Supplementary Material: Table of Contents

existing mental health conditions (1j), and sensitivity analysis of university students with results from Savage et al. from October 2020 instead of April 2020 (1k).

Supplementary Figures 2a to 2l. Forest plots of standardized mean difference changes in anxiety symptoms for studies of the general population (2a), women or females (2b), men or males (2c), older adults (2d), young adults (2e), university students (2f), children and adolescents (2g), people with pre-existing medical conditions (2h), people with pre-existing mental health conditions (2i), people who identify as sexual or gender minorities (2j), sensitivity analysis of people with pre-existing medical conditions conducted with results from Henry et al. from September to October 2020 instead of April 2020 (2k), and sensitivity analysis of people with pre-existing medical conditions conducted with results from Henry et al. from March 2021 instead of April 2020 (2l).

Supplementary Figures 3a to 3m. Forest plots of standardized mean difference changes in depression symptoms for studies of the general population (3a), women or females (3b), men or males (3c), older adults (3d), young adults (3e), university students (3f), children and adolescents (3g), parents (3h), people with pre-existing medical conditions (3i), people with pre-existing mental health conditions (3j), people who identify as sexual or gender minorities (3k), sensitivity analysis of people with pre-existing medical conditions conducted with results from Henry et al. from September to October 2020 instead of April 2020 (3l), and sensitivity analysis of people with pre-existing medical conditions conducted with results from Henry et al. from March 2021 instead of April 2020 (3m).

References of Included Studies

Supplementary Material 1. Amendments to Protocol

Our systematic review was rapidly designed and initiated in April 2020, and several amendments or clarifications were made. First, we changed from daily to weekly search updates on December 28, 2020 for more efficient reference processing. Second, on January 27, 2021, we made a minor change to the MEDLINE search strategy to incorporate the new Physical Distancing Medical Subject Heading created by the National Library of Medicine in light of the COVID-19 pandemic. Third, we made several amendments to Chinese-language search strategies to facilitate processing (see Supplementary Material 1). Fourth, we added a criterion to stipulate that eligible pre-COVID-19 assessments had to be completed between January 1, 2018 and December 31, 2019. We added this criterion because we had not anticipated that studies would report comparisons of outcomes during COVID-19 to outcomes assessed many years prior, which in some cases occurred during a different developmental life stage from assessments carried out during the pandemic.

Supplementary Material 2: Search Strategies

Ovid MEDLINE All

†New subject heading added to original search on January 27, 2021

1. Quarantine/
2. social isolation/ or loneliness/ or physical distancing/†
3. psychology.fs. or psychology/
4. Mental Health/
5. mental disorders/
6. social stigma/
7. Fear/
8. Anxiety/
9. Depression/
10. Stress, Physiological/ or Stress, Psychological/
11. Anger/
12. Irritable Mood/
13. Grief/
14. burnout, psychological/ or burnout, professional/
15. or/1-15
16. (Quarantine* or Self-isolation or isolation or social distanc* or shelter*-in-place or psych* or mental health or mental illness* or mental disorder* or stigma or fear* or anxiety or anxious or depression or depressive or loneliness or stress* or trauma* or post-traumatic or posttraumatic or anger or mood* or irritability or irritable or emotional disturbance* or grief or burned out or burnout).tw,kf.
17. ((exp coronavirus/ or exp coronavirus infections/ or (betacoronavirus* or beta coronavirus* or coronavirus* or corona virus*).mp.) and (exp china/ or (china or chinese or hubei or wuhan).af.)) or (coronavirus* or corona virus* or betacoronavirus* or beta coronavirus*).mp.

18. (severe acute respiratory syndrome coronavirus 2 or "SARS CoV-2" or "SARSCoV 2" or SARSCoV2 or cov2 or "sars 2" or COVID or "coronavirus 2" or covid19 or nCov or ((new or Novel) adj3 coronavirus*) or ncp).mp. or ((exp pneumonia/ or pneumonia.mp.) and wuhan.af.)

19. 17 or 18
20. 15 or 16
21. 19 and 20
22. ("20191231" or 2020* or 2021* or 2022*).dt,ez,da.
23. 21 and 22

Embase (Ovid)
1. exp coronavirinae/
2. exp Coronavirus infection/
3. (betacoronavirus* or beta coronavirus* or coronavirus* or corona virus*).mp.

4. 1 or 2 or 3
5. exp China/
6. (china or chinese or hubei or wuhan).af.
7. 5 or 6
8. 4 and 7
9. (betacoronavirus* or beta coronavirus* or coronavirus* or corona virus*).mp.
10. (severe acute respiratory syndrome coronavirus 2 or "SARS CoV-2" or "SARSCoV 2" or SARSCoV2 or cov2 or "sars 2" or COVID or "coronavirus 2" or covid19 or nCov or ((new or Novel) adj3 coronavirus*) or ncp).mp.
11. (exp pneumonia/ or pneumonia.mp.) and wuhan.af.
12. 8 or 9 or 10 or 11
13. quarantine/
14. social isolation/ or isolation/ or patient isolation/
15. loneliness/
16. psychology/
17. mental health/
18. mental disease/
19. social stigma/
20. fear/
21. anxiety/
22. depression/
23. physiological stress/ or mental stress/
24. anger/
25. irritability/
26. exp grief/
27. exp burnout/
28. (mental disorder* or Quarantine* or Self-isolation or isolation or social distanc* or shelter*-in-place or psych* or mental health or mental illness* or stigma or fear* or anxiety or anxious or depression or depressive or loneliness or stress* or trauma* or post-traumatic or posttraumatic or anger or mood* or irritability or irritable or emotional disturbance* or grief or burned out or burnout).tw,kw.
29. or/13-27
30. 12 and 29
31. ("20191231" or 2020* or 2021* or 2022*).dc.
32. 30 and 31

PsycINFO (Ovid)

1. (coronavirus* or corona virus* or betacoronavirus* or beta coronavirus*).mp.
2. (severe acute respiratory syndrome coronavirus 2 or "SARS CoV-2" or "SARSCoV 2" or SARSCoV2 or cov2 or "sars 2" or COVID or "coronavirus 2" or covid19 or nCov or ((new or Novel) adj3 coronavirus*) or ncp).mp. or ((exp pneumonia/ or pneumonia.mp.) and wuhan.af.)

3. 1 or 2
4. ("20191231" or 2020* or 2021* or 2022*).up.

5. 3 and 4

CINAHL

Search ID#	Search Terms
S26	S11 AND S25
S25	S12 OR S13 OR S14 OR S15 OR S16 OR S17 OR S18 OR S19 OR S20 OR S21 OR S22 OR S23 OR S24
S24	TI ((mental disorder* or Quarantine* or Self-isolation or isolation or social distanc* or shelter*-in-place or psych* or mental health or mental illness* or stigma or fear* or anxiety or anxious or depression or depressive or loneliness or stress* or trauma* or post-traumatic or posttraumatic or anger or mood* or irritability or irritable or emotional disturbance* or grief or burned out or burnout)) OR AB ((mental disorder* or Quarantine* or Self-isolation or isolation or social distanc* or shelter*-in-place or psych* or mental health or mental illness* or stigma or fear* or anxiety or anxious or depression or depressive or loneliness or stress* or trauma* or post-traumatic or posttraumatic or anger or mood* or irritability or irritable or emotional disturbance* or grief or burned out or burnout))
S23	(MH "Burnout, Professional")
S22	(MH "Grief+")
S21	(MH "Anger")
S20	(MH "Stress, Physiological") OR (MH "Stress, Psychological")
S19	(MH "Depression")
S18	(MH "Anxiety")
S17	(MH "Fear")
S16	(MH "Stigma")
S15	(MH "Mental Health") or (MH "Mental Disorders")
S14	(MH "Psychology")
S13	(MH "Social Isolation") OR (MH "Loneliness") or (MH “Social Distancing”) or (MH “Stay at Home Orders”) †
S12	(MH "Quarantine")
S11	S7 OR S8 OR S9 OR S10
S10	((MH "Pneumonia+") or TI (pneumonia) OR AB (pneumonia)) AND (TI (wuhan) OR AB (wuhan) OR AF (wuhan))
S9	TI ((severe acute respiratory syndrome coronavirus 2 or "SARS CoV-2" or "SARSCoV 2" or SARSCoV2 or cov2 or "sars 2" or COVID or "coronavirus 2" or covid19 or nCov or ((new or Novel) N3 coronavirus*)) OR AB ((severe acute respiratory syndrome coronavirus 2 or "SARS CoV-2" or "SARSCoV 2" or

	SARSCoV2 or cov2 or "sars 2" or COVID or "coronavirus 2" or covid19 or nCov or ((new or Novel) N3 coronavirus*)) or (MH “Covid 19”) †
S8	TI ((betacoronavirus* or beta coronavirus* or coronavirus* or corona virus*)) OR AB ((betacoronavirus* or beta coronavirus* or coronavirus* or corona virus*))
S7	S5 AND S6
S6	S1 OR S2
S5	S3 OR S4
S4	TI ((china or chinese or hubei or wuhan)) OR AB ((china or chinese or hubei or wuhan)) OR AF ((china or chinese or hubei or wuhan)) OR SO ((china or chinese or hubei or wuhan))
S3	(MH "China+")
S2	TI ((betacoronavirus* or beta coronavirus* or coronavirus* or corona virus*)) OR AB ((betacoronavirus* or beta coronavirus* or coronavirus* or corona virus*))
S1	(MH "Coronavirus+") OR (MH "Coronavirus Infections+")

Web of Science

TOPIC: (Quarantine* or "Self-isolation" or isolation or "social distanc*" or "shelter*-in-place" or psych* or "mental health" or "mental illness*" or "mental disorder*" or stigma or fear* or anxiety or anxious or depression or depressive or loneliness or stress* or trauma* or "post-traumatic" or posttraumatic or anger or mood* or irritability or irritable or "emotional disturbance*" or grief or "burned out" or burnout) AND TOPIC: ((coronavirus* or "corona virus*" or betacoronavirus* or "beta coronavirus*" or "severe acute respiratory syndrome coronavirus 2" or "SARS CoV-2" or "SARSCoV 2" or SARSCoV2 or cov2 or "sars 2" or COVID or "coronavirus 2" or covid19 or nCov or "Novel coronavirus*" or "new coronavirus*"))
Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC Timespan=Year to date

China National Knowledge Infrastructure

Restricted to disciplines: Medical and Public Health & Social science

TI=(隔离+封城+社交距离+方舱+心理+心理健康+精神卫生+精神疾病+心理疾病+污名+耻辱+羞辱+恐惧+焦虑+抑郁+孤独+压力+应激+创伤+创伤后+愤怒+情绪+心情+易怒+情绪障碍+心理障碍+哀伤+悲伤+悲痛+悲哀+忧郁+倦怠)*(新冠+新型冠状) OR AB=(隔离+封城+社交距离+方舱+心理+心理健康+精神卫生+精神疾病+心理疾病+污名+耻辱+羞辱+恐惧+焦虑+抑郁+孤独+压力+应激+创伤+创伤后+愤怒+情绪+心情+易怒+情绪障碍+心理障碍+哀伤+悲伤+悲痛+悲哀+忧郁+倦怠)*(新冠+新型冠状)

Wanfang

题名:("隔离"+封城+"社交距离"+方舱+心理+"心理健康"+"精神卫生"+"精神疾病"+"心理疾病"+污名+耻辱+羞辱+恐惧+焦虑+抑郁+孤独+压力+应激+创伤+"创伤后"+愤怒+情绪+心情+易怒+"情绪障碍"+"心理障碍"+哀伤+悲伤+悲痛+悲哀+忧郁+倦怠)*("新冠"+"新型冠状")+摘要:("隔离"+封城+"社交距离"+方舱+心理+"心理健康"+"精神卫生"+"精神疾病"+"心理疾病"+污名+耻辱+羞辱+恐惧+焦

虑+抑郁+孤独+压力+应激+创伤+"创伤后"+愤怒+情绪+心情+易怒+"情绪障碍"+"心理障碍"+哀伤+悲伤+悲痛+悲哀+忧郁+倦怠)*("新冠"+"新型冠状")

We made several amendments to the original search strategies. Since the Wanfang database cannot export more than 5000 references at once, we broke the search strategies into two or more smaller search strings to get all the references. The four changes on September 1, 2020, September 28, 2020, October 15, 2020 and October 18, 2020 are all for this purpose.

To make this process more efficient, the disciplines of the China National Knowledge Infrastructure database were restricted to Medical and Public Health AND Social science subgroup 2 and those of Wanfang database were restricted to Medicine and Health AND Culture, Science, Education and PE disciplines on October 23, 2020.

September 1, 2020
Wanfang

题名:("隔离"+封城+"社交距离"+方舱+心理+"心理健康"+"精神卫生"+"精神疾病"+"心理疾病"+污名+耻辱+羞辱+恐惧+焦虑)*("新冠"+"新型冠状")+摘要:("隔离"+封城+"社交距离"+方舱+心理+"心理健康"+"精神卫生"+"精神疾病"+"心理疾病"+污名+耻辱+羞辱+恐惧+焦虑)*("新冠"+"新型冠状")
题名:("隔离"+封城+"社交距离"+方舱+抑郁+孤独+压力+应激+创伤+"创伤后"+愤怒+情绪+心情+易怒+"情绪障碍"+"心理障碍"+哀伤+悲伤+悲痛+悲哀+忧郁+倦怠)*("新冠"+"新型冠状")+摘要:("隔离"+封城+"社交距离"+方舱+抑郁+孤独+压力+应激+创伤+"创伤后"+愤怒+情绪+心情+易怒+"情绪障碍"+"心理障碍"+哀伤+悲伤+悲痛+悲哀+忧郁+倦怠)*("新冠"+"新型冠状")

September 28, 2020
Wanfang

题名:("隔离"+封城+"社交距离"+方舱+心理+"心理健康"+"精神卫生"+"精神疾病"+"心理疾病"+污名+耻辱+羞辱+恐惧+焦虑)*("新冠"+"新型冠状")+摘要:("隔离"+封城+"社交距离"+方舱+心理+"心理健康"+"精神卫生"+"精神疾病"+"心理疾病"+污名+耻辱+羞辱+恐惧+焦虑)*("新冠"+"新型冠状")
题名:("隔离"+封城+"社交距离"+方舱+抑郁+孤独+压力+应激+创伤+"创伤后")*("新冠"+"新型冠状")+摘要:("隔离"+封城+"社交距离"+方舱+抑郁+孤独+压力+应激+创伤+"创伤后")*("新冠"+"新型冠状")
题名:("隔离"+封城+"社交距离"+方舱+愤怒+情绪+心情+易怒+"情绪障碍"+"心理障碍"+哀伤+悲伤+悲痛+悲哀+忧郁+倦怠)*("新冠"+"新型冠状")+摘要:("隔离"+封城+"社交距离"+方舱+愤怒+情绪+心情+易怒+"情绪障碍"+"心理障碍"+哀伤+悲伤+悲痛+悲哀+忧郁+倦怠)*("新冠"+"新型冠状")

October 15, 2020
Wanfang

题名:("隔离"+封城+"社交距离"+方舱+心理+"心理健康"+"精神卫生"+"精神疾病"+"心理疾病")*("新冠"+"新型冠状")+摘要:("隔离"+封城+"社交距离"+方舱+心理+"心理健康"+"精神卫生"+"精神疾病"+"心理疾病")*("新冠"+"新型冠状")
题名:("隔离"+封城+"社交距离"+方舱+污名+耻辱+羞辱+恐惧+焦虑+抑郁+孤独+压力)*("新冠"+"新型冠状")+摘要:("隔离"+封城+"社交距离"+方舱+污名+耻辱+羞辱+恐惧+焦虑+抑郁+孤独+压力)*("新冠"+"新型冠状")

题名:("隔离"+封城+"社交距离"+方舱+应激+创伤+"创伤后"+愤怒+情绪+心情+易怒+"情绪障碍"+"心理障碍"+哀伤+悲伤+悲痛+悲哀+忧郁+倦怠)*("新冠"+"新型冠状")+摘要:("隔离"+封城+"社交距离"+方舱+应激+创伤+"创伤后"+愤怒+情绪+心情+易怒+"情绪障碍"+"心理障碍"+哀伤+悲伤+悲痛+悲哀+忧郁+倦怠)*("新冠"+"新型冠状")

October 18, 2020

Wanfang

题名:("隔离"+封城+"社交距离"+方舱+心理+"心理健康"+"精神卫生"+"精神疾病"+"心理疾病")*("新冠"+"新型冠状")+摘要:("隔离"+封城+"社交距离"+方舱+心理+"心理健康"+"精神卫生"+"精神疾病"+"心理疾病")*("新冠"+"新型冠状")

题名:("隔离"+封城+"社交距离"+方舱+污名+耻辱+羞辱+恐惧+焦虑+抑郁)*("新冠"+"新型冠状")+摘要:("隔离"+封城+"社交距离"+方舱+污名+耻辱+羞辱+恐惧+焦虑+抑郁)*("新冠"+"新型冠状")

题名:("隔离"+封城+"社交距离"+方舱+孤独+压力)*("新冠"+"新型冠状")+摘要:("隔离"+封城+"社交距离"+方舱+孤独+压力)*("新冠"+"新型冠状")

题名:("隔离"+封城+"社交距离"+方舱+应激+创伤+"创伤后"+愤怒+情绪+心情+易怒+"情绪障碍"+"心理障碍"+哀伤+悲伤+悲痛+悲哀+忧郁+倦怠)*("新冠"+"新型冠状")+摘要:("隔离"+封城+"社交距离"+方舱+应激+创伤+"创伤后"+愤怒+情绪+心情+易怒+"情绪障碍"+"心理障碍"+哀伤+悲伤+悲痛+悲哀+忧郁+倦怠)*("新冠"+"新型冠状")

October 23, 2020

China National Knowledge Infrastructure

Restricted to disciplines: Medical and Public Health & Social science subgroup 2

TI=(隔离+封城+社交距离+方舱+心理+心理健康+精神卫生+精神疾病+心理疾病+污名+耻辱+羞辱+恐惧+焦虑+抑郁+孤独+压力+应激+创伤+创伤后+愤怒+情绪+心情+易怒+情绪障碍+心理障碍+哀伤+悲伤+悲痛+悲哀+忧郁+倦怠)*(新冠+新型冠状) OR AB=(隔离+封城+社交距离+方舱+心理+心理健康+精神卫生+精神疾病+心理疾病+污名+耻辱+羞辱+恐惧+焦虑+抑郁+孤独+压力+应激+创伤+创伤后+愤怒+情绪+心情+易怒+情绪障碍+心理障碍+哀伤+悲伤+悲痛+悲哀+忧郁+倦怠)*(新冠+新型冠状)

Wanfang

Restricted to disciplines: Medicine and Health & Culture, Science, Education and PE

题名:("隔离" or 封城 or "社交距离" or 方舱 or 心理 or "心理健康" or "精神卫生" or "精神疾病" or "心 理疾病" or 污名 or 耻辱 or 羞辱 or 恐惧 or 焦虑 or 抑郁 or 孤独 or 压力 or 应激 or 创伤 or "创伤后" or 愤怒 or 情绪 or 心情 or 易怒 or "情绪障碍" or "心理障碍" or 哀伤 or 悲伤 or 悲痛 or 悲哀 or 忧郁 or 倦怠) and ("新冠" or "新型冠状") or 摘要:("隔离" or 封城 or "社交距离" or 方舱 or 心理 or "心理健康" or "精神卫生" or "精神疾病" or "心理疾病" or 污名 or 耻辱 or 羞辱 or 恐惧 or 焦虑 or 抑郁 or 孤独 or 压力 or 应激 or 创伤 or "创伤后" or 愤怒 or 情绪 or 心情 or 易怒 or "情绪障碍" or "心理障碍" or 哀伤 or 悲伤 or 悲痛 or 悲哀 or 忧郁 or 倦怠) and ("新冠" or "新型冠状")

MedRxiv (pre-prints)

Search 1: (isolation OR “mental health” OR “mental illness” OR “mental disorder”) AND (COVID OR covid19)

Search 2: (psychology OR psychological OR psychosocial OR anxiety OR depression OR stress or trauma) AND (COVID OR covid19)

Open Science Framework (pre-prints)
(isolation OR psychology OR psychological OR psychosocial OR “mental health” OR “mental illness” OR “mental disorder” OR anxiety OR depression OR stress or trauma) AND (coronavirus OR COVID OR covid19)

Supplementary Material 3: Inclusion and Exclusion Coding Guides for Main Changes Review Plus Additional Criteria for Present Report

Title and Abstract Review:

Exclude: not original human data or a case study or case series. If it is clear from the title and abstract that the article is not an original report of primary data, but, for example, a letter, editorial, systematic review or meta-analysis, or it is a single case study or case series, then it is excluded. Studies reporting only on animal, cellular, or genetic data are also excluded. Conference abstracts are included.

Exclude: not a study of any population affected by the COVID-19 outbreak. If it is clear from the title or abstract that the study is not about any population affected by the COVID-19 outbreak, it is excluded. Studies that include fewer than 100 participants, are excluded. If a longitudinal study has baseline sample size with at least 100 participants, but no follow-up with at least 100 participants, then we exclude the study (and document); if its baseline and at least one follow-up have more than 100 participants, we include the study.

Exclude: not a study which reports mental health symptom changes longitudinally pre-COVID-19 to COVID-19 or during COVID-19. If it is clear from the title or abstract that the study does not report proportions of participants meeting diagnostic criteria using a validated diagnostic interview or validated mental health scale, or proportions of symptoms (based on a threshold or measured continuously) prior to and after the start of COVID-19, or longitudinally during COVID-19, then it will be excluded.

For pre-COVID versus during-COVID studies, pre- and during- samples must include the same cohort, not different representative samples. Pre- and during-samples should have less than 10% difference in the participants in the sample* or should statistically account for missing data, i.e., if N between the samples differs by more than 10%, modelling or imputation is needed to evaluate results for all participants. Pre-COVID data needs to be collected prior to 2020 (or at least 80% of the participants' data need be collected prior to 2020 if collection spans from 2019 to 2020) and after 2018(or at least 80% of the participants' data need to be collected after 2018 if collection spans from pre-2018 to 2018).

For studies with multiple waves across COVID, if there are pre-pandemic time points, the most recent pre-pandemic wave needs to be in 2018 or later; if the most recent pre-pandemic wave spans from pre-2018 to 2018, at least 80% of the data need to be collected in 2018. Studies with multiple waves across COVID-19 must have at least two time points that have less than 10% difference in the participants in the sample*, or should statistically account for missing data, regardless of whether or not the study has pre-COVID assessments. If outcomes from the study are only shown graphically without eligible numerical values, exclude the study. At least 90% of participants in assessments from two time points need to be the same participants. In a three-wave survey, if N-T1 = 1000, N – T2 = 500, and N – T3 = 500, T2 and T3 would only be eligible if at least 90% of the participants at each time point were the same. It is not enough to just have a total N within 10%.

Include: study eligible to be included in full-text review.

Full-text Review:

Exclude: not original human data or a case study or case series. If the article is not an

original report of primary data, but, for example, a letter, editorial, systematic review or meta-analysis, or it is a single case study or case series, then it is excluded. Studies reporting only on animal, cellular, or genetic data are also excluded. Conference abstracts are included.

Exclude: not a study of any population affected by the COVID-19 outbreak. If it is clear from the full text that the study is not about any population affected by the COVID-19 outbreak, it is excluded. Studies that include fewer than 100 participants, are excluded. If a longitudinal study has baseline sample size with at least 100 participants, but no follow-up with at least 100 participants, then we exclude the study (and document); if its baseline and at least one follow-up have more than 100 participants, we include the study.

Exclude: not a study which reports mental health symptom changes longitudinally pre-COVID-19 to COVID-19 or during COVID-19. If it is clear from the title or abstract that the study does not report continuous scores of symptom levels or proportions of participants meeting the threshold on a validated scale, or diagnostic criteria using a validated diagnostic interview prior to and after the start of COVID-19, or longitudinally during COVID-19, then it will be excluded.

For pre-COVID versus during-COVID studies, pre- and during- samples must include the same cohort, not different representative samples. Pre- and during-samples should have less than 10% difference in the participants in the sample* or should statistically account for missing data, i.e., if N between the samples differs by more than 10%, modelling or imputation is needed to evaluate results for all participants. Pre-COVID data needs to be collected prior to 2020 (or at least 80% of the participants' data need be collected prior to 2020 if collection spans from 2019 to 2020) and after 2018 (or at least 80% of the participants' data need to be collected after 2018 if collection spans from pre-2018 to 2018).

For studies with multiple waves across COVID, if there are pre-pandemic time points, the most recent pre-pandemic wave needs to be in 2018 or later; if the most recent pre-pandemic wave spans from pre-2018 to 2018, at least 80% of the data need to be collected in 2018. Studies with multiple waves across COVID-19 must have at least two time points that have less than 10% difference in the participants in the sample, or should statistically account for missing data, regardless of whether or not the study has pre-COVID assessments. If outcomes from the study are only shown graphically without eligible numerical values, exclude the study

Include: study eligible for inclusion in systematic review.

Additional Criterion for Present Report: (1) Eligible pre-COVID-19 assessments had to be done between January 1, 2018 and December 31, 2019; (2) Only studies that compared pre-COVID-19 and COVID-19 assessments were included but not studies with longitudinal data only during COVID-19.

Supplementary Material 4: Risk of Bias and Adequacy of Study Methods and Reporting Form

Q1. Was the sample frame appropriate to address the target population?

Yes: The sampling frame was a true or close representation of the target population.
No: The sampling frame was NOT a true or close representation of the target population.
Unclear: Not enough information provided to determine.

Q2. Were study participants recruited in an appropriate way?

Yes: A census was undertaken, OR, some form of random selection was used to select the sample (e.g. simple random sampling, stratified random sampling, cluster sampling, systematic sampling).
No: A census was NOT undertaken, AND some form of random selection was NOT used to select the sample.
Unclear: Not enough information provided to determine.

Q3. Was the sample size adequate?

Yes: There is evidence that the authors conducted a sample size calculation to determine an adequate sample size OR the study was large enough (e.g., a large national survey) whereby a sample size calculation is not required. In these cases, sample size can be considered adequate. If at least 200 participants are included for continuous outcomes and 250 for proportions, this is considered low risk.
No: The authors did not reach their intended sample size, or no sample size calculation is provided and there are < 100 participants for continuous outcomes, or < 125 for proportions.
Unclear: No sample size calculation is provided, and between 100-199 participants are included for continuous outcomes or between 125-249 for proportions.

Q4. Were the study participants and setting described in detail?

Yes: Data included age, sex, and at least 1 socioeconomic indicator (e.g., income, education, work status).
No: The minimum sociodemographic variables have not been reported.
Unclear: Not stated

Q5. Was the response rate adequate and was the data analysis conducted with sufficient coverage?

Yes: The overall response rate or response rate for intended subgroups was >/=75%, OR, an analysis was performed that established that there was not a substantive difference in relevant demographic characteristics between responders and non-responders within a subgroup (if non-response too high (e.g., > 50%), code “No”)
No: The overall response rate or response rate for subgroups was <75%, and if any analysis comparing responders and non-responders was done, it showed a meaningful difference in relevant demographic characteristics between responders and non-responders.
Unclear: Not enough information provided to determine.

Q6. Were valid methods used for the identification of the outcome variable?

Yes: The study instrument had been shown to have reliability and validity, e.g., test-retest, piloting, validation in a previous study, etc.
No: The study instrument had NOT been shown to have reliability or validity.
Unclear: Not stated.

Q7. Was the mental health outcome measured in a standard, reliable way for all participants?

Yes: All self-report data were collected directly from the participants. Any clinical interview data includes at least information about the interviewers' level of education or training received. The same mode of data collection was used for all participants. All aspects of this question must be present (where relevant).
No: In some instances, data were collected from a proxy (e.g., a spouse). The qualifications of clinical interviewers are not reported or not appropriate. The same mode of data collection was NOT used for all participants. If any aspects of this item are absent, it is high risk.
Unclear: Not stated.

Q8. Was there appropriate statistical analysis?

Yes: Continuous variables report (1) mean (SD) of change or (2) pre mean (SD) and post mean (SD) with/out correlation between pre and post scores. For dichotomous variables, numerator, denominator, and percentages are clearly reported. Continuous variables are not artificially dichotomized. The statistical analyses section is detailed enough for readers to understand change scores (see STROBE reporting guidelines, if necessary).
No: Continuous variables do not include a report of the (1) mean (SD) of change or (2) pre mean (SD) and post mean (SD) with/out correlation between pre and post scores. For dichotomous variables, the numerator, denominator, or percentages are not clearly reported. The statistical analyses section does not clearly describe the methods used to assess change scores.

Q9. Was the follow-up rate adequate, and if not, was the low follow-up rate managed appropriately?

Yes: At least 75% of those who participated in the pre-COVID-19 assessment(s) provided follow-up responses and had their responses included in the follow-up, OR, an analysis was performed that showed no substantive difference in relevant demographic characteristics between participants who stayed in the study and drop-outs (if dropout too high (e.g. > 50%), code "No").
No: Less than 75% of those participated in the pre-COVID-19 assessment(s) provided responses and had their responses included in the follow-up, and if any analysis comparing participants who stayed in the study and drop-outs was done, it showed a substantive difference in relevant demographic characteristics between the two groups.
Unclear: Not stated.

Supplementary Material 5. Detailed Results

Search Results and Selection of Eligible Studies

As of April 11, 2022, we identified 94,411 unique citations. We excluded 92,457 after title and abstract review and 1,523 after full-text review, leaving 431 studies with longitudinal data. Of those, 276 studies assessed outcomes longitudinally only during the pandemic period, 11 only assessed outcomes (e.g., loneliness) not included in the present report, 1 used the same outcome measure but for different time periods pre-COVID-19 (worst month in last year) and COVID-19 (last month), and 6 reported data from the same dataset as another study, leaving 137 unique studies with data from 134 cohorts (Figure 1).

Characteristics of Included Studies

Supplementary Table 1 shows characteristics of included studies.[S1-S137] All cohorts reported COVID-19 outcome data collected in 2020, including 4 studies that reported a single data collection period that bridged 2020 and 2021.[S74,S96,S114,S128] All studies reported data from March 2020 or later except for 7 studies from China,[S5,S52,S54,S79,S99,S121,S133] 1 study from Japan,[S82] and 1 study from Taiwan[S130] that reported data from January or February 2020. Large national probability-based cohorts from the United Kingdom[S11,S12] and the Netherlands[S16,S17] and a cohort of people with a pre-existing medical condition (systemic sclerosis)[S118] reported data collected at multiple time points during 2020. The systemic sclerosis study also reported data collected at 3 time points in 2021,[S118] but no other studies reported 2021 outcomes for all participants. Of the 137 included studies, 105 (77%) were from high-income (New Zealand = 2[S1,S119]; Italy = 4[S2,S30,S88,S126]; United States = 24[S4,S6,S18,S29,S40,S48,S50,S59-S61,S71,S77,S92,S102,S103,S108,S109,S111,S112,S114,S120,S122,S131,S135]; Finland = 1[S9]; Spain = 5[S10,S27,S76,S81,S116]; United Kingdom = 13[S11,S12,S21,S28,S39,S42,S47,S63,S64,S83,S84,S98,S132]; Japan = 9[S13,S24,S41,S65,S73,S82,S115,S127,S128]; Denmark = 2[S15,S22]; the Netherlands = 9[S16,S17,S32,S33,S53,S72,S75,S110,S113]; Australia = 5[S19,S37,S87,S125,S134]; Ireland = 1[S20]; Chile = 1[S23]; Sweden

= 2[S25,S96]; Singapore = 3[S26,S31,S36]; Hong Kong, China = 2[S3,S35]; Switzerland = 2[S38,S46]; Canada = 4[S43,S51,S104,S136]; Portugal = 2[S44,S89]; Lithuania = 2[S49,S80]; Germany = 5[S67,S90,S91,S93,S124]; Israel = 1[S94]; Taiwan = 1[S130]; France = 1[S137]; multiple countries = 4[S8,S66,S118,S123]), 28 (20%) from upper-middle-income (China = 23[S5,S34,S45,S52,S54-S58,S68-S70,S78,S79,S85,S86,S95,S97,S99-S101,S121,S133]; Turkey = 2[S7,S117]; Brazil = 2[S74,S105]; Mexico = 1[S107]), 1 (1%) from mixed high-income and upper-middle-income (Italy and Paraguay)[S129], 3 (2%) from lower-middle-income (Iran = 1[S14]; India = 1[S62]; Bangladesh = 1[S106]), and none from low-income countries. By region, there were 52 studies from Europe and Central Asia,[S2,S7,S9-S12,S15-S17,S20-S22,S25,S27,S28,S30,S32,S33,S38,S39,S42,S44,S46,S47,S49,S53,S63,S64,S66,S67,S72,S75,S76,S80,S81,S83,S84,S88-S91,S93,S96,S98,S110,S113,S116,S117,S124,S126,S132,S137] 46 from East Asia and the Pacific,[S1,S3,S5,S13,S19,S24,S26,S31,S34-S37,S41,S45,S52,S54-S58,S65,S68-S70,S73,S78,S79,S82,S85-S87,S95,S97,S99-S101,S115,S119,S121,S123,S125,S127,S128,S130,S133,S134] 28 from North America,[S4,S6,S18,S29,S40,S43,S48,S50,S51,S59-S61,S71,S77,S92,S102-S104,S108,S109,S111,S112,S114, S120, S122, S131,S135,S136] 4 from Latin America and the Caribbean,[S23,S74,S105,S107] 2 from Middle East and North Africa,[S14,S94] 2 from South Asia,[S62,S106] 2 from mixed Europe and North American samples,[S8,S118] 1 from a mixed Europe and Latin America and the Caribbean sample,[S129] and none from Sub-Saharan Africa.

There were 18 studies[S1-S18] that reported on 16 different adult general population cohorts, including large national probability-based samples from the United Kingdom (N = 10,918 to 15,376),[S11,S12] Denmark (N = 4,234),[S15] and the Netherlands (N = 3,983 to 4,064)[S16,S17] and 13 non-probabilistic convenience samples with 102 to 3,124 participants from New Zealand,[S1] Italy,[S2] China,[S3,S5] the United States,[S4,S6,S18] Turkey,[S7] Finland,[S9] Spain,[S10] Japan,[S13] Iran,[S14] and from multiple countries via an online crowdsourcing platform.[S8]

There were 18 studies with data on older adults,[S19-S36] including one (N = 1,679)[S33] that reported subgroup data from the large Dutch national probability sample,[S16,S17] and other samples of at least 1,000 participants from Australia (N = 1,671),[S19] Ireland (N = 3,490),[S20] the United Kingdom (N = 3,281),[S21] Sweden (N = 1,071),[S25] the Netherlands (N = 1,068),[S32] and

China (N = 2,745).[S34] Eleven other studies from Denmark,[S22] Chile,[S23] Japan,[S24] Singapore,[S26,S31,S36] Spain,[S27] Scotland,[S28] the United States,[S29] Italy,[S30] and Hong Kong, China,[S35] included between 104 and 721 participants.

