



## Editorial

## Physical health among people with serious mental illness in the face of COVID-19: Concerns and mitigation strategies



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## ABSTRACT

COVID-19 can worsen the physical health of individuals with serious mental illness, a vulnerable group already facing physical health disparities. COVID-19 is further reducing access to physical health care due to shutdown of services deemed “non-urgent” and overcrowding of emergency services. Management of chronic diseases, highly prevalent in this group, is undermined due to exacerbation of psychiatric disorders, reduction in availability of social support, and worsening of negative social determinants of health. In this commentary, we discuss the challenges experienced by this group and offer mitigation strategies to reduce: (1) inequalities in access to physical health care; and (2) disruptions to the management of chronic physical conditions in the face of COVID-19. Recommendations include coordinated efforts by health authorities, primary and mental health care organizations, researchers, policymakers, and other stakeholders. These efforts should ensure equitable access to physical health care and implementation of innovative programs to protect the physical health of people with serious mental illness during and following the pandemic.

## 1. Introduction

Novel coronavirus-19 (COVID-19) was declared a pandemic in March 2020. Rapid person-to person transmission, lack of population immunity and limited access to COVID-19 testing caused a surge in cases and placed unprecedented pressure on health systems which in turn reduced non-urgent services [1]. To slow the spread of COVID-19, governments instigated social distancing measures and a widespread shutdown of education, commercial and other community functions deemed “non-essential” [2]. Unintentionally, these actions are conducive to inadequate physical health care and deterioration of physical health conditions among individuals with serious mental illness (SMI). Previous articles have focused on the heightened risk for infection and mortality from COVID-19 in people with schizophrenia [3], challenges to delivery of community-based psychiatric services [5] as well as inpatient care [6] during the pandemic and related psychological consequences of self-isolation and quarantine [7]. However, the deleterious impact on access to physical health care and on physical health conditions in people with SMI also needs attention in the short and intermediate term as the pandemic response evolves over time. Given the pre-pandemic health gap this group faces [8] we discuss two major challenges in the context of COVID-19 (1) inequalities in access to physical health care and (2) disruptions to the management of chronic physical conditions and then offer potential strategies to mitigate the risks to the physical health of this vulnerable group.

## 2. Physical health care inequities in the face of COVID-19

## 2.1. Access to physical health care prior to pandemic

Fragmented health care systems pose a major barrier for physical

health care in people with SMI. Patients have difficulty navigating the health care system and oftentimes rely on family or peer support [9]. Many cannot find nor afford physical health care in the vicinity of their homes [10]. Most mental health care services do not offer physical health care such as screening and management of cardiometabolic risk factors [11] while primary care struggles to deliver adequate care to this group due to patient complexity and unique needs which are not accounted for in organization of care and remuneration models [12]. Health care providers who are unfamiliar with SMI and its presentation contribute to pervasive stigma and discrimination [10] which deters health-seeking behavior in this group [13]. Patient factors such as disorganization, lack of prioritization of physical health, low health literacy, communication challenges and affective or psychotic symptomatology are barriers that limit patients' ability engage with primary [14] and specialist physical health services [15] in a sustained manner. Taken together, these factors limit access to physical health care for this group.

## 2.2. Challenges in access to physical health care in face of COVID-19

COVID-19 has placed tremendous pressure on health care systems. To address this demand, health organizations redeployed doctors, nurses, allied health personnel and administrators to support acute care. In turn, “less urgent” routine physical health care is harder to navigate than before [1]. Changes to physical health care delivery including masked providers, interaction with unknown replacement clinicians, and long wait times among strangers may be a barrier to seeking care for those with underlying paranoia or anxiety. Furthermore, social support such as family or paid support workers, a known enabler for health-seeking behavior in this group [16] is nearly eliminated by the pandemic's social distancing rules. Even when support is

available, health services' restrictions, denying patients the ability to visit with an accompanying person, undermine care for those who rely on others for travel or communication needs.

