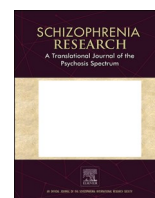




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Letter to the Editor

The immediate impact of the COVID-19 pandemic on attenuated positive symptoms and functioning in individuals at clinical high risk for psychosis: A pilot study



To the Editors,

Considerable evidence has reported that the COVID-19 pandemic has disproportionately negatively impacted individuals with mental illness (Tsamakis et al., 2021). However, from a prevention perspective, there remains an issue of whether the stressful conditions associated with the pandemic (e.g., social distancing and isolation, home sequestering) increase risk for psychosis (Brown et al., 2020). For these reasons, we want to share the results of a small pilot study with a group of 15 individuals at clinical high-risk (CHR) for psychosis that examined the initial impact of the quarantine and social distancing guidelines imposed by New York State as a result of the COVID-19 pandemic.

This pilot study assessed whether the stress associated with the COVID outbreak led to an increase in attenuated positive symptoms and the rate of transition to psychosis, and/or a decline in social and role functioning. Participants were contacted twice post-pandemic: approximately 2–3 months after the initial stay-at-home order and 1 month later. Post-pandemic positive symptom and functioning levels were compared to the last pre-pandemic to assess change.

The sample consisted of 15 individuals who recently met criteria for CHR as part of the Recognition and Prevention (RAP) Program at Northwell Health in New York (Carrion et al., 2017). At the time they were recruited, all participants had one or more moderate-to-severe level (scores of 3–5) attenuated positive symptoms as assessed by the Structured Interview for Psychosis-Risk Syndromes (SIPS) (McGlashan et al., 2010). The Northwell Health System IRB approved all procedures. Written informed consent (assent < 18 years-old) was obtained from all participants. At the first post-pandemic contact, the CHR group consisted of mostly late adolescents and young adults (Mean age = 18.8, range 16–22; 7 male, 6 female, 2 transgender). The majority (86.7%) were students attending school remotely during the shutdown (see Data Supplement for more details).

As shown in Fig. 1A, at the most recent follow-up assessment prior to the pandemic, the CHR participants displayed moderate levels of total attenuated positive symptom with a mean of 7.37 (possible range of 0–30). Positive symptoms significantly decreased after approximately 3.5 months of quarantine and pandemic-related restrictions (see Table S1). At the second post-pandemic contact, 75% of the sample was in remission (all attenuated positive symptoms rated < 3) and 25% continued to be symptomatic (at least 1 symptom rated 3–5). This is consistent with previous reports that overall, CHR individuals show a gradually lessening of positive symptom levels over time (Addington et al., 2015), and suggests that the natural symptom course has not been impacted by pandemic sequelae.

At the first point of contact post-pandemic, CHR participants showed mild-to-moderate levels of social (Fig. 1B) and role (Fig. 1C) functioning impairments, anxiety and depression symptoms, in line with previously

reported levels (Carrion et al., 2021, 2019; Olvet et al., 2015). The patterns did not change with an additional month of quarantine (see Table S1), further suggesting that at-risk adolescents did not become more symptomatic in the early days of the pandemic.

The self-report questionnaire revealed that the participants were following the news about the COVID-19 outbreak (66.6%). Most (87%) of the group reported that they were abiding by the social distancing guidelines, had stopped seeing friends in person, and wore a face mask outside their home when appropriate. The participants were very concerned about their families' and somewhat concerned about their own well-being. At the first contact post-pandemic, the outbreak had affected them directly in different ways: 26.7% had experienced financial hardship and 13.3% reported an illness-related impact. One participant contracted the virus and a family member that lived in the same household died from COVID-19. Few-to-none of the participants reported that their high-risk symptoms were worse, coinciding with the SOPS positive symptom scores (see Table S2). In addition, no participants had developed psychosis. At the first point of contact, compared to the pre-COVID-19 era, participants felt more stressed (73.3%) and bored (60%), but most felt that their moods (40%) and anxiety (60%) levels were about the same. These findings remained consistent at the second contact (see Table S2). At both contact points, most of the participants reported that they were coping well during the pandemic. Overall, less of a negative impact was reported over time, which is consistent with recent general population longitudinal findings during the pandemic (Fancourt et al., 2021).

In this pilot study, we did not find an increase in attenuated positive symptoms in a group of 15 CHR subjects after approximately 3.5 months of quarantine and pandemic-related restrictions. Most of the subjects reported that the pandemic had a negative impact on their interpersonal and school-related activities (graduation, prom, clubs, etc.). However, already present functioning impairments remained relatively stable, relative to the improvement in positive symptoms. Consistent with recent findings in adult patients with schizophrenia (Pinkham et al., 2020), these individuals were coping with the pandemic despite the presence of a moderate number of COVID-related difficulties (including family members contracting and dying from COVID), as well as high levels of stress and persistent mild-to-moderate depressive and anxiety symptoms.

