REACH
Resilience, Ethnicity, and AdolesCent Mental Health

Centre for Society and Mental Health

Young People, Covid-19, and Mental Health: The REACH Covid-19 Study (Part 1)

Report 2: Impacts on Mental Health

Charlotte Gayer-Anderson, Gemma Knowles, Alice Turner, Lynsey Dorn, Joseph Lam, Samantha Davis, Rachel Blakey, Katie Lowis, Schools Working Group, Young Persons Advisory Group, Vanessa Pinfold, Natalie Creary, Jacqui Dyer, Stephani L. Hatch, George Ploubidis, Kamaldeep Bhui, Seeromanie Harding, Craig Morgan

UKRI Economic and Social Research Council
black thrive global
MQPin Foundation Transforming mental health research
erc European Research Council Established by the European Commission
KING'S College LONDON

CSMH Report R003
This report was first published in February 2022 by the Centre for Society and Mental Health.

ESRC Centre for Society and Mental Health
The Centre for Society and Mental Health is an Economic and Social Research Council (ESRC) Centre based at King's College London [ES/S01256/1]. The views expressed are those of the author(s) and not necessarily those of the Economic and Social Research Council or King's College London.

How to cite this paper:

Gayer-Anderson, C., Knowles, G., Turner, A., Dorn, L., Lam, J., Davis, S., Blakey, R., Lowis, K., Schools Working Group, REACH Young Persons Advisory Group, Pinfold, V., Creary, N., Dyer, K., Hatch, S. L., Ploubidis, G., Kamaldeep, B., Harding, S., & Morgan, C. (2022) Young People, Covid-19, and Mental Health: The REACH Covid-19 Study (Part 1) Report 2: Impacts on Mental Health. CSMH Report R003. London: ESRC Centre for Society and Mental Health.

Further information:

Please see: https://www.thereachstudy.com/

For further information or to request specific analyses, please contact the research team at: gemma.knowles@kcl.ac.uk / craig.morgan@kcl.ac.uk.

Contents

Background and Procedures

Background and Procedures

REACH (Resilience, Ethnicity, and AdolesCent Mental Health) is an ongoing cohort study of adolescent mental health in two inner-city London boroughs, Southwark and Lambeth.

Twelve state-funded secondary schools in Southwark and Lambeth were invited to participate in REACH in 2015-2016, selected to be representative of mainstream secondary schools within the two boroughs, based on: (i) the proportion of students eligible for free school meals and (ii) the proportion of students from minority ethnic groups. All students in school years 7 to 9 (n, 4,945) were invited to participate at baseline, creating three cohorts – age 11-12 (Cohort 1; school year 7), 12-13 (Cohort 2; school year 8), and 13-14 (Cohort 3; school year 9). Each cohort completed questionnaires annually for three years. The fourth year of data collection – the Time 4 (T4) Covid-19 wave – is currently underway, and aims to track the mental health of adolescents, who have previously taken part in the REACH study, throughout the Covid-19 pandemic.

REACH is co-designed and implemented in partnership with young people and teachers. For T4, in March-April 2020, we conducted several focus groups and interviews with our Young Persons Advisory Groups (YPAG) and Teacher Advisory Group (TAG) to shape our research questions, methods of recontact, and the content and wording of the questionnaire.

Procedures, Time 1 (2016-2017), Time 2 (2017-2018), Time 3 (2018-2019)

Each year, eligible participants, and their parent(s)/carer(s), were informed about the purpose and procedures of the REACH study, via in-school assemblies, information packs sent out to young people and their parent(s)/carer(s), the study website, and via school websites and mailing lists. Any parent or carer who did not want their child to participate could either return a completed opt out form or contact their school or the research team directly.

On the day of data collection, students were asked to provide written assent before completing a computerised battery of validated questionnaires, in class, on study tablet computers. Trained researchers were present in the classroom to offer guidance if needed. The assessment battery took around 60 minutes to complete and consisted of a range of questionnaires to collect detailed information on mental health and risk and protective factors.

Procedures, Time 4 (T4) (Covid-19 Wave 1, May to August 2020)

At Time 3 (T3), students were provided with a 'Consent to Contact' form, providing options to be contacted about participation in future waves of data collection via email, phone, home address, one or more of their personal social media accounts, and/or via contact details provided for a nominated person. As the full extent of the Covid-19 pandemic became apparent, with the start of lockdown and the closures of schools in the UK, procedures were put in place to recontact all students who had taken part in at least one pre-pandemic wave of REACH and who, by then, had provided re-contact information (n 2,692).