Patients with SMI are over-represented in acute physical health care episodes treated in general emergency room and hospital settings [17]. This trend is likely to increase during the pandemic given the reduction in access to physical health services. Pre-pandemic, authors have pointed to the low quality of care given in acute settings for conditions such as acute coronary syndrome [18] and chronic obstructive pulmonary disease [19] in this group. Hence, the burden placed on acute health care settings by COVID-19 may disproportionately affect people with SMI. Furthermore, this could increase stigma and discrimination against this group if their visit is perceived as an “avoidable” or “unnecessary” admission by healthcare providers, already stretched to their limit.

Physical health services have moved to telehealth care in order to protect providers and patients from the spread of COVID-19 [20]. This undermines service availability for people with SMI who lack access to phone and internet or do not have digital literacy skills necessary for virtual care [21,22]. Additionally, the recovery of the health system in the aftermath of the pandemic will cause the backlog of preventive and routine care likely to overwhelm existing primary care services [23]. This may prove especially deleterious for people with SMI who already lag behind the general population in receipt of preventive services [24] and might not get first priority access to those services.

### 2.3. Mitigation strategies and opportunities to improve access to physical health care

Rapid change in health care delivery during COVID-19 requires concomitant flexibility in regulatory and payment systems to mitigate potential risks to this group, especially if anchored within vulnerable population-centered policies. To address increased health care demands during the pandemic, professional regulatory bodies have allowed providers to practice beyond their scope. At this time, mental health providers who maintain ongoing care with their patients may be the sole medical professional accessible to them. Therefore, basic inquiry on the state of chronic physical conditions, medication adherence and its availability could be included [25] while extended visit times can be accounted for in remuneration models [5]. Following the pandemic, anticipated demand for physical health care services for people with SMI may be adequately addressed by integration of physical health care into routine mental health services. While care integration is not a new concept [26], COVID-19 could serve as its ideal catalyst and provide the well needed justification for nationwide implementation into mental health services. Different models of care integration exist including coordination, co-location and full integration [27] allowing for a wide range of solutions according to local resources and organizations' capacity. Technology-enabled care coordination in which care coordinators and patients engage via technology has been successfully used to improve access to primary care [28] and is a promising avenue for development. Now, more than ever, psychiatrists and mental health care providers need to be knowledgeable and skilled in integrated or collaborative care models. To achieve this, a call has been issued to include these topics as a core competency in residency programs [29]. Similarly, rapid review courses on physical health conditions need to be offered and taken by providers using distance learning platforms.

As health policymakers deal with the aftermath of COVID-19, it is of utmost importance that an equitable allocation of resources is achieved [30]. As such, some jurisdictions have initiated primary care packages that specifically recognize and address vulnerable populations [31] while others bolstered community mental health services [5]. A timely extension of the latter could expand capacity of mental health services to address physical health needs. We call for future public policy to support preemptive actions to safeguard the physical health of this group by enabling low-barrier access to care [32].

## 3. Chronic physical health conditions in face of COVID-19

### 3.1. Disparities in physical health prior to the pandemic

Premature mortality in people with SMI is driven by chronic physical diseases which largely explain 10–15-year reduction in life expectancy relative to non-psychiatrically-ill populations [8]. In particular, cardiovascular disease and its risk factors including obesity, hypertension, diabetes and dyslipidemia are found in rates 2–3 fold higher relative to the general population as well as respiratory disorders and cancers [33]. An intrinsic tendency for metabolic dysfunction [34], compounded by metabolic side effects of antipsychotic and other psychotropic medications [35], smoking and other unhealthy behaviours [36] and substance use [37] are known contributors to this problem. Clustering of negative social determinants such as poverty, unstable employment and low social connectedness [38] together with illness related factors such as communication difficulties, psychotic or affective symptoms and reduced ability to survey one's health [14,15] lead to inadequate health promotion and preventive physical health care [24]. These are further compounded by access challenges to physical health care (discussed above).