There were 7 studies of young adults[S37-S43] from Australia,[S37] Switzerland,[S38] the United Kingdom,[S39,S42] the United States,[S40] Japan,[S41] and Canada,[S43] which assessed between 1,039 and 3,694 participants. There were also 28 studies of university students,[S44-S71] including 10 from China,[S45,S52,S54-S58,S68-S70] 6 from the United States,[S48,S50,S59-S61,S71] three from the United Kingdom,[S47,S63,S64] and one each from Portugal,[S44] Switzerland,[S46] Lithuania,[S49] Canada,[S51] the Netherlands,[S53] India,[S62] Japan,[S65] combined Germany and Lithuania,[S66] and Germany.[S67] Of these, 9 included at least 1,000 participants (1,004 to 8,079).[S45,S50,S55,S57-S59,S65,S68,S70]

There were 30 studies of children and adolescents,[S72-S101] including 27 that focused mostly or entirely on adolescents (ages 10 to 19),[S72-S77,S80-S94,S96-S101] 3 mixed studies of children (ages up to 9 years) and adolescents,[S78,S79,S95] and none that focused only on children. There were studies with at least 1,000 participants from Japan,[S73,S82] the United Kingdom,[S84] China,[S86,S95,S97,S100,S101] Italy,[S88] Portugal,[S89] and Israel[S94] plus smaller studies from the Netherlands,[S72,S75] Brazil,[S74] Spain,[S76,S81] the United States,[S77,S92] China,[S78,S79,S85,S99] Lithuania,[S80] the United Kingdom,[S83,S98] Australia,[S87] Germany,[S90, S91,S93] and Sweden.[S96] Studies with data on adolescents from the Netherlands[S72] and Spain[S76] also reported data from parents, as did 7 additional studies from the United States,[S102,S103,S108] Canada,[S104] Brazil,[S105] Bangladesh,[S106] and Mexico,[S107] one of which included over 1,000 participants (N = 1,136).[S105]

There were 22 studies of people with pre-existing medical conditions,[S29,S35,S109-S128] including a study of 2,829 older adults with type 2 diabetes from the United States,[S111] a study of 2,176 patients with colorectal cancer from the Netherlands,[S113] and a study of 1,504 participants with rheumatic diseases from the United States.[S120] Nineteen other studies from the United States,[S29,S109,S112,S114,S122] the Netherlands,[S110] Japan,[S115,S127,S128] Spain,[S116] Turkey,[S117] New Zealand,[S119] China,[S121] Germany,[S124] Australia,[S125] Italy,[S126] Hong Kong, China,[S35] and multiple

countries,[S118,S123] included between 104 and 852 participants. There were also 4 studies of people with pre-existing mental health conditions, including a study of 12,653 people from the UK with a pre-COVID-19 depressive or anxiety disorder diagnosis[S132] and 3 studies of 110 to 144 outpatients from Italy or Paraguay,[S129] Taiwan,[S130] and the United States.[S132]

There were two studies of medical workers,[S103,S133] including a study of 180 physicians who were also parents from the United States[S103] and a study of 385 physicians in training from China.[S133]

There were three studies of people who identified as sexual or gender minorities, including 681 gay and bisexual men from Australia,[S134] 2,288 people with a range of gender identities from the United States,[S135] and 780 trans and non-binary individuals from Canada.[S136]

Risk of Bias and Adequacy of Study Methods and Reporting

Ratings of risk of bias and adequacy of methods and reporting are shown in Supplementary Table 2. Overall, only the national probability-based cohort from the Netherlands[S16,S17,S33] was rated "Yes" on all items. Overall, 37 of 137 studies (27%) used sampling frames that were close representations of the target population; 32 of 137 (23%) used census or random sampling methods; 13 of 137 (9%) had response rates of at least 75% or established that the sample was representative, and 43 of 137 (31%) successfully followed up with at least 75% of participants or included methods to address dropout considerations. For adequate sample size, participant and setting description, use of valid assessment methods (which was an inclusion requirement for our systematic review), standard outcome collection methods, and appropriately analysed results, proportions with "Yes" ratings were between 73% and 100%.

Changes in Mental Health Symptoms

Changes in mental health symptoms for individual studies by population category are shown in Supplementary Table 3 for general mental health, Supplementary Table 4 for anxiety symptoms, and Supplementary Table 5 for depression symptoms. Table 1 shows meta-

analyses results for the general population and other populations for continuously measured general mental health, anxiety symptoms, and depression symptoms.

General Mental Health

Forest plots are shown in Supplementary Figures 1a to 1k. Estimated reduction in general mental health in the general population was minimal and not statistically significant (Supplementary Figure 1a; 11 cohorts, N = 30,185; SMD_{change} = 0.11, 95% CI -0.00 to 0.22; I^2 = 97%). Among subgroups, there was a small, statistically significant worsening for women or females (Supplementary Figure 1b; 6 cohorts, N = 10,329; SMD_{change} = 0.22, 95% CI 0.08 to 0.35; I^2 = 91%) and a small to medium, statistically significant worsening for parents (Supplementary Figure 1h; 3 cohorts, N = 932; SMD_{change} = 0.39, 95% CI 0.21 to 0.56; I^2 = 57%). Symptoms improved by a small amount among people with pre-existing mental health conditions (Supplementary Figure 1j; 2 cohorts, N = 457; SMD_{change} = -0.22, 95% CI -0.35 to -0.09; I^2 = 0%). No other subgroup change estimates were statistically significantly different from zero. The percentage of variance due to heterogeneity (I^2) across analyses was high (57% to 99%), except for among people with pre-existing mental health conditions (0%).

Results did not change from the main analysis for university students in a sensitivity analysis, in which outcomes for one study from April 2020[S63] were replaced by a later measurement from October 2020[S64] (see Supplementary Figure 1k). Two large nationally sampled cohorts with continuous results from early 2020 reported dichotomous data from early and late 2020 but not continuous data for late 2020. Based on dichotomous data, the UK cohort saw an increase of 8.7% (95% CI 6.9% to 10.4%) of people with a GHQ-12 score of 4 or higher from pre-COVID-19 to April 2020, but this dissipated by September 2020 (change from pre-COVID-19 = 0.0%, 95% CI -2.0% to 1.9%).[S12] Results were similar in that cohort for subgroups of women or females, and men or males, older adults, and young adults.[S12] The general population cohort from the Netherlands, on the other hand, did not identify substantive changes from pre-COVID-19 in general mental health in either early or late 2020.[S16,S17,S33]

Anxiety Symptoms

Forest plots for are shown in Supplementary Figures 2a to 2l. Pooling of general population cohorts resulted in a non-statistically significant estimate of change in anxiety symptoms from pre-COVID-19 that was close to zero (Supplementary Figure 2a; 4 cohorts, N = 2,632; SMD_{change} = 0.05, 95% CI -0.04 to 0.13; I^2 = 37%). Anxiety symptoms worsened statistically significantly by small amounts among women or females (Supplementary Figure 2b; 5 cohorts, N = 3,500; SMD_{change} = 0.20, 95% CI 0.12 to 0.29; I^2 = 41%) and parents (1 cohort, N = 147; SMD_{change} = 0.25, 95% CI 0.02 to 0.49). Estimates were non-statistically significant and close to zero for all other subgroups. I^2 ranged from 0% to 41% for the general population, women or females, and men or males but was higher for all other subgroups (80% to 98%). For people with pre-existing medical conditions, results did not change in sensitivity analyses when data from September to October 2020 (Supplementary Figure 2k) or March 2021 (Supplementary Figure 2l) were substituted for results from early 2020 in one study with multiple assessments.[S118]

Depression Symptoms

Forest plots are shown in Figures 3a to 3m. In general population cohorts, symptoms of depression increased statistically significantly by a minimal amount (Supplementary Figure 3a; 4 cohorts, N = 3,470; SMD_{change} = 0.12, 95% CI 0.01 to 0.24; I^2 = 81%). They also increased significantly by minimal to small amounts among women or females (Supplementary Figure 3b; 7 cohorts, N = 3,851; SMD_{change} = 0.22, 95% CI 0.05 to 0.40, I^2 = 89%), older adults (Supplementary Figure 3d; 7 cohorts, N = 7,419; SMD_{change} = 0.22, 95% CI 0.06 to 0.38, I^2 = 95%), university students (Supplementary Figure 3f; 19 cohorts, N = 26,164; SMD_{change} = 0.14, 95% CI 0.01 to 0.26, I^2 = 98%), and people who identified as sexual or gender minorities (Supplementary Figure 3k, 3 cohorts, N = 3,741; SMD_{change} = 0.19, 95% CI 0.10 to 0.28; I^2 = 67%). They improved minimally for people with pre-existing mental health conditions (Supplementary Figure 3j, 3 cohorts, N = 12,352; SMD_{change} = -0.05, 95% CI -0.08 to -0.03; I^2 =

0%). I^2 was 0% for people with pre-existing mental health conditions and 67% to 98% in all other analyses. Results did not change for people with pre-existing medical conditions in two sensitivity analyses (Supplementary Figures 3l and 3m).

Supplementary Table 1. Characteristics of unique studies (N=137) from included cohorts (N=134)[a]

First Author	Outcome Domains			Description of Participants	Country(ies) of Participants	Pre- and Post-COVID-19 Data Collection	N Participants	Participant Age	% Female or Women
	General Mental Health	Anxiety Symptoms	Depression Symptoms					Mean (SD) or % in Range of Years	
General Population									
Bulbulia[S1]	K6			Convenience sample of adults aged 18 to 65 from the New Zealand Attitudes and Values Study (NZAVS)	New Zealand	NR/2018 03-04/2020	940	52 (13)	65%
Castellini[S2]	BSI-GSI			Convenience sample of adults aged 18 to 60 years recruited via "convenience and snowballing" methods	Italy	12/2019 04-05/2020	130	34 (14)[b]	75%
Chan[S3]		HAI		Convenience sample of adults based in Hong Kong and participated in a previous study prior to the pandemic	Hong Kong, China	07/2019 07/2020	279	27 (9)	74%
Finucane[S4]	K6			Participants from the Pittsburgh Hill/Homewood Research on Neighborhood Changes and Health study	USA	05-09/2018 06-09/2020	419	62 (14)	82%
Ge[S5]		GAD-7	PHQ-9	Convenience sample of adults recruited from the WeChat of China online social media platform	China	01-12/2019 02-03/2020	1,547-1,978	Anxiety sample = 30 (10); Depression sample = 33 (11)	Anxiety sample: 29; Depression sample: 26
Haliwa[S6]		Sample 1: GAD-7 Sample 2: DASS-21-Anxiety Sample 3: GAD-7	Sample 1:PHQ-8 Sample 2: DASS-21-Depression Sample 3: PHQ-8	U.S. residents recruited through Amazon's Mechanical Turk	USA	09-12/2019 04-06/2020	Sample 1: 300; Sample 2: 146; Sample 3: 142	Sample 1: 41 (12); Sample 2: 44 (13); Sample 3: 41 (13)	Sample 1: 59; Sample 2: 53; Sample 3: 50
Kanbur[S7]	SCL-90-R				Turkey	NR/2019	400	NR	NR

		SCL-90-R Anxiety	SCL-90-R Depression	Turkish office workers who were enrolled in another study before the pandemic		NR/2020		
Katz, B[S8]	RRQ DToS	DASS-21 Anxiety	DASS-21 Depression	Convenience sample of adults recruited via an online crowdsourcing research platform	Canada, Ireland, UK, USA	04/2019 04/2020	218	43 (13)	54%
Latikka[S9]	GHQ-12			Participants from the Social Media at Work in Finland Survey	Finland	09-10/2019 03-04/2020	840	44 (11)	44%
Megias-Robles[S10]	PANAS-NA			Convenience sample of participants recruited from an adult community sample	Spain	11/2019 04/2020	102	30 (13)	66%
Pierce[S11]						Pre-COVID-19 waves[c]		18-34 (12)[e]	
Daly[S12]	GHQ-12			National probability-based sample of adults aged ≥ 18 years (United Kingdom Household Longitudinal Study)	UK	04-09/2020	15,376[S11,d] 10,918[S12]	35-49 (22)[e] 50-64 (34)[e] 65+ (32)[e]	47%[S11] 58%[S12]
Shimura[S13]	BJSQ (Psychological and Physical)			Convenience sample of office workers who started remote work in 2020	Japan	NR/2019 NR/2020	3,123	37 (11)	43%
Soltanzadeh[S14]	GHQ-28			Employees of three oil refineries in southern Iran who had at least 1 year of work experience	Iran	11/2019 07/2020	823-850	35 (13)	19%
Thygesen[S15]	SWEMWBS			Participants from Danish Health and Wellbeing Survey	Denmark	09-12/2019 09-11/2020	4,234	Age range (%): 15-44 (27); 45-59 (30); 60-74 (33); 75+ (10)	58%
van der Velden[S16]						03/2019	3,983	18-34 (25)[f]	
van der Velden[S17]	MHI-5			National probability-based sample of adults aged ≥ 18 years (Longitudinal Internet Studies for the Social Sciences)	The Netherlands	11-12/2019	4,064	35-49 (23)[f] 50-64 (26)[f]	51%

						03/2020	65+ (26)[f]	
						11-12/2020		
						04-06/2019		
Wanberg[S18]			PHQ-8	Individuals aged 30 to 80 years from the RANT American Life Panel	USA		1,143	53 (14)	56%
						04/2020		
Older Adults									
						10/2019		
Bartlett[S19]		HADS-A	HADS-D	Adults aged ≥ 50 years from the Island Study Linking Ageing and Neurodegenerative Disease	Australia		1,671	63 (7)	73%
						04-06/2020		
				Nationally representative sample of community-dwelling older adults aged ≥ 50 years who took part in the Irish Longitudinal Study on Ageing (TILDA)		NR/2018			
Briggs[S20]			CES-D-8		Ireland		3,490	70 (14)	56%
						07-11/2020			
						10/2019			
Creese[S21]		GAD-7	PHQ-9	National convenience sample of adults aged ≥ 50 years recruited via publicity	UK		3,281	67 (7)	80%
						05-06/2020			
	WHOQOL-BREF					12/2017-01/2019[g]			
Eliasen[S22]	WHOQOL-BREF (psychological health)			Participants from the Faroese Septuagenarians cohort	Denmark		227	84 (1)	52%
						06-07/2020			
						11/2019			
Herrera[S23]		GAI-SF	PHQ-9	Participants from the V National Survey on Quality of Life in Older Adults	Chile		721	72 (NR)	70%
						09/2020			
						09-10/2019			
Kera[S24]	WHO-5-J			Community-dwelling older adults living in Itabashi Ward, Tokyo, who had participated in the Otassha Study	Japan		533	73 (6)	62%
						06-07/2020			
						NR/2019			
Kivi[S25]	SWLS			"Nationally representative" sample of older adults born 1949 to 1955	Sweden		1,071	68 (2)	47%
						03-04/2020			

Lee[S26]			PHQ-9	Participants from the PopulatiON HEalth and Eye Disease PRofile in Elderly Singaporeans study	Singapore	12/2017-11/2019[g] 05-06/2020	496	74 (8)	55%
Martínez[S27]	PWBS PERMA - PA PERMA - NA		CES-D	Community-dwelling older adults aged 65 to 87 years	Spain	10/2019 04/2020	141	73 (5)	60%
Okely[S28]	WEMWBS			Surviving members of cohort of all children born in 1936 and attending school in Scotland in 1947	Scotland (UK)	NR/2017-NR/2019[g] 05-06/2020	137	84 (NR)	48%
Rentscher[S29]		STAI-State	CES-D	Women aged ≥ 60 years who were nonmetastatic breast cancer survivors	USA	02-06/2019 05-09/2020	262	68 (5)	100%
Rentscher[S29]		STAI-State	CES-D	Women aged ≥ 60 years who were matched controls	USA	02-06/2019 05-09/2020	165	68 (6)	100%
Sardella[S30]	SF-12 Mental Component Summary			Participants aged ≥ 65	Italy	10/2018-10/2019 04/2020	104	80 (7)	70%
Siew[S31]	WHOQOL-AGE	GAI-SF		Participants from the Community Health and Intergenerational study	Singapore	02/2018-01/2020[h] 05-06/2020	411	69 (6)	65%
van den Besselaar[S32]		HADS-A	CES-D-10	Participants from the Longitudinal Aging Study Amsterdam	The Netherlands	NR/2018-2019 06-10/2020	984-1,068	74 (8)	53%
van Tilburg[S33]	MHI-5			National probability-based sample of adults aged ≥ 65 years (Longitudinal Internet Studies for the Social Sciences)	The Netherlands	10-11/2019 05/2020	1,679	73 (NR)	49%
Wang, Yi[S34]	K10				China	05-06/2019	2,745		64%

				Adults aged ≥ 60 years who were part of the Shandong Rural Elderly Health Cohort (SREHC)		08-09/2020		Median (Age range): 70 (60-100)
Wong, S[S35]		GAD-7	PHQ-9	Adults aged ≥ 60 with ≥ 2 chronic medical conditions from 4 primary care clinics	Hong Kong, China	04/2018-03/2019 03-04/2020	583	71 (6)	73%
Yu[S36]		GAI	GDS	Individuals aged 60 to 99 years living in the western region of Singapore	Singapore	02/2018-01/2020[h] 05-06/2020	419	69 (6)	66%
Young Adults								
Islam[S37]	K10			Individuals aged 20 to 21 who took part in the Longitudinal Study of Australian Children (LSAC) survey	Australia	NR/2018 10-12/2020	1,110	21 (0)	59%
Marmet[S38]			MDI	Swiss adult men who enrolled in a longitudinal cohort in 2010-2011 during medical evaluation for mandatory military service	Switzerland	04/2019-02/2020[h] 05-06/2020	2,345	29 (13)	0%
Rimfeld[S39]		SMGAD-A	SMFQ	Adult twins born 1994-1996 who were enrolled in a longitudinal cohort at age 18 months	UK	NR/2018 04-05/2020	3,563-3,694	24-26 (100%)	63%
Romm[S40]			PHQ-2	Adults aged 18 to 34 years in one of the six metropolitan statistical areas who participated in the Vape Shop Advertising, Place characteristics and Effects Surveillance study	USA	09/2019 03/2020	1,082	25 (5)	51%
Tanioka[S41]	K6-J SF-8 - MCS			Participants aged 15 to 30 years who took part in a comprehensive prospective research project on sleep behavior, sleep problems, psychological distress, and quality of life in young adults	Japan	10/2019 05/2020	2,222	21 (4)	76%
Villadsen[S42]	K6			Participants from the Millennium Cohort Study who were born in 2001	UK	NR/2018 05/2020	1,615	Range: 19-20	NR

Watkins-Martin[S43]		GAD-7	CES-D-12	Participants born in 1997-98 in Quebec, Canada who participated in the Québec Longitudinal Study of Child Development	Canada	NR/2018 08/2020	1,039	22 (NR)	60%
University Students									
Conceição[S44]		GAD-7	PHQ-9	First-year students at the University of Porto	Portugal	10/2019 06/2020	341	20 (2)	75%
Dong[S45]	SCL-90-R			First-year undergraduate students from a single university recruited online	China	09/2019 NR/2020	4,085-4,341	19 (1)	77%
Elmer[S46]		GAD-7	CES-D	Undergraduate students in engineering and natural sciences from a single university recruited by email invitation	Switzerland	09/2019 04/2020	209	NR	22%
Evans[S47]	WEMWBS	HADS-A	HADS-D	First or second year undergraduate psychology students	UK	10/2019 05/2020	254	20 (1)	86%
Fuller-Rowell[S48]			BDI-II	Undergraduate students at a four-year university in the southeastern United States	USA	09/2018-04/2019 04-06/2020	263	19 (1)	53%
Gelezelyte[S49]		DASS-21 Anxiety	DASS-21 Depression	First-year university students	Lithuania	10-12/2019 10-12/2020	474	19 (1)	76%
Gopalan[S50]		CCAPS-62 - Anxiety	CES-D-10	Undergraduate students from a large, multicampus public university	USA	11/2019 05/2020	1,004	19 (1)	62%
Hamza[S51]		GAD-7	CES-D-R	Undergraduate students from single university recruited by email invitation	Canada	05/2019 05/2020	733	19 (1)	74%

He[S52]		STAI-Trait		Individuals who took part in the Behavioral Brain Research Project of Chinese Personality	China	09-12/2019 02/2020	589	19 (1)	71%
Koelen[S53]		GAD-7	CES-D	Students at the University of Amsterdam	The Netherlands	01/2019-01/2020[h]	671-683	23 (6)	70%
Li, H[S54]	PHQ-4 PANAS-PA PANAS-NA			Undergraduate students from a single university enrolled in an ongoing longitudinal study	China	04-05/2020 12/2019 02/2020	555	20 (3)	77%
Li, R[S55]	SCL-90-R			Undergraduate students from multiple universities in Szechuan province recruited online	China	09/2019 04/2020	2,603	NR	53%
Li, Wendy Wen[S56]		DASS-21 Anxiety	DASS-21 Depression	Undergraduate students from single university recruited by email invitation	China	11/2019 03/2020	173	20 (1)	78%
Liu[S57]			PHQ-9 CIDI 3.0	First-year students of two medical universities located in three cities (Jining, Weifang, Rizhao)	China	04-10/2018-04-10/2019 09-10/2020	5,373-8,079	18 (1)	60%
Lu[S58]		GAD-7	PHQ-9	Students from Chinese Undergraduate Cohort study	China	09-10/2019 04/2020	5,181	14-17: 0.5%; 18-24: 99.5%	62%
Mauer[S59]		DASS-21		Undergraduate students from 11 American universities	USA	09-12/2019 03-06/2020	1,434	20 (1)	76%
Mehus[S60]		GAD-7	PHQ-9	First year college students aged 18 to 23 years	USA	08,12/2019 04/2020	727	18 (94%) 19 (6%)	64%
Ratner[S61]			BDI-II		USA	09/2019	152	21 (1)	72%

				Fourth-year university students from Cornell University		04/2020		
Saraswathi[S62]		DASS-21 Anxiety	DASS-21 Depression	Convenience sample of undergraduate university medical students	India	12/2019 06/2020	217	20 (2)	64%
Savage, 2020[S63,i]	WEMWBS			Undergraduate students from single university recruited by email invitation and enrolled in an ongoing longitudinal study	UK	10/2019 04/2020	214	18-21 (64) 22-25 (22) 26-35 (8) 35+ (6)	72%
Savage, 2021[S64,i]	WEMWBS			Undergraduate students from single university recruited by email invitation and enrolled in an ongoing longitudinal study	UK	10/2019 10/2020	255	18 (0) 19 (16) 20 (28) 21 (26) 22-25 (20) 26-35 (8) 35+ (2)	76%
Shiratori[S65]			PHQ-9	Students enrolled at the University of Tsukuba	Japan	NR/2019 06/2020	6,847	23 (6)	41%
Truskauskaite-Kuneviciene[S66]	PMH	DASS-21 - Anxiety	DASS-21 - Depression	Emerging adults studying at a large university in the Ruhr region (Germany) or Vilnius (Lithuania)	Lithuania Germany	10-12/2019 03-04/2020	Lithuania: 450; Germany: 325	Lithuania: 19 (1); Germany: 23 (3)	Lithuania: 79; Germany: 78
Voltmer[S67]		BSI-18 Anxiety	BSI-18 Depression	Students attending the University of Lübeck	Germany	NR/2019 06/2020	890	24 (3)	79%
Wang, Yitao[S68]	SCL-90-R	SCL-90-R Anxiety	SCL-90-R Depression	First-year students at a medical university	China	11/2019 06/2020	2,559	NR	NR
Yang, X[S69]			CES-D	First-year students at Wenzhou Medical University in Zhejiang province	China	12/2018 06/2020	195	NR	59%
Yang, Ziyan[S70]					China	10/2019	2,364	20 (1)	54%

		DASS-21 Anxiety	DASS-21 Depression	College students from Zhejiang Ocean University		05/2020		
Zimmerman[S71]		GAD-7	PHQ-9	Undergraduate students at a single university enrolled in a mental health prevention program study	USA	08/2019 04/2020	205	18 (1)	76%
Children and Adolescents									
Achterberg[S72]	SDQ-Internalizing Behaviors SDQ-Externalizing Behaviors			Children aged 10 to 13 years who enrolled in a longitudinal twin study in 2015-2016	The Netherlands	01-11/2019	151	12 (1)	47%
Adachi[S73]			PHQ-A	Fourth to seventh graders from the Assessment of Preschool to Adolescence—Longitudinal Epidemiological study	Japan	04-05/2020 09/2019 07/2020	4,118-4,126	Range: 9-12	50%
Bado[S74]	SDQ - Total score SDQ - Emotion subscale			Primarily adolescents from the Brazilian High-Risk Cohort for Mental Conditions	Brazil	NR/2018-2019	672	Mean: 19 Range: 16-24	53%
Bernasco[S75]	RCADS - Parent RCADS - Adolescents			Urban young adolescents in their final year of primary school	The Netherlands	04/2020-04/2021 09-12/2019 04-07/2020	245	12 (1)	50%
Bosch[S76]	SDQ - Emotion Symptoms SDQ - Total			Students in secondary education from INSchool study	Spain	NR/2019 05-06/2020	552	15 (1)	61%
Charmaraman[S77]			CES-D-R-10	Students in grades 6 to 9 in two school districts in northeastern United States	USA	NR/2019 10-12/2020	586	14 (1)	53%
Chen, I-H[S78]	DASS-21			Primary school students	China	10-11/2019	535	10 (1)	50%

						03/2020		
Chen, C-Y[S79]	DASS-21	DASS-21 - Anxiety	DASS-21 - Depression	Schoolchildren in grades 3 to 6 enrolled in 3 primary schools in Sichuan province	China	10-11/2019 01/2020	575	11 (1)	NR
Daniunaite[S80]	SDQ - Emotional Symptoms			Adolescents aged 12 to 16 years from the Stress and Resilience in Adolescence study	Lithuania	03-05/2019 09-10/2020	331	14 (2)	57%
Ezpeleta[S81]	SDQ-total Parent Version			Families of children who were enrolled in a longitudinal cohort at age 3 (parents responded to measure of child mental health)	Spain	NR/2019 06/2020	197	14 (0)	52%
Fujihara[S82]	K6			Japanese junior high school students	Japan	12/2019 02/2020	1,854	NR	51%
Hu[S83]	SDQ - Emotion Problems			Adolescents aged 10 to 16 years who took part in the Understanding Society survey	UK	NR 07/2020	886	13 (1)	52%
Knowles[S84]	SDQ score	GAD-7	SMFQ	Adolescents recruited from twelve local secondary schools. Participants were part of the Resilience, Ethnicity, and AdolesCent Mental Health cohort study	UK	NR/2018-2019 05-08/2020	1,047	Range: 12-18	55%
Li, Y[S85]		ZSAS	BDI-II	Students aged 14 to 19 years from three public commuter secondary vocational schools in Southern China province	China	12/2019 03/2020	831	16 (1)	61%
Liao[S86]			CES-DC	Students from 3 junior high schools in Sichuan province	China	12/2019 07/2020	2,496	13 (1)	50%
Magson[S87]		SCAS	SMFQ	Adolescents aged 13 to 16 years who were enrolled in a longitudinal cohort 4 years prior	Australia	NR/2019	248	14 (1)	51%

						05/2020		
Mastorci[S88]	KIDSCREEN-52 (psychological wellbeing)			Students aged 10 to 14 years	Italy	09-10/2019	1,019	13 (1)	52%
Meireles[S89]	KIDSCREEN-52 (mood/emotion) KIDSCREEN-10			Adolescents aged 12 to 16 years who attended schools in the north of Portugal	Portugal	04/2020 04-07/2019 05-06/2020	1,099	13 (1)	53%
Naumann[S90]			STDS	Adolescents and young adults from the German Family Panel Pairfam study	Germany	11/2018-07/2019 05-07/2020	854	Range: 16-19	58%
Paizan[S91]	SWLS			6th to 10th graders in schools with a high proportion of ethnic minorities	Germany	06-10/2019 05-07/2020	226	14 (1)	56%
Polack[S92]			CDI-S	Individuals aged 9 to 15 years	USA	01-09/2019 03-06/2020	112	13 (2)	55%
Rau[S93]	KIDSCREEN-10	RCADS - Anxiety	RCADS - Depression	5th to 11th graders from 3 German schools	Germany	10-11/2019 06-07/2020	777	13 (2)	53%
Shoshani[S94]	PANAS-C - PE PANAS-C - NE GSI-18 - BSI	BSI-18 - Anxiety	BSI-18 - Depression	5th to 11th graders from 38 schools in three representative geographical areas in Israel	Israel	09/2019 05/2020	1,537	14 (2)	52%
Teng[S95]		STAI-Trait	CES-D	Primary and middle school students	China	10-11/2019 04-05/2020	1,778	NR	49%
Vira[S96]	SDQ-emotional problems			Middle school students from the Peer Relations In School from an Ecological perspective project	Sweden	10/2019-01/2020[h]	849	10 (0)	52%

						11/2020-02/2021		
Wang, Wanxin[S97]		GAD-7	CES-D	7th and 10th graders from six middle schools and four high schools in Guangzhou	China	10-12/2019 10-12/2020	1,790-1,831	14 (1)	50%
Widnall[S98]		HADS-A		Secondary students aged 13 to 15 years in South West England	UK	10/2019 05/2020	603	Range: 13-15	NR
Wong, R[S99]		DASS-21 - Anxiety	DASS-21 - Depression	Young adolescents from the Healthy Kids cohort	China	04-08/2019 02/2020	233	12 (0)	61%
Yang, Zhengqian[S100]			CES-D	Adolescents from three public junior high schools in Heilongjiang, who were part of the Life History Strategies and Adolescents' Adaptation Project	China	11/2019 08/2020	1,125	14 (1)	51%
Zhang[S101]		HBQ	MFQ	Students in grades 4 through 8 enrolled in an ongoing longitudinal cohort	China	11/2019 05/2020	1,241	13 (1)	59%
Parents									
Achterberg[S72]	BSI			Parents of children aged 10 to 13 years who enrolled in a longitudinal twin study in 2015-2016	The Netherlands	01-11/2019 04-05/2020	106	45 (5)	93%
Adesogan[S102]			CES-D	Black men and women in the rural South who took part in the Protecting Strong African American Families project.	USA	NR/2018-03/2020[h] 06-09/2020	329	43 (8)	58%
Bosch[S76]	SDQ - Emotion Symptoms SDQ - Total			Parents with children aged 6 to 17 from the INSchool study	Spain	NR/2019 05-06/2020	669	13 (3)	48%
Frank[S103]			PHQ-9	Physician parents enrolled in the Intern Health Study	USA	08/2018	180	40 (4)	53%

						08/2020		
Gagné[S104]	K10			Parents with at least one child aged 5 to 17 years previously enrolled in a parenting support program	Canada	03-05/2019 05-07/2020	127	NR	80%
Loret de Mola[S105]		GAD-7	EPDS	Mothers from the Rio Grande birth cohort	Brazil	01-12/2019 05-07/2020	1,136	28 (7)	100%
Pitchik[S106]			CES-D	Primary caregivers of children 6 to 24 months with no physical or cognitive disabilities	Bangladesh	05-06/2019 07-09/2020	517	NR (NR)	100%
Rivera[S107]			EDS	Women enrolled in the Programming Research in Obesity, Growth, Environment and Social Stressors study	Mexico	NR/2018-2019 05-11/2020	466	39 (6)	100%
Thompson[S108]		GAD-7	CES-D	First-time mothers of young toddlers living in low-income contexts	USA	NR/2018-2019 04/2020	147	27 (6)	100%
People with Pre-existing Medical Conditions									
Becker[S109]	SF-36 (role emotional)		CESD-10	Individuals with multiple sclerosis	USA	03/2019 03/2020	119-121	69 (8)	86%
Bonenkamp[S110]	SF-12 Mental Component Summary			Dialysis patients from the ongoing Dutch nOcturnal and hoMe dialysis Study To Improve Clinical Outcomes	The Netherlands	08/2019 07/2020	177	65 (12)	37%
Chao[S111]			PHQ-8	Older adults with Type 2 diabetes who were enrolled in Look AHEAD.	USA	02/2018-02/2020[h] 07-12/2020	2,679-2,829	76 (6)	63%
Chiu[S112]	SPANE-P	HADS-A	HADS-D	Individuals with Multiple Sclerosis	USA	10/2018	133	49 (12)	86%

	SPANE-N					09/2020		
Derksen[S113]	EORTC QLQ-C30-Global quality of life EORTC QLQ-C30-Emotional functioning	HADS-A	HADS-D	Patients included in the nationwide Prospective Dutch Colorectal Cancer cohort	The Netherlands	01/2019-01/2020[h] 04-06/2020	2,176	67 (10)	37%
Dunlop-Thomas[S114]	PROMIS - Global mental health		PROMIS - Depression	Patients with systemic lupus erythematosus who were part of the Georgians Organized Against Lupus (GOAL) cohort	USA	NR/2017-2019[g] NR/2020-2021	852	48 (NR)	94%
Fujiwara[S115]	EQ-5D-5L	HADS-A	HADS-D	Outpatients with chronic pain undergoing treatment	Japan	07-09/2019 07-09/2020	245	73 (12)	55%
García-Rudolph[S116]	WHOQOL-BREF	HADS-A	HADS-D	Adult community residents with diagnosed spinal cord injury	Spain	NR 11/2020	175	55 (14)	30%
Gul[S117]			BDI	Patients with epilepsy .	Turkey	10-11/2019 06-07/2020	116	Median: 33 Range: 18-65	56%
Henry[S118]		PROMIS Anxiety	PHQ-8	People with systemic sclerosis enrolled in an ongoing longitudinal cohort	Canada, France, UK, USA	07-12/2019 04/2020[j] 12/2020[j] 03/2021[j]	435	57 (13)	89%
Johnstone[S119]	QOLS	HADS-A	HADS-D	Individuals with rheumatoid arthritis or ankylosing spondylitis from the Patient Opinion Real-Time Anonymous Liaison study	New Zealand	NR/2018 07-09/2020	104	57 (12)	74%
Katz, P[S120]		GAD-2	PHQ-2	People with rheumatic diseases enrolled in a longitudinal registry (National Databank for Rheumatic Diseases)	USA	NR/2019 03-06/2020	1,504	66 (11)	86%
Liang[S121]		ZSAS	ZSDS	Patients with maintenance hemodialysis under medical quarantine in a single hospital	China	12/2019	114	59 (16)	32%

Lim[S122]	PROMIS Mental Health	PROMIS Anxiety	PROMIS Depression	People with systemic lupus erythematosus	USA	02-03/2020 NR/2018 04/2020	316	47 (13)	93%
Möller[S123]	DASS-21 EUROHIS-QOL			Adults with coeliac disease	Australia, New Zealand	08-10/2019 05-07/2020	674	57 (14)	83%
Park[S124]	EQ-5D-3L	HADS-A	HADS-D	Adults with pulmonary arterial hypertension who were part of the PEPPAH-study	Germany	09/2019–02/2020[h] 05-08/2020	152	Median: 58 IQR: 49-67	73%
Rentscher[S29]		STAI-State	CES-D	Women aged 60 years and older who were nonmetastatic breast cancer survivors	USA	02-06/2019 05-09/2020	262	68 (5)	100%
Sacre[S125]	PAID	GAD-7	PHQ-8	Adults with type 2 diabetes from the PREDICT cohort study	Australia	NR/2018-2019 05-06/2020	450	66 (9)	31%
Sbragia[S126]	HADS	HADS-A	HADS-D	Patients with multiple sclerosis	Italy	01/2019 05/2020	106	43 (11)	70%
Ubara[S127]			PHQ-9	Patients from a sleep outpatient clinic from a single hospital	Japan	04-07/2019 05/2020	164	64 (14)	13%
Uchida[S128]			CES-D-SF	Hemodialysis patients	Japan	04/2019-03/2020[h] 07/2020-03/2021	142	66 (11)	42%
Wong, S[S35]		GAD-7	PHQ-9	Adults aged ≥ 60 years with ≥ 2 chronic medical conditions recruited from 4 primary care clinics	Hong Kong, China	04/2018-03/2019 03-04/2020	583	71 (6)	73%

