

Oral

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(Meeting Room 1)

## Oral 19

### [O-19-02] Trajectories of Changes in Mental Health Symptoms During COVID-19: Evidence from a Systematic Review and Meta-analysis of 284 Studies

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**Background:** Few systematic reviews could provide a comprehensive synthesis of the impact of the COVID-19 pandemic on mental health outcomes during the pandemic.

**Objectives:** To synthesize the trajectories of changes in general mental health, anxiety, and depression symptoms of diverse populations throughout the COVID-19 pandemic.

**Methods:** We conducted a living systematic review and searched among 9 databases. We conducted meta-regression with linear mixed models. Risk of bias (ROB) was assessed using an adapted Joanna Briggs Institute Checklist for Prevalence Studies.

**Results:** As of April 03, 2023, we reviewed 149,026 unique citations and included 284 eligible studies from 275 cohorts that had multiple data points of COVID-19 mental health outcomes during the pandemic. Most publications (275, 97%) reported all time points between January 1, 2020 and December 31, 2021, and were from high-income (226, 80%) or upper-middle income (54, 19%) countries. The main analysis results suggest no consistent pattern of temporal effects on changes of mental health outcomes. Each quarter of a year since COVID-19 onset was associated with a minimal improvement in general mental health (0.02 standardized mean difference (SMD), 95%CI -0.02 to -0.02) and in depression symptoms (0.03 SMD, 95%CI -0.03 to -0.03), while with minimally worsened anxiety symptoms (0.02 SMD, 95%CI 0.02 to 0.02). Estimates of all covariates' effects were close to zero or inconsistent, except the country stringency index which was associated with all three outcomes minimally (0.02 - 0.05 SMD; 95%CI 0.02 to 0.03 - 0.05 to 0.05). Results among 18 subgroups including general population suggested no consistent pattern of changing with time across all outcomes. Substantial heterogeneity and ROB were present across analyses.

**Conclusions:** Generally high ROB and the extreme heterogeneity makes it essential to interpret findings cautiously. However, there is no clear trend of change across mental outcomes throughout the COVID-19 pandemic.