### 3.2. Challenges to management of chronic physical conditions in the face of COVID-19

The general population [39] and people with mental health conditions [40] exhibit an increase in psychological distress during the pandemic. Previous disasters have disproportionately affected people with SMI, who initially display high levels of avoidance coping and absence of social support and later, high levels of stress [41]. Current social distancing measures, while necessary to slow the spread of the virus, can also be potentially harmful in the long run as social ties in this group are closely linked with improved functioning and quality of life [42]. Economic implications of the pandemic lead to loss of employment predominantly in those with precarious jobs, in which people with SMI are overrepresented, thus adding financial stresses, housing and food insecurities. Loss of medical health coverage or benefits is also of concern, reducing ability to pay for prescription medication hence causing non-adherence or even discontinuation [43]. Pre-pandemic studies shed light on barriers for the management of chronic physical conditions in this group including stress, absence of social support [44] and psychotic and affective symptomatology [15] resulting in less physical activity and healthful diets and medication non-adherence [45]. It is therefore expected, that COVID-19 will lead to an abundance of stressors likely to overwhelm scarce sources of social support which will lead to poor physical health and reduced ability to monitor and manage chronic physical conditions.

### 3.3. Mitigation strategies and opportunities to improve management of chronic physical conditions

COVID-19 has resulted in a rapid uptake of telehealth across all branches of medicine, including mental and primary health care services [20]. The use of telehealth could help overcome some of the challenges caused by COVID-19 including improved access to physical health care (as discussed above), greater social support, training in chronic disease self-management (CDSM) and longitudinal management of chronic diseases. Given that travel and time commitments are a barrier for attending physical health care in this group [10], telehealth provides an adequate and acceptable solution [21].

When planning telehealth services for people with SMI, design principles must consider the high prevalence of socioeconomic barriers combined with cognitive difficulties that impede adoption. At present, many do not have access to internet services. Therefore, ensuring access to easy-to-use low-cost technology such as landline or cellular phones and text messaging with a prepaid plan could help reduce healthcare

disengagement during lockdowns. The use of smartphones to allow for video telehealth and for the use of mobile health tools to support emotional well-being and chronic disease management may be impeded by poor digital literacy and cognitive challenges. Recent advancements such as the Digital Opportunities for Outcomes in Recovery Services (DOORS) program [46] may overcome digital literacy gaps in this group and are key to successful use of digital health tools that aim to better physical health. Lastly, equitable access to smartphone and internet services are urgently needed to ensure people with SMI are not left behind when health systems adopt telehealth during and following the pandemic [22].

Supporting healthy behaviours is the cornerstone of good physical health and chronic disease management. Integrating remote delivery of programs to improve health behaviours such as physical activity, healthy diets and smoking cessation [47] could be seamlessly integrated into telepsychiatry services, now that those have become routine in the context of COVID [48]. Additionally, considerable progress has been made in telehealth and mobile health tools to improve mental health and emotional well-being in people with SMI [49] and there is a need to expand these to include support for management of chronic diseases with content that is tailored for unique barriers found in this group. For example, remote adaptation of the successful in-person CDSM program, the Health and Recovery Peer Program (HARP) [50], could be particularly important at this time. Future digital tools need to be co-designed with patients with SMI to ensure acceptability and a mixed-methods inquiry of new tools is recommended to understand barriers and enablers for successful adoption. Although telehealth use for physical health care in this group holds numerous advantages, it may not be suitable for all. For those with unstable psychiatric conditions, severe cognitive issues, and language barriers in-person care is most appropriate. Also, telehealth cannot replace all components of physical health care including laboratory testing, physical health examinations and preventative screening for cancers.