						03-06/2020		
People with Pre-existing Mental Health Conditions								
Gentile[S129]		HAM-A	HAM-D	Psychiatric outpatients based in a large area of central-southern Italy and Department of Psychiatry of University of Asuncion, Paraguay.	Italy, Paraguay	10-12/2019 03-04/2020	110[k]	39(14)	55%
Huong[S130]	BSRS-5			Patients with treatment-refractory depression referred by two psychiatrists in the study hospitals	Taiwan	01-12/2018 01-05/2020	114	57 (14)	71%
Swerdlow[S131]		MASQ-30 - Anxiety	MASQ-30 - Depression	A community sample of adults with pre-existing mental health concerns	USA	NR/2018-04/2020[h] 04-06/2020	144	29 (NR)	74%
Young[S132]		GAD-7	PHQ-9	UK residents aged ≥ 16 years with current or history of depressive or anxiety disorder diagnosis from the Genetic Links to Anxiety and Depression study	UK	09/2018-02/2020[h] 04-09/2020	12,653	Range (%): 16-18 (3); 19-25 (12); 26-35 (23); 36-45 (19); 46-55 (22); 56-65 (15); 66-70 (3); 71-75 (2); 76+ (1)	80%
Medical Staff								
Frank[S103]			PHQ-9	Physician parents enrolled in the Intern Health Study	USA	08/2018 08/2020	180	40 (4)	53%
Li, Weidong[S133]		GAD-7	PHQ-9	Training physicians from 12 Shanghai hospitals	China	10-11/2019 01-02/2020	385	Median: 25 IQR: 23-28	64%
Sexual or Gender Minority Individuals								
Bavinton[S134]		GAD-7	PHQ-9	Gay and bisexual men enrolled in a longitudinal cohort	Australia	NR/2019 04/2020	681	NR	0%
Flentje[S135]		GAD-7	PHQ-9		USA	06/2019	2,288	37 (15)	63%[l]

Ghabrial[S136]	OASIS	CES-D	Convenience sample of sexual and gender minority adults enrolled in a longitudinal cohort Trans and non-binary individuals who were part of the Trans PULSE Canada (TPC) study	Canada	03-04/2020 NR/2019 09-10/2020	780	33 (12)	25%
Immigrants								
Gosselin[S137]		PHQ-9	Immigrants from sub-Saharan Africa	France	04/2018-NR/2019 06/2020	100	Range (%): 19-29 (34); 30-39 (39); 40+ (27)	21%

BDI-II = Beck Depression Inventory (second edition); BJSQ = Brief Job Stress Questionnaire; BSI = Brief Symptom Inventory; BSRS = Brief-Symptom Rating Scale; CCAPS-62 = Counseling Center Assessment of Psychological Symptoms; CDI-S = Children's Depression Inventory-Short; CES-DC = Center for Epidemiologic Studies Depression Scale Children; CES-D(-R/10) = Center for Epidemiologic Studies Depression (– Revised/10); CIDI = The Composite International Diagnostic Interview; DASS-21 = Depression, Anxiety, and Stress Scale; DToS = Distress Tolerance Scale; EDS = Edinburgh Depression Scale; EORTC QLQ-C30 = European Organization for the Research and Treatment of Cancer Quality of Life Questionnaire; EPDS = Edinburgh Postnatal Depression Scale; EQ-5D-5L = The 5-level European Quality of Life 5-dimensions version; GAD-7 = Generalized Anxiety Disorder; GAI-SF = Geriatric Anxiety Inventory - Short Form; GDS = Geriatric Depression Scale; GHQ = General Health Questionnaire; GSI = Global Severity Index; HADS-A/D = Hospital Anxiety and Depression Scale-Anxiety/Depression; HAI = Health Anxiety Inventory; HAM-A/D = Hamilton Anxiety/Depression Rating Scale; HBQ = MacArthur Health and Behavior Questionnaire; K6/10 = Kessler Psychological Distress Scale-6/10; MASQ = Mood and Anxiety Symptom Questionnaire; MDI = Major Depression Inventory; (S)MFQ = (Short) Mood and Feelings Questionnaire; MHI-5 = Mental Health Index-5; OASIS = Overall Anxiety Severity and Impairment Scale; PAID = Problem Areas in Diabetes scale; PANAS-PA/NA = Positive and Negative Affect Schedule – Positive Affect/Negative Affect; PERMA – PA/NA = Positive emotion, Engagement, Relationships, Meaning, and Accomplishment Profiler – Positive/Negative Affect; PHQ-2/4/8/9/A = Patient Health Questionnaire 2/4/8/9/Adolescents; PMH = Positive Mental Health Scale; PROMIS = Patient-Reported Outcomes Measurement Information System; PWBS = Psychological Well-being scale; QOLS = Quality of Life Scale; RCADS = Revised Children's Anxiety and Depression Scale; RPOMIS = Patient-Reported Outcomes Measurement Information System; RRQ = Reflection and Rumination Scale; SCAS = Spence Children's Anxiety Scale; SCL-90-R = Symptom Check List-90-Revised; SDQ = Strengths and Difficulties Questionnaire; SF-8/12/36(-MCS) = Short-Form-8/12/36 Health Survey (Mental Component Summary); SMGAD = Severity Measure for Generalized Anxiety Disorder; SPANE-P/N = Scale of Positive and Negative Experience-Positive/Negative; STAI = State-Trait Anxiety Inventory; STDS = State-Trait Depression Scale; SWLS = Satisfaction with Life Scale; UK = United Kingdom; USA = United States of America; (S)WEMWBS = (Short) Warwick Edinburgh Mental Wellbeing Scale; WHO-5-J = World Health Organization (Five) Wellbeing Index; WHOQOL-BREF/AGE = World Health Organization Quality of Life Questionnaire for Older adults; ZSAS = Zung Self-rating Anxiety Scale; ZSDS = Zung Self-rating Depression Scale.

[a]Studies with data on females or women and males or men are not listed separately because they represent subgroup data from other studies in the table. [b]Based on 671 participants with data during COVID-19. [c]Analyses compared COVID-19 symptom levels to preceding trends across multiple assessments. [d]Number included in fixed effects regression analysis from where the majority of data were extracted. [e]Age groups reported for Daly[S12]; for Pierce,[S11] 16-24 = 9%, 25-34 = 11%, 35-44 = 16%, 45-54 = 20%, 55-69 = 29%, 70+ = 15%. [f]Based on van der Velden.[S17] [g]Included because estimated that over 80% of pre-COVID-19 data would have been collected after January 01, 2018. [h]Included because estimated that over 80% of pre-COVID-19 data would have been collected by December 31, 2019. [i]Recruited participants from the same longitudinal cohort. Of cohort participants who completed pre-COVID-19 assessments, 946 agreed to be contacted again. 214[S63] and 255[S64] completed assessments during early 2020 and later 2020, but the authors did not report how many participants overlapped between COVID-19 assessments in 2020. [j]Mental health assessments conducted at 15 time points during COVID-19. We have reported first (April 2020), last in 2020 (December 2020) and last in 2021 (March 2021). [k]N = 60 from Italy and 50 from Paraguay (results not reported by country). [l]Based on female sex assigned at birth; 12 gender categories listed in study.

Supplementary Table 2. Risk of Bias and Adequacy of Methods and Reporting

Author	Appropriate sample frame	Appropriate participant recruitment	Adequate sample size	Participants and setting adequately described	Adequate response rate and data analysis with sufficient coverage	Valid methods for identification of outcome variable	Standard, reliable outcome measurement	Appropriate statistical analysis	Adequate follow-up response rate/ appropriate management of low response rate
General Population									
Bulbulia[S1]	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No
Castellini[S2]	Unclear	No	Unclear	Yes	Unclear	Yes	Yes	Yes	Yes
Chan[S3]	No	No	Yes	No	Unclear	Yes	Yes	Yes	Unclear
Finucane[S4]	No	Yes	Yes	Yes	Unclear	Yes	Unclear	Yes	No
Ge[S5]	No	No	Yes	No	Unclear	Yes	Yes	Yes	Unclear
Haliwa[S6]	No	No	Unclear	Yes	Unclear	Yes	Yes	Yes	No
Kanbur[S7]	No	Unclear	Yes	No	Unclear	Yes	Unclear	No	Unclear
Katz, B[S8]	No	No	Yes	Yes	Unclear	Yes	Yes	Yes	Unclear
Latikka[S9]	Unclear	Unclear	Yes	Yes	No	Yes	Yes	Yes	Yes
Megias-Robles[S10]	Unclear	No	Unclear	No	Unclear	Yes	Yes	Yes	No
Pierce[S11]	Yes	Yes	Yes	Yes	Unclear	Yes	Yes	Yes	Unclear
Daly[S12]	Yes	Yes	Yes	Yes	Unclear	Yes	Yes	Yes	No
Shimura[S13]	No	Unclear	Yes	No	Unclear	Yes	Yes	Yes	Yes
Soltanzadeh[S14]	No	Yes	Yes	Yes	Yes	Yes	Unclear	Yes	Yes
Thygesen[S15]	Yes	Unclear	Yes	Yes	No	Yes	Unclear	Yes	Unclear
van der Velden, 2020[S16]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
van der Velden, 2021[S17]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Wanberg[S18]	Yes	Yes	Yes	Yes	Unclear	Yes	Unclear	Yes	No
Older Adults									
Bartlett[S19]	Yes	No	Yes	Yes	Unclear	Yes	Yes	Yes	No

Briggs[S20]	Yes	Yes	Yes	Yes	Unclear	Yes	Yes	Yes	No
Creese[S21]	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes
Eliasen[S22]	No	Yes	Yes	Yes	No	Yes	Yes	Yes	No
Herrera[S23]	Yes	Yes	Yes	Yes	Unclear	Yes	No	No	No
Kera[S24]	No	Unclear	Yes	No	Unclear	Yes	Yes	Yes	No
Kivi[S25]	Yes	Unclear	Yes	Yes	No	Yes	Yes	Yes	No
Lee[S26]	Yes	Yes	Yes	Yes	Unclear	Yes	Yes	No	Unclear
Martínez[S27]	No	Unclear	Unclear	Yes	Unclear	Yes	Yes	Yes	Unclear
Okely[S28]	No	No	Unclear	Yes	No	Yes	Yes	Yes	No
Rentscher[S29]	Yes	Unclear	Yes	Yes	Unclear	Yes	No	Yes	Yes
Sardella[S30]	No	No	Unclear	Yes	Unclear	Yes	Yes	Yes	No
Siew[S31]	Yes	No	Yes	Yes	Unclear	Yes	No	Yes	No
van den Besselaar[S32]	Unclear	No	Yes	Yes	Unclear	Yes	No	Yes	Unclear
van Tilburg[S33]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Wang, Yi[S34]	Yes	Yes	Yes	Yes	Unclear	Yes	Yes	Yes	Yes
Wong, S[S35]	No	Unclear	Yes	Yes	Unclear	Yes	Yes	Yes	Yes
Yu[S36]	Yes	No	Yes	Yes	Unclear	Yes	Yes	Yes	No
Young Adults									
Islam[S37]	No	Yes	Yes	Yes	No	Yes	Yes	Yes	No
Marmet[S38]	Yes	Yes	Yes	Yes	Unclear	Yes	Yes	Yes	No
Rimfeld[S39]	Yes	Unclear	Yes	Yes	Unclear	Yes	Yes	Yes	Unclear
Romm[S40]	No	No	Yes	Yes	Unclear	Yes	Yes	Yes	Unclear
Tanioka[S41]	No	Unclear	Yes	Yes	Unclear	Yes	Yes	Yes	No
Villadsen[S42]	Unclear	Unclear	Yes	Yes	Unclear	Yes	Yes	Yes	No
Watkins-Martin[S43]	Yes	Unclear	Yes	Yes	Unclear	Yes	Yes	Yes	No
University Students									

Conceição[S44]	No	Yes	Yes	Yes	Unclear	Yes	Unclear	Yes	No
Dong[S45]	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Elmer[S46]	No	Yes	Yes	Yes	Unclear	Yes	Yes	Yes	Unclear
Evans[S47]	No	Unclear	Yes	Yes	Unclear	Yes	No	Yes	Yes
Fuller-Rowell[S48]	No	Unclear	Yes	Yes	Unclear	Yes	Unclear	Yes	Yes
Gelezelyte[S49]	No	Unclear	Yes	Yes	No	Yes	Yes	Yes	No
Gopalan[S50]	No	Unclear	Yes	Yes	Unclear	Yes	Yes	Yes	No
Hamza[S51]	No	Unclear	Yes	Yes	Unclear	Yes	Yes	Yes	Yes
He[S52]	Unclear	Unclear	Yes	Yes	Unclear	Yes	Unclear	Yes	Yes
Koelen[S53]	No	Yes	Yes	Yes	Unclear	Yes	Yes	Yes	No
Li, H[S54]	No	Unclear	Yes	Yes	Unclear	Yes	Yes	Yes	Yes
Li, R[S55]	No	Yes	Yes	No	Unclear	Yes	Yes	Yes	Yes
Li, Wendy Wen[S56]	No	No	Unclear	Yes	No	Yes	Yes	Yes	Yes
Liu[S57]	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Lu[S58]	Unclear	Yes	Yes	Yes	Unclear	Yes	Unclear	Yes	Unclear
Mauer[S59]	Yes	No	Yes	Yes	Unclear	Yes	Yes	Yes	No
Mehus[S60]	No	Yes	Yes	Yes	Unclear	Yes	Yes	Yes	Unclear
Ratner[S61]	No	Unclear	Unclear	Yes	Unclear	Yes	Yes	Yes	No
Saraswathi[S62]	No	Yes	Unclear	Yes	Yes	Yes	Yes	Yes	Yes
Savage, 2020[S63]	No	Yes	Yes	Yes	No	Yes	Yes	Yes	No
Savage, 2021[S64]	Unclear	Unclear	Yes	Yes	No	Yes	Yes	No	No
Shiratori[S65]	No	Unclear	Yes	Yes	Unclear	Yes	Yes	Yes	No
Truskauskaite-Kuneviciene[S66]	No	Unclear	Yes	Yes	Unclear	Yes	Yes	Yes	No
Voltmer[S67]	No	No	Yes	Yes	No	Yes	Yes	Yes	Unclear
Wang, Yitao[S68]	No	Yes	Yes	No	Unclear	Yes	Yes	Yes	Yes
Yang, X[S69]	No	Unclear	Unclear	No	Unclear	Yes	Yes	Yes	Unclear
Yang, Ziyan[S70]	No	Unclear	Yes	Yes	Unclear	Yes	Unclear	Yes	Unclear

Zimmerman[S71]	No	No	Yes	Yes	Unclear	Yes	Yes	Yes	No
Children and Adolescents									
Achterberg[S72,a]	No	No	Unclear	Yes	Unclear	Yes	No	Yes	No
Adachi[S73]	No	Unclear	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bado[S74]	No	No	Yes	Yes	Unclear	Yes	Unclear	Yes	Unclear
Bernasco[S75]	No	Unclear	Yes	Yes	Unclear	Yes	Yes	Yes	Unclear
Bosch[S76]	Yes	Unclear	Yes	Yes	No	Yes	Yes	Yes	No
Charmaraman[S77]	No	Unclear	Yes	Yes	Unclear	Yes	Unclear	Yes	No
Chen, I-H[S78]	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Chen, C-Y[S79]	No	Unclear	Yes	No	Yes	Yes	Yes	Yes	No
Daniunaite[S80]	No	Yes	Yes	Yes	Unclear	Yes	Yes	Yes	Yes
Ezpeleta[S81]	No	No	Unclear	Yes	No	Yes	No	Yes	Unclear
Fujihara[S82]	No	Unclear	Yes	No	No	Yes	Yes	Yes	Unclear
Hu[S83]	Unclear	Unclear	Yes	Yes	Unclear	Yes	Yes	Yes	Unclear
Knowles[S84]	Unclear	Unclear	Yes	Yes	No	Yes	Yes	Yes	Unclear
Li, Y[S85]	No	Unclear	Yes	Yes	Unclear	Yes	Yes	Yes	Yes
Liao[S86]	No	Yes	Yes	Yes	Unclear	Yes	Unclear	Yes	Yes
Magson[S87]	No	Unclear	Yes	Yes	Unclear	Yes	Yes	Yes	No
Mastorci[S88]	No	Yes	Yes	Yes	Unclear	Yes	Yes	Yes	No
Meireles[S89]	No	Unclear	Yes	Yes	Unclear	Yes	Yes	Yes	Unclear
Naumann[S90]	Yes	Unclear	Yes	Yes	Unclear	Yes	Yes	Yes	No
Paizan[S91]	No	No	Yes	Yes	Unclear	Yes	Yes	Yes	Unclear
Polack[S92]	No	No	Unclear	No	Unclear	Yes	Yes	Yes	Yes
Rau[S93]	No	Unclear	Yes	Yes	No	Yes	Yes	Yes	No
Shoshani[S94]	No	Unclear	Yes	Yes	Unclear	Yes	Yes	Yes	Yes
Teng[S95]	No	Yes	Yes	Yes	Unclear	Yes	Yes	Yes	Yes
Vira[S96]	Unclear	Unclear	Yes	Yes	Unclear	Yes	No	Yes	Unclear

Wang, Wanxin[S97]	No	Yes	Yes	Yes	Yes	Yes	Unclear	Yes	Yes
Widnall[S98]	No	Unclear	Yes	No	Unclear	Yes	Unclear	Yes	Unclear
Wong, R[S99]	Unclear	Unclear	Yes	Yes	Unclear	Yes	Yes	Yes	Unclear
Yang, Zhengqian[S100]	No	Unclear	Yes	Yes	Unclear	Yes	Yes	Yes	Unclear
Zhang[S101]	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Parents									
Achterberg[S72,a]	No	No	Unclear	Yes	Unclear	Yes	Yes	Yes	No
Adesogan[S102]	No	No	Yes	Yes	Unclear	Yes	No	Yes	Yes
Bosch[S76]	Yes	Unclear	Yes	Yes	No	Yes	Yes	Yes	No
Frank[S103]	No	Unclear	Unclear	Yes	Unclear	Yes	Yes	Yes	Unclear
Gagné[S104]	Unclear	Unclear	Unclear	No	Unclear	Yes	Yes	Yes	Yes
Loret de Mola[S105]	No	No	Yes	Yes	Unclear	Yes	Yes	Yes	No
Pitchik[S106]	No	Yes	Yes	No	Unclear	Yes	Yes	Yes	No
Rivera[S107]	No	Unclear	Yes	Yes	Unclear	Yes	Unclear	Yes	Unclear
Thompson[S108]	Yes	Unclear	Unclear	Yes	Unclear	Yes	Yes	Yes	Yes
People with Pre-existing Medical Conditions									
Becker[S109]	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Unclear
Bonenkamp[S110]	Yes	Unclear	Yes	Yes	Unclear	Yes	Unclear	Yes	Unclear
Chao[S111]	No	Unclear	Yes	Yes	Unclear	Yes	Yes	Yes	Unclear
Chiu[S112]	No	No	Unclear	Yes	Unclear	Yes	Yes	Yes	No
Derksen[S113]	Yes	Unclear	Yes	Yes	Unclear	Yes	Unclear	Yes	No
Dunlop-Thomas[S114]	Yes	Unclear	Yes	Yes	Unclear	Yes	Yes	Yes	Unclear
Fujiwara[S115]	No	Unclear	Yes	No	Unclear	Yes	Unclear	Yes	Unclear
García-Rudolph[S116]	No	No	Unclear	Yes	Unclear	Yes	Unclear	Yes	Yes
Gul[S117]	No	Unclear	Unclear	Yes	Unclear	Yes	Unclear	Yes	Unclear
Henry[S118]	Yes	No	Yes	Yes	Unclear	Yes	Yes	Yes	No

Johnstone[S119]	No	No	Unclear	No	Unclear	Yes	Yes	Yes	Yes
Katz, P[S120]	Unclear	Unclear	Yes	Yes	Unclear	Yes	Yes	Yes	No
Liang[S121]	No	No	Unclear	Yes	Yes	Yes	Yes	Yes	Yes
Lim[S122]	Yes	Unclear	Yes	Yes	Unclear	Yes	Unclear	Yes	Unclear
Möller[S123]	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes
Park[S124]	No	No	Unclear	No	Unclear	Yes	Yes	Yes	Yes
Rentscher[S29]	Yes	Unclear	Yes	Yes	Unclear	Yes	No	Yes	Yes
Sacre[S125]	No	No	Yes	Yes	Unclear	Yes	No	Yes	Yes
Sbragia[S126]	No	No	Unclear	Yes	Unclear	Yes	Unclear	Yes	No
Ubara[S127]	No	Unclear	Unclear	No	Unclear	Yes	Yes	Yes	Unclear
Uchida[S128]	No	Unclear	Unclear	Yes	Unclear	Yes	Unclear	Yes	Unclear
Wong, S[S35]	No	Unclear	Yes	Yes	Unclear	Yes	Yes	Yes	Yes
People with Pre-existing Mental Health Conditions									
Gentile[S129]	Yes	Unclear	Unclear	Yes	Unclear	Yes	No	Yes	Unclear
Huong[S130]	No	Unclear	Unclear	Yes	Unclear	Yes	Yes	Yes	Yes
Swerdlow[S131]	Yes	No	Unclear	Yes	Unclear	Yes	No	Yes	Yes
Young[S132]	Yes	No	Yes	Yes	Unclear	Yes	Yes	Yes	No
Medical Staff									
Frank[S103]	No	Unclear	Unclear	Yes	Unclear	Yes	Yes	Yes	Unclear
Li, Weidong[S133]	No	Unclear	Yes	Yes	No	Yes	Yes	Yes	No
Sexual or Gender Minority Individuals									
Bavinton[S134]	Yes	Unclear	Yes	No	Unclear	Yes	Yes	Yes	Unclear
Flentje[S135]	Yes	No	Yes	Yes	Unclear	Yes	Yes	Yes	Unclear
Ghabrial[S136]	Unclear	Unclear	Yes	Yes	Unclear	Yes	No	Yes	Unclear
Immigrants									
Gosselin[S137]	No	No	Unclear	Yes	No	Yes	Yes	Yes	Unclear

[a]Achterberg et al. has two samples, parents, and their children, with independent risk of bias coding.

Supplementary Table 3. Individual Study Results for General Mental Health

First Author Study Country	Pre- and Post-COVID-19 Data Collection	N	Continuous Outcome Measure	Pre-COVID-19 Mean (SD)	Post-COVID-19 Mean (SD)	Mean (SD) Change[a]	Hedges' g Standardized Mean Difference (95% CI)	Dichotomous Outcome Measure	% pre-COVID-19 (95% CI)	% post-COVID-19 (95% CI)	% Change with 95% CI[a]
General Population											
Bulbulia[S1] New Zealand	NR/2018 03-04/2020	940	K6	5.42 (4.05)	5.65 (3.78)	0.23 (NR)	0.06 (-0.03, 0.15)	----------	----------	----------	----------
Castellini[S2] Italy	12/2019 04-05/2020	130	BSI-GSI	0.51 (0.39)	0.46 (0.46)	-0.05 (NR)	-0.12 (-0.36, 0.13)	----------	----------	----------	----------
Finucane[S4] USA	05/11-2018 06-09/2020	416	K6	4.00 (4.40)	4.70 (4.60)	0.70 (NR)	0.16 (0.02, 0.29)	K6 ≥ 13	6.0 (4.1, 8.7)	6.5 (4.5, 9.2)	0.5 (-2.0, 3.0)
Kanbur[S7] Turkey	NR/2019 NR/2020	400	SCL-90-R	0.36 (NR)	0.78 (NR)	0.42 (NR)	NR (NR)	----------	----------	----------	----------
Katz, B[S8] Canada, Ireland, UK, USA	04/2019 04/2020	218	RRQ	42.46 (11.74)	41.66 (12.15)	-0.80 (7.43)	-0.07 (-0.25, 0.12)	----------	----------	----------	----------
			DToS	41.95 (9.95)	41.03 (10.08)	-0.92 (7.63)	-0.09 (-0.28, 0.10)	----------	----------	----------	----------
Latikka[S9] Finland	09/2019-10/2019 03/2020-04/2020	840	GHQ-12	12.20 (5.67)	12.41 (5.45)	0.21 (NR)	0.04 (-0.06, 0.13)	----------	----------	----------	----------
Megias-Robles[S10] Spain	11/2019 04/2020	102	PANAS-NA	1.92 (0.65)	2.22 (0.75)	0.31 (0.80)	0.44 (0.16, 0.71)	----------	----------	----------	----------

Pierce[S11] UK	Pre-COVID-19 waves										
Daly[S12] UK											
	04/2020	15,376[30,b] 10,918[34]	GHQ-12	11.50 (5.50)	12.60 (6.60)	1.10 (NR)[c] 0.48 (NR)[d]	0.18 (0.16, 0.21) 0.08 (0.05, 0.10)	GHQ-12 ≥ 4	20.8 (19.4, 22.2)[e]	29.5 (28.0, 31.0)[e]	8.7 (6.9, 10.4)[e]
	09/2020			----------	----------	----------	----------		20.8 (19.4, 22.2)[e]	20.8 (19.5, 22.1)[e]	0.0 (-2.0, 1.9)[e]
Shimura[S13] Japan	NR/2019 NR/2020	3,123	BJSQ (Psychological and Physical)	NR (NR)	NR (NR)	-0.31 (11.02)	-0.05 (-0.10, 0.00)	----------	----------	----------	----------
Soltanzadeh[S14] Iran	11/2019 07/2020	823	GHQ-28	45.13 (11.65)	51.41 (12.89)	6.28 (NR)	0.51 (0.41, 0.61)	----------	----------	----------	----------
Thygesen[S15] Denmark	09-12/2019 09-11/2020	4,234	SWEMWBS	25.50 (4.98)	24.60 (4.98)	-0.90 (NR)	0.18 (0.14, 0.22)	----------	----------	----------	----------
van der Velden, 2020[S16] Netherlands	03/2019	3,983									
van der Velden, 2021[S17] Netherlands	11-12/2019	4,064	MHI-5[f]					MHI-5 ≤ 59			
	03/2020			74.20 (16.70)	74.10 (16.40)	-0.10 (NR)	0.01 (-0.04, 0.05)		----------	----------	----------
	11-12/2020			----------	----------	----------	----------		16.9 (15.8, 18.1)	16.9 (15.8, 18.1)	0.0 (-1.2, 1.3)
Older Adults											
Eliasen[S22] Denmark	12/2017-01/2019	225	WHOQOL-BREF	74.33 (14.96)	71.88 (15.21)	-2.45 (NR)	0.16 (-0.02, 0.35)	----------	----------	----------	----------

			WHOQOL-BREF (psychological health)	77.07 (11.52)	80.53 (10.89)	3.46 (NR)	-0.31 (-0.49, -0.12)				
Kera[S24] Japan	06/2020-07/2020 10/2019 06-07/2020 NR/2019	533	WHO-5-J	16.70 (4.79)	15.10 (4.79)	-1.60 (NR)	0.33 (0.21, 0.45)	----------	----------	----------	----------
Kivi[S25] Sweden	03-04/2020	1,071	SWLS[f]	5.12 (1.30)	5.16 (1.26)	0.04 (NR)	-0.03 (-0.12, 0.05)	----------	----------	----------	----------
Martínez[S27] Spain	10/2019 04/2020	141	PWBS PERMA - PA PERMA - NA	97.85 (21.30) 7.27 (1.38) 4.12 (1.50)	99.50 (19.30) 7.20 (1.40) 3.90 (1.60)	1.65 (11.53) -0.07 (1.14) -0.22 (1.22)	-0.08 (-0.32, 0.15) 0.05 (-0.18, 0.28) -0.14 (-0.38, 0.09)	----------	----------	----------	----------
Okely[S28] Scotland (UK)	NR/2017-NR/2019	137	WEMWBS[f]	37.45 (8.37)	36.45 (8.23)	-1.00 (NR)	0.12 (-0.12, 0.36)	----------	----------	----------	----------
Pierce[S11] UK	05-06/2020 Pre-COVID-19 waves										
Daly[S12] UK	04/2020	2,491 (≥70 years)[30,b] 3,447 (≥65 years)[34]	GHQ-12	10.10 (4.57)	10.90 (5.35)	0.80 (NR)[c] 0.05 (NR)[d]	0.16 (0.11, 0.21) 0.01 (-0.04, 0.06)	GHQ-12 ≥ 4	12.7 (10.3, 15.1)[e]	19.4 (17.1, 21.8)[e]	6.8 (3.7, 9.8)[e]
Sardella[S30] Italy	09/2020 10/2018-10/2019 04/2020	104	SF-12 Mental Component Summary	----------	----------	----------	----------	----------	12.7 (10.3, 15.1)[e]	14.9 (12.9, 16.9)[e]	2.2 (-0.8, 5.2)[e]
				49.99 (9.99)	46.35 (10.06)	-3.64 (NR)	-0.36 (-0.64, -0.09)	----------	----------	----------	----------

Siew[S31] Singapore	02/2018-01/2020	411	WHOQOL-AGE	50.36 (5.71)	52.19 (6.42)	1.83 (NR)	-0.30 (-0.44, -0.16)	----------	----------	----------	----------
	05-06/2020										
Thygesen[S15] Denmark	09-12/2019	423	SWEMWBS	25.70 (6.82)	25.00 (5.77)	-0.70 (NR)	0.11 (-0.02, 0.25)	----------	----------	----------	----------
	09-11/2020										
van der Velden, 2020[S16] Netherlands	03/2019	949-1,038									
van der Velden, 2021[S17] Netherlands	11-12/2019	968-1,052									
van Tilburg[S33] Netherlands		1,679									
	03/2020[36]							MHI-5 ≤ 59	10.9 (9.0, 13.0)	10.6 (8.9, 12.6)	-0.2 (-2.3, 1.9)
	05/2020[41]			4.93 (0.75)	5.02 (0.73)	0.09 (0.58)	-0.12 (-0.19, -0.05)	----------	----------	----------	----------
	11-12/2020[37]							MHI-5 ≤ 59	12.1 (10.2, 14.3)[g]	10.5 (8.8, 12.5)[g]	-1.7 (-3.7, 0.4)
Wang, Yi[S34] China	05-06/2019	2,745	K10	16.64 (7.44)	18.23 (8.06)	1.35 (6.15)	0.17 (0.12, 0.23)	----------	----------	----------	----------
	08-09/2020										
Young Adults											
Islam[S37] Australia	NR/2018	1,110	K10	----------	----------	----------	----------	K10 ≥ 25	41.3 (38.4, 44.2)	41.3 (38.4, 44.2)	0.0 (-3.8, 3.8)
	10-12/2020										
Pierce[S11] UK Daly[S12] UK	Pre-COVID-19 waves	1,999 (25-34 years)[30,b] 1,260 (18-34 years)[34]	GHQ-12					GHQ-12 ≥ 4			

	04/2020			12.10 (5.46)	14.20 (6.32)	2.10 (NR)[c]	0.36 (0.29, 0.42)		25.4 (21.6, 29.2)[e]	39.9 (35.5, 44.4)[e]	14.5 (9.6,19.4)[e]
						1.61 (NR)[d]	0.27 (0.21, 0.34)				
				----------	----------						
	09/2020					----------	----------		25.4 (21.6, 29.2)[e]	23.7 (19.8, 27.6)[e]	-1.7 (-5.9, 2.5)[e]
	10/2019		K6-J	6.10 (5.70)	6.10 (5.80)	0.00 (NR)	0.00 (-0.06, 0.06)				
Tanioka[S41] Japan		2,222	SF-8 - MCS	46.60 (7.90)	47.20 (7.80)	0.60 (NR)	0.08 (0.02, 0.14)	----------	----------	----------	----------
	05/2020										
van der Velden, 2020[S16] Netherlands	03/2019	993-1,062									
van der Velden, 2021[S17] Netherlands	11-12/2019	1,018-1,083	----------	----------	----------	----------	----------	MHI-5 ≤ 59			
	03/2020								23.1 (20.6, 25.7)	19.7 (17.4, 22.3)	-3.3 (-6.1, -0.6)
	11-12/2020								20.7 (18.4, 23.2)[g]	22.5 (20.0, 25.2)[g]	1.8 (-1.1, 4.7)
	NR/2018										
Villadsen[S42] UK		1,615	K6	----------	----------	----------	----------	K6 ≥ 13	18.0 (15.2, 21.2)	18.7 (15.7, 22.1)	0.7 (-1.4, 2.8)
	05/2020										
University Students											
	09/2019										
Dong[S45] China		4,085-4,341	----------	----------	----------	----------	----------	SCL-90-R ≥ 160	18.4 (17.3, 19.6)	26.4 (25.1, 27.8)	8.0 (6.4, 9.5)
	NR/2020										
	10/2019										
Evans[S47] UK		251	WEMWBSf	23.04 (4.96)	21.12 (4.87)	-1.92 (NR)	0.39 (0.21, 0.57)	----------	----------	----------	----------
	05/2020										
Li, H[S54] China	12/2019	555	PHQ-4	0.95 (0.65)	0.76 (0.61)	-0.19 (0.66)	-0.30 (-0.42, -0.18)	----------	----------	----------	----------
	02/2020		PANAS- PA[f]	3.21 (0.79)	3.26 (0.79)	0.06 (0.78)	-0.08 (-0.19, 0.04)				

			PANAS- NA	2.38 (0.79)	2.24 (0.80)	-0.15 (0.78)	-0.19 (-0.31, -0.07)				
Li, R[S55] China	09/2019 04/2020	2,603	SCL-90-R	1.60 (0.40)	1.52 (0.41)	-0.08 (0.66)	-0.20 (-0.25, -0.14)	----------	----------	----------	----------
Savage, 2020[S63] UK	10/2019 04/2020	214	WEMWBS[f]	44.12 (9.16)	41.12 (10.14)	-3.00 (NR)	0.31 (0.12, 0.50)	----------	----------	----------	----------
Savage, 2021[S64] UK	10/2019 10/2020	255	WEMWBSf	45.2 (9.39)	42.3 (9.98)	-2.90 (NR)	0.30 (0.12, 0.47)	----------	----------	----------	----------
Truskauskaite-Kuneviciene[S66] Lithuania Germany	10-12/2019 03-04/2020	Lithuania: 450; Germany: 325	PMH	Lithuania: 15.66 (5.57); Germany: 18.45 (5.68)	Lithuania: 16.44 (5.46); Germany: 18.64 (5.76)	Lithuania: 0.78 (NR); Germany: 0.19 (NR)	Lithuania: -0.14 (-0.27, -0.01); Germany: -0.03 (-0.19, 0.12)	----------	----------	----------	----------
Wang, Yitao[S68] China	11/2019 06/2020	2,559	SCL-90-R	139.64 (38.46)	134.57 (40.44)	-5.07 (NR)	-0.13 (-0.18, -0.07)	----------	----------	----------	----------
Children and Adolescents											
Achterberg[S72] Netherlands	01-11/2019	151	SDQ-Internalizing Behaviors	0.28 (0.35)	0.29 (0.35)	0.01 (NR)	0.03 (-0.16, 0.22)	----------	----------	----------	----------
	04-05/2020		SDQ-Externalizing Behaviors	0.42 (0.39)	0.39 (0.38)	-0.03 (NR)	-0.08 (-0.27, 0.11)	----------	----------	----------	----------
Bado[S74] Brazil	NR/2018-2019	672	SDQ - Total score	13.93 (6.16)	13.23 (6.43)	-0.70 (NR)	-0.11 (-0.22, 0.00)				
	04/2020-04/2021		SDQ - Emotion subscale	4.21 (2.63)	3.82 (2.74)	-0.39 (NR)	-0.15 (-0.25, -0.04)	----------	----------	----------	----------
Bernasco[S75]	NR/2019	245		1.17 (0.17)	1.18 (0.19)	0.01 (NR)	0.06 (-0.12, 0.23)	----------	----------	----------	----------

