068.