While the COVID-19 pandemic has certainly seen a rise in psychological distress and mental health issues in patients with schizophrenia and other psychotic disorders, it is possible that staying at home with family and communicating with friends by phone and social media may be somewhat consistent with the pre-pandemic lifestyle of a CHR individual. In addition, staying at home with family may provide a level of support to these vulnerable individuals during the highly stressful events

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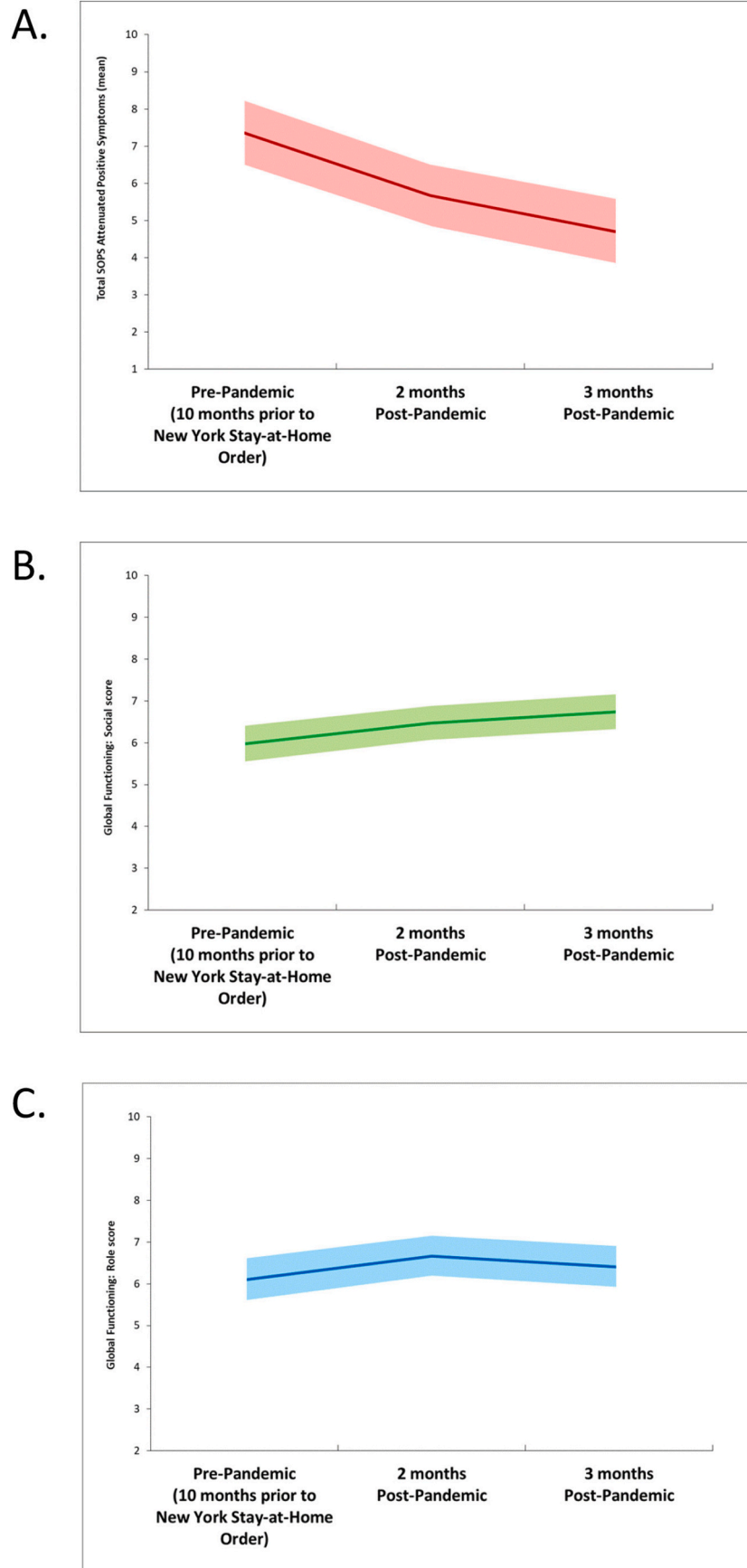


Fig. 1. Mean (\pm S.E.) scores for (a) SOPS Total Positive Symptoms (b) Global Functioning: Social scale, and (c) Global Functioning: Role scale at the most recent pre-pandemic assessment, 2 months post-pandemic onset, and 3 months post-pandemic onset.

of the COVID-19 outbreak.

CRedit authorship contribution statement

Ricardo E. Carrión - Analyzed data and wrote the final manuscript. Developed figures, tables, and data supplement.

Andrea Auther - Performed the study and Edited manuscript.

Danielle McLaughlin - Performed the study, analyzed data and Edited manuscript.

Barbara A. Cornblatt - Designed and performed the study, Developed methods, edited the manuscript.

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Declaration of competing interest

Drs. Carrión, Auther, Cornblatt and Ms. McLaughlin report no financial relationships.

Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.schres.2021.07.006>.

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