Netherlands	04-07/2020		RCADS - Parents	1.47 (0.31)	1.43 (0.33)	-0.04 (NR)	-0.12 (-0.30, 0.05)				
			RCADS - Adolescents								
	NR/2019		SDQ - Emotion Symptoms	2.42 (2.14)	3.29 (2.29)	0.87 (NR)	0.39 (0.27, 0.51)				
Bosch[S76] Spain		552	SDQ - Total	8.62 (5.59)	11.20 (5.62)	2.58 (NR)	0.46 (0.34, 0.58)	----------	----------	----------	----------
	05/2020-06/2020										
Chen, I-H[S78] China	10-11/2019	535	DASS-21	0.46 (0.49)	1.22 (0.30)	0.76 (NR)	1.87 (1.72, 2.01)	----------	----------	----------	----------
	03/2020										
Chen, C-Y[S79] China	10-11/2019	575	DASS-21	21.85 (22.94)	19.15 (22.13)	-2.70 (NR)	-0.12 (-0.24, 0.00)	----------	----------	----------	----------
	01/2020										
Daniunaite[S80] Lithuania	03-05/2019	331	SDQ - Emotional Symptoms	2.86 (2.29)	3.27 (2.47)	0.41 (NR)	0.17 (0.02, 0.32)	----------	----------	----------	----------
	09-10/2020										
Ezpeleta[S81] Spain	NR/2019	197	SDQ-total Parent Version	5.45 (4.65)	6.20 (4.44)	0.75 (3.75)	0.16 (-0.03, 0.36)	----------	----------	----------	----------
	06/2020										
Fujihara[S82] Japan	12/2019	1,854	K6	5.04 (5.07)	5.73 (5.14)	0.69 (NR)	0.14 (0.07, 0.20)	----------	----------	----------	----------
	02/2020										
Hu[S83] UK	NR	886	SDQ - Emotion Problems	3.22 (2.44)	3.45 (2.44)	0.23 (NR)	0.09 (0.00, 0.19)	----------	----------	----------	----------
	07/2020										
Knowles[S84] UK	NR/2018-2019	958-1,055	SDQ score	----------	----------	----------	----------	SDQ score ≥ 18	18.3 (13.9, 23.8)	15.9 (13.0, 19.4)	-2.4 (-4.9, 0.1)
	05-08/2020										

Mastorci[S88] Italy	09-10/2019	1,019	KIDSCREEN-52 (psychological wellbeing)	50.23 (9.37)	48.87 (9.83)	-1.36 (NR)	0.14 (0.05, 0.23)	----------	----------	----------	----------
	04/2020		KIDSCREEN-52 (mood/emotion)	48.62 (9.90)	48.03 (9.82)	-0.59 (NR)	0.06 (0.03, 0.15)				
Meireles[S89] Portugal	04-07/2019	1,099	KIDSCREEN-10	3.72 (0.61)	3.80 (0.56)	0.08 (NR)	-0.14 (-0.22, -0.05)	----------	----------	----------	----------
	05-06/2020										
Paizan[S91] Germany	06-10/2019	226	SWLS	5.37 (1.19)	5.11 (1.27)	-0.26 (NR)	0.21 (0.03, 0.40)	----------	----------	----------	----------
	05-07/2020										
Rau[S93] Germany	10-11/2019	777	KIDSCREEN-10	51.40 (13.10)	52.30 (13.90)	0.90 (NR)	-0.07 (-0.17, 0.03)	----------	----------	----------	----------
	06-07/2020										
Shoshani[S94] Israel	09/2019	1,537	PANAS-C - PE	18.15 (3.74)	16.20 (3.88)	-1.95 (NR)	0.51 (0.44, 0.58)	----------	----------	----------	----------
			PANAS-C - NE	9.58 (3.27)	9.54 (3.29)	-0.04 (NR)	-0.01 (-0.08, 0.06)				
	05/2020		GSI-18 - BSI	16.47 (11.26)	19.18 (12.03)	2.71 (NR)	0.23 (0.16, 0.30)				
Vira[S96] Sweden	10/2019-01/2020	849	SDQ-emotional problems	1.50 (0.45)	1.53 (0.46)	0.03 (NR)	0.07 (-0.03, 0.16)	----------	----------	----------	----------
	11/2020-02/2021										
Parents											
Achterberg[S72] Netherlands	01-11/2019	106	BSI	0.19 (0.22)	0.34 (0.32)	0.15 (NR)	0.54 (0.27, 0.82)	----------	----------	----------	----------
	04-05/2020										
Bosch[S76] Spain	NR/2019	699	SDQ - Emotion Symptoms	1.63 (1.85)	2.16 (2.03)	0.53 (NR)	0.27 (0.17, 0.38)	----------	----------	----------	----------
			SDQ - Total	7.02 (5.57)	9.40 (5.61)	2.38 (NR)	0.43 (0.32, 0.53)				
	05/2020-06/2020										

Gagné[S104] Canada	03-05/2019 05-07/2020	127	K10	1.75 (0.52)	1.85 (0.61)	0.10 (NR)	0.18 (-0.07, 0.42)	K10 ≥ 9	41.7 (33.5, 50.4)	40.2 (32.0, 48.9)	-1.6 (-12.3, 9.2)
People with Pre-existing Medical Conditions											
Becker[S109] USA	03/2019 03/2020	119	SF-36 (role emotional)	77.30 (26.30)	73.70 (27.60)	-3.60 (NR)	-0.13 (-0.39, 0.12)	----------	----------	----------	----------
Bonenkamp[S110] Netherlands	08/2019 07/2020	177	SF-12 Mental Component Summary	48.08 (10.15)	49.00 (10.04)	0.91 (10.18)	0.09 (-0.12, 0.30)	----------	----------	----------	----------
Chiu[S112] USA	10/2018 09/2020	133	SPANE-P	22.78 (3.88)	21.11 (4.18)	-1.67 (5.31)	0.41 (0.17, 0.66)	----------	----------	----------	----------
			SPANE-N	14.50 (4.35)	16.11 (4.51)	1.61 (5.95)	0.36 (0.12, 0.60)				
Derksen[S113] Netherlands	01/2019-01/2020	2176	EORTC QLQ-C30-Global quality of life	79.83 (16.38)	79.41 (16.18)	-0.42 (10.23)	0.03 (-0.03, 0.09)	----------	----------	----------	----------
	04-06/2020		EORTC QLQ-C30-Emotional functioning	86.93 (17.37)	87.92 (15.79)	0.99 (14.95)	-0.06 (-0.12, -0.00)				
Dunlop-Thomas[S114] USA	NR/2017-2019 NR/2020-2021	852	PROMIS - Global mental health	43.57 (9.34)	43.75 (9.08)	0.18 (NR)	0.02 (-0.08, 0.11)	----------	----------	----------	----------
Fujiwara[S115] Japan	07-09/2019 07-09/2020	245	EQ-5D-5L	Median (IQR): 0.69 (0.27)	Median (IQR): 0.69 (0.30)	NR (NR)	NR (NR)	----------	----------	----------	----------
García-Rudolph[S116] Spain	NR 11/2020	175	WHOQOL-BREF	61.71 (19.75)	57.95 (21.96)	-3.76 (NR)	0.18 (-0.03, 0.39)	----------	----------	----------	----------

Johnstone[S119] New Zealand	NR/2018 – 07-09/2020	104	QOLS	78.74 (14.18)	73.17 (17.66)	-5.57 (NR)	0.35 (0.07, 0.62)	----------	----------	----------	----------
Lim[S122] USA	NR/2018 – 04/2020	316	PROMIS Mental Health	44.30 (9.30)	44.50 (8.90)	0.20 (7.40)	0.02 (-0.13, 0.18)	----------	----------	----------	----------
Möller[S123] Australia, New Zealand	08-10/2019 – 05-07/2020	674	DASS-21	18.95 (18.35)	18.07 (17.53)	-0.88 (NR)	-0.05 (-0.16, 0.06)	----------	----------	----------	----------
			EUROHIS-QOL	32.35 (5.34)	32.70 (5.06)	0.35 (NR)	-0.07 (-0.17, 0.04)				
Park[S124] Germany	09/2019–02/2020 – 05-09/2020	152	EQ-5D-3L	Median (IQR): 8.00 (7.00, 9.00)	Median (IQR): 8.00 (6.00, 9.00)	NR (NR)	NR (NR)	----------	----------	----------	----------
Sacre[S125] Australia	NR/2018-2019 – 05-06/2020	450	PAID	----------	----------	----------	----------	PAID ≥ 40	14.7 (11.7, 18.2)	7.8 (5.7, 10.6)	-6.9 (-9.6, 4.5)
Sbragia[S126] Italy	01/2019 – 05/2020	106	HADS	12.91 (6.52)	11.60 (7.17)	-1.31 (NR)	-0.19 (-0.46, 0.08)	----------	----------	----------	----------
Soltanzadeh[S14] Iran	11/2019 – 07/2020	136	GHQ-28	47.51 (11.37)	54.61 (13.23)	7.10 (NR)	0.56 (0.09, 1.04)	----------	----------	----------	----------
Thygesen[S15] Denmark	09-12/2019 – 09-11/2020	1,543	SWEMWBS	24.20 (3.01)	23.60 (2.00)	-0.60 (NR)	0.23 (0.16, 0.31)	----------	----------	----------	----------
People with Pre-existing Mental Health Conditions											
Huong[S130] Taiwan	01-12/2018	114	BSRS-5	12.04 (6.19)	10.58 (7.00)	-1.46 (NR)	-0.22 (-0.48, 0.04)	BSRS-5 ≥ 10	67.5 (58.5, 75.4)	57.9 (48.7, 66.6)	-9.6 (-23.0, 4.1)

Thygesen[S15] Denmark	01-05/2020 09-12/2019 09-11/2020	343	SWEMWBS	24.20 (3.01)	23.60 (2.00)	-0.60 (NR)	-0.22 (-0.37, -0.07)	----------	----------	----------	----------
Women or Females											
Dong[S45] China	09/2019 NR/2020	3,162-3,277	----------	----------	----------	----------	----------	SCL-90-R ≥ 160	19.7 (18.4, 21.1)	27.9 (26.4, 29.5)	8.2 (6.3, 10.0)
Fujihara[S82] Japan	12/2019 02/2020	942	K6	5.07 (NR)	5.85 (NR)	0.78 (NR)	NR (NR)	----------	----------	----------	----------
Megias-Robles[S10] Spain	11/2019 04/2020	67	PANAS-NA	1.93 (0.65)	2.28 (0.79)	0.34 (0.86)	0.48 (0.13, 0.82)	----------	----------	----------	----------
Meireles[S89] Portugal	04-07/2019 05-06/2020	582	KIDSCREEN-10	3.75 (0.61)	3.73 (0.55)	-0.02 (NR)	0.03 (-0.08, 0.15)	----------	----------	----------	----------
Pierce[S11] UK	Pre-COVID-19 waves										
Daly[S12] UK	04/2020	7,181[30,b] 6,380[34]	GHQ-12	12.00 (5.91)	13.60 (7.14)	1.60 (NR)[c] 0.88 (NR)[d]	0.24 (0.21, 0.28) 0.13 (0.10, 0.17)	GHQ-12 ≥ 4	24.5 (22.5, 26.4)[e]	36.8 (34.8, 38.9)[e]	12.4 (9.9, 14.9)[e]
Savage, 2020[S63] UK	09/2020 10/2019 04/2020	154	WEMWBS[f]	----------	----------	----------	----------		24.5 (22.5, 26.4)[e]	25.0 (23.3, 26.8)[e]	0.5 (-1.8, 2.9)[e]
				43.00 (9.00)	40.00 (10.00)	-3.00 (NR)	0.31 (0.09, 0.54)	----------	----------	----------	----------

Soltanzadeh[S14] Iran	11/2019 – 07/2020	161	GHQ-28	45.11 (12.07)	50.91 (12.69)	5.80 (NR)	0.47 (0.24, 0.69)	----------	----------	----------	----------
Thygesen[S15] Denmark	09-12/2019 – 09-11/2020	2,184	SWEMWBS	25.10 (9.54)	24.10 (4.77)	-1.00 (NR)	0.13 (0.07, 0.19)	----------	----------	----------	----------
van der Velden, 2020[S16] Netherlands	03/2019	2,020									
van der Velden, 2021[S17] Netherlands	11-12/2019	2,062	MHI-5[f]	----------	----------	----------	----------	MHI-5 ≤ 59			
	03/2020								18.9 (17.3, 20.7)	18.3 (16.7, 20.1)	-0.6 (-2.5, 1.3)
	11-12/2020								19.1 (17.4, 20.8)	17.8 (16.2, 19.5)	-1.3 (-3.1, 0.6)
Men or Males											
Dong[S45] China	09/2019 – NR/2020	923-1,064	----------	----------	----------	----------	----------	SCL-90-R ≥ 160	14.3 (12.3, 16.5)	21.2 (18.7, 24.0)	6.9 (4.0, 9.9)
Fujihara[S82] Japan	12/2019 – 02/2020	912	K6	5.01 (NR)	5.61 (NR)	0.60 (NR)	NR (NR)	----------	----------	----------	----------
Megias-Robles[S10] Spain	11/2019 – 04/2020	35	PANAS-NA	1.88 (0.67)	2.11 (0.66)	0.23 (0.66)	0.34 (-0.14, 0.82)	----------	----------	----------	----------
Meireles[S89] Portugal	04-07/2019 – 05-06/2020	517	KIDSCREEN-10	3.69 (0.61)	3.88 (0.56)	0.19 (NR)	-0.32 (-0.45, -0.20)	----------	----------	----------	----------

Pierce[S11] UK	Pre-COVID-19 waves										
Daly[S12] UK	04/2020	8,195[30,b] 4,538[34]	GHQ-12	10.80 (4.99)	11.50 (5.75)	0.70 (NR)[c] 0.03 (NR)[d]	0.13 (0.10, 0.16) 0.01 (-0.03, 0.04)	GHQ-12 ≥ 4	16.7 (14.6, 18.7)[e]	21.1 (19.0, 23.3)[e]	4.5 (2.0, 7.0)[e]
	09/2020			----------	----------	----------	----------		16.7 (14.6, 18.7)[e]	16.0 (14.0, 17.9)[e]	-0.7 (-2.9, 1.5)[e]
Savage, 2020[S63] UK	10/2019 – 04/2020	60	WEMWBS[f]	47.00 (9.00)	44.00 (10.00)	-3.00 (NR)	0.31 (-0.04, 0.67)	----------	----------	----------	----------
Soltanzadeh[S14] Iran	11/2019 – 07/2020	689	GHQ-28	46.12 (11.36)	51.38 (12.34)	5.26 (NR)	0.44 (0.34, 0.55)	----------	----------	----------	----------
Thygesen[S15] Denmark	09-12/2019 – 09-11/2020	2,050	SWEMWBS	25.10 (5.78)	24.40 (16.17)	-0.70 (NR)	0.06 (-0.00, 0.12)	----------	----------	----------	----------
van der Velden, 2020[S16] Netherlands	03/2019	1,962-1,963									
van der Velden, 2021[S17] Netherlands	11-12/2019	2,002	MHI-5[f]	----------	----------	----------	----------	MHI-5 ≤ 59			
	03/2020								14.6 (13.1, 16.3)	15.6 (14.1, 17.3)	1.0 (-0.8, 2.7)
	11-12/2020								14.7 (13.2, 16.3)	15.9 (14.4, 17.6)	1.2 (-0.5, 3.0)

BSI = Brief Symptom Inventory; DToS = Distress Tolerance Scale; GHQ-12 = General Health Questionnaire-12; MHI-5 = Mental Health Index-5; PANAS – NA = Positive and Negative Affect Schedule – Negative Affect; PANAS – PA = Positive and Negative Affect Schedule – Positive Affect; PHQ-4 = Patient Health Questionnaire-4; RRQ = Reflection and Rumination Scale; SCL-90-R = Symptom Check List-90-Revised; SDQ – Extern = Strengths and Difficulties Questionnaire – Externalizing Behavior; SDQ – Intern = Strengths and Difficulties Questionnaire – Internalizing Behavior; SDQ – Total = Strengths and Difficulties Questionnaire – Total; SWLS = Satisfaction with Life Scale; WEMWBS = Warwick Edinburgh Mental Wellbeing Scale.

[a]Positive Hedges' g effect sizes and increases in proportions above a threshold indicate worse mental health in COVID-19 compared to pre-COVID-19. Effects for measures where high scores = positive outcomes were reversed to reflect this. [b]Number included in fixed effects regression analysis from where majority of data were extracted. [c]Based on difference between 2020 and 2019 outcomes. [d]Based on estimate from fixed effects regression model that estimates within-person change accounting for pre-COVID-19 trends. [e]Included proportion outcomes from Daly,[31] since Daly reported for two time points. [f]Higher scale scores reflect better mental health; thus, direction of effect sizes reversed. [g]Proportions in the study were calculated using age categories based on previous year's age.

Supplementary Table 4. Individual Study Results for Anxiety Symptoms

First Author	Pre- and Post-COVID-19 Data Collection	N	Continuous Outcome Measure	Pre-COVID-19 Mean (SD)	Post-COVID-19 Mean (SD)	Mean (SD) Change[a]	Hedges' g Standardized Mean Difference (95% CI)	Dichotomous Outcome Measure	% pre-COVID-19 (95% CI)	% post-COVID-19 (95% CI)	% Change with 95% CI[a]
General Population											
Chan[S3] Hong Kong, China	07/2019 07/2020	279	HAI	15.33 (6.31)	15.52 (6.70)	0.19 (NR)	0.03 (-0.14, 0.20)	----------	----------	----------	----------
Ge[S5] China	01-12/2019 02-03/2020	1,547-1,978	GAD-7	9.24 (2.33)	10.02 (2.28)	0.78 (NR)	0.1 (0.03, 0.18)	----------	----------	----------	----------
Haliwa[S6] USA	09-12/2019 04-06/2020	Sample 1: 300; Sample 2: 146; Sample 3: 142	Sample 1: GAD-7 Sample 2: DASS-21-Anxiety Sample 3: GAD-7	Sample 1: 5.58 (5.02) Sample 2: 3.53 (4.89) Sample 3: 4.64 (5.35)	Sample 1: 6.55 (5.98) Sample 2: 3.25 (4.51) Sample 3: 4.82 (5.60)	Sample 1: 0.97 (4.93) Sample 2: -0.28 (2.82) Sample 3: 0.18 (4.21)	Sample 1: 0.18 (0.01, 0.34) Sample 2: -0.08 (-0.31, 0.15) Sample 3: 0.03 (-0.20, 0.27)	Sample 1: GAD-7 ≥ 10 Sample 2: DASS-21-Anxiety ≥ 6 Sample 3: GAD-7 ≥ 10	Sample 1: 19.0 (15.0, 23.8) Sample 2: 21.9 (16.0, 29.3) Sample 3: 20.4 (14.6, 27.8)	Sample 1: 29.7 (24.8, 35.1) Sample 2: 23.3 (17.2, 30.8) Sample 3: 19.7 (14.0, 27.0)	Sample 1: 10.7 (4.6, 16.6) Sample 2: 1.4 (-6.5, 9.2) Sample 3: -0.7 (-8.0, 6.5)
Kanbur[S7] Turkey	NR/2019 NR/2020	400	SCL-90-R Anxiety	0.27 (NR)	0.51 (NR)	0.24 (NR)	NR (NR)	----------	----------	----------	----------
Katz, B[S8] Canada, Ireland, UK, USA	04/2019 04/2020	218	DASS-21 Anxiety	3.25 (3.91)	2.83 (3.61)	-0.42 (3.13)	-0.11 (-0.30, 0.08)	----------	----------	----------	----------
Older Adults											
Bartlett[S19] Australia	10/2019 04-06/2020	1,671	HADS-A	5.56 (3.55)	4.88 (3.34)	-0.68 (NR)	-0.20 (-0.27, -0.13)	----------	----------	----------	----------
Creese[S21]	10/2019	3,281	GAD-7	1.55 (2.64)	1.94 (2.84)	0.39 (NR)	0.14 (0.09, 0.19)	GAD-7 ≥ 10	2.2 (1.8, 2.8)	2.7 (2.2, 3.3)	0.5 (-0.1, 1.1)

UK											
	05-06/2020										
Herrera[S23] Chile	11/2019 09/2020	721	GAI-SF	2.04 (NR)	2.26 (NR)	0.22 (NR)	NR (NR)	GAI-SF ≥ 3	40.0 (36.5, 43.6)	42.9 (39.3, 46.5)	2.9 (-1.9, 7.7)
Rentscher[S29] USA	02-06/2019 05-09/2020	165	STAI-State	27.50 (7.10)	30.60 (9.60)	3.10 (NR)	0.37 (0.15, 0.58)	----------	----------	----------	----------
Rentscher[S29] USA	02-06/2019 05-09/2020	262	STAI-State	27.90 (6.50)	30.10 (9.10)	2.20 (NR)	0.28 (0.11, 0.45)	----------	----------	----------	----------
Siew[S31] Singapore	02/2018-01/2020 05-06/2020	411	GAI-SF	1.12 (2.63)	1.40 (3.17)	0.28 (NR)	0.10 (-0.04, 0.23)	----------	----------	----------	----------
van den Besselaar[S32] Netherlands	NR/2018-2019 06-10/2020	984	HADS-A	2.58 (2.70)	3.35 (2.99)	0.77 (NR)	0.27 (0.18, 0.36)	----------	----------	----------	----------
Wong, S[S35] Hong Kong, China	04/2018-03/2019 03-04/2020	583	GAD-7	2.50 (NR)	3.00 (NR)	0.48 (NR)	NR[b]	----------	----------	----------	----------
Yu[S36] Singapore	02/2018-01/2020 05-06/2020	419	GAI	1.12 (2.58)	1.38 (3.14)	0.26 (2.31)	0.09 (-0.05, 0.23)	----------	----------	----------	----------
Young Adults											
Rimfeld[S39] UK	NR/2018 04-05/2020	3,563-3,694	SMGAD	7.48 (7.35)	8.69 (7.54)	1.21 (6.83)	0.16 (0.12, 0.21)	----------	----------	----------	----------
	NR/2018	1,039	SMGAD	4.73 (4.61)	4.45 (4.70)	-0.28 (NR)	-0.06 (-0.15, 0.03)	GAD-7 ≥ 15	4.9 (3.8, 6.4)	4.7 (3.6, 6.2)	-0.2 (-1.5, 1.1)

Watkins-Martin[S43] Canada	08/2020										
University Students											
Conceição[S44] Portugal	10/2019 06/2020	341	GAD-7	9.89 (6.19)	12.15 (6.50)	2.26 (NR)	0.36 (0.20, 0.51)	GAD-7 ≥ 10	46.0 (40.8, 51.4)	64.5 (59.3, 69.4)	18.5 (10.1, 26.5)
Elmer[S46] Switzerland	09/2019 04/2020	209	GAD-7	NR	NR	0.60 (3.47)	0.17 (-0.02, 0.36)	----------	----------	----------	----------
Evans[S47] UK	10/2019 05/2020	251	HADS-A	9.35 (4.28)	9.42 (4.47)	0.07 (NR)	0.02 (-0.16, 0.19)	----------	----------	----------	----------
Gelezelyte[S49] Lithuania	10-12/2019 10-12/2020	474	DASS-21 Anxiety	6.99 (4.94)	5.87 (4.58)	-1.12 (4.32)	-0.23 (-0.36, -0.11)	----------	----------	----------	----------
Gopalan[S50] USA	11/2019 05/2020	1,004	CCAPS-62 - Anxiety	1.31 (1.04)	1.34 (1.07)	0.03 (NR)	0.03 (-0.06, 0.12)	----------	----------	----------	----------
Hamza[S51] Canada	05/2019 05/2020	733	GAD-7	6.68 (5.53)	6.39 (5.46)	-0.29 (NR)	-0.05 (-0.16, 0.05)	----------	----------	----------	----------
He[S52] China	09-12/2019 02/2020	589	STAI-Trait	43.27 (7.35)	44.76 (8.78)	1.49 (NR)	0.18 (0.07, 0.30)	----------	----------	----------	----------
Koelen[S53] Netherlands	01/2019-01/2020 04-05/2020	683	GAD-7	----------	----------	----------	----------	GAD-7 ≥ 10	33.6 (30.1, 37.2)	36.5 (32.9, 40.1)	2.9 (-1.6, 7.4)
	11/2019	173	DASS-21 Anxiety	9.23 (6.16)	5.09 (5.90)	-4.14 (NR)	-0.68 (-0.90, -0.47)	----------	----------	----------	----------

Li, Wendy Wen[S56] China	03/2020										
Lu[S58] China	09/2019-10/2019 04/2020	5,181	GAD-7	----------	----------	----------	----------	GAD-7 ≥ 10	3.5 (3.0, 4.0)	3.7 (3.2, 4.2)	0.2 (-0.3, 0.7)
Mauer[S59] USA	09-12/2019 03-06/2020	1,434	DASS-21	5.42 (4.68)	5.04 (4.30)	-0.38 (NR)	-0.08 (-0.16, -0.01)	DASS-21 ≥ 10	16.6 (14.8, 18.6)	16.0 (14.2, 18.0)	-0.6 (-2.7, 1.4)
Mehus[S60] USA	08,12/2019 04/2020	727	GAD-7	5.07 (4.68)	5.67 (5.09)	0.60 (NR)	0.12 (0.02, 0.23)	GAD-7 ≥ 8	24.3 (21.4, 27.6)	29.6 (26.3, 33.0)	5.3 (1.3, 9.1)
Saraswathi[S62] India	12/2019 06/2020	217	DASS-21 Anxiety	4.60 (6.19)	6.11 (7.13)	1.51 (NR)	0.23 (0.04, 0.41)	DASS-21 Anxiety > 7	21.2 (16.3, 27.1)	33.2 (27.3, 39.7)	12.0 (4.4, 19.4)
Truskauskaite-Kuneviciene[S66] Lithuania Germany	10-12/2019 03-04/2020	Lithuania: 450; Germany: 325	DASS-21 - Anxiety	Lithuania: 7.07 (4.92); Germany: 3.66 (3.66)	Lithuania: 4.16 (4.21); Germany: 2.33 (2.82)	Lithuania: -2.91 (NR); Germany: -1.33 (NR)	Lithuania: -0.63 (-0.77, -0.50); Germany: -0.41 (-0.56, -0.25)	----------	----------	----------	----------
Voltmer[S67] Germany	NR/2019 06/2020	587	BSI-18 Anxiety	4.50 (4.40)	4.10 (4.10)	-0.40 (NR)	-0.09 (-0.21, 0.02)	----------	----------	----------	----------
Wang, Yitao[S68] China	11/2019 06/2020	2,559	SCL-90-R Anxiety	1.55 (0.49)	1.48 (0.50)	-0.07 (NR)	-0.14 (-0.20, -0.09)	----------	----------	----------	----------
Yang, Ziyan[S70] China	10/2019 05/2020	2,364	DASS-21 Anxiety	9.64 (2.88)	8.92 (2.96)	-0.72 (NR)	-0.25 (-0.30, -0.19)	----------	----------	----------	----------
Zimmerman[S71] USA	08/2019 04/2020	205	GAD-7	8.29 (6.28)	9.71 (6.83)	1.42 (0.41)	0.22 (0.02, 0.41)	----------	----------	----------	----------

Children and Adolescents											
Chen, C-Y[S79] China	10-11/2019 01/2020	575	DASS-21 - Anxiety	7.98 (7.93)	7.01 (7.43)	-0.97 (NR)	-0.13 (-0.24, -0.01)	----------	----------	----------	----------
Knowles[S84] UK	NR/2018-2019 05-08/2020	958-1,055	GAD-7	----------	----------	----------	----------	GAD-7 ≥ 10	20.5 (17.3, 24.3)	17.3 (14.0, 21.0)	-3.1 (-5.8, -0.5)
Li, Y[S85] China	09/2019 03/2020	831	ZSAS	----------	----------	----------	----------	ZSAS > 50	27.7 (24.7, 30.8)	23.0 (20.3, 26.0)	-4.7 (-7.9, -1.4)
Magson[S87] Australia	NR/2019 05/2020	248	SCAS Generalized Anxiety	4.60 (3.74)	5.10 (4.05)	0.50 (1.50)	0.13 (-0.05, 0.30)	----------	----------	----------	----------
Rau[S93] Germany	10-11/2019 06-07/2020	777	RCADS - Anxiety	24.40 (17.70)	21.10 (17.00)	-3.30 (NR)	-0.19 (-0.29, -0.09)	----------	----------	----------	----------
Shoshani[S94] Israel	09/2019 05/2020	1,537	BSI-18 - Anxiety	3.93 (2.68)	5.24 (3.14)	1.31 (NR)	0.45 (0.38, 0.52)	----------	----------	----------	----------
Teng[S95] China	10-11/2019 04-05/2020	1,778	STAI-Trait	1.95 (0.65)	1.98 (0.66)	0.03 (NR)	0.05 (-0.02, 0.11)	----------	----------	----------	----------
Wang, Wanxin[S97] China	10-12/2019 10-12/2020	1,790	GAD-7	3.60 (4.32)	3.56 (4.22)	-0.04 (NR)	-0.01 (-0.07,0.06)	GAD-7 ≥ 5	31.6 (29.5, 33.8)	32.9 (30.7, 35.1)	1.3 (-1.4, 3.9)
Widnall[S98] UK	10/2019 05/2020	603	HADS-A	Median (IQR): 7.00 (4.00-11.00)	Median (IQR): 6.00 (3.00-10.00)	NR (NR)	NR (NR)	----------	----------	----------	----------

Wong, R[S99] China	04-08/2019 02/2020	233	DASS-21 - Anxiety	NR (NR)	NR (NR)	0.13 (5.42)	NR (NR)	----------	----------	----------	----------
Zhang[S101] China	11/2019 05/2020	1,241	HBQ Anxiety	3.06 (0.90)	3.02 (1.05)	-0.05 (0.90)	-0.05 (-0.13, 0.03)	----------	----------	----------	----------
Parents											
Loret de Mola[S105] Brazil	01-12/2019 05-07/2020	1,028	GAD-7	----------	----------	----------	----------	GAD-7 ≥ 10	9.7 (8.1, 11.7)	25.9 (23.3, 28.6)	16.2 (13.2, 19.1)
Thompson[S108] USA	NR/2018-2019 04/2020	147	GAD-7	6.05 (4.70)	7.42 (5.92)	1.37 (6.02)	0.25 (0.02, 0.49)	----------	----------	----------	----------
People with Pre-existing Medical Conditions											
Chiu[S112] USA	10/2018 09/2020	133	HADS-A	6.89 (3.92)	6.95 (3.85)	0.06 (3.30)	0.02 (-0.22, 0.25)	----------	----------	----------	----------
Derksen[S113] Netherlands	01/2019-01/2020 04-06/2020	2176	HADS-A	3.24 (3.20)	3.18 (3.16)	-0.06 (2.34)	-0.02 (-0.08, 0.04)	----------	----------	----------	----------
Fujiwara[S115] Japan	07-09/2019 07-09/2020	245	HADS-A	Median (IQR): 6.00 (5.00)	Median (IQR): 6.00 (6.00)	NR (NR)	NR (NR)	----------	----------	----------	----------
García-Rudolph[S116] Spain	NR 11/2020	175	HADS-A	6.21 (4.28)	6.52 (4.64)	0.31 (NR)	0.07 (-0.14, 0.28)	----------	----------	----------	----------
Henry[S118]	07-12/2019	435	PROMIS Anxiety					----------	----------	----------	----------

Canada, France, UK, USA	04/2020			52.66 (10.41)	57.54 (8.79)	4.88 (NR)	0.51 (0.37, 0.64)				
	09-10/2020			52.66 (10.41)	53.75 (9.46)	1.09 (NR)	0.11 (-0.02, 0.24)				
	03/2021			52.66 (10.41)	53.19 (9.70)	0.53 (NR)	0.05 (-0.08, 0.18)				
Johnstone[S119] New Zealand	NR/2018 07-09/2020	104	HADS-A	5.88 (4.12)	5.55 (4.23)	-0.33 (NR)	-0.08 (-0.35, 0.19)	----------	----------	----------	----------
Katz, P[S120] USA	NR/2019 03-06/2020	1,504	GAD-2	0.66 (1.18)	0.99 (1.35)	0.33 (NR)	0.26 (0.19, 0.33)	----------	----------	----------	----------
Liang[S121] China	12/2019 02-03/2020	114	ZSAS	32.80 (7.20)	32.80 (7.20)	0.00 (NR)	0.00 (-0.27, 0.27)	----------	----------	----------	----------
Lim[S122] USA	NR/2018 04/2020	316	PROMIS Anxiety	50.30 (11.30)	50.30 (11.10)	0.00 (10.20)	0.00 (-0.16, 0.16)	----------	----------	----------	----------
Park[S124] Germany	09/2019–02/2020 05-09/2020	152	HADS-A	Median (IQR): 6.00 (2.00, 9.00)	Median (IQR): 6.00 (3.00, 8.00)	NR (NR)	NR (NR)	HADS-A ≥ 8	17.0 (12.0, 23.9)	11.0 (6.6, 16.4)	-5.9 (-11.5, -0.6)
Rentscher[S29] USA	02-06/2019 05-09/2020	262	STAI-State	27.90 (6.50)	30.10 (9.10)	2.20 (NR)	0.28 (0.11, 0.45)	----------	----------	----------	----------
Sacre[S125] Australia	NR/2018-2019 05-06/2020	450	GAD-7	3.30 (4.10)	3.10 (4.30)	-0.20 (NR)	-0.05 (-0.18, 0.08)	GAD-7 ≥ 10	8.4 (6.2, 11.4)	8.4 (6.2, 11.4)	0.0 (-2.8, 2.8)
Sbragia[S126] Italy	01/2019	106	HADS-A	7.02 (3.62)	6.09 (4.05)	-0.93 (NR)	-0.24 (-0.51, 0.03)	HADS-A > 8	54.0 (44.3, 63.0)	46.0 (37.0, 55.7)	-8.0 (-19.9, 5.1)

