

Data-driven assessment of Israeli adolescents' mental health during the COVID-19 pandemic

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Introduction

- Adolescents' mental health and well-being were severely compromised during the COVID-19 pandemic.
- Longitudinal follow-up studies, based on real-world data, assessing the changes in mental health of adolescents during the COVID-19 pandemic are needed.

Objective

To quantify the effect of COVID-19 on the incidence of Israeli adolescents' mental health outcomes from real-world data.

Methods

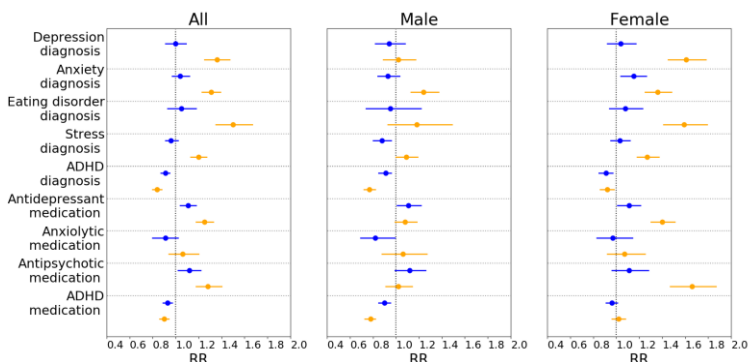
- This was a retrospective cohort study analyzing electronic health records of members of Maccabi Healthcare Services during 2017-2021.
- Eligible subjects were 12-17 years old, with no previous diagnosis or psychiatric drug dispensation.
- Incidence rates of mental health diagnoses and psychiatric drugs dispensation were measured, and Relative Risks were computed between the years.

Results

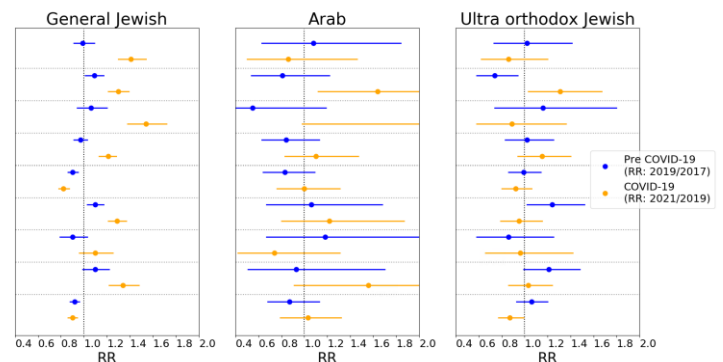
This study included over 500,000 adolescents. During the COVID-19 period a 36% increase was observed in the incidences of depression, 31% in anxiety, 20% in stress, 50% in eating disorders, 25% in antidepressants and 28% in antipsychotics dispensation. The increase was mostly attributed to girls in the general Israeli population; however, 24% increase in anxiety was seen in boys, 64% in Israeli Arabs and 31% in ultra-orthodox.

Figure 1: Relative risks (RR) and 95% CI of mental health diagnoses and medications incidence rates: Pre COVID-19 (2019/2017 years; blue) and COVID-19 (2021/2019 years; orange)

(a) partition by gender



(b) partition by sector



Conclusions

This real-world data of adolescents shows increased incidence rates of mental health diagnoses and medications during the COVID-19 pandemic, and specifically identifies girls as those with the highest mental health burden. Our study highlights that the deteriorating mental health of children should be considered by decision-makers when actions and policies are put in place entering the third year of the pandemic.