

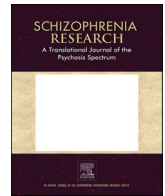


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Schizophrenia Research

journal homepage: www.elsevier.com/locate/schres

Letter to the Editor

A call to action: Increased mortality from COVID-19 among individuals with schizophrenia calls for coordinated vaccination efforts



ARTICLE INFO

Keywords

Schizophrenia
SSDs
COVID-19
Vaccination
Mortality
Preventative

Individuals with schizophrenia spectrum disorders (SSDs) bear a significant burden of chronic illnesses and have an estimated 14.5 year decrease in life expectancy compared to the general population (Hjorthøj et al., 2017). A significant proportion of the mortality gap among individuals with schizophrenia and other forms of serious mental illness (SMI) is due to physical illness, suggesting a critical need to reduce barriers to preventative care such as vaccinations. While most individuals with SMI believe vaccines are safe, there remains a gap in vaccination rates between individuals with SMI and the general population (Miles et al., 2020). Factors such as lack of accessibility, personal cost, and lack of awareness and knowledge of needed vaccines are barriers to completed vaccinations (Miles et al., 2020). Here we propose initial steps for mental health providers to improve preventative care using the coronavirus disease 2019 (COVID-19) vaccination rollout as a case example.

Across the globe, individuals with SSDs are at significantly increased risk of hospitalization or death from COVID-19, even after controlling for co-morbid medical risk factors for COVID-19 such as smoking, chronic obstructive pulmonary disease, and hypertension. (Maripuu et al., 2021; Nemani et al., 2021; Tzur Bitan et al., 2021) In response, countries including Germany, the United Kingdom, Denmark, and the Netherlands updated early COVID-19 vaccine guidelines to include earlier vaccine administration to individuals with SMI (De Picker et al., 2021). However, despite evidence that individuals with schizophrenia are at an increased risk for poor outcomes related to COVID-19, psychiatric diagnoses were excluded from the conditions ensuring vaccine eligibility for Phase 2 of the United States (U.S.) vaccine rollout. While wide-spread access to COVID-19 vaccination improved in the U.S., exclusion of a SSD diagnosis from the early vaccine distribution guidelines perpetuated disparities in access to medical care. Even among vaccinated individuals, a decrease in vaccine effectiveness occurs over time, highlighting the importance of booster doses (Johnson et al., 2022). During the months of Delta variant predominance in the U.S., unvaccinated individuals had 53.2 times the risk for COVID-19 associated death compared to fully vaccinated individuals who received a booster dose, and 12.7 times the risk for COVID-19 associated death

compared to vaccinated individuals who did not receive a booster dose. (Johnson et al., 2022) A coordinated effort among mental healthcare providers is necessary to increase access to preventative medicine, including the COVID-19 vaccine and booster doses, among individuals living with SSDs.

First, it is our responsibility to discuss with our patients the increased health risks, including mortality, associated with COVID-19. Psychiatrists and other members of the mental healthcare team are often the only consistent contacts individuals with schizophrenia have with the healthcare system. We are thus well-positioned to encourage an open dialogue about COVID-19 vaccination, both acknowledging and validating patient concerns about vaccination. We can also emphasize the benefits of vaccination and be a resource to address individual concerns. Motivational interviewing (MI) is one approach to addressing vaccine hesitancy among our patients; MI has been effective in increasing vaccination rates (Gagneur, 2020).

Next, we must take multiple approaches to work towards equitable vaccine access among individuals with SMI. In the clinical setting, we can ensure the medical record is accurate and updated, so our patients receive their vaccines at correct time intervals. Previous successful vaccination programs included vaccination clinics co-located in psychiatric clinics, with volunteers prepared to answer questions and to ensure optimum flow of patients receiving vaccinations (Miles et al., 2020). For example, at our home institution a specialized vaccine nurse sat in our outpatient psychiatry clinic and administered the COVID-19 vaccine and booster to eligible individuals. Providers in our outpatient department were encouraged to inform patients of vaccine availability during their clinical visits, while the vaccine nurse provided vaccination education to patients in the waiting room. Further, one of our staff psychologists gave a seminar teaching MI for vaccine hesitancy, and some of our colleagues used this approach at each patient visit. Patients were also offered a choice between the 3 FDA-approved vaccine options to encourage autonomy. Over the initial 4 week period of the program, 39.5 % of eligible patients received an initial COVID-19 vaccination or booster shot on the same day as their mental health appointment. Outside of the psychiatry clinic, mobile vaccination clinics held at