	05/2020										
Wong, S[S35] Hong Kong, China	04/2018-03/2019 03-04/2020	583	GAD-7	2.50 (NR)	3.00 (NR)	0.48 (NR)	NR[b]	----------	----------	----------	----------
People with Pre-existing Mental Health Conditions											
Gentile[S129] Italy, Paraguay	10-12/2019 03-04/2020	110	HAM-A	16.60 (9.47)	18.50 (9.68)	1.90 (NR)	0.20 (-0.07, 0.46)	----------	----------	----------	----------
Swerdlow[S131] USA	03/2017-04/2020 04-06/2020	144	MASQ-30 - Anxiety	16.01 (5.29)	17.89 (6.80)	1.88 (NR)	0.31 (0.08, 0.54)	----------	----------	----------	----------
Young[S132] UK	09/2018-02/2020 04-09/2020	12108	GAD-7	8.78 (5.96)	8.48 (5.83)	-0.30 (NR)	-0.05 (-0.08, -0.03)	----------	----------	----------	----------
Medical Staff											
Li, Weidong[S133] China	10-11/2019 01-02/2020	385	GAD-7	4.33 (NR)	5.43 (NR)	1.10 (NR)	NR[b]	----------	----------	----------	----------
Sexual or Gender Minority Individuals											
Bavinton[S134] Australia	NR/2019 04/2020	681	GAD-7	4.54 (4.95)	4.96 (5.07)	0.42 (NR)	0.08 (-0.02, 0.19)	----------	----------	----------	----------
Flentje[S135] USA	06/2019 03-04/2020	2,282	GAD-7	5.78 (5.21)	8.89 (6.22)	3.11 (5.32)	0.54 (0.48, 0.60)	----------	----------	----------	----------
Ghabrial[S136] Canada	NR/2019 09-10/2020	780	OASIS	10.13 (4.70)	10.35 (4.42)	0.22 (NR)	0.05 (-0.05, 0.15)	----------	----------	----------	----------

Women or Females											
Li, Y[S85] China	09/2019 03/2020	328	ZSAS	EMM (SE): 47.50 (0.50)	EMM (SE): 45.70 (0.52)	NR (NR)	NR (NR)	----------	----------	----------	----------
Lim[S122] USA	NR/2018 04/2020	295	PROMIS Anxiety	50.20 (11.50)	50.40 (11.10)	0.20 (10.10)	0.02 (-0.14, 0.18)	----------	----------	----------	----------
Loret de Mola[S105] Brazil	01-12/2019 05-07/2020	1,028	GAD-7	----------	----------	----------	----------	GAD-7 ≥ 10	9.7 (8.1, 11.7)	25.9 (23.3, 28.6)	16.2 (13.2, 19.1)
Magson[S87] Australia	NR/2019 05/2020	126	SCAS Generalized Anxiety	5.55 (4.05)	6.52 (4.31)	0.97 (NR)	0.23 (-0.02, 0.48)	----------	----------	----------	----------
Rentscher[S29] USA	02-06/2019 05-09/2020	165	STAI-State	27.50 (7.10)	30.60 (9.60)	3.10 (NR)	0.37 (0.15, 0.58)	----------	----------	----------	----------
Rentscher[S29] USA	02-06/2019 05-09/2020	262	STAI-State	27.90 (6.50)	30.10 (9.10)	2.20 (NR)	0.28 (0.11, 0.45)	----------	----------	----------	----------
Rimfeld[S39] UK	NR/2018 04-05/2020	2,513	SMGAD	8.15 (7.53)	9.69 (7.69)	1.54 (7.61)	0.20 (0.14, 0.26)	----------	----------	----------	----------
Saraswathi[S62] India	12/2019 06/2020	139	DASS-21 Anxiety	4.59 (6.29)	5.94 (6.93)	1.35 (NR)	0.20 (-0.03, 0.44)	DASS-21 Anxiety > 7	18.7 (13.1, 26.0)	32.4 (25.2, 40.5)	13.7 (4.4, 22.7)
Men or Males											
Li, Y[S85] China	09/2019	503	ZSAS	EMM (SE): 44.70 (0.59)	EMM (SE): 44.80 (0.62)	NR (NR)	NR (NR)	----------	----------	----------	----------

	03/2020										
Lim[S122] USA	NR/2018 04/2020	21	PROMIS Anxiety	50.50 (9.90)	48.60 (11.00)	-1.90 (12.10)	-0.17 (-0.79, 0.45)	----------	----------	----------	----------
Magson[S87] Australia	NR/2019 05/2020	122	SCAS Generalized Anxiety	3.63 (3.13)	3.64 (3.16)	0.01 (NR)	0.00 (-0.25, 0.25)	----------	----------	----------	----------
Rimfeld[S39] UK	NR/2018 04-05/2020	1,050	SMGAD	5.88 (6.66)	6.30 (6.58)	0.42 (6.62)	0.06 (-0.02, 0.15)	----------	----------	----------	----------
Saraswathi[S62] India	12/2019 06/2020	78	DASS-21 Anxiety	4.62 (6.04)	6.41 (7.50)	1.79 (NR)	0.26 (-0.05, 0.57)	DASS-21 Anxiety > 7	25.6 (17.3, 36.3)	34.6 (25.0, 45.7)	9.0 (-4.0, 21.5)

BSI-18-Anxiety = Brief Symptom Inventory - Anxiety; DASS-21 Anxiety = Depression, Anxiety, and Stress Scale – Anxiety subscale; GAD-2 = Generalized Anxiety Disorder-2; GAD-7 = Generalized Anxiety Disorder-; HBQ = MacArthur Health and Behavior Questionnaire; SCAS = Spence Children's Anxiety Scale; SMGAD= Severity Measure for Generalized Anxiety Disorder; ZSAS = Zung Self-rating Anxiety Scale.

[a]Positive Hedges' g effect sizes and increases in proportions above a threshold indicate worse mental health in COVID-19 compared to pre-COVID-19. Effects for measures where high scores = positive outcomes were reversed to reflect this. [b]Not enough information reported to calculate. [c]Provided by authors. [d]Included because it is estimated that over 80% of pre-COVID-19 data would have been collected by December 31, 2019.

Supplementary Table 5. Individual Study Results for Depression Symptoms

First Author	Pre- and Post-COVID-19 Data Collection	N	Continuous Outcome Measure	Pre-COVID-19 Mean (SD)	Post-COVID-19 Mean (SD)	Mean (SD) Change[a]	Hedges' g Standardized Mean Difference (95% CI)	Dichotomous Outcome Measure	% pre-COVID-19 (95% CI)	% post-COVID-19 (95% CI)	% Change with 95% CI[a]
General Population											
Ge[S5] China	01-12/2019 02-03/2020	1,547-1,978	PHQ-9	12.93 (2.71)	13.58 (2.46)	0.65 (NR)	0.25 (0.19, 0.31)	----------	----------	----------	----------
Haliwa[S6] USA	09-12/2019 04-06/2020	Sample 1: 300; Sample 2: 146; Sample 3: 142	Sample 1:PHQ-8 Sample 2: DASS-21-Depression Sample 3: PHQ-8	Sample 1: 5.92 (5.26) Sample 2: 4.81 (5.92) Sample 3: 5.15 (5.81)	Sample 1: 5.79 (6.04) Sample 2: 4.79 (5.67) Sample 3: 5.32 (6.08)	Sample 1: -0.13 (4.09) Sample 2: -0.02 (4.83) Sample 3: 0.17 (4.13)	Sample 1: -0.02 (-0.18, 0.14) Sample 2: 0.00 (-0.23, 0.23) Sample 3: 0.03 (-0.20, 0.26)	Sample 1:PHQ-8 ≥ 10 Sample 2: DASS-21-Depression ≥ 7 Sample 3: PHQ-8 ≥ 10	Sample 1: 21.3 (17.1, 26.3) Sample 2: 30.8 (23.9, 38.7) Sample 3: 24.6 (18.3, 32.3)	Sample 1: 27.0 (22.3, 32.3) Sample 2: 32.9 (25.8, 40.9) Sample 3: 23.9 (17.7, 31.6)	Sample 1: 5.7 (-0.2, 11.5) Sample 2: 2.1 (-7.1, 11.2) Sample 3: -0.7 (-8.6, 7.2)
Kanbur[S7] Turkey	NR/2019 NR/2020	400	SCL-90-R Depression	0.33 (NR)	0.69 (NR)	0.36 (NR)	NR (NR)	----------	----------	----------	----------
Katz, B[S8] Canada, Ireland, UK, USA	04/2019 04/2020	218	DASS-21 Depression	5.85 (5.64)	6.28 (5.50)	0.43 (4.38)	0.08 (-0.11, 0.26)	----------	----------	----------	----------
Wanberg[S18] USA	04-06/2019 04/2020	1,117	PHQ-8	4.18 (4.60)	4.77 (4.83)	0.59 (NR)	0.13 (0.04, 0.21)	----------	----------	----------	----------
Older Adults											
Bartlett[S19] Australia	10/2019 04-06/2020	1,671	HADS-D	2.07 (2.09)	2.05 (2.19)	-0.02 (NR)	-0.01 (-0.08, 0.06)	----------	----------	----------	----------
Briggs[S20] Ireland	NR/2018	3,490	CES-D-8	----------	----------	----------	----------	CES-D-8 ≥ 9	5.9 (5.1, 6.8)	19.8 (18.5, 21.2)	13.9 (12.5, 15.3)

Creese[S21] UK	07-11/2020 10/2019 05-06/2020	3,281	PHQ-9	2.51 (3.29)	3.07 (3.58)	0.56 (NR)	0.16 (0.11, 0.21)	PHQ-9 ≥ 10	4.1 (3.5, 5.0)	5.6 (4.9, 6.4)	1.5 (0.6, 2.3)
Herrera[S23] Chile	11/2019 09/2020	721	PHQ-9	4.25 (NR)	5.05 (NR)	0.80 (NR)	NR (NR)	PHQ-9 ≥ 7	23.8 (20.8, 27.0)	30.2 (26.9, 33.6)	6.4 (2.4, 10.4)
Lee[S26] Singapore	12/2017-11/2019 05-06/2020	496	PHQ-9	0.95 (2.47)	0.64 (1.49)	-0.31 (NR)	-0.15 (-0.28, -0.03)	PHQ-9 ≥ 6	4.8 (3.3, 7.1)	2.2 (1.2, 3.9)	-2.6 (-4.4, -1.3)
Martínez[S27] Spain	10/2019 04/2020	141	CES-D	11.90 (8.90)	14.20 (9.10)	2.30 (9.42)	0.25 (0.02, 0.49)	----------	----------	----------	----------
Rentscher[S29] USA	NR 05-09/2020	262	CES-D	6.30 (7.00)	8.10 (7.60)	1.80 (NR)	0.25 (0.07, 0.42)	----------	----------	----------	----------
Rentscher[S29] USA	NR 05-09/2020	165	CES-D	4.50 (5.40)	7.60 (8.00)	3.10 (NR)	0.45 (0.23, 0.67)	----------	----------	----------	----------
Uchida[S128] Japan	04/2019-03/2020 07/2020-03/2021	35	CES-D-SF	Median (IQR): 8.00 (5.00, 11.00)	Median (IQR): 7.00 (6.00, 9.00)	NR (NR)	NR (NR)	CES-D-SF ≥ 10	31.4 (18.6, 48.0)	22.9 (12.1, 39.0)	-8.6 (-23.0, 6.1)
van den Besselaar[S32] Netherlands	NR/2018-2019 06-10/2020	984	CES-D-10	4.49 (4.05)	5.92 (4.11)	1.43 (NR)	0.35 (0.26, 0.44)	----------	----------	----------	----------
Wong, S[S35] Hong Kong, China	04/2018-03/2019 03-04/2020	583	PHQ-9	4.40 (NR)	4.50 (NR)	0.19 (NR)	NR[c]	----------	----------	----------	----------

Yu[S36] Singapore	02/2018-01/2020 05-06/2020	419	GDS-15	1.02 (1.76)	2.11 (2.30)	1.09 (2.10)	0.53 (0.39, 0.67)	----------	----------	----------	----------
Young Adults											
Marmet[S38] Switzerland	04/2019-02/2020[f] 05-06/2020	2,228	MDI	9.07 (7.69)	7.60 (7.79)	-1.47 (NR)	-0.19 (-0.25, -0.13)	----------	----------	----------	----------
Rimfeld[S39] UK	NR/2018 04-05/2020	3,563-3,694	SMFQ	4.36 (4.07)	4.36 (3.94)	0.00 (3.82)	0.00 (-0.05, 0.05)	----------	----------	----------	----------
Romm[S40] USA	09/2019 03/2020	1,082	PHQ-2	1.71 (1.72)	2.10 (1.74)	0.38 (1.80)	0.22 (0.14, 0.30)	----------	----------	----------	----------
Watkins-Martin[S43] Canada	NR/2018 08/2020	1,039	CES-D-12	9.30 (6.42)	9.59 (6.79)	0.29 (NR)	0.04 (-0.04, 0.13)	CES-D-12 ≥ 21	6.2 (4.9, 7.8)	8.1 (6.2, 9.5)	1.9 (0.2, 3.7)
University Students											
Conceição[S44] Portugal	10/2019 06/2020	341	PHQ-9	9.66 (7.45)	12.89 (6.99)	3.23 (NR)	0.45 (0.29, 0.60)	PHQ-9 ≥ 15	22.6 (18.7, 27.6)	37.0 (32.3, 42.5)	14.4 (8.1, 20.5)
Elmer[S46] Switzerland	09/2019 04/2020	209	CES-D	NR	NR	4.44 (7.23)	0.53 (0.33, 0.72)	----------	----------	----------	----------
Evans[S47] UK	10/2019 05/2020	259	HADS-D	4.33 (3.26)	6.31 (3.74)	1.97 (NR)	0.56 (0.38, 0.73)	----------	----------	----------	----------
Fuller-Rowell[S48] USA	09/2018-04/2019	263	BDI-II	6.50 (7.25)	10.75 (8.95)	4.25 (NR)	0.52 (0.35, 0.69)	----------	----------	----------	----------

	04-06/2020										
Gelezelyte[S49] Lithuania	10-12/2019	474	DASS-21 Depression	7.88 (5.64)	7.26 (5.27)	-0.62 (5.25)	-0.11 (-0.24, 0.01)	----------	----------	----------	----------
	10-12/2020										
	11/2019										
Gopalan[S50] USA		1,004	CES-D-10	10.34 (6.21)	13.12 (6.93)	2.78 (NR)	0.42 (0.33, 0.51)	CES-D-10 > 10	44.2 (41.2, 47.3)	60.9 (57.8, 63.8)	16.6 (11.9 , 21.3)
	05/2020										
	05/2019										
Hamza[S51] Canada		733	CES-D-R	17.62 (13.46)	18.44 (13.24)	0.82 (NR)	0.06 (-0.04, 0.16)	----------	----------	----------	----------
	05/2020										
	01/2019-01/2020										
Koelen[S53] Netherlands		671	CES-D	----------	----------	----------	----------	CES-D ≥ 16	48.7 (45.0, 52.5)	55.3 (51.5, 59.0)	6.6 (0.9, 12.1)
	04-05/2020										
	11/2019										
Li, Wendy Wen[S56] China		173	DASS-21 Depression	6.25 (6.15)	4.99 (6.15)	-1.26 (NR)	-0.20 (-0.41, 0.01)	----------	----------	----------	----------
	03/2020										
	(04-10/2018)-(04-10/2019)										
Liu[S57] China		8079	PHQ-9	4.64 (3.39)	3.33 (3.90)	-1.31 (NR)	-0.36 (-0.39, -0.33)	PHQ-9 ≥ 10	6.6 (6.1, 7.2)	6.3 (5.7, 7.0)	-0.3 (-0.8, 0.3)
								CIDI 3.0	2.7 (2.3, 3.1)	2.1 (1.7, 2.5)	-0.6 (-0.9, -0.3)
	09-10/2020										
	09/2019-10/2019										
Lu[S58] China		5,181	PHQ-9	----------	----------	----------	----------	PHQ-9 ≥ 10	5.8 (5.1, 6.4)	7.2 (6.6, 8.0)	1.4 (0.7, 2.1)
	04/2020										
	08,12/2019										
Mehus[S60] USA		727	PHQ-9	5.70 (5.09)	6.83 (5.50)	1.13 (NR)	0.21 (0.11, 0.32)	PHQ-9 ≥ 10	19.3 (16.6, 22.3)	27.8 (24.7, 31.2)	8.5 (4.7, 12.3)
	04/2020										
	09/2019										
Ratner[S61] USA		152	BDI-II	0.38 (0.40)	0.43 (0.45)	0.05 (NR)	0.12 (-0.11, 0.34)	----------	----------	----------	----------

	04/2020										
Saraswathi[S62] India	12/2019 06/2020	217	DASS-21 Depression	7.55 (7.86)	8.16 (8.9)	0.61 (NR)	0.07 (-0.12, 0.26)	DASS-21 Depression > 9	33.2 (27.3, 39.7)	35.5 (29.4, 42.1)	2.3 (-5.6, 10.2)
Shiratori[S65] Japan	NR/2019 06/2020	6,847	PHQ-9	2.89 (3.44)	4.05 (4.17)	1.16 (NR)	0.30 (0.27, 0.34)	PHQ-9 ≥ 10	5.2 (4.7, 5.8)	9.8 (9.1, 10.5)	4.6 (3.9, 5.3)
Truskauskaite-Kuneviciene[S66] Lithuania Germany	10-12/2019 03-04/2020	Lithuania: 450; Germany: 325	DASS-21 - Depression	Lithuania: 7.72 (5.66); Germany: 5.09 (4.57)	Lithuania: 6.54 (5.18); Germany: 4.71 (4.36)	Lithuania: -1.18 (NR); Germany: -0.38 (NR)	Lithuania: -0.22 (-0.35, -0.09); Germany: -0.08 (-0.24, 0.07)	----------	----------	----------	----------
Voltmer[S67] Germany	NR/2019 06/2020	588	BSI-18 Depression	4.80 (5.00)	4.50 (4.80)	-0.30 (NR)	-0.06 (-0.18, 0.05)	----------	----------	----------	----------
Wang, Yitao[S68] China	11/2019 06/2020	2,559	SCL-90-R Depression	1.55 (0.53)	1.51 (0.54)	-0.04 (NR)	-0.07 (-0.13, -0.02)	----------	----------	----------	----------
Yang, X[S69] China	12/2018 06/2020	195	CES-D	15.93 (9.97)	19.08 (6.63)	3.15 (NR)	0.37 (0.17, 0.57)	----------	----------	----------	----------
Yang, Ziyan[S70] China	10/2019 05/2020	2,364	DASS-21 Depression	8.87 (2.62)	8.67 (2.92)	-0.20 (NR)	-0.07 (-0.13, -0.02)	----------	----------	----------	----------
Zimmerman[S71] USA	08/2019 04/2020	205	PHQ-9	8.91 (6.59)	12.09 (7.73)	3.19 (0.51)	0.44 (0.25,0.64)	----------	----------	----------	----------
Children and Adolescents											
Adachi[S73] Japan	09/2019	4,118	PHQ-A	4.14 (4.60)	3.84 (4.24)	-0.30 (NR)	-0.07 (-0.11, -0.02)	PHQ-A ≥ 10	12.2 (11.2, 13.2)	9.9 (9.1, 10.9)	-2.3 (-3.2, -1.3)

	07/2020										
Charmaraman[S77] USA	NR/2019	586	CESDR-10	NR (NR)	NR (NR)	Change estimate (B): 2.23	NR (NR)	----------	----------	----------	----------
	10-12/2020										
	10-11/2019										
Chen, C-Y[S79] China		575	DASS-21 - Depression	5.86 (7.89)	5.08 (7.38)	-0.78 (NR)	-0.10 (-0.22, 0.01)	----------	----------	----------	----------
	01/2020										
Knowles[S84] UK	NR/2018-2019	958-1,055	SMFQ	----------	----------	----------	----------	SMFQ ≥ 12	27.8 (22.6, 33.7)	22.6 (19.3, 26.4)	-5.1 (-8.1, -2.1)
	05-08/2020										
	09/2019										
Li, Y[S85] China		831	BDI-II	----------	----------	----------	----------	BDI-II > 13	35.4 (32.2, 38.7)	27.8 (24.9, 30.9)	-7.6 (-11.1, -4.0)
	03/2020										
	12/2019										
Liao[S86] China		2,496	CES-DC	15.10 (10.50)	15.90 (11.10)	0.80 (NR)	0.07 (0.02, 0.13)	----------	----------	----------	----------
	07/2020										
	NR/2019										
Magson[S87] Australia		248	SMFQ	3.81 (4.31)	6.12 (6.04)	2.31 (5.81)	0.44 (0.26, 0.62)	----------	----------	----------	----------
	05/2020										
	11/2018-07/2019										
Naumann[S90] Germany		854	STDS	----------	----------	----------	----------	STDS > 25	10.4 (8.4, 12.5)	25.3 (22.4, 28.2)	14.9 (11.7, 18.1)
	05/2020-07/2020										
	01-09/2019										
Polack[S92] USA		112	CDI-S	2.85 (3.14)	3.96 (3.79)	1.11 (2.77)	0.32 (0.06, 0.58)	----------	----------	----------	----------
	03-06/2020										
	10-11/2019										
Rau[S93] Germany		777	RCADS - Depression	6.27 (5.30)	5.41 (5.35)	-0.86 (NR)	-0.16 (-0.26, -0.06)	----------	----------	----------	----------
	06-07/2020										

Shoshani[S94] Israel	09/2019 05/2020	1,537	BSI-18 - Depression	6.14 (4.73)	7.59 (5.25)	1.45 (NR)	0.29 (0.22, 0.36)	----------	----------	----------	----------
Teng[S95] China	10-11/2019 04-05/2020	1,778	CES-D	0.81 (0.59)	0.83 (0.60)	0.02 (NR)	0.03 (-0.03, 0.10)	----------	----------	----------	----------
Wang, Wanxin[S97] China	10-12/2019 10-12/2020	1,790	CES-D	13.69 (10.53)	13.44 (10.28)	-0.25 (NR)	-0.02 (-0.09, 0.04)	CES-D ≥ 16	30.0 (27.9, 32.2)	29.2 (27.1, 31.4)	-0.8 (-3.3, 1.7)
Wong, R[S99] China	04-08/2019 02/2020	233	DASS-21 - Depression	NR (NR)	NR (NR)	0.84 (6.22)	NR (NR)	----------	----------	----------	----------
Yang, Zhengqian[S100] China	11/2019 08/2020	1,125	CES-D	0.94 (0.63)	0.75 (0.64)	-0.19 (NR)	-0.30 (-0.38, -0.22)	----------	----------	----------	----------
Zhang[S101] China	11/2019 05/2020	1,241	MFQ	16.6 (12.20)	17.7 (14.40)	1.49 (11.41)	0.11 (0.03, 0.19)	----------	----------	----------	----------
Parents											
Adesogan[S102] USA	NR/2018-03/2020 06-09/2020	329	CES-D	6.56 (4.22)	8.22 (5.52)	1.66 (NR)	0.34 (0.18, 0.49)	----------	----------	----------	----------
Frank[S103] USA	08/2018 08/2020	180	PHQ-9	3.65 (5.77)	4.33 (6.24)	0.68 (NR)	0.11 (-0.09, 0.32)	----------	----------	----------	----------
Loret de Mola[S105] Brazil	01-12/2019 05-07/2020	1,042	EPDS	----------	----------	----------	----------	EPDS ≥ 13	5.1 (3.8, 6.5)	29.5 (26.6, 32.1)	24.4 (21.3, 27.2)

Pitchik[S106] Bangladesh	05-06/2019 07-09/2020	517	CES-D	13.40 (8.70)	12.80 (9.20)	-0.60 (NR)	-0.07 (-0.19, 0.05)	----------	----------	----------	----------
Rivera[S107] Mexico	NR/2018-2019 05-11/2020	466	EDS	7.48 (5.80)	7.34 (5.83)	-0.14 (NR)	-0.02 (-0.15, 0.10)	EDS > 12	19.5 (16.4, 23.6)	19.1 (16.0, 23.1)	-0.4 (-4.4, 3.5)
Thompson[S108] USA	NR/2018-2019 04/2020	147	CES-D	14.22 (10.13)	19.28 (11.74)	5.06 (13.08)	0.46 (0.23, 0.69)	----------	----------	----------	----------
People with Pre-existing Medical Conditions											
Becker[S109] USA	03/2019 03/2020	121	CESD-10	8.40 (5.50)	9.10 (5.60)	0.70 (NR)	0.13 (-0.13, 0.38)	----------	----------	----------	----------
Chao[S111] USA	02/2018-02/2020 07-12/2020	2,679	PHQ-8	2.50 (3.30)	3.50 (4.00)	1.00 (NR)	0.27 (0.22, 0.33)	PHQ-8 ≥ 10	4.6 (3.8, 5.5)	8.5 (7.4, 9.6)	3.9 (2.8, 5.0)
Chiu[S112] USA	10/2018 09/2020	133	HADS-D	4.61 (3.65)	5.82 (3.85)	1.21 (3.50)	0.32 (0.08, 0.56)	----------	----------	----------	----------
Derksen[S113] Netherlands	01/2019-01/2020 04-06/2020	2176	HADS-D	2.98 (3.22)	2.78 (3.10)	-0.20 (3.20)	-0.06 (-0.12, 0.00)	----------	----------	----------	----------
Dunlop-Thomas[S114] USA	NR/2017-2019 NR/2020-2021	852	PROMIS - Depression	51.40 (10.65)	49.80 (9.87)	-1.60 (NR)	-0.16 (-0.25, -0.06)	----------	----------	----------	----------
Fujiwara[S115] Japan	07-09/2019	245	HADS-D	Median (IQR): 7.00 (6.00)	Median (IQR): 7.00 (6.00)	NR (NR)	NR (NR)	----------	----------	----------	----------

García-Rudolph[S116] Spain	07-09/2020 NR 11/2020	175	HADS-D	4.63 (4.25)	5.73 (4.95)	1.10 (NR)	0.24 (0.03, 0.45)	----------	----------	----------	----------
Gul[S117] Turkey	10-11/2019 06-07/2020	116	BDI	11.53 (9.40)	12.54 (11.30)	1.01 (NR)	0.10 (-0.16, 0.35)	BDI ≥ 19	17.2 (11.5, 25.1)	23.3 (16.5, 31.8)	6.0 (-2.8, 14.8)
Henry[S118] Canada, France, UK, USA	07-12/2019 04/2020	388	PHQ-8	6.73 (5.73)	6.44 (5.44)	-0.29 (NR)	-0.05 (-0.19, 0.09)	----------	----------	----------	----------
	09-10/2020			6.73 (5.73)	5.59 (5.05)	-1.14 (NR)	-0.21 (-0.35, -0.07)				
	03/2021			6.73 (5.73)	5.60 (5.28)	-1.13 (NR)	-0.20 (-0.35, -0.06)				
Johnstone[S119] New Zealand	NR/2018 07-09/2020	104	HADS-D	3.82 (3.12)	3.80 (3.39)	-0.02 (NR)	-0.01 (-0.28, 0.26)	----------	----------	----------	----------
Katz, P[S120] USA	NR/2019 03-06/2020	1,504	PHQ-2	0.79 (1.25)	0.84 (1.24)	0.05 (NR)	0.04 (-0.03, 0.11)	----------	----------	----------	----------
Liang[S121] China	12/2019 02-03/2020	114	ZSDS	37.70 (9.10)	37.40 (9.50)	-0.3 (NR)	-0.03 (-0.31, 0.24)	----------	----------	----------	----------
Lim[S122] USA	NR/2018	316	PROMIS Depression	50.80 (10.50)	49.30 (9.80)	-1.50 (9.20)	-0.15 (-0.30, 0.01)	----------	----------	----------	----------
Park[S124] Germany	04/2020 09/2019–02/2020	152	HADS-D	Median (IQR): 5.00 (2.00, 7.00)	Medina (IQR):	NR (NR)	NR (NR)	HADS-D ≥ 8	13.0 (8.7, 19.5)	8.0 (4.6, 13.3)	-5.3 (-10.3, -0.8)

	05-08/2020				4.00 (2.00, 7.00)						
Rentscher[S29] USA	NR	262	CES-D	6.30 (7.00)	8.10 (7.60)	1.80 (NR)	0.25 (0.07, 0.42)	----------	----------	----------	----------
	05-09/2020										
Sacre[S125] Australia	NR/2018-2019	450	PHQ-8	4.10 (4.70)	4.10 (4.70)	0.00 (NR)	0.00 (-0.13, 0.13)	PHQ-8 ≥ 10	5.3 (3.6, 7.8)	5.6 (3.8, 8.1)	0.3 (-2.1, 2.5)
	05-06/2020										
Sbragia[S126] Italy	01/2019	106	HADS-D	5.93 (3.77)	5.51 (3.93)	-0.42 (NR)	-0.11 (-0.38, 0.16)	HADS-D > 8	38.1 (29.1, 47.2)	34.0 (25.7, 43.4)	-3.8 (-14.6, 7.2)
	05/2020										
Ubara[S127] Japan	04-07/2019	164	PHQ-9	Median (IQR): 2.00 (1.00-5.00)	Median (IQR): 3.00 (0.25-6.00)	NR[c]	NR[c]	----------	----------	----------	----------
	05/2020										
Uchida[S128] Japan	04/2019-03/2020	142	CES-D-SF	Median (IQR): 6.00 (4.80, 10.00)	Median (IQR): 7.00 (5.00, 10.00)	NR (NR)	NR (NR)	CES-D-SF ≥ 10	26.1 (19.5, 33.8)	26.1 (19.5, 33.8)	0.0 (-8.3, 8.3)
	07/2020-03/2021										
Wong, S[S35] Hong Kong, China	04/2018-03/2019	583	PHQ-9	4.40 (NR)	4.50 (NR)	0.19 (NR)	NR[c]	----------	----------	----------	----------
	03-04/2020										
Young[S132] UK	09/2018-02/2020	12,098	PHQ-9	11.18 (6.86)	10.80 (6.68)	-0.38 (NR)	-0.06 (-0.08, -0.03)	----------	----------	----------	----------
	04-09/2020										
People with Pre-existing Mental Health Conditions											
	10-12/2019										
Gentile[S129] Italy, Paraguay		110	HAM-D	11.40 (7.26)	11.90 (7.56)	0.50 (NR)	0.07 (-0.20, 0.33)	----------	----------	----------	----------
	03-04/2020										
Swerdlow[S131] USA	NR/2018-04/2020	144	MASQ-30 - Depression	35.99 (6.83)	35.74 (7.36)	-0.25 (NR)	-0.04 (-0.26, 0.19)	----------	----------	----------	----------

Young[S132] UK	04-06/2020 09/2018-02/2020 04-09/2020	12,098	PHQ-9	11.18 (6.86)	10.80 (6.68)	-0.38 (NR)	-0.06 (-0.08, -0.03)	----------	----------	----------	----------
Medical Staff											
Frank[S103] USA	08/2018 08/2020	180	PHQ-9	3.65 (5.77)	4.33 (6.24)	0.68 (NR)	0.11 (-0.09, 0.32)	----------	----------	----------	----------
Li, Weidong[S133] China	10-11/2019 01-02/2020	385	PHQ-9	5.17 (NR)	5.77 (NR)	0.60 (NR)	NR[c]	----------	----------	----------	----------
Sexual or Gender Minority Individuals											
Bavinton[S134] Australia	NR/2019 04/2020	681	PHQ-9	5.98 (5.93)	6.56 (6.03)	0.58 (NR)	0.10 (-0.01, 0.20)	----------	----------	----------	----------
Flentje[S135] USA	06/2019 03-04/2020	2,280	PHQ-9	7.10 (5.99)	8.31 (6.43)	1.21 (5.10)	0.19 (0.14, 0.25)	----------	----------	----------	----------
Ghabrial[S136] Canada	NR/2019 09-10/2020	780	CES-D	14.47 (7.69)	16.50 (7.34)	2.03 (NR)	0.27 (0.17, 0.37)	----------	----------	----------	----------
Women or Females											
Adesogan[S102] USA	NR/2018-03/2020 06-09/2020	191	CES-D	6.82 (4.70)	9.23 (5.77)	2.41 (NR)	0.46 (0.25, 0.66)	----------	----------	----------	----------
Frank[S103]	08/2018	95	PHQ-9	3.69 (5.26)	5.05 (6.64)	1.36 (NR)	0.23 (-0.06, 0.51)	----------	----------	----------	----------

USA											
	08/2020										
Li, Y[S85] China	09/2019 03/2020	328	BDI-II	EMM (SE): 13.02 (0.54)	EMM (SE): 10.77 (0.55)	NR (NR)	NR (NR)	----------	----------	----------	----------
Lim[S122] USA	NR/2018 04/2020	295	PROMIS Depression	50.80 (10.70)	49.30 (9.80)	-1.50 (9.30)	-0.15 (-0.31, 0.02)	----------	----------	----------	----------
Loret de Mola[S105] Brazil	01-12/2019 05-07/2020	1,042	EPDS	----------	----------	----------	----------	EPDS ≥ 13	5.1 (3.8, 6.5)	29.5 (26.6, 32.1)	24.4 (21.3, 27.2)
Magson[S87] Australia	NR/2019 05/2020	126	SMFQ	4.77 (5.00)	8.16 (6.46)	3.39 (NR)	0.58 (0.33, 0.83)	----------	----------	----------	----------
Rentscher[S29] USA	NR 05-09/2020	165	CES-D	4.50 (5.40)	7.60 (8.00)	3.10 (NR)	0.45 (0.23, 0.67)	----------	----------	----------	----------
Rentscher[S29] USA	NR 05-09/2020	262	CES-D	6.30 (7.00)	8.10 (7.60)	1.80 (NR)	0.25 (0.07, 0.42)	----------	----------	----------	----------
Rimfeld[S39] UK	NR/2018 04-05/2020	2,578	SMFQ	4.65 (4.20)	4.81 (4.07)	0.16 (4.14)	0.04 (-0.02, 0.09)	----------	----------	----------	----------
Saraswathi[S62] India	12/2019 06/2020	139	DASS-21 Depression	7.71 (7.57)	7.94 (8.77)	0.23 (NR)	0.03 (-0.21, 0.26)	DASS-21 Depression > 9	36.7 (29.1, 45.0)	34.5 (27.1, 42.8)	-2.2 (-11.7, 7.4)
Uchida[S128] Japan	04/2019-03/2020	60	CES-D-SF	Median (IQR): 7.00 (5.00, 9.00)	Median (IQR):	NR (NR)	NR (NR)	CES-D-SF ≥ 10	23.3 (14.4, 35.4)	28.3 (18.5, 40.8)	5.0 (-8.4, 18.2)