#### 4. Summary

COVID-19 threatens to worsen the fragile physical health of people with SMI by limiting the availability of physical health care and interfering with necessary components for chronic disease management. Improvements in the physical health of people with SMI requires coordinated action by health authorities, primary and mental health care organizations, researchers, providers and those affected by SMI and their families. The past decade has brought a proliferation of knowledge related to physical health among people with SMI, with greater insight into the biological, psychological and societal factors that dictate health and disease, yet translation of the knowledge into large-scale practice is lacking. COVID-19 is an unprecedented force which has rapidly changed our lives; it provides a rare opportunity to achieve social equity and redesign health services with a deliberate effort to correct physical health disparities consistently seen in patients with SMI. These efforts should be complemented by advocacy to ensure required changes are anchored within emerging post-COVID health policies.

#### References

- [1] Tanne JH, Hayasaki E, Zastrow M, Pulla P, Smith P, Rada AG. Covid-19: how doctors and healthcare systems are tackling coronavirus worldwide. *BMJ* 2020;368:m1090. Mar 18.
- [2] Tian H, Liu Y, Li Y, et al. An investigation of transmission control measures during the first 50 days of the COVID-19 epidemic in China. *Science* 2020;368(6491):638–42. May 8.
- [3] Kozloff N, Mulsant BH, Stergiopoulos V, Voineskos AN. The COVID-19 global pandemic: implications for people with schizophrenia and related disorders. *Schizophr Bull.* 2020:sbaa051 <https://doi.org/10.1093/schbul/sbaa051>.
- [5] Bartels SJ, Baggett TP, Freudenreich O, Bird BL. COVID-19 emergency reforms in Massachusetts to support behavioral health care and reduce mortality of people with serious mental illness. *Psych. Services* 2020:apps202000244 <https://doi.org/10.1176/appi.ps.202000244>.
- [6] 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(3):299–302. Mar.
- [7] 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. 03/14/2020.
- [8] Hjorthoj C, Sturup AE, McGrath JJ, Nordentoft M. Years of potential life lost and life expectancy in schizophrenia: a systematic review and meta-analysis. *Lancet Psychiatry* 2017;4(4):295–301. Apr.
- [9] Chadwick A, Street C, McAndrew S, Deacon M. Minding our own bodies: reviewing the literature regarding the perceptions of service users diagnosed with serious mental illness on barriers to accessing physical health care. *Int J Ment Health Nurs* 2012;21(3):211–9. Jun.
- [10] Decoux M. Acute versus primary care: the health care decision making process for individuals with severe mental illness. *Issues Ment Health Nurs* 2005;26(9):935–51. Nov.
- [11] Mitchell AJ, Delaffon V, Vancampfort D, Correll CU, De Hert M. Guideline concordant monitoring of metabolic risk in people treated with antipsychotic medication: systematic review and meta-analysis of screening practices. *Psychol Med* 2012;42(1):125–47. Jan.
- [12] Knickman J, Krishnan KRR, Pincus HA, et al. Improving access to effective care for people who have mental health and substance use disorders. *Vital Direct.* 2017:135.
- [13] Clement S, Schauman O, Graham T, et al. What is the impact of mental health-related stigma on help-seeking? A systematic review of quantitative and qualitative studies. *Psychol Med* 2015;45(1):11–27. Jan.
- [14] Ross LE, Vigod S, Wishart J, et al. Barriers and facilitators to primary care for people with mental health and/or substance use issues: a qualitative study. *BMC Fam Pract* 2015;16:135. Oct 13.
- [15] Melamed OC, Fernando I, Soklaridis S, Hahn MK, LeMessurier KW, Taylor VH. Understanding engagement with a physical health service: a qualitative study of patients with severe mental illness. *Can J Psychiatr Rev Can Psychiat* 2019;64(12):872–80. Dec.
