



## LETTER TO THE EDITOR

## CBT-Vaccination: A Public Health Approach to Support the Impact of COVID-19 on Mental Health and Wellbeing

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A mental health “echo-pandemic” is unfolding as the short and long term physical and mental health effects of the COVID-19 pandemic continue unabated across the globe. The mental health effects are felt at the general population level through COVID’s impact on the education and healthcare systems, the economy as well as increased psychiatric symptoms in vulnerable groups and fatigue and burn-out in front-line workers. As children and adolescents head back to classes, parents worry about adequate safety measures and a second wave of new infections on the one hand while weighing the impact of social isolation on their children’s development on the other. In this letter we propose Cognitive Behavioral Therapy Vaccination (CBT-V) as a strategy that integrates COVID-related public health measures with the best evidence-based psychological intervention.

The concept of behavioral vaccines, or non-pharmacological approaches to treating psychological disease burden at the population level is not new. In response to a report by the Institute of Medicine to prevent highly prevalent mental health disorders, Embry (2011) suggested that evidence-based behavioral kernels and behavioral vaccines could be used through a public health approach, to provide treatment

at the general population level. Evidence-based kernels are the smallest units of behavioral change that can readily be adopted by children, teachers or parents. Behavioral vaccines are the repeated use of kernel(s) in order to prevent or reduce morbidity, mortality or improve wellbeing. Embry’s public health approach to mental health is immediately translatable when large segments of the population are subjected to catastrophes such as natural disasters or the current COVID-19 pandemic. CBT-V administered at the population level would lend itself to this kind of global intervention.

CBT is one of the most effective non-pharmacological approaches for treating anxiety, depression and stress-related disorders in adults as well as in children and adolescents (Hofmann et al 2012). Its three components of cognition (thoughts), behavior and emotions, referred to as the CBT Triangle form the basis of skill-building (symptom reduction) by challenging distorted cognitions, addressing overwhelming emotion and changing maladaptive behavior. CBT is readily available in clinics but recently has been offered online (Kumar et al, 2017). Therapists and then parents act as CBT “coaches” to reinforce learned skills but mental health apps could serve similar functions.

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To safeguard the population's mental health, we suggest that approaches like CBT-V should be made routinely available to the public through clinics and schools. Prompts or boosters could also be administered during COVID-19 screening, vaccination programs or as part of public messaging campaigns. COVID-19's impact on society's mental health will not disappear in the near future and in fact may worsen; public health initiatives are needed to incorporate mental health at the same level of importance as medical interventions including strategies to deal with social isolation, domestic violence and child abuse.

## References

- Embry, D. (2011). Behavioral vaccines and evidence based kernels: Non-pharmaceutical approaches for the prevention of mental health, emotional and behavioral disorders. *Psychiatric Clinics of North America*, 34(1), 1-34.
- Hofmann, S. G., Asnaani, A., Vonk, I. J., Sawyer, A. T., & Fang, A. (2012). The Efficacy of Cognitive Behavioral Therapy: A Review of Meta-analyses. *Cognitive Therapy and Research*, 36(5), 427-440.
- Kumar, V., Sattar, Y., Bseiso, A., Khan, S., & Rutkofsky, I. H. (2017). The Effectiveness of Internet-Based Cognitive Behavioral Therapy in Treatment of Psychiatric Disorders. *Cureus*, 9(8), e1626.