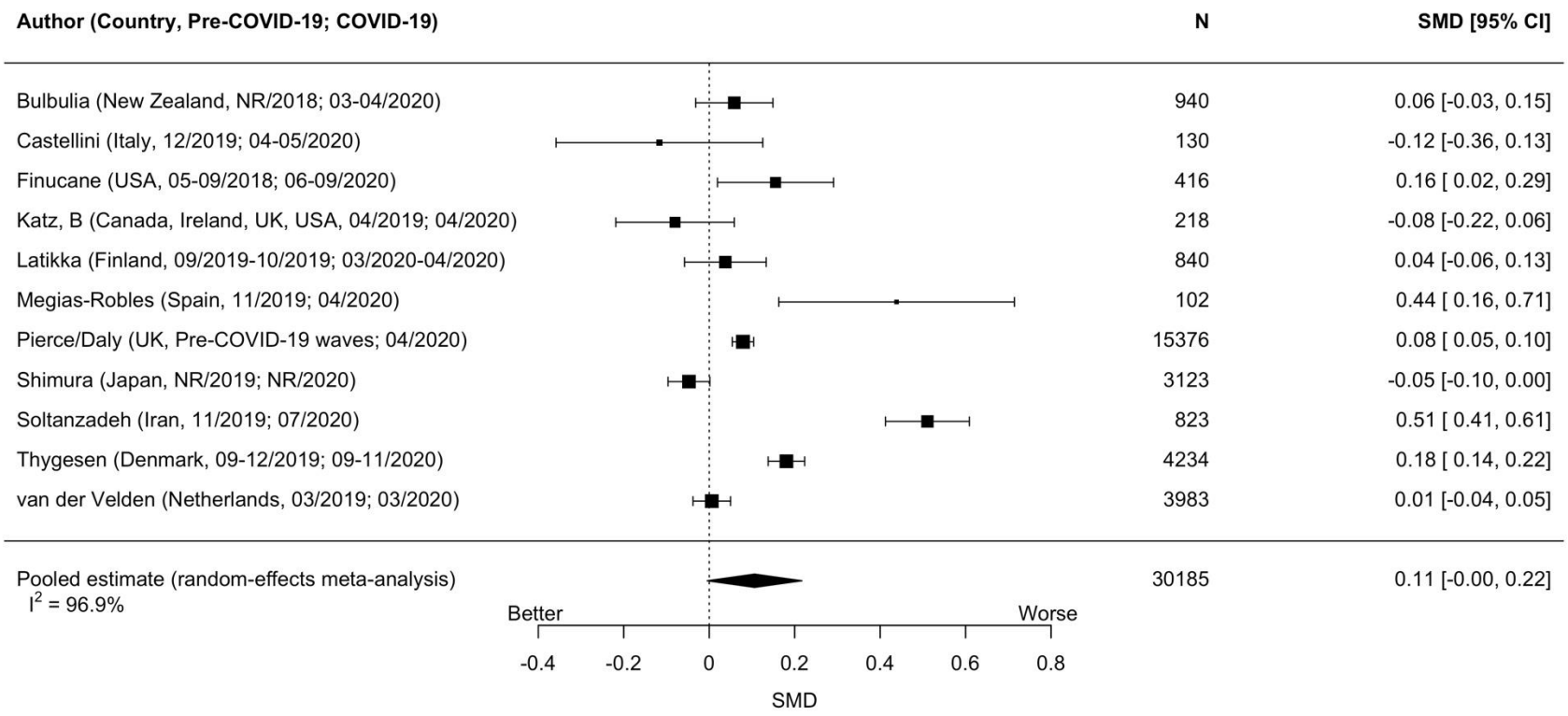
	07/2020-03/2021				7.00 (5.00, 10.00)						
Men or Males											
Adesogan[S102] USA	NR/2018-03/2020	138	CES-D	6.20 (3.46)	6.86 (5.17)	0.66 (NR)	0.15 (-0.09, 0.38)	----------	----------	----------	----------
	06-09/2020										
Frank[S103] USA	08/2018	85	PHQ-9	3.60 (6.30)	3.52 (5.75)	-0.08 (NR)	-0.01 (-0.32, 0.29)	----------	----------	----------	----------
	08/2020										
Li, Y[S85] China	09/2019	503	BDI-II	EMM (SE): 9.25 (0.63)	EMM (SE): 7.87 (0.66)	NR (NR)	NR (NR)	----------	----------	----------	----------
	03/2020										
Lim[S122] USA	NR/2018	21	PROMIS Depression	50.70 (8.60)	49.90 (9.70)	-0.80 (8.20)	-0.08 (-0.70, 0.54)	----------	----------	----------	----------
	04/2020										
Magson[S87] Australia	NR/2019	122	SMFQ	2.81 (3.18)	4.02 (4.76)	1.21 (NR)	0.30 (0.05, 0.55)	----------	----------	----------	----------
	05/2020										
Marmet[S38] Switzerland	04/2019-02/2020	2,345	MDI	9.07 (7.69)	7.60 (7.79)	-1.47 (NR)	-0.19 (-0.25, -0.13)	----------	----------	----------	----------
	05-06/2020										
Rimfeld[S39] UK	NR/2018	1,116	SMFQ	3.71 (3.70)	3.33 (3.40)	-0.38 (3.55)	-0.11 (-0.19, -0.02)	----------	----------	----------	----------
	04-05/2020										
Saraswathi[S62] India	12/2019	78	DASS-21 Depression	7.28 (8.40)	8.54 (9.17)	1.26 (NR)	0.14 (-0.17, 0.45)	DASS-21 Depression > 9	26.9 (18.3, 37.7)	37.2 (27.3, 48.3)	10.3 (-2.9, 22.9)
	06/2020										
Uchida[S128] Japan	04/2019-03/2020	82	CES-D-SF	Median (IQR): 6.00 (4.00, 10.00)	Median (IQR):	NR (NR)	NR (NR)	CES-D-SF ≥ 10	28.1 (19.5, 38.6)	24.4 (16.4, 34.7)	-3.7 (-14.0, 6.7)

	07/2020-03/2021				7.00 (4.80, 9.30)						
Immigrants											
Gosselin[S137] France	04/2018-NR/2019 06/2020	100	PHQ-9	----------	----------	----------	----------	PHQ-9 ≥ 10	65.0 (55.3, 73.6)	72.0 (62.5, 79.9)	7.0 (-9.4, 23.0)

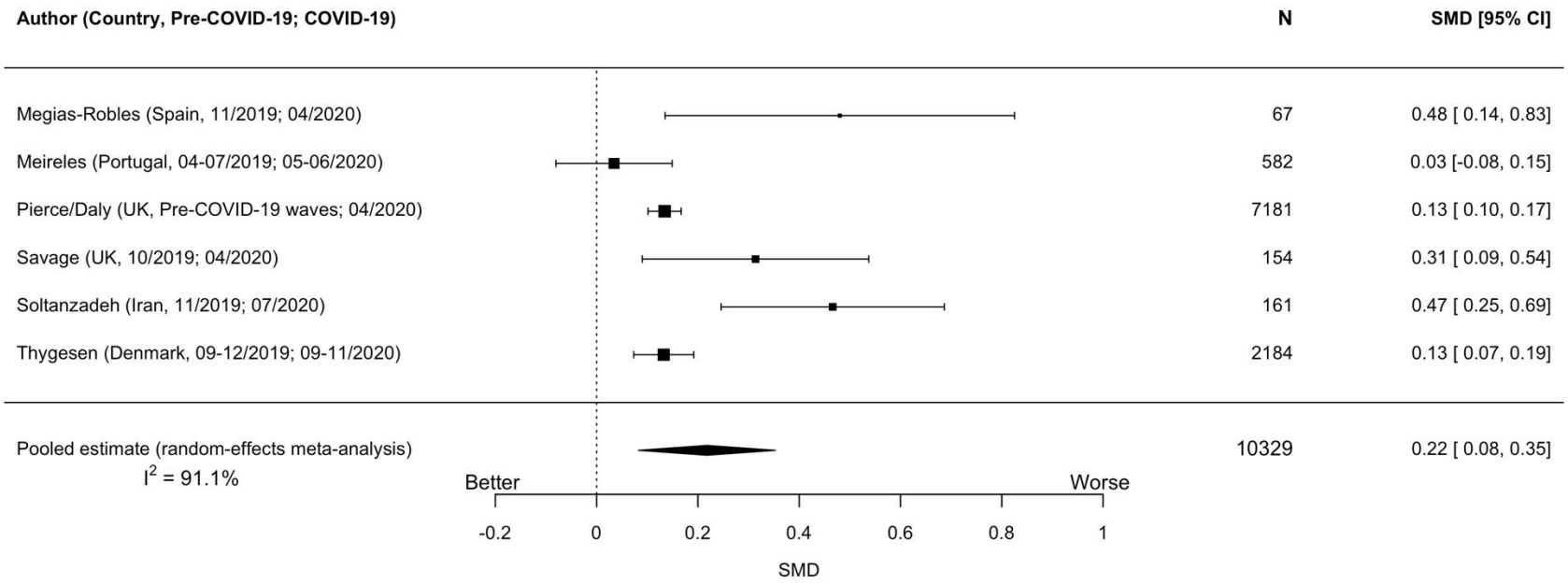
BSI-18-Depression = Brief Symptom Inventory - Depression; CES-D= Center for Epidemiologic Studies Depression Scale; DASS-21 Depression = Depression, Anxiety, and Stress Scale – Depression subscale; MDI= Major Depression Inventory; MFQ = Mood and Feelings Questionnaire; PHQ-2 = Patient Health Questionnaire-2; PHQ-8 = Patient Health Questionnaire-8; PHQ-9 = Patient Health Questionnaire-9; SMFQ = Short Mood and Feelings Questionnaire; ZSDS= Zung Self-rating Depression Scale.

[a]Positive Hedges' g effect sizes and increases in proportions above a threshold indicate worse mental health in COVID-19 compared to pre-COVID-19. Effects for measures where high scores = positive outcomes were reversed to reflect this. [b]Not enough information reported to calculate. [c]Provided by authors. [d]Included because it is estimated that over 80% of pre-COVID-19 data would have been collected by December 31, 2019.

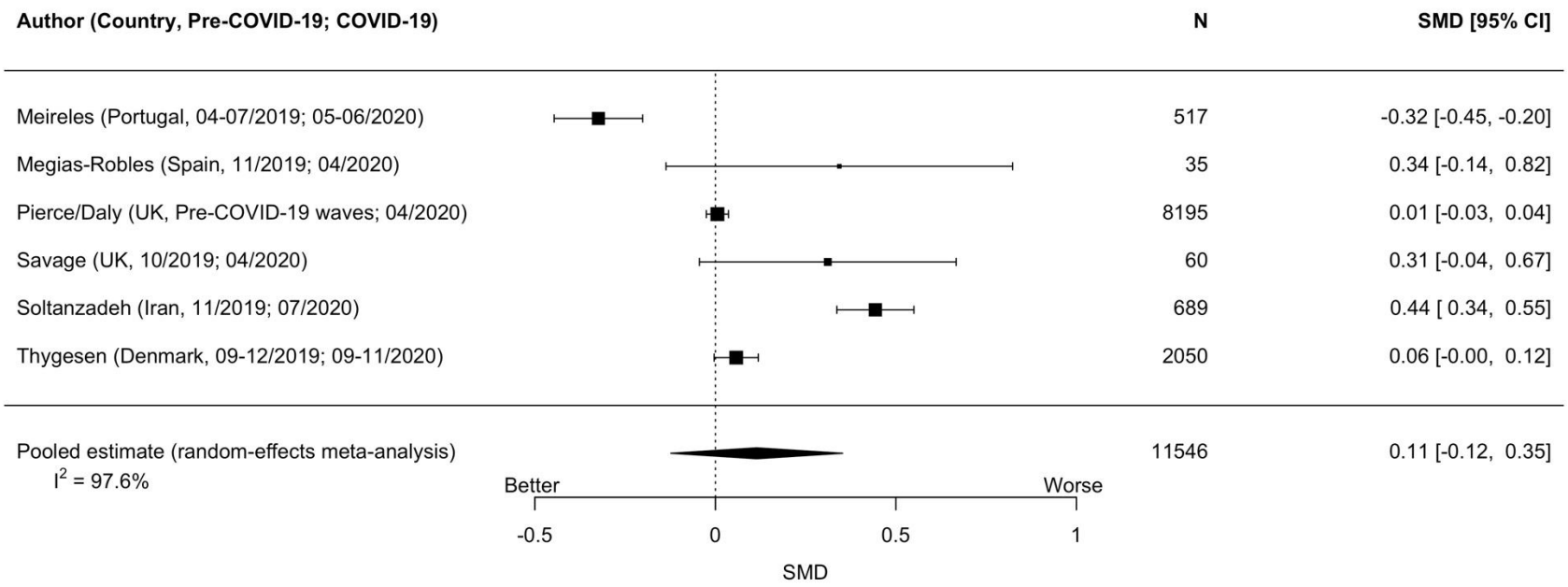
Supplementary Figure 1a. Forest plot of standardized mean difference change in general mental health for studies of the general population



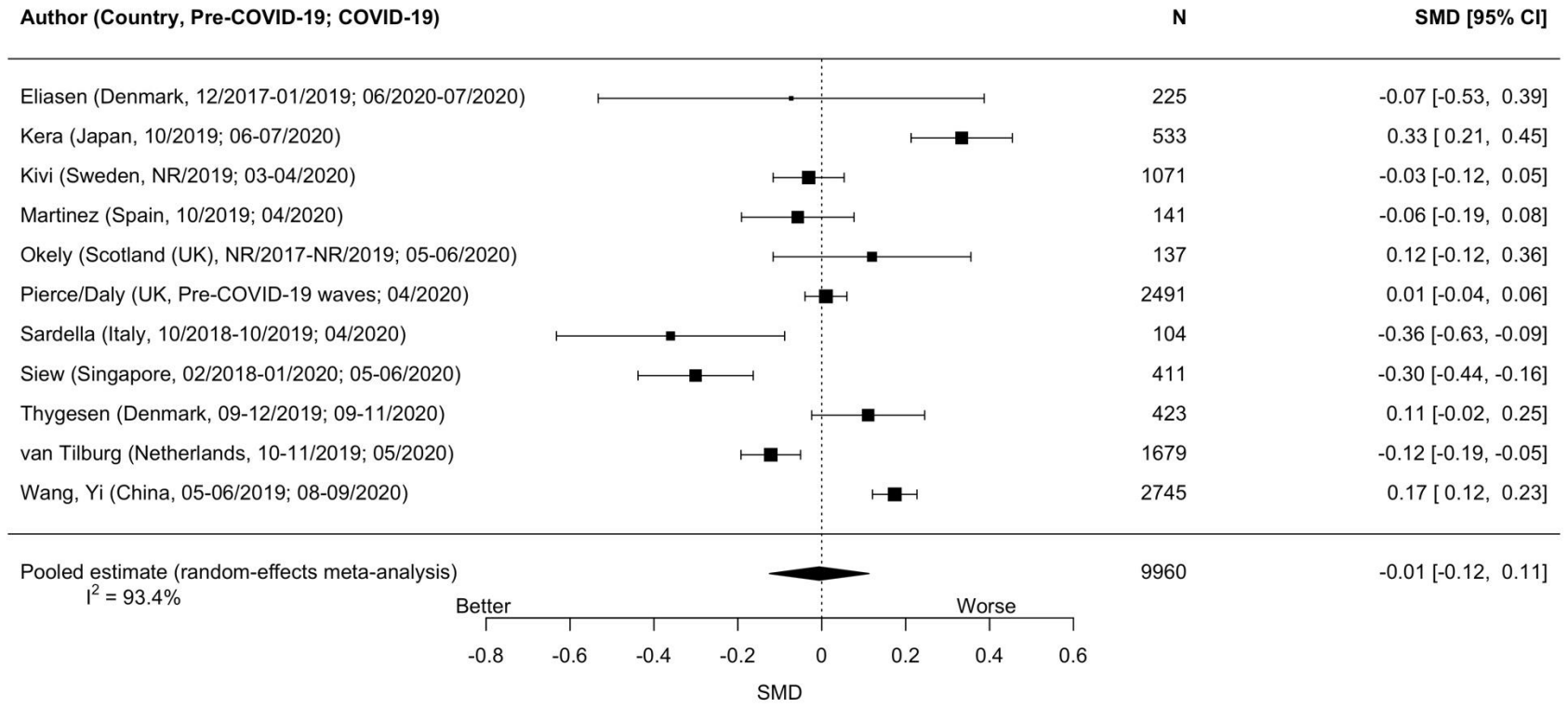
Supplementary Figure 1b. Forest plot of standardized mean difference change in general mental health for studies of women or females



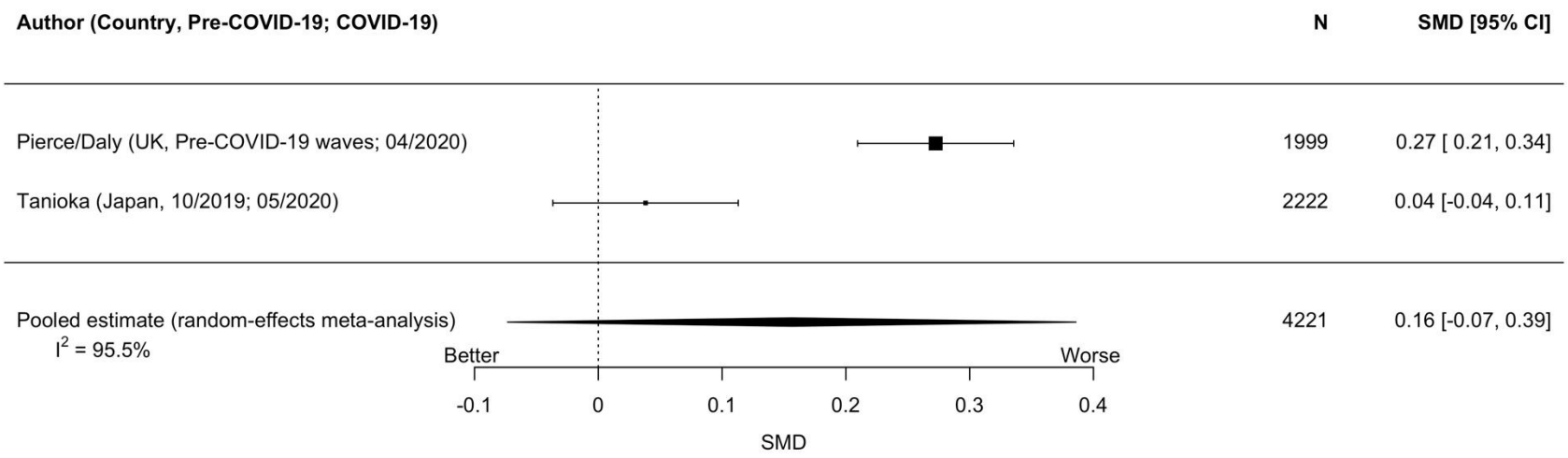
Supplementary Figure 1c. Forest plot of standardized mean difference change in general mental health for studies of men or males



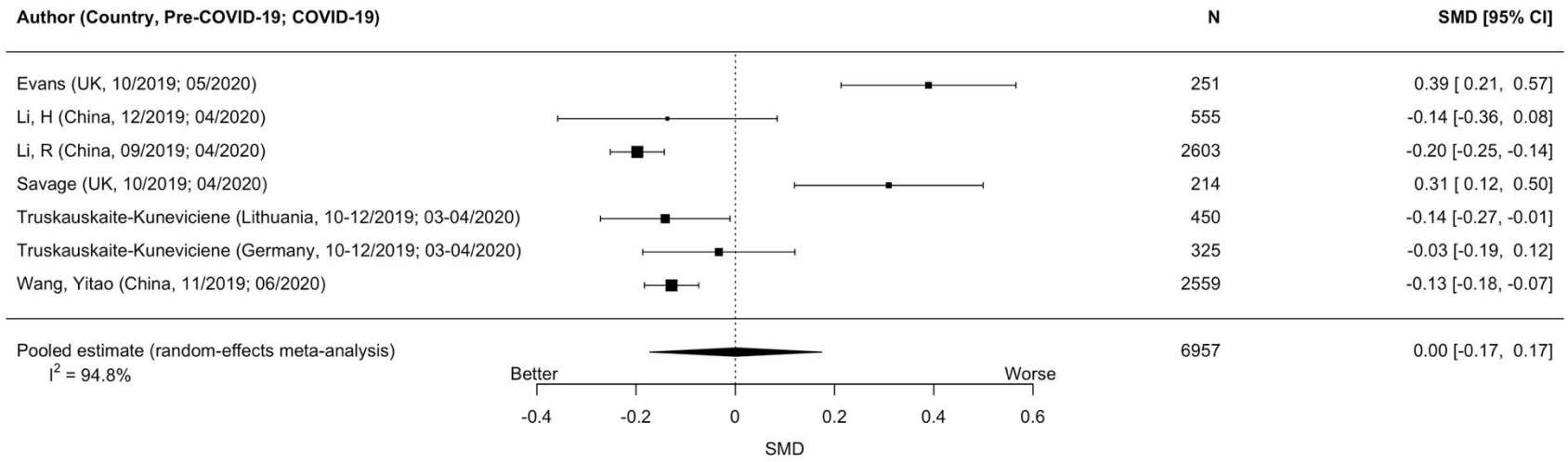
Supplementary Figure 1d. Forest plot of standardized mean difference change in general mental health for studies of older adults



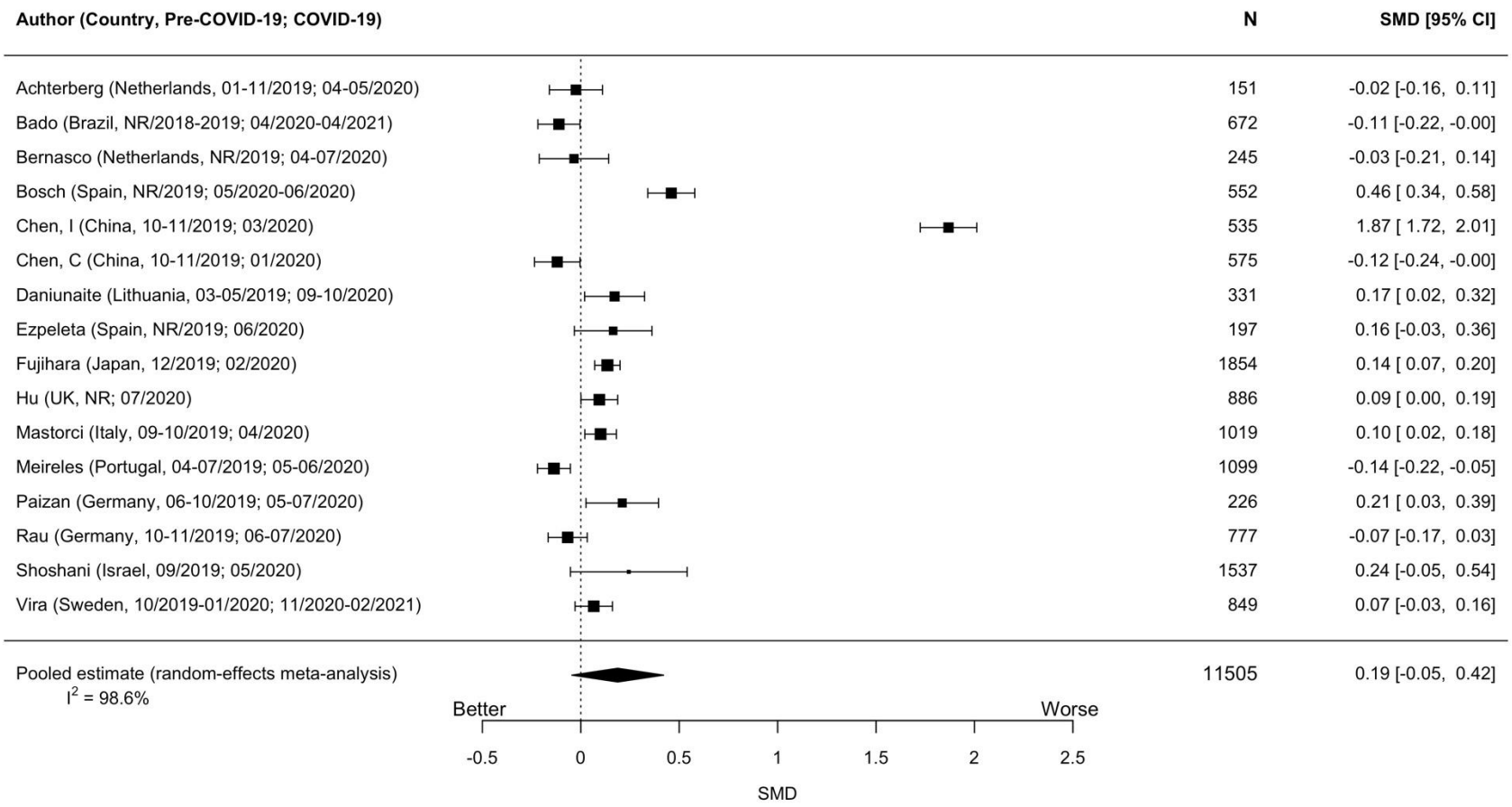
Supplementary Figure 1e. Forest plot of standardized mean difference change in general mental health for studies of young adults



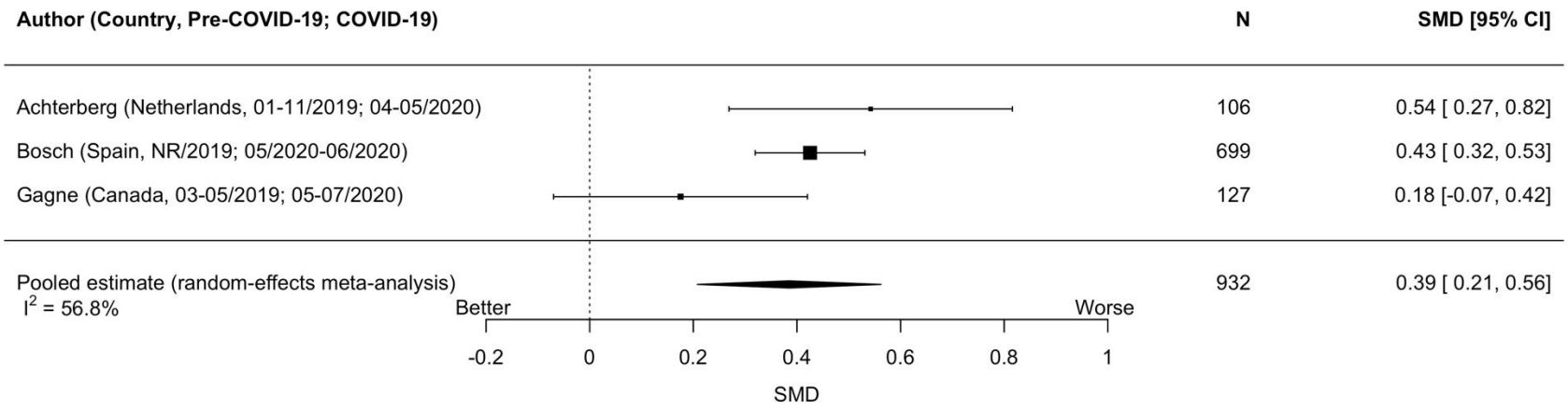
Supplementary Figure 1f. Forest plot of standardized mean difference change in general mental health for studies of university students



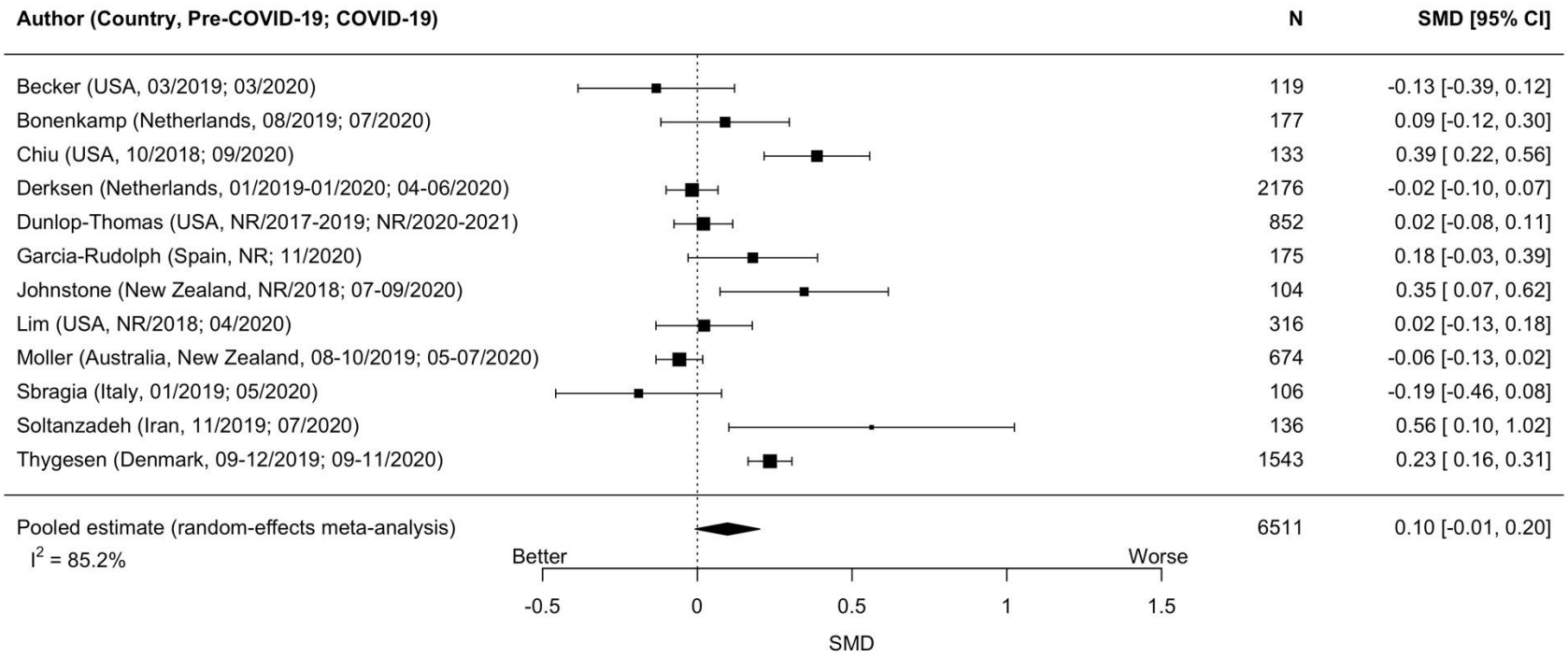
Supplementary Figure 1g. Forest plot of standardized mean difference change in general mental health for studies of children and adolescents



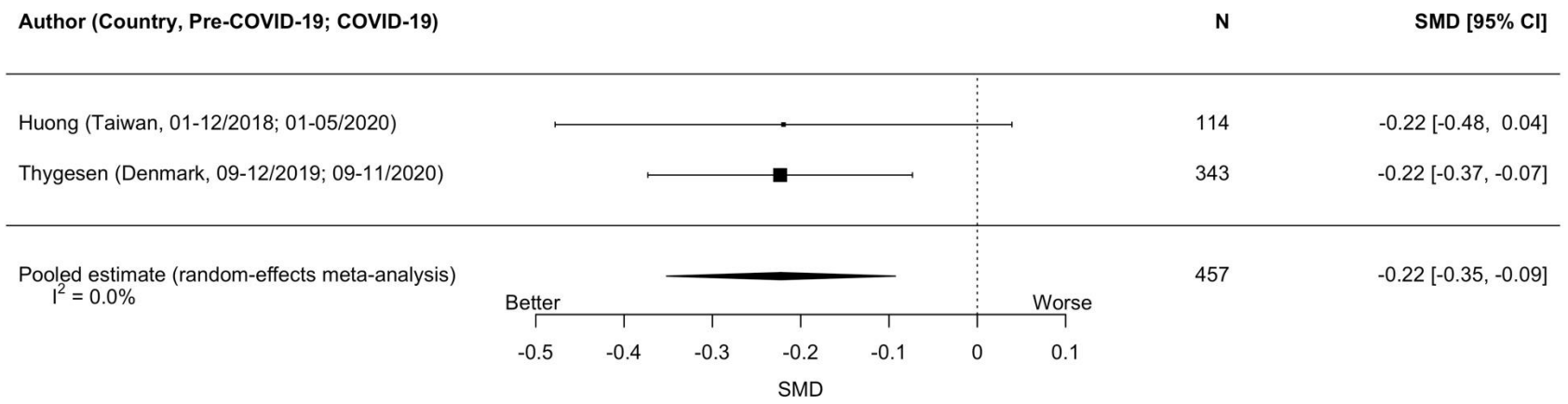
Supplementary Figure 1h. Forest plot of standardized mean difference change in general mental health for studies of parents



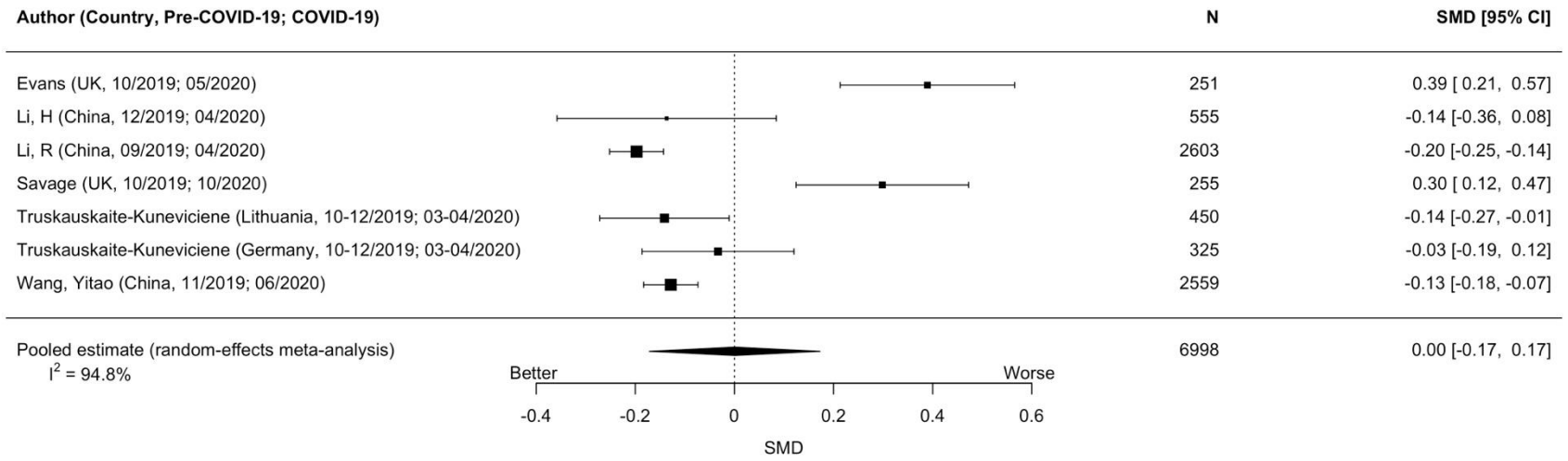
Supplementary Figure 1i. Forest plot of standardized mean difference change in general mental health for studies of people with pre-existing medical conditions