<https://doi.org/10.1016/j.schres.2022.06.002>

Received 15 April 2022; Received in revised form 31 May 2022; Accepted 1 June 2022

Available online 6 June 2022

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inpatient psychiatric hospitals or at community sites such as psychiatric day programs may be similarly effective in increasing vaccination rates (Miles et al., 2020). Psychiatric teams should collaborate with local community partners to open vaccination sites specifically for individuals with SMI, a strategy that has increased vaccination rates four-fold for routine vaccinations prior to the COVID-19 pandemic (Miles et al., 2020). We can also partner with local chapters of organizations such as National Alliance on Mental Illness to advocate for equitable and accessible healthcare coverage for our patients with SSDs. We must call attention to the disproportionate burden our patients have faced during the COVID-19 pandemic, and advocate for local, state, and federal funding to be allocated for sustainable, long-term immunization initiatives.

The COVID-19 pandemic has illuminated the widening disparities in premature mortality among individuals with SSDs. Lessons learned from COVID-19 vaccination efforts should inform future practices to encourage timely vaccinations as part of preventative health interventions for individuals with SMI. We as mental health care providers have the responsibility to advocate for equitable vaccine access for the vulnerable population we serve.

CRediT authorship contribution statement

Concept and drafting: Schor, Gibbs, Gouse.

Supervision and critical revision for important intellectual content: Brown.

Declaration of competing interest

None.

Acknowledgements

None.

References

- De Picker, L.J., et al., 2021. Severe mental illness and European COVID-19 vaccination strategies. *Lancet Psychiatry* 8 (5), 356–359. [https://doi.org/10.1016/S2215-0366\(21\)00046-8](https://doi.org/10.1016/S2215-0366(21)00046-8).
- Gagneur, A., 2020. Motivational interviewing: a powerful tool to address vaccine hesitancy. *Can. Commun. Dis. Rep.* 46 (4), 93–97. <https://doi.org/10.14745/ccdr.v46i04a06>.
- Hjorthøj, C., et al., 2017. Years of potential life lost and life expectancy in schizophrenia: a systematic review and meta-analysis. *Lancet Psychiatry* 4 (4), 295–301. [https://doi.org/10.1016/S2215-0366\(17\)30078-0](https://doi.org/10.1016/S2215-0366(17)30078-0).
- Johnson, A.G., et al., 2022. COVID-19 incidence and death rates among unvaccinated and fully vaccinated adults with and without booster doses during periods of delta and omicron variant emergence — 25 U.S. jurisdictions, April 4–December 25, 2021. *MMWR Morb. Mortal. Wkly Rep.* 71 (4), 132–138. <https://doi.org/10.15585/mmwr.mm7104e2>.
- Maripuu, M., et al., 2021. Death associated with coronavirus (COVID-19) infection in individuals with severe mental disorders in Sweden during the early months of the outbreak—an exploratory cross-sectional analysis of a population-based register study. *Front. Psychiatry* 11, 609579. <https://doi.org/10.3389/fpsy.2020.609579>.
- Miles, L.W., et al., 2020. Adult vaccination rates in the mentally ill population: an outpatient improvement project. *J. Am. Psychiatr. Nurs. Assoc.* 26 (2), 172–180. <https://doi.org/10.1177/1078390319831763>.
- Nemani, K., et al., 2021. Association of psychiatric disorders with mortality among patients with COVID-19. *JAMA Psychiatry*. <https://doi.org/10.1001/jamapsychiatry.2020.4442> [Preprint].
- Tzur Bitan, D., et al., 2021. COVID-19 prevalence and mortality among schizophrenia patients: a large-scale retrospective cohort study. *Schizophr. Bull.* sbab012. <https://doi.org/10.1093/schbul/sbab012>.

Shayna H. Schor^a, Jada S. Gibbs^b, Brittany M. Gouse^c, Hannah E. Brown^{c,*}

^a Boston University School of Medicine, Boston, MA 02118, United States of America

^b Department of Psychiatry, Boston Medical Center, Boston, MA 02118, United States of America

^c Department of Psychiatry, Boston University School of Medicine, Boston Medical Center, Boston, MA 02118, United States of America

* Corresponding author.

E-mail address: hannah.brown2@bmc.org (H.E. Brown).