- [16] Zeber JE, Copeland LA, McCarthy JF, Bauer MS, Kilbourne AM. Perceived access to general medical and psychiatric care among veterans with bipolar disorder. *Am J Public Health* 2009;99(4):720–7. Apr.
- [17] Davydov DS, Ribe AR, Pedersen HS, et al. Serious mental illness and risk for hospitalizations and rehospitalizations for ambulatory care-sensitive conditions in Denmark: a nationwide population-based cohort study. *Med Care* 2016;54(1):90–7. Jan.
- [18] Mitchell AJ, Lawrence D. Revascularisation and mortality rates following acute coronary syndromes in people with severe mental illness: comparative meta-analysis. *Br J Psychiatry* 2011;198(6):434–41. Jun.
- [19] Jorgensen M, Mainz J, Lange P, Paaske Johnsen S. Quality of care and clinical outcomes of chronic obstructive pulmonary disease in patients with schizophrenia. A Danish nationwide study. *Int J Qual Health Care* 2018;30(5):351–7. Jun 1.
- [20] Hollander JE, Carr BG. Virtually perfect? Telemedicine for COVID-19. *New Engl J Med* 2020;382(18):1679–81.
- [21] Ennis L, Rose D, Denis M, Pandit N, Wykes T. Can't surf, won't surf: the digital divide in mental health. *J Ment Health* 2012;21(4):395–403. Aug.
- [22] Büchi M, Festic N, Latzer M. How social well-being is affected by digital inequalities. *Int J Commun* 2018;12:21.
- [23] Runkle JD, Brock-Martin A, Karmaus W, Svendsen ER. Secondary surge capacity: a framework for understanding long-term access to primary care for medically vulnerable populations in disaster recovery. *Am J Public Health* 2012;102(12):e24–32. Dec.
- [24] Lord O, Malone D, Mitchell AJ. Receipt of preventive medical care and medical screening for patients with mental illness: a comparative analysis. *Gen Hosp Psychiatry* 2010;32(5):519–43. Sep–Oct.
- [25] Mangurian C, Modlin C, Williams L, et al. A doctor is in the house: stakeholder focus groups about expanded scope of practice of community psychiatrists. *Community Ment Health J* 2018;54(5):507–13. Jul.
- [26] Druss BG, von Esenwein SA, Compton MT, Rask KJ, Zhao L, Parker RM. A randomized trial of medical care management for community mental health settings: the Primary Care Access, Referral, and Evaluation (PCARE) study. *Am J Psychiatry* 2010;167(2):151–9. Feb.
- [27] Administration SAaMHSA-HRaS. SAMHSA-HRSA Center for Integrated Health Solutions (CIHS). <https://www.samhsa.gov/integrated-health-solutions>.
- [28] Luptak M, Dailey N, Juretic M, et al. The Care Coordination Home Telehealth (CCHT) rural demonstration project: a symptom-based approach for serving older veterans in remote geographical settings. *Rural Remote Health* 2010;10(2):1375. Apr–Jun.
- [29] Ratzliff A, Sunderji N. Tele-behavioral health, collaborative care, and integrated care: learning to leverage scarce psychiatric resources over distance, populations, and time. *Acad Psychiatr* 2018;42(6):834–40. Dec.
- [30] Hensel WF, Wolf LE. Playing god: the legality of plans denying scarce resources to people with disabilities in public health emergencies. *Fla L Rev* 2011;63:719.
- [31] Kidd M. Australia's primary care COVID-19 response. *Austral J Gen Pract* 2020;49. Epub ahead of print Apr 2.
- [32] Forman H, Fowler E, Ranney M. Health care priorities for a COVID-19 stimulus bill: recommendations to the administration, congress, and other federal, state and local leaders from public health, medical, policy and legal experts. *Health Aff (Millwood)* 2020. <https://doi.org/10.1377/hblog20200312.363618>.
- [33] Olfson M, Gerhard T, Huang C, Crystal S, Stroup TS. Premature mortality among adults with schizophrenia in the United States. *JAMA Psychiatr* 2015;72(12):1172–81. Dec.
- [34] Pillinger T, D'Ambrosio E, McCutcheon R, Howes OD. Is psychosis a multisystem disorder? A meta-review of central nervous system, immune, cardiometabolic, and