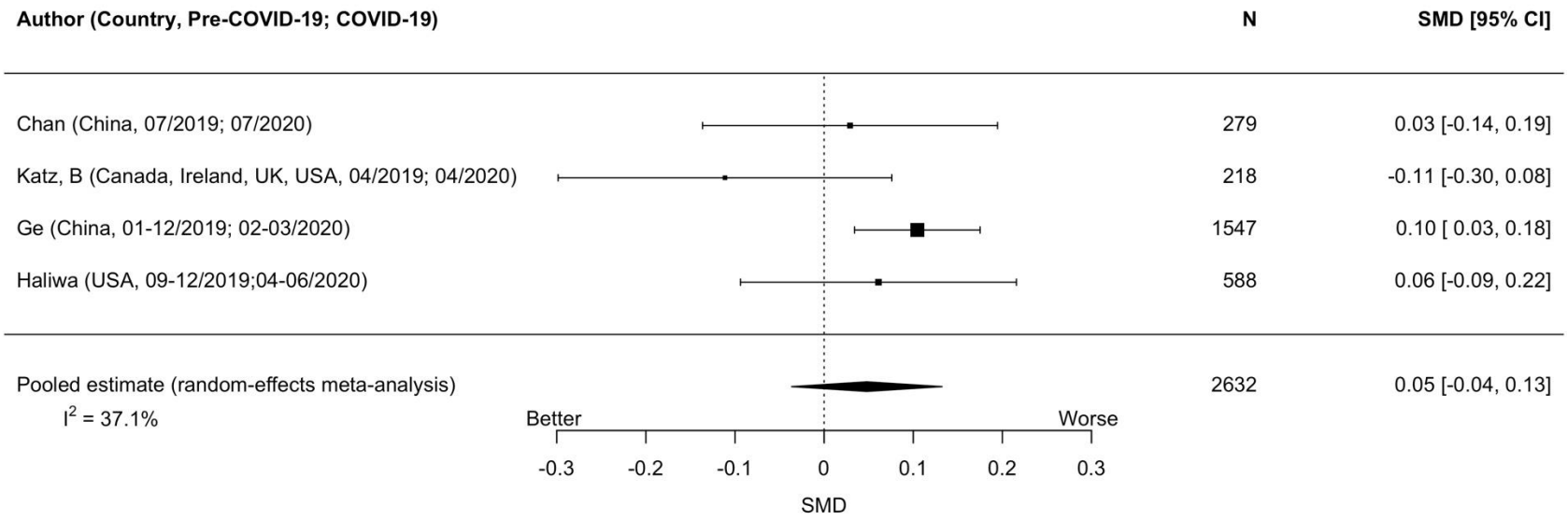
Supplementary Figure 1j. Forest plot of standardized mean difference change in general mental health for studies of people with pre-existing mental health conditions



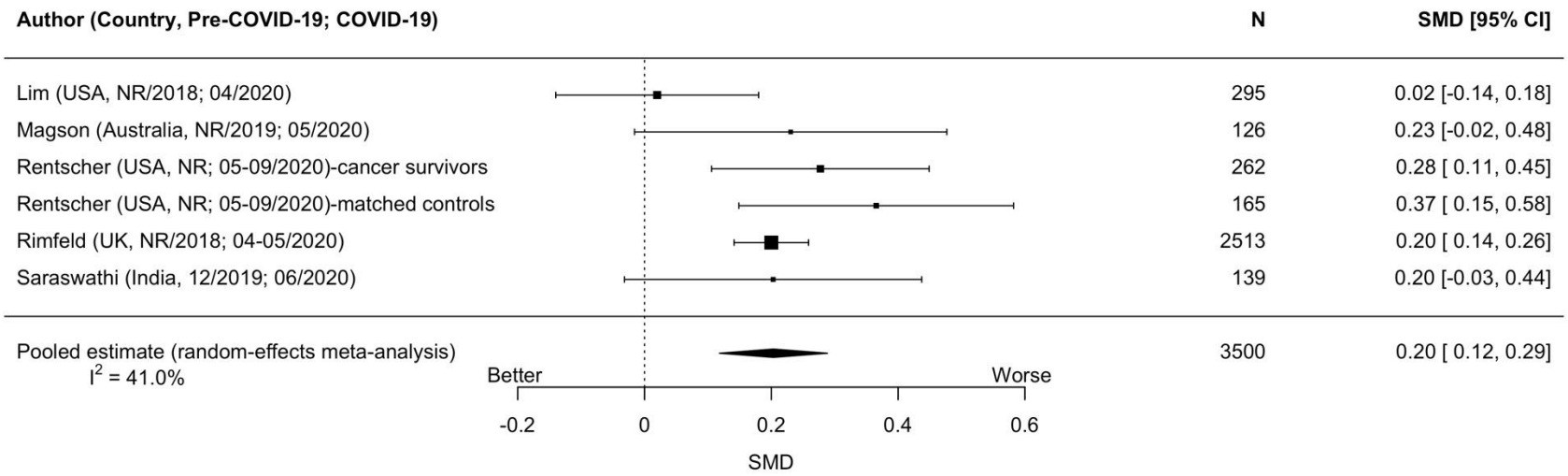
Supplementary Figure 1k. Sensitivity analysis of standardized mean difference change in general mental health among university students conducted with results from Savage et al. from October 2020 instead of April 2020



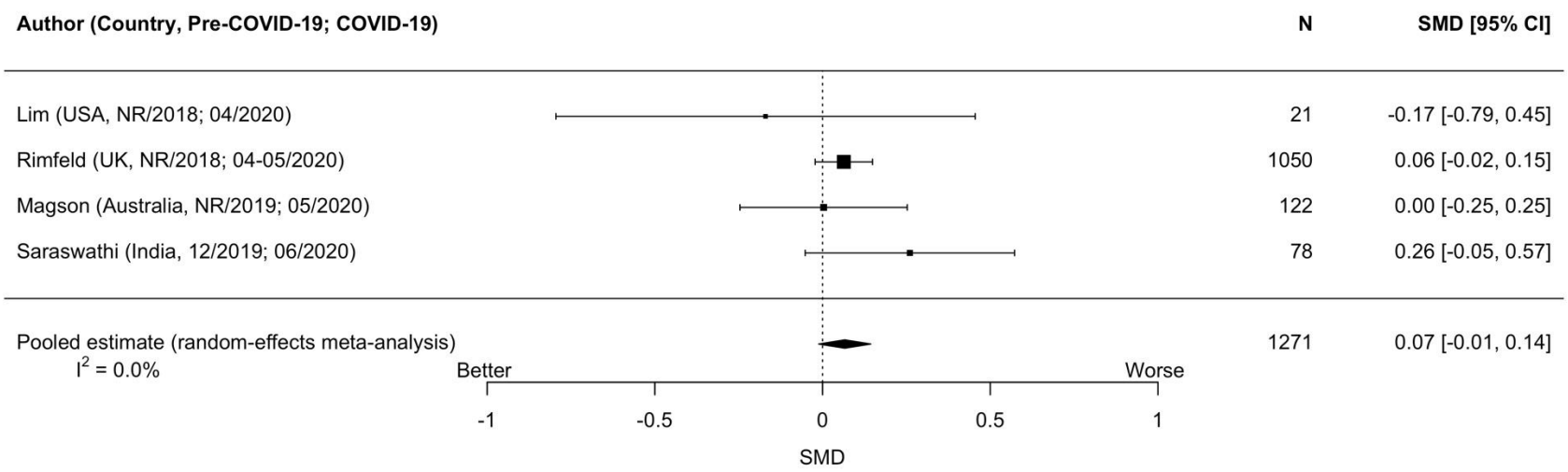
Supplementary Figure 2a. Forest plot of standardized mean difference change in anxiety symptoms for studies of the general population



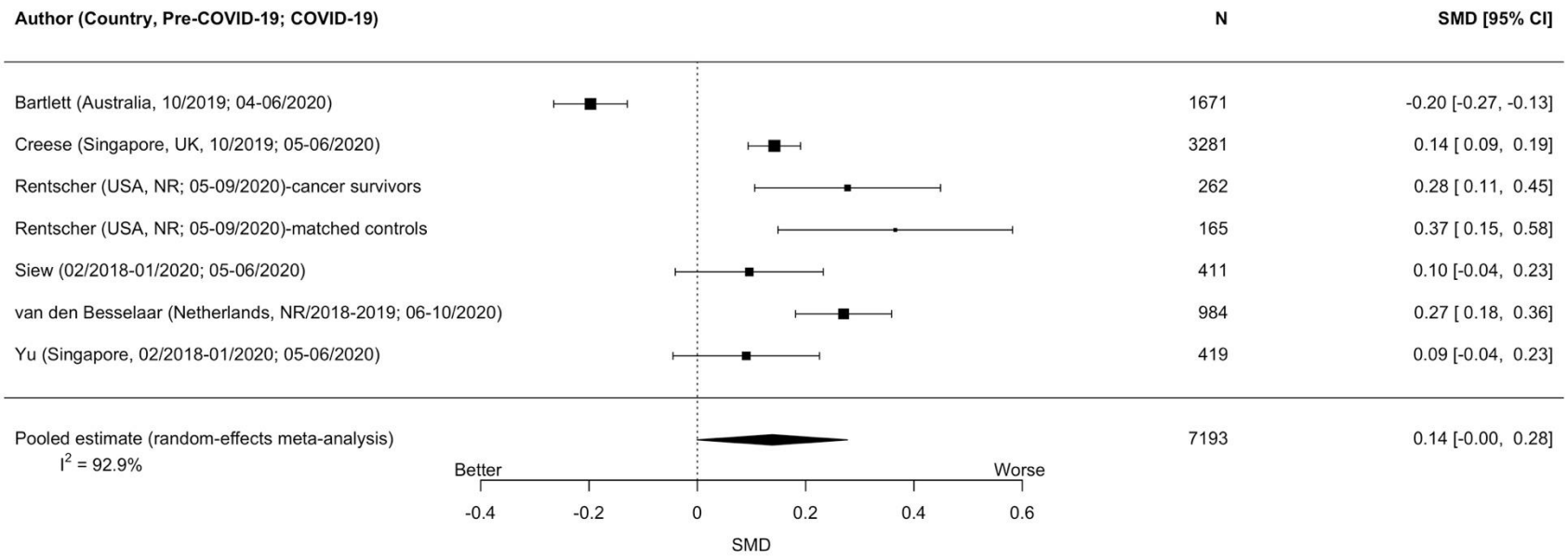
Supplementary Figure 2b. Forest plot of standardized mean difference change in anxiety symptoms for studies of women or females



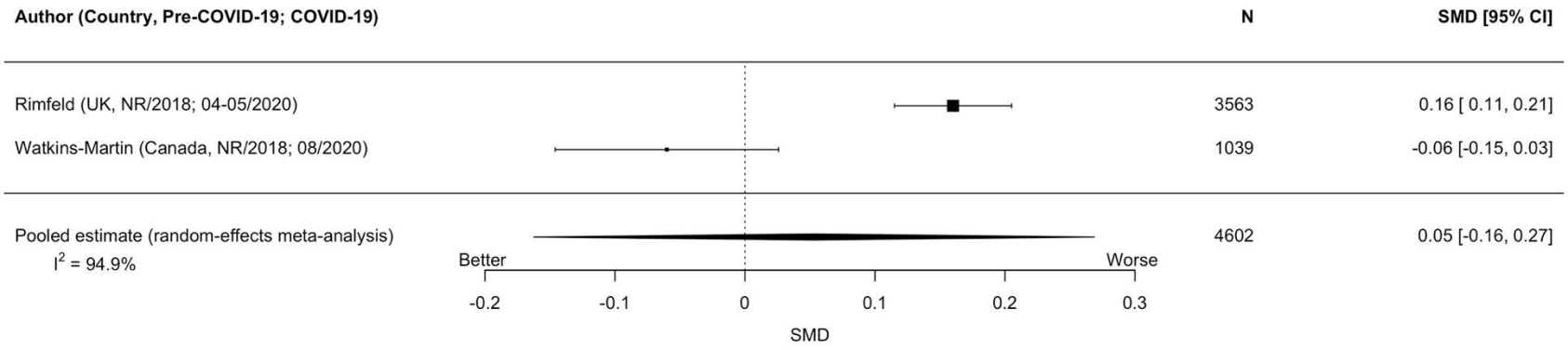
Supplementary Figure 2c. Forest plot of standardized mean difference change in anxiety symptoms for studies of men or males



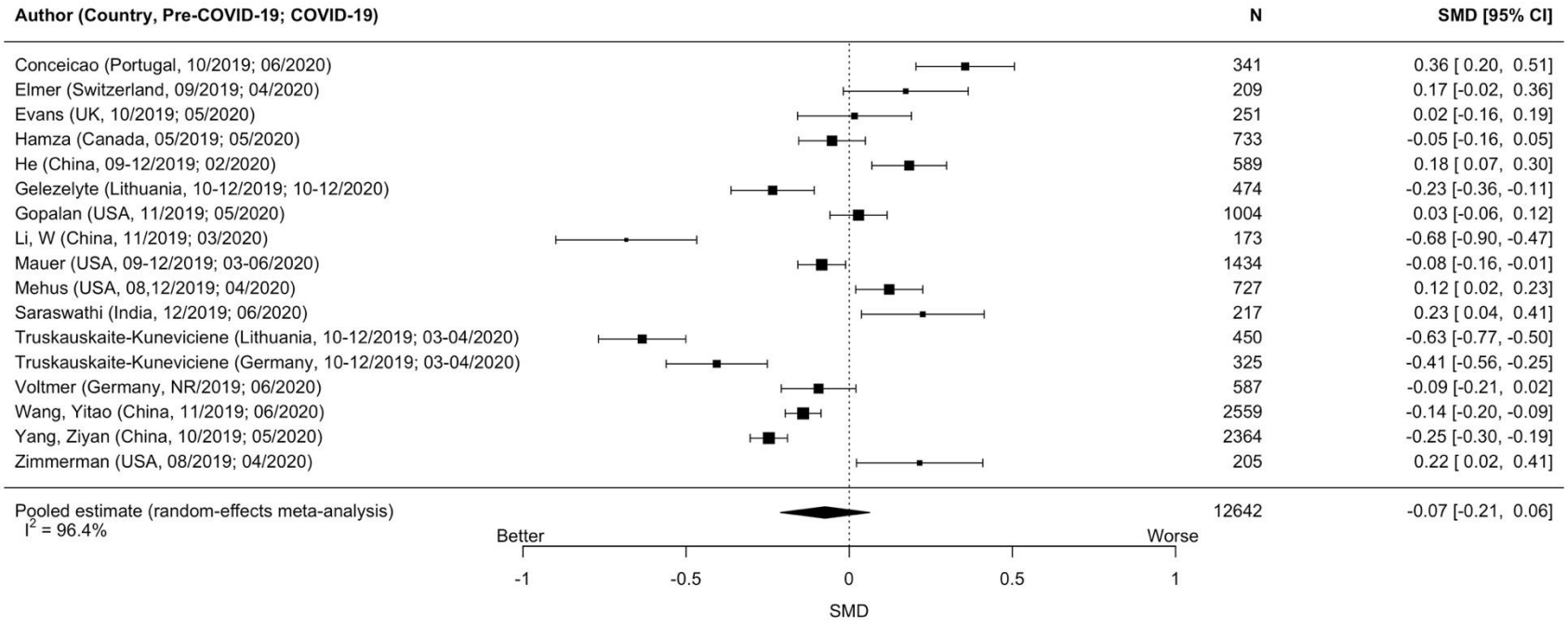
Supplementary Figure 2d. Forest plot of standardized mean difference change in anxiety symptoms for studies of older adults



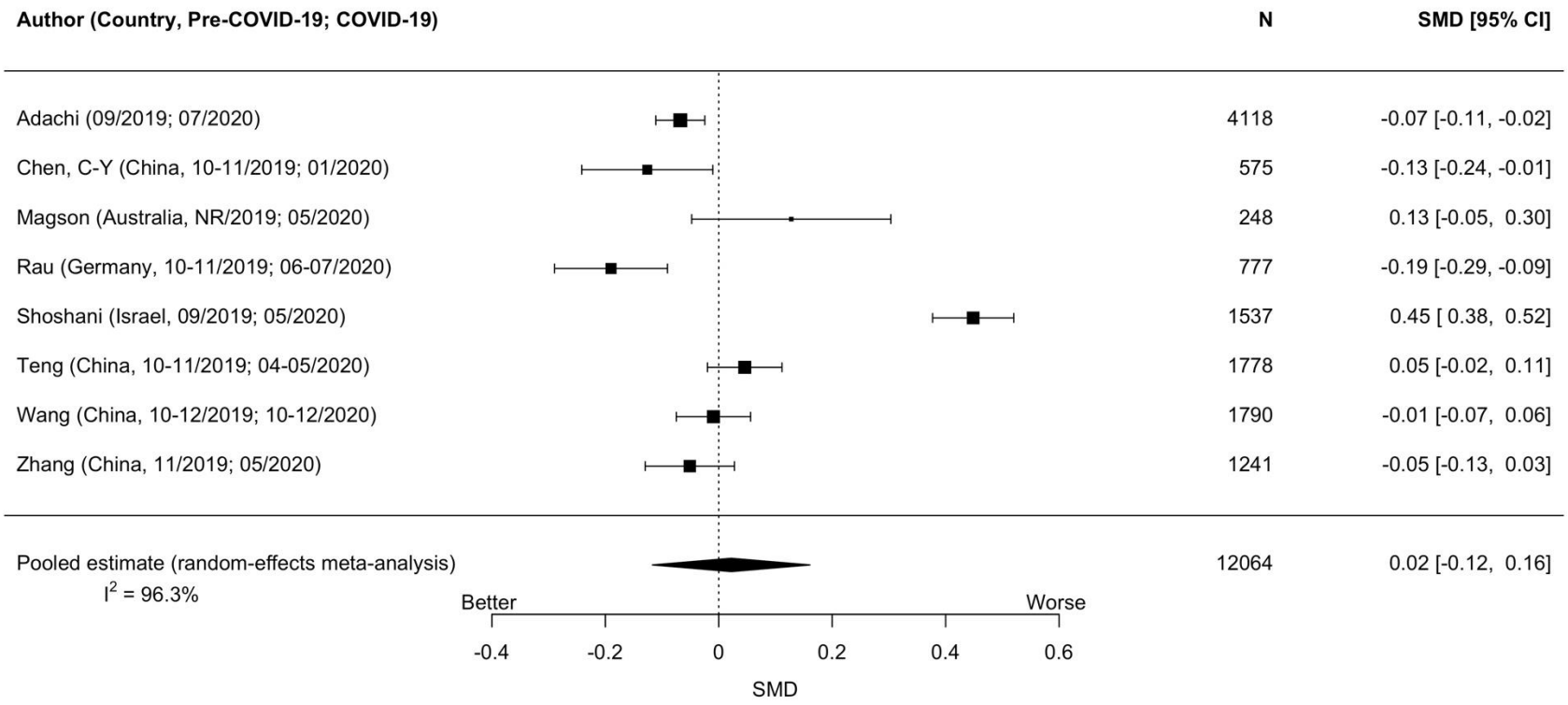
Supplementary Figure 2e. Forest plot of standardized mean difference change in anxiety symptoms for studies of young adults



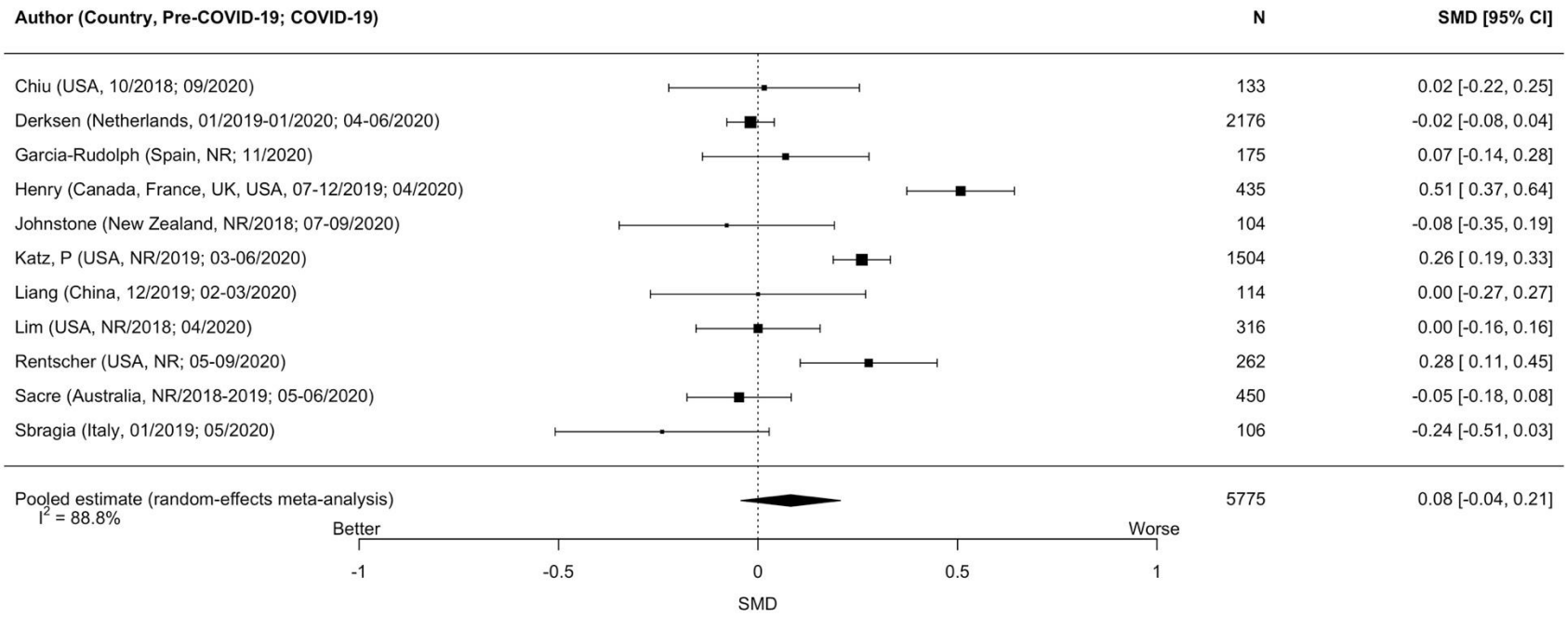
Supplementary Figure 2f. Forest plot of standardized mean difference change in anxiety symptoms for studies of university students



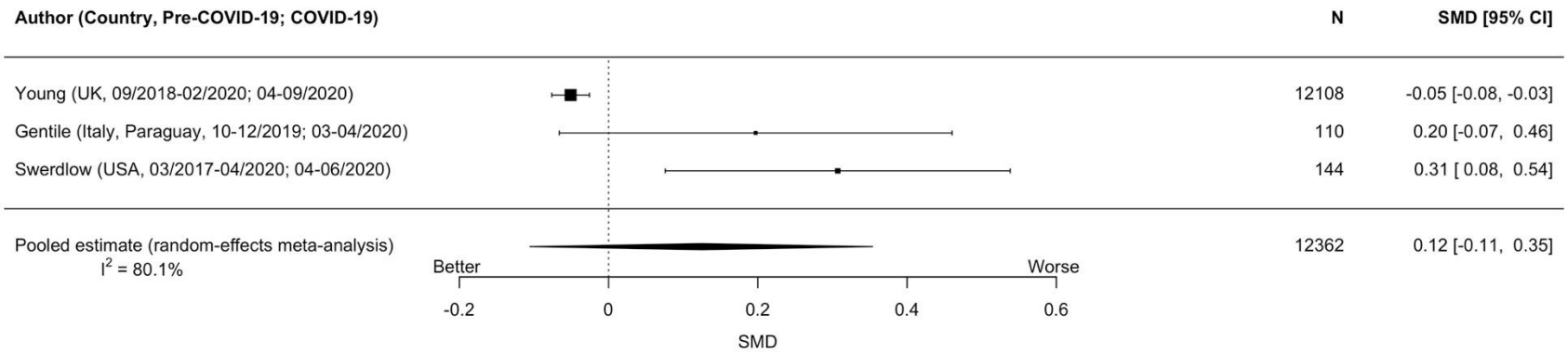
Supplementary Figure 2g. Forest plot of standardized mean difference change in anxiety symptoms for studies of children and adolescents



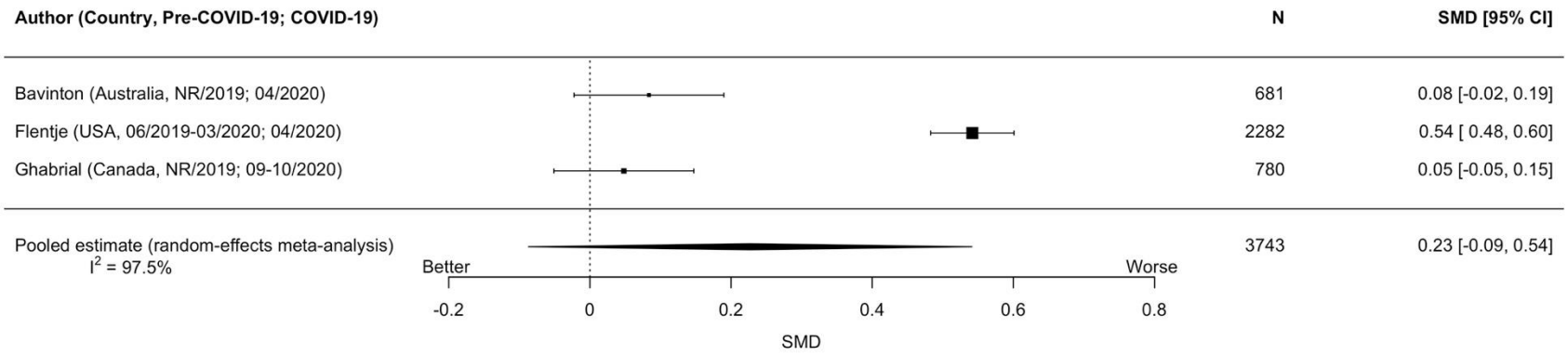
Supplementary Figure 2h. Forest plot of standardized mean difference change in anxiety symptoms for studies of people with pre-existing medical conditions



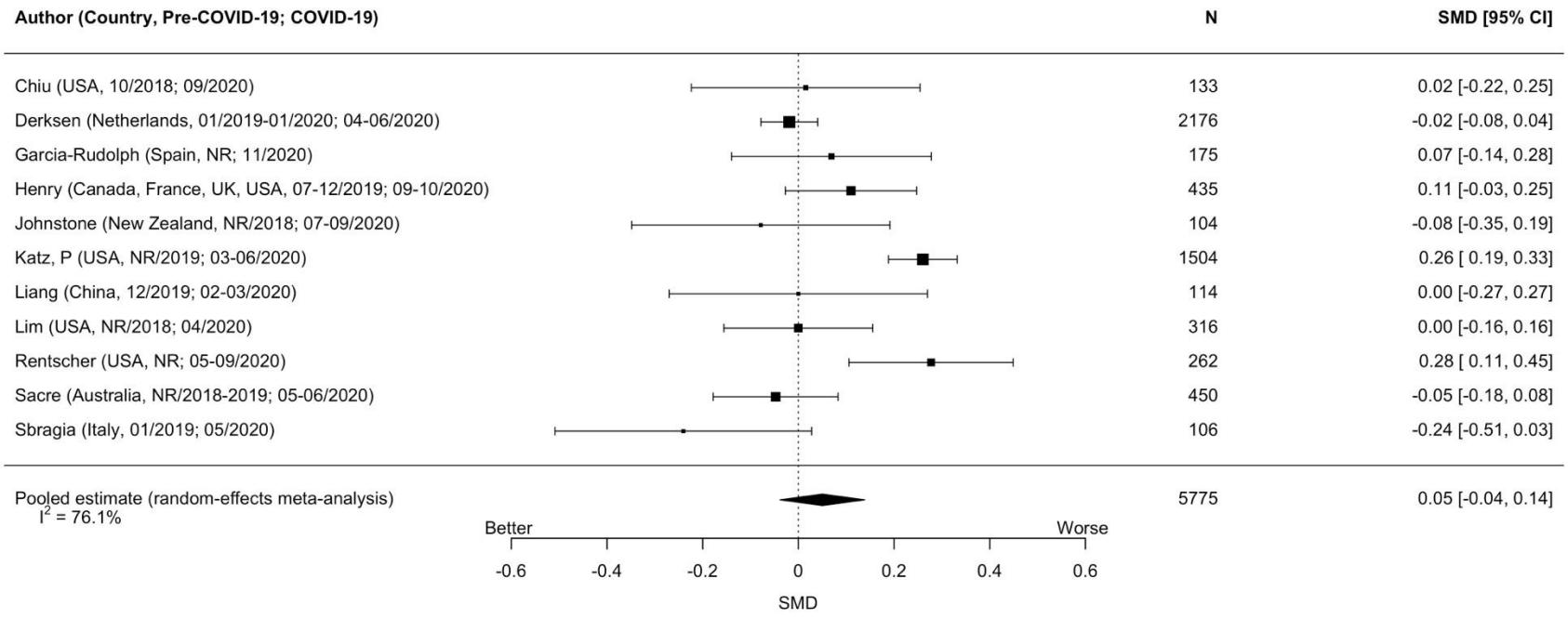
Supplementary Figure 2i. Forest plot of standardized mean difference change in anxiety symptoms for studies of people with pre-existing mental health conditions



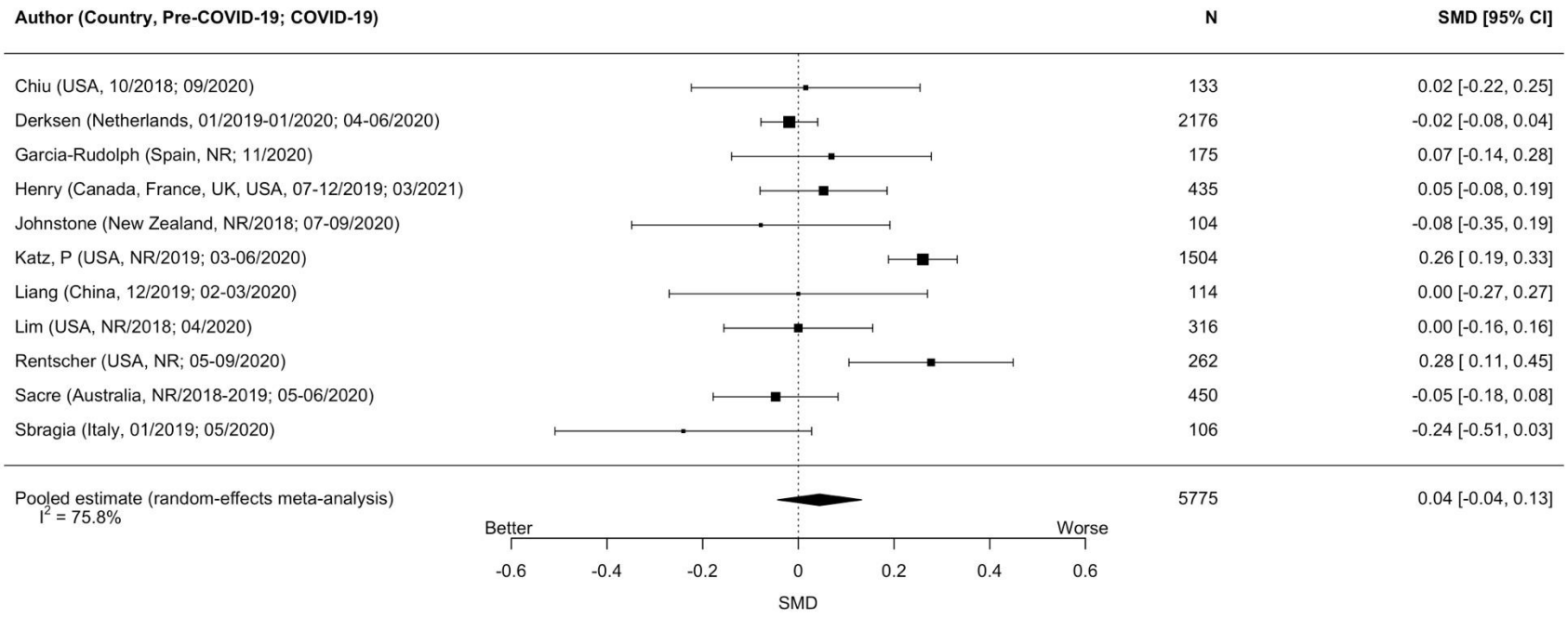
Supplementary Figure 2j. Forest plot of standardized mean difference change in anxiety symptoms for studies of sexual or gender minorities



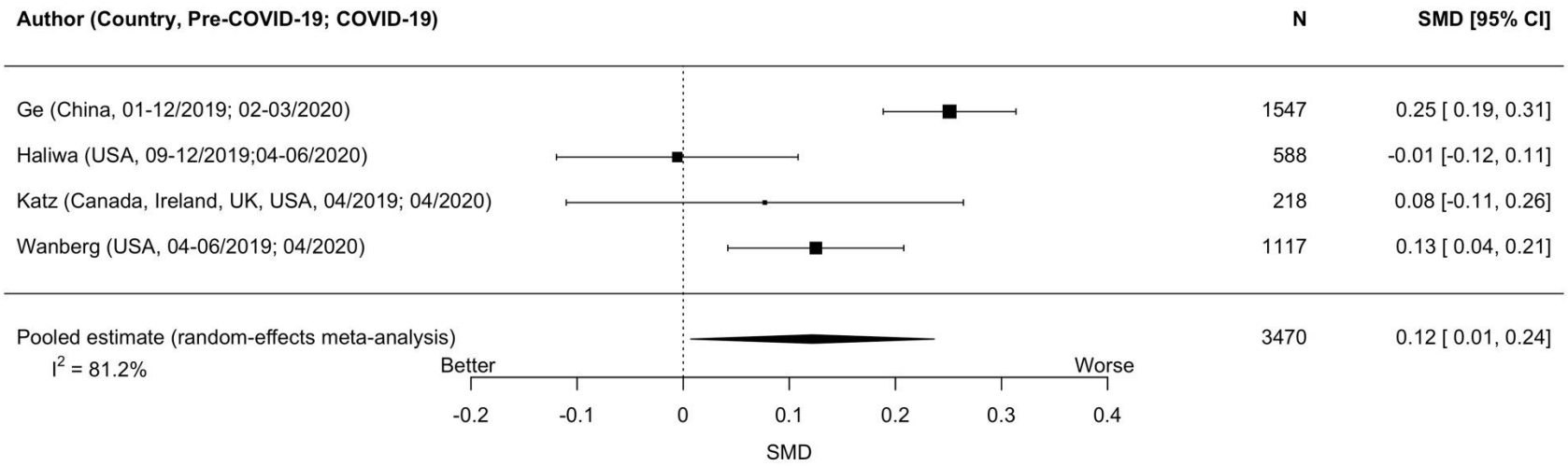
Supplementary Figure 2k. Sensitivity analysis of standardized mean difference change in anxiety symptoms among people with pre-existing medical conditions conducted with results from Henry et al. from September to October 2020 instead of April 2020



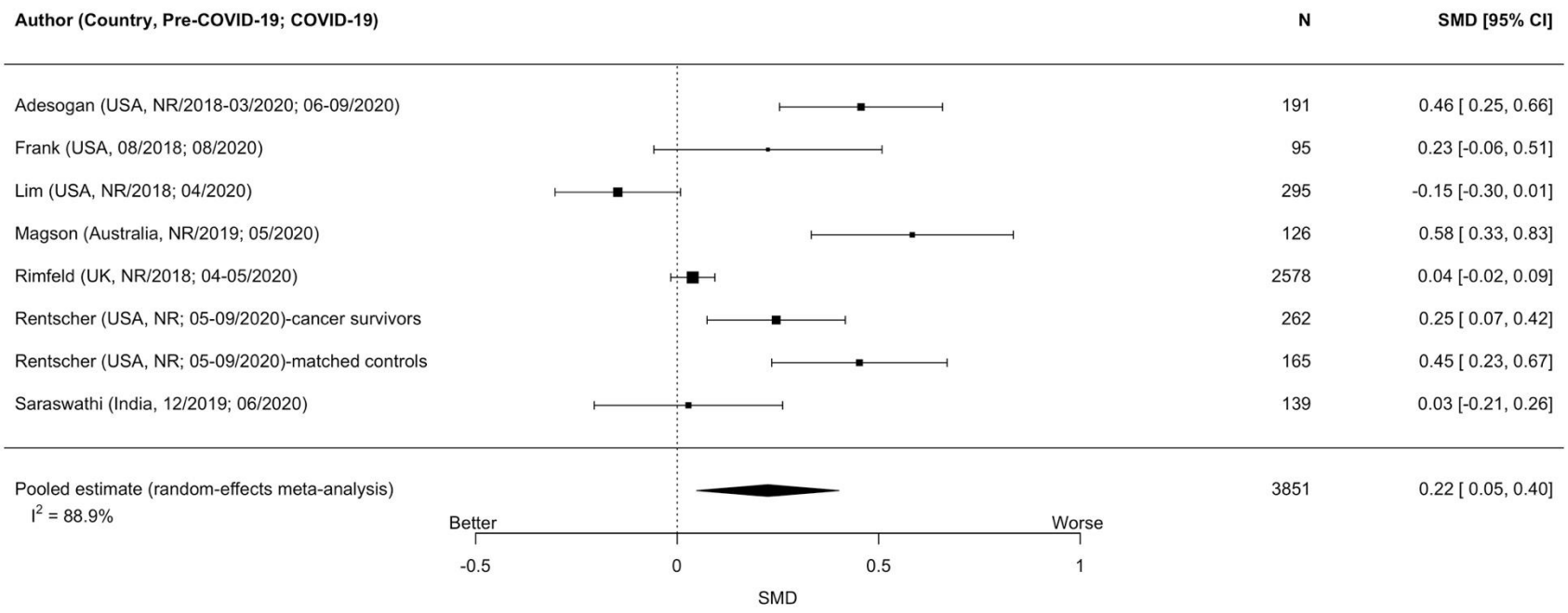
Supplementary Figure 2l. Sensitivity analysis of standardized mean difference change in anxiety symptoms among people with pre-existing medical conditions conducted with results from Henry et al. from March 2021 instead of April 2020



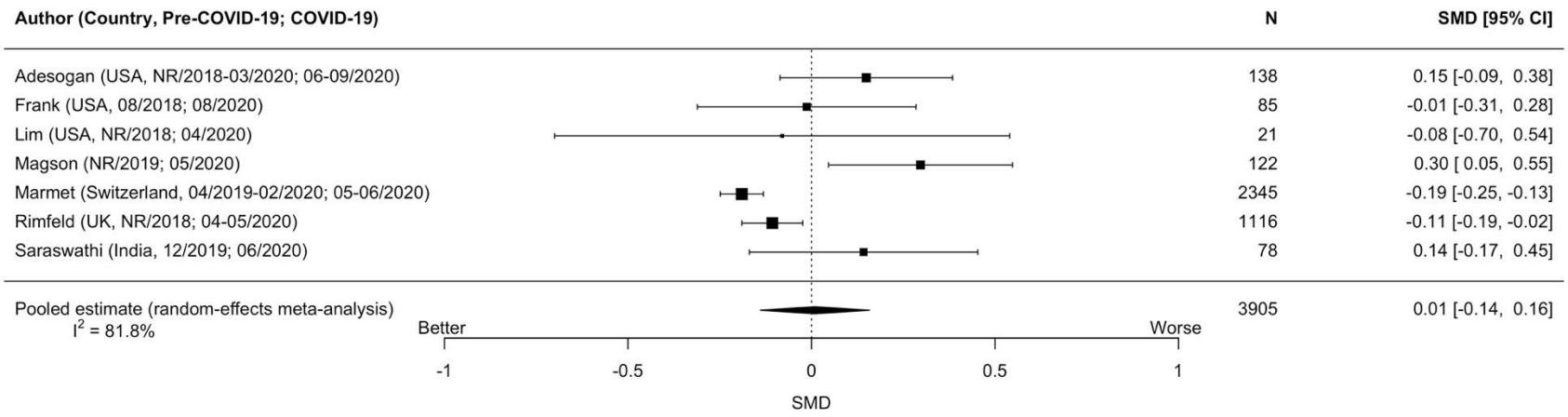
Supplementary Figure 3a. Forest plot of standardized mean difference change in depression symptoms for studies of the general population



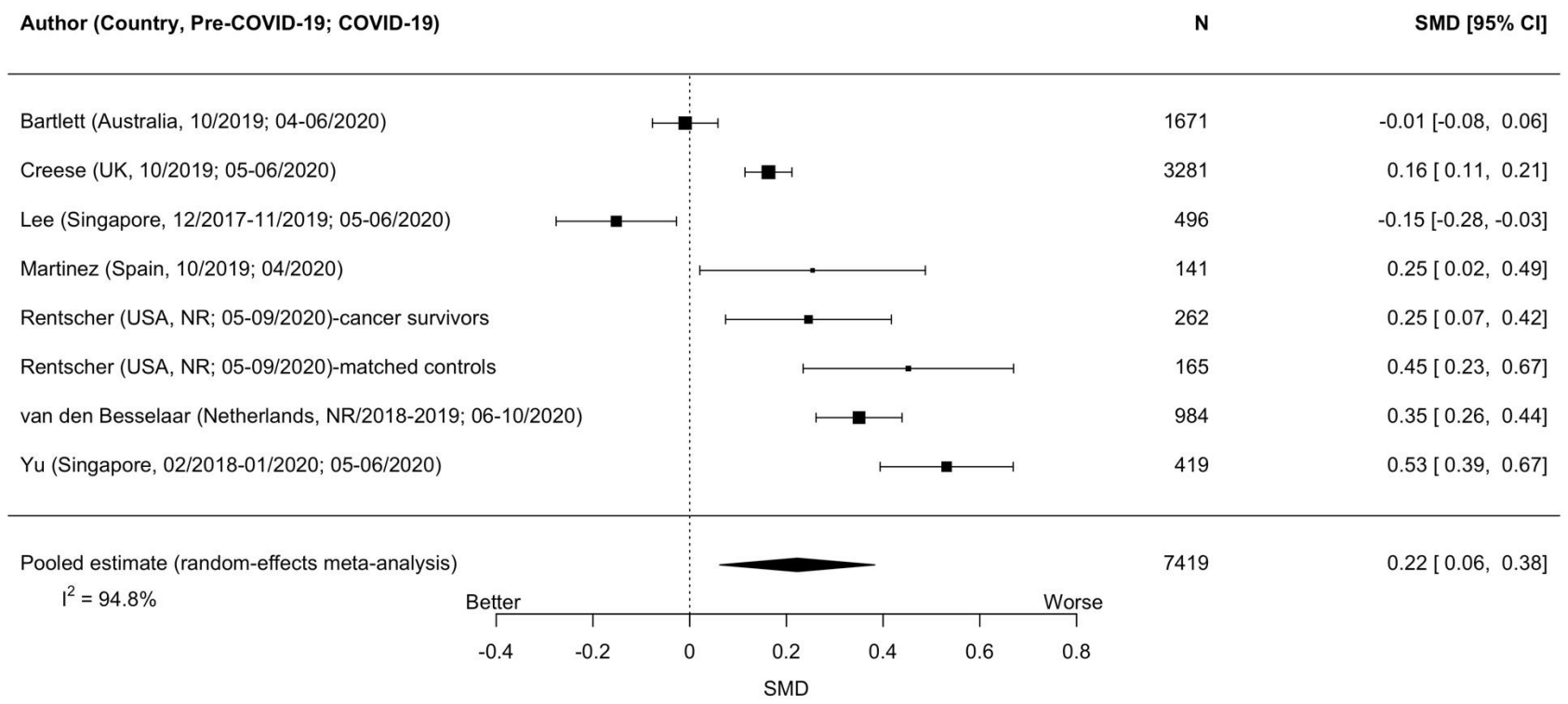
Supplementary Figure 3b. Forest plot of standardized mean difference change in depression symptoms for studies of women or females



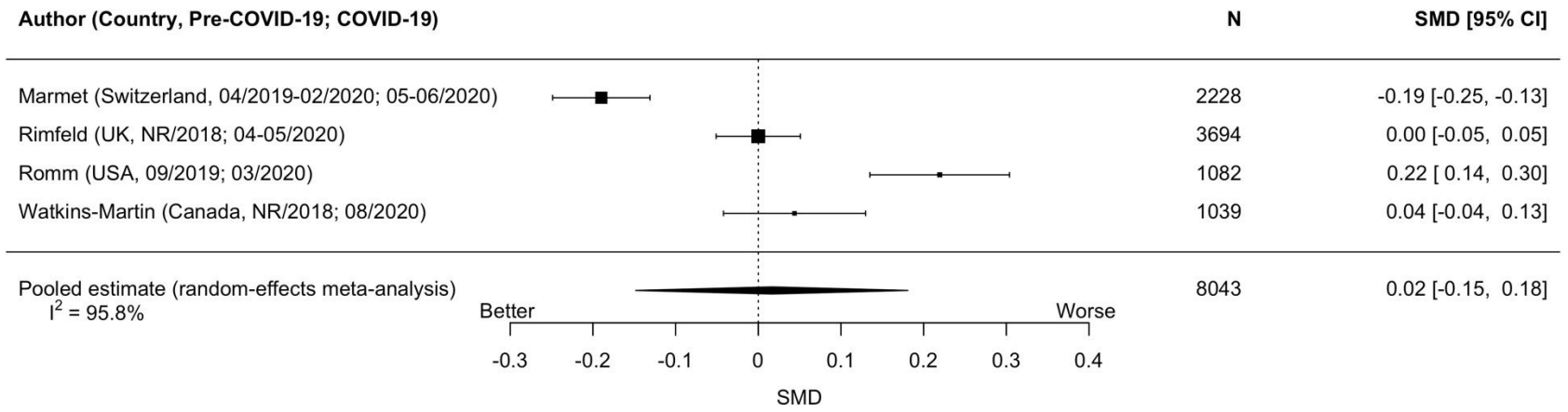
Supplementary Figure 3c. Forest plot of standardized mean difference change in depression symptoms for studies of men or males



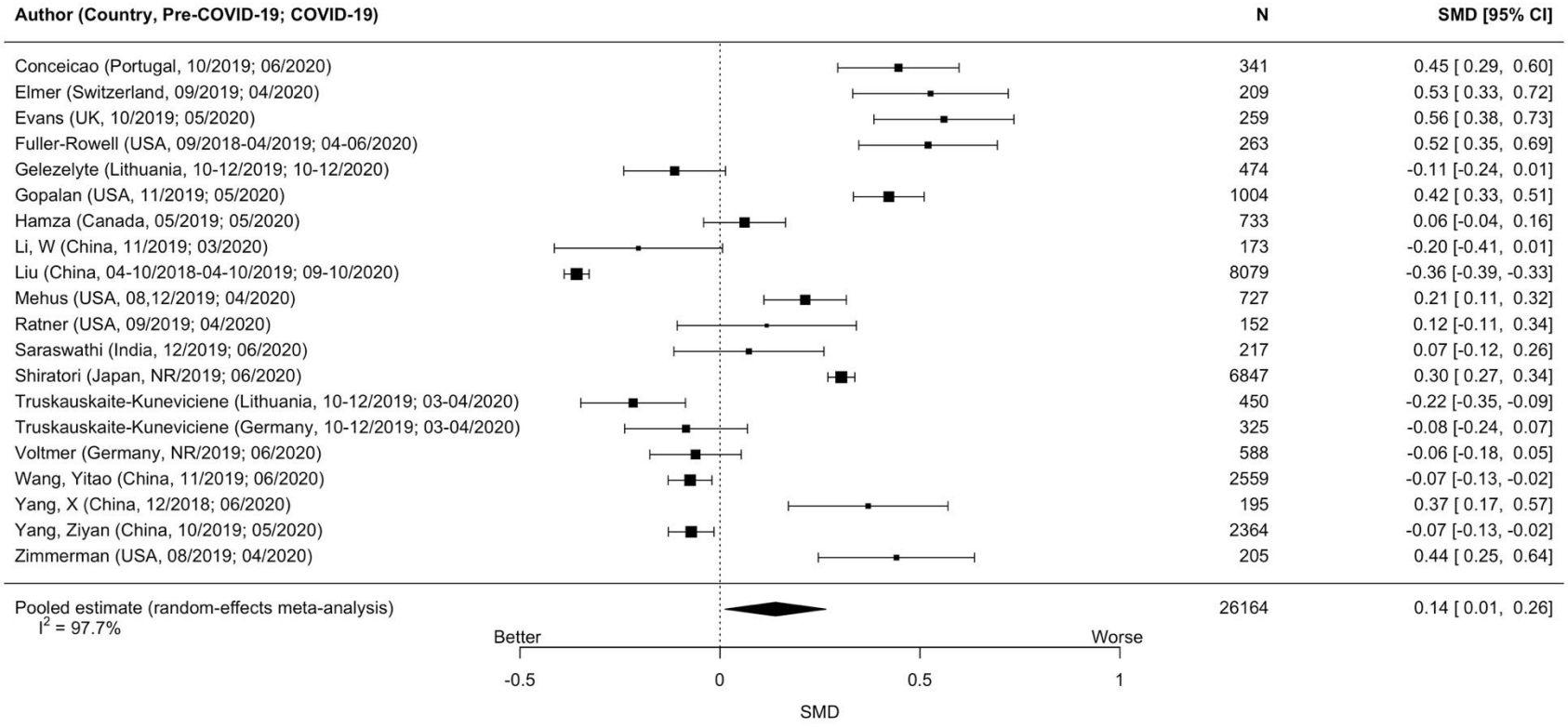
Supplementary Figure 3d. Forest plot of standardized mean difference change in depression symptoms for studies of older adults



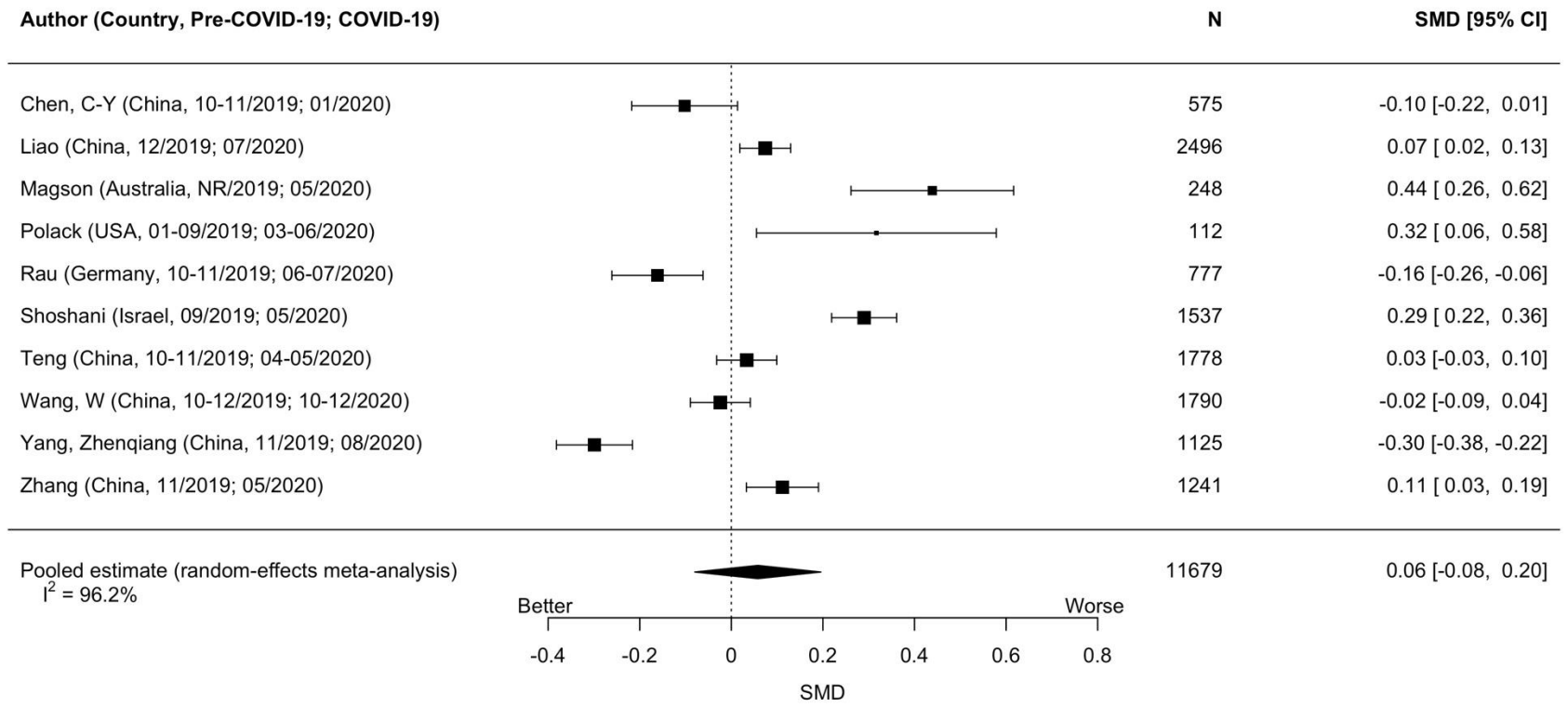
Supplementary Figure 3e. Forest plot of standardized mean difference change in depression symptoms for studies of young adults



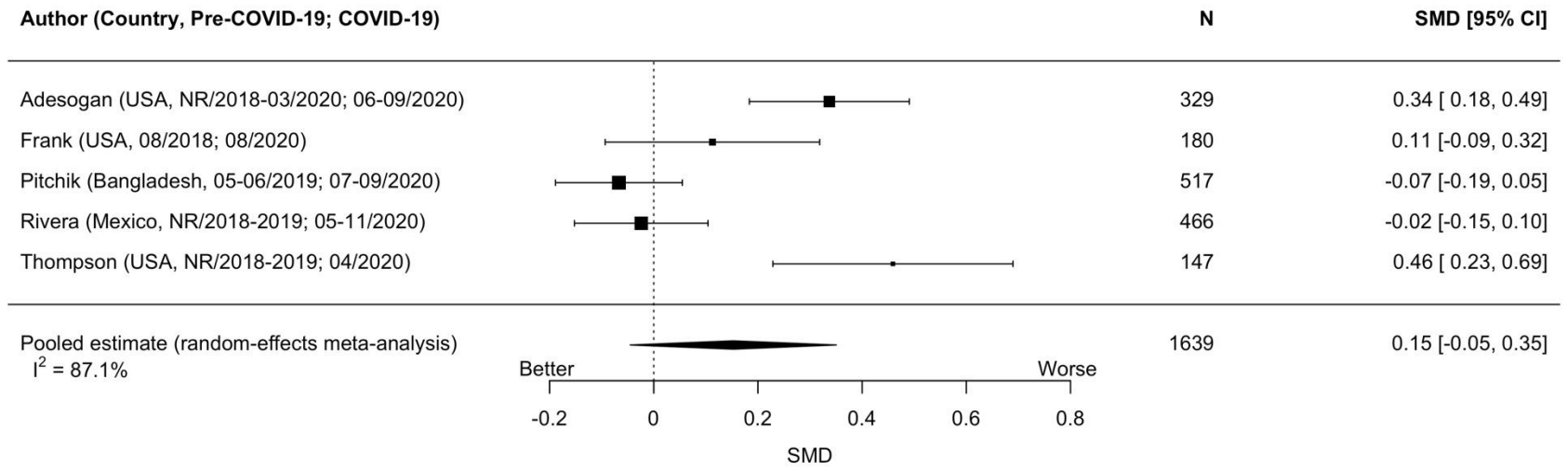
Supplementary Figure 3f. Forest plot of standardized mean difference change in depression symptoms for studies of university students



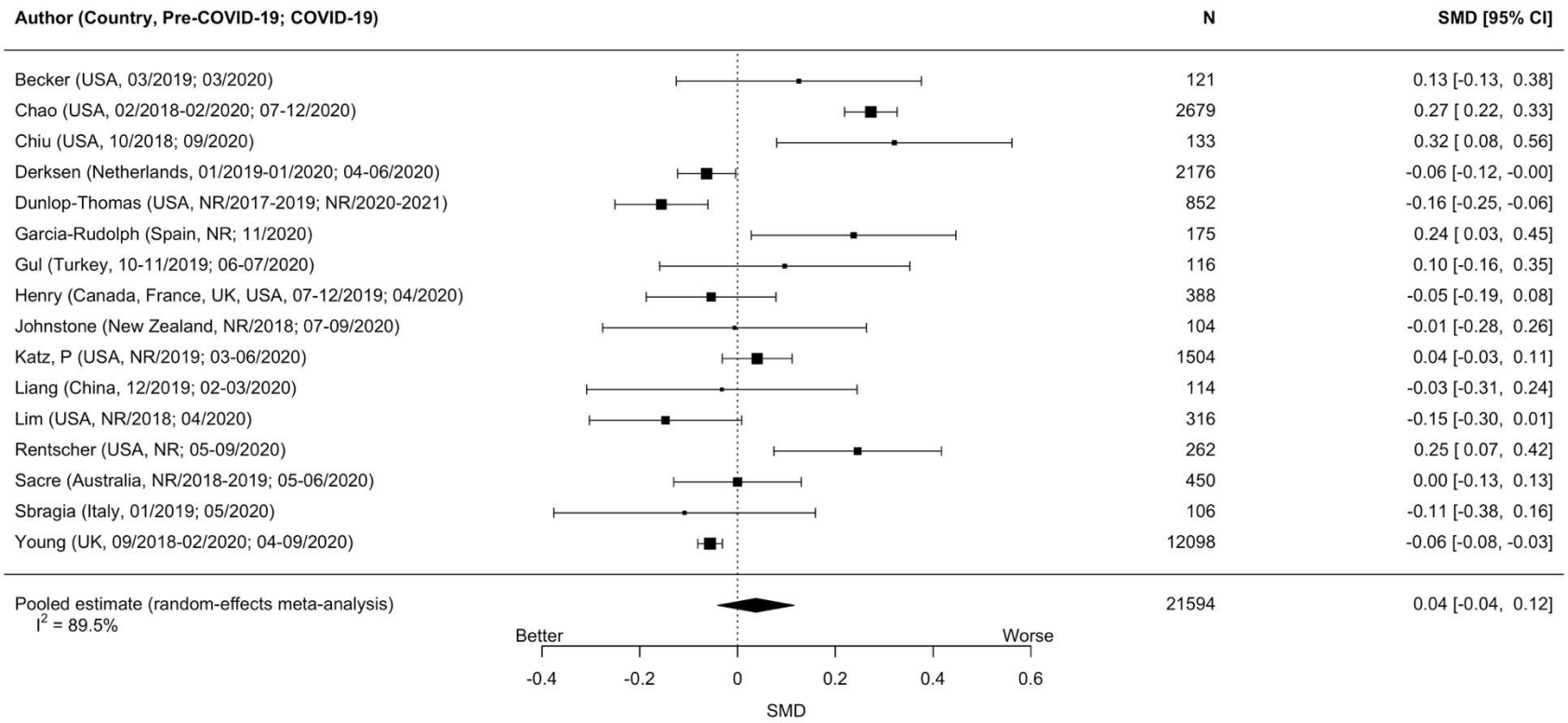
Supplementary Figure 3g. Forest plot of standardized mean difference change in depression symptoms for studies of children and adolescents



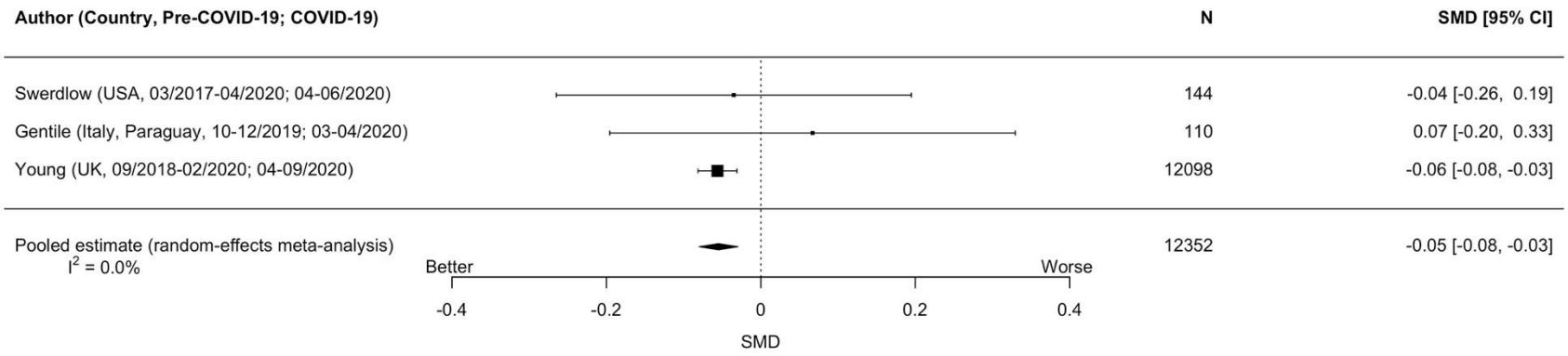
Supplementary Figure 3h. Forest plot of standardized mean difference change in depression symptoms for studies of parents



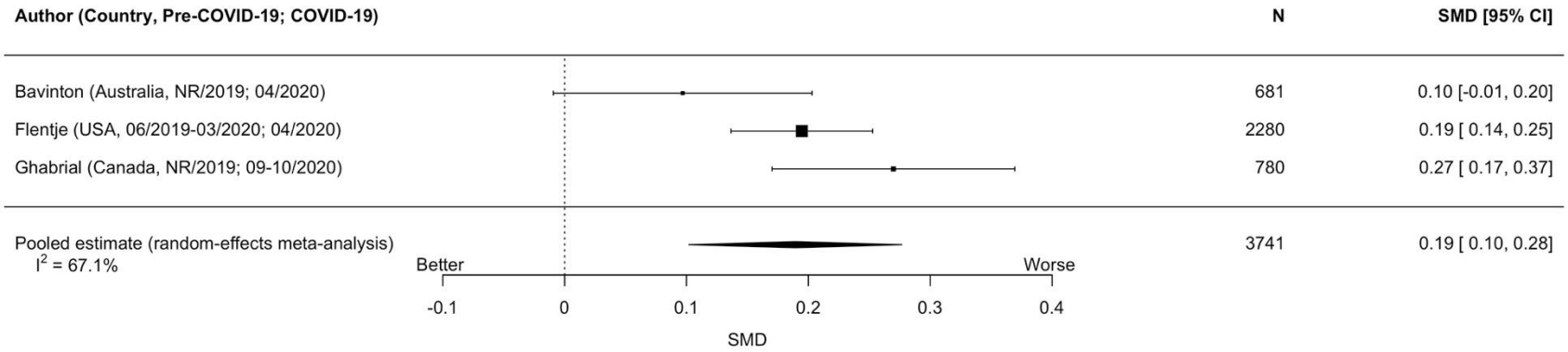
Supplementary Figure 3i. Forest plot of standardized mean difference change in depression symptoms for studies of people with pre-existing medical conditions



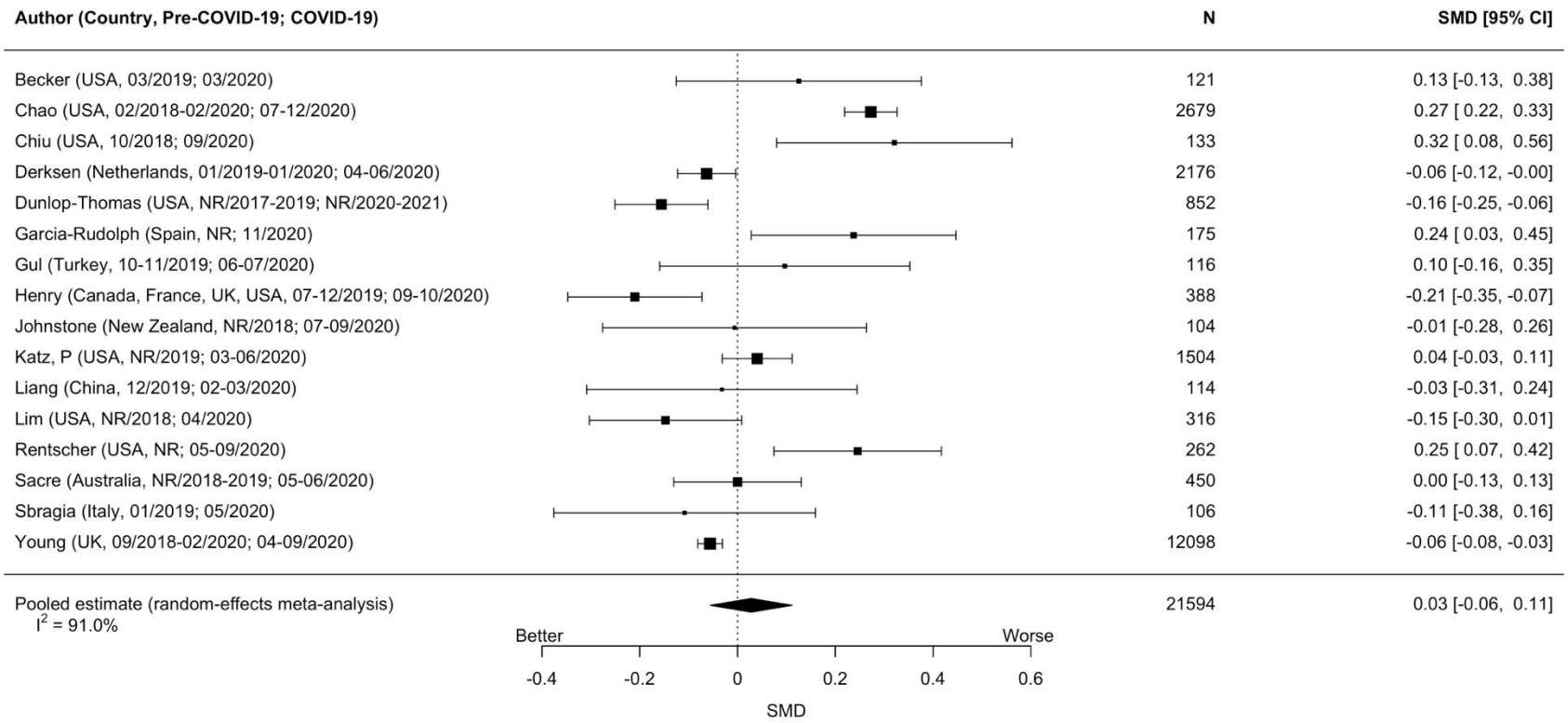
Supplementary Figure 3j. Forest plot of standardized mean difference change in depression symptoms for studies of people with pre-existing mental health conditions



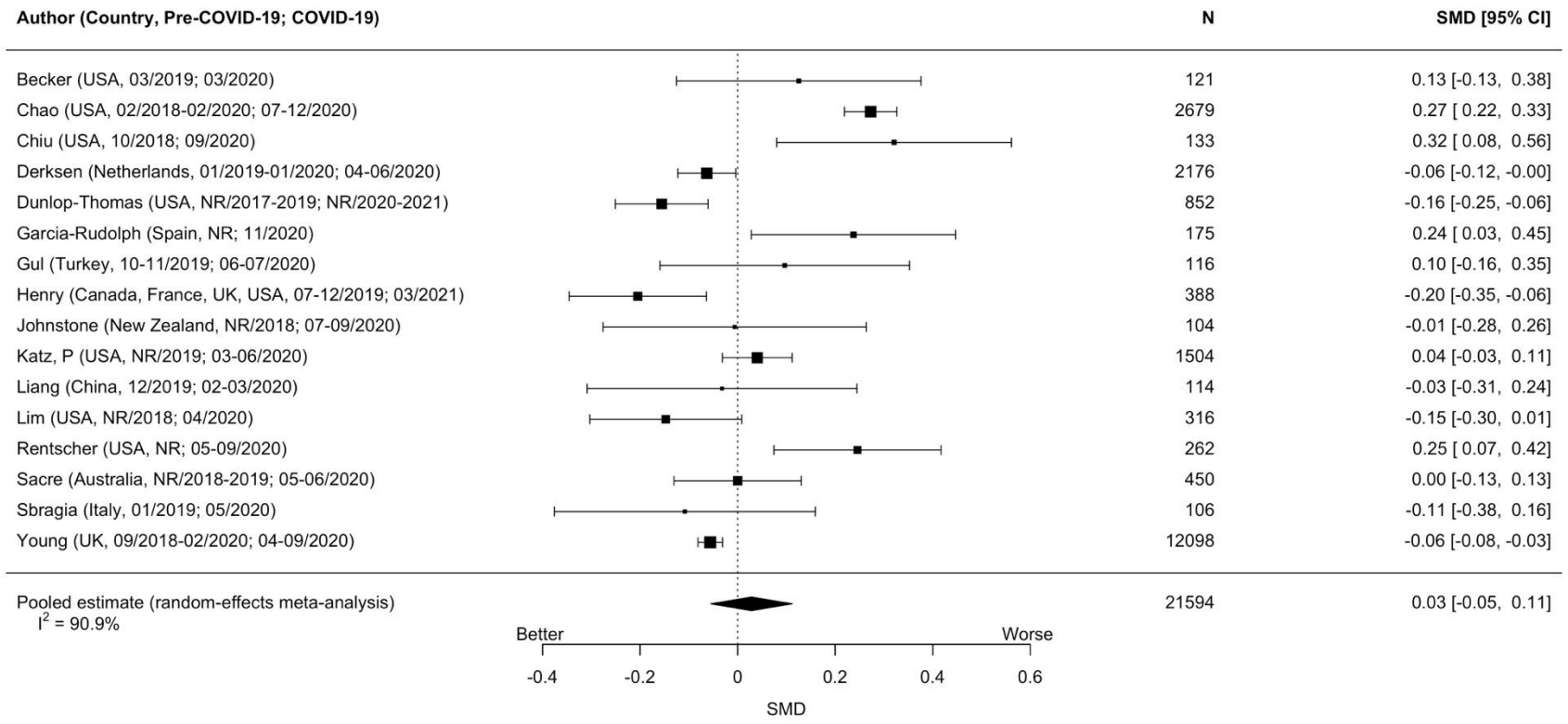
Supplementary Figure 3k. Forest plot of standardized mean difference change in depression symptoms for studies of sexual or gender minorities



Supplementary Figure 3l. Sensitivity analysis of standardized mean difference change in depression symptoms among people with pre-existing medical conditions conducted with results from Henry et al. from September to October 2020 instead of April 2020



Supplementary Figure 3m. Sensitivity analysis of standardized mean difference change in depression symptoms among people with pre-existing medical conditions conducted with results from Henry et al. from March 2021 instead of April 2020



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S7. Kanbur S. Investigation of the effect of COVID-19 pandemic on employees' psychological symptoms and nutritional habits. *Progress in Nutrition* 2021;23:e2021107. doi:10.23751/pn.v23i1.11052.

S8. Katz BA, Yovel I. Mood symptoms predict COVID-19 pandemic distress but not vice versa: an 18-month longitudinal study. *PLoS One* 2022;17:e0273945. https://doi.org/10.1371/journal.pone.0273945.

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