- endocrine alterations in first-episode psychosis and perspective on potential models. *Mol Psychiatry* 2019;24(6):776–94. Jun.
- [35] De Hert M, Detraux J, van Winkel R, Yu W, Correll CU. Metabolic and cardiovascular adverse effects associated with antipsychotic drugs. *Nat Rev Endocrinol* 2011;8(2):114–26. Oct 18.
- [36] Scott D, Happell B. The high prevalence of poor physical health and unhealthy lifestyle behaviours in individuals with severe mental illness. *Issues Ment Health Nurs* 2011;32(9):589–97.
- [37] Dickey B, Normand SL, Weiss RD, Drake RE, Azeni H. Medical morbidity, mental illness, and substance use disorders. *Psychiatr Serv* 2002;53(7):861–7. Jul.
- [38] Lund C, Brooke-Sumner C, Baingana F, et al. Social determinants of mental disorders and the Sustainable Development Goals: a systematic review of reviews. *Lancet Psychiatry* 2018;5(4):357–69. Apr.
- [39] 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(2):e100213.
- [40] Yao H, Chen JH, Xu YF. Patients with mental health disorders in the COVID-19 epidemic. *Lancet Psychiatry* 2020;7(4):e21. Apr.
- [41] Horan WP, Ventura J, Mintz J, et al. Stress and coping responses to a natural disaster in people with schizophrenia. *Psychiatry Res* 2007;151(1–2):77–86. May 30.
- [42] Degnan A, Berry K, Sweet D, Abel K, Crossley N, Edge D. Social networks and symptomatic and functional outcomes in schizophrenia: a systematic review and meta-analysis. *Soc Psychiatry Psychiatr Epidemiol* 2018;53(9):873–88. Sep.
- [43] Druss BG. Addressing the COVID-19 pandemic in populations with serious mental illness. *JAMA Psychiatry* 2020. <https://doi.org/10.1001/jamapsychiatry.2020.0894>.
- [44] Blixen CE, Kanuch S, Perzynski AT, Thomas C, Dawson NV, Sajatovic M. Barriers to self-management of serious mental illness and diabetes. *Am J Health Behav* 2016;40(2):194–204. Mar.
- [45] Mulligan K, McBain H, Lamontagne-Godwin F, et al. Barriers and enablers of type 2 diabetes self-management in people with severe mental illness. *Health Expect* 2017;20(5):1020–30. Oct.
- [46] Hoffman L, Wisniewski H, Hays R, et al. Digital Opportunities for Outcomes in Recovery Services (DOORS): a pragmatic hands-on group approach toward increasing digital health and smartphone competencies, autonomy, relatedness, and alliance for those with serious mental illness. *J Psychiatr Pract* 2020;26(2):80–8. Mar.
- [47] Medical psychiatry alliance technology-enabled care collaboration for youth with early psychosis. <https://mpateccy.net/>, Accessed date: 20 June 2020.
- [48] Kannarkat JT, Smith NN, McLeod-Bryant SA. Mobilization of telepsychiatry in response to COVID-19-moving toward 21<sup>st</sup> century access to care. *Adm Policy Ment Health* 2020;47(4):489–91. <https://doi.org/10.1007/s10488-020-01044-z>.
- [49] Torous J, Keshavan M. COVID-19, mobile health and serious mental illness. *Schizophr. Res.* 2020;218:36–7. <https://doi.org/10.1016/j.schres.2020.04.013>.
- [50] Druss BG, Singh M, von Esenwein SA, et al. Peer-led self-management of general medical conditions for patients with serious mental illnesses: a randomized trial. *Psychiatr Serv* 2018;69(5):529–35. May 1.
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