To maximise participation, students were informed of the purpose of this wave of data collection and invited to participate via one or more of: (i) personalised links delivered by email and/or text message and/or social media accounts; (ii) hard copies of information sheets posted to home addresses, to ensure those without access to a computer could be informed of the study; (iii) telephone calls to students who had not responded to initial emails or text messages (or to those who had only

consented to being contacted by phone); (iv) via school websites and mailing lists.

After providing online informed consent, participants completed the assessment battery, which was conducted online via Qualtrics (a commercial population survey platform) and took approximately 30 minutes to complete. Students were compensated with £15 Love2Shop e-voucher for participating in this wave of data collection.

All procedures were approved by the Psychiatry, Nursing and Midwifery Research Ethics Subcommittee (PNM-RESC), King's College London (ref:15/162320).

Focus of this report

Focus of this report

Data collection is still ongoing; the analyses presented in this report were conducted on the first 1,074 students who participated between when the survey link was opened (in May 2020) and the start of the new academic year (and UK schools reopening) in September 2020.

In this report, we present findings in relation to the following question, within the overall sample, any by demographic group (gender, ethnic group, and household income [indicated by receipt of free school meals]):

1. Did mental distress (assessed with the Strengths and Difficulties Questionnaire, SDQ, see below) increase mid-pandemic (Time 4 [T4]) compared with pre-pandemic (Time 1 – Time 3 [T1-T3])?

For a full list of questions and measures used, please see **Appendix: Measures & Sample Characteristics**.

This report accompanies the journal article, currently in press:

> Knowles G, Gayer-Anderson C, Turner A, Dorn, L, Lam J, Davis S, Blakey R, Lowis K, Schools Working Group; Young Persons Advisory Group; Pinfold V, Creary N, Dyer J, Hatch SL, Ploubidis G, Bhui K, Harding S, Morgan C. (In Press) Covid-19, social restrictions, and mental distress among young people: a UK longitudinal, population-based study. *Journal of Child Psychology and Psychiatry.*

Measurement of distress (T1 to T4)

Distress was assessed using the widely used and validated self-report Strengths and Difficulties Questionnaire (SDQ) for 11 to 17-year-olds, which measures emotional and behavioural problems during the previous 6 months. The SDQ consists of 25 items, rated on a 3-point scale, corresponding to 5 subscales: emotional problems, peer problems, conduct problems, hyperactivity-inattention, and prosocial behaviours – each containing 5 items. In this report, we examine:

- Symptom severity (the total difficulties score), which ranges from

0-40, and calculated by summing scores from each subscale – except for items from the prosocial behaviour subscale.

- Internalising symptom severity, which ranges from 0 to 20, and calculated by summing scores from the emotional problems and the peer problems subscales.

- Externalising symptom severity, which ranges from 0 to 20, and calculated by summing scores from the conduct problems and the hyperactivity-inattention difficulties subscales.

- Probable mental health problem, where the total difficulties score was categorised using established thresholds (i.e., with scores ≥18 indicating a probable mental health problem).

Data analysis and reporting

There are two primary methods that we used to analyse the data that we present in this report.

1. Repeated cross-sectional analyses: First, we present prevalence estimates for a probable mental health problem, as well as the mean scores for total difficulties, and internalising and externalising subscales, at each wave of data collection (i.e., at T1, T2, T3 and T4).

2. Longitudinal analyses: Second, we present fixed effects regression coefficients which represent pre-to-mid-pandemic within-person change in SDQ scores (i.e., change between T1-T3 and T4). For this type of statistical modelling, each participant effectively acts as their own control, thereby accounting for potential confounding effects of time-invariant variables, e.g., sex and ethnic group. Positive coefficients indicate worsening – and negative coefficients improving – within-person mental health between T1-T3 and T4, accounting for pre-pandemic trends in mental health.

Sample Characteristics (see Appendix: Measures & Sample Characteristics)

Between May and August 2020, 1,074 young people completed the T4 questionnaire. Of these, 1055 had completed questionnaires prior to the

pandemic (T1-T3) (39% of 2,692 who provided recontact information by May 2020; 22% of 4,784 who participated at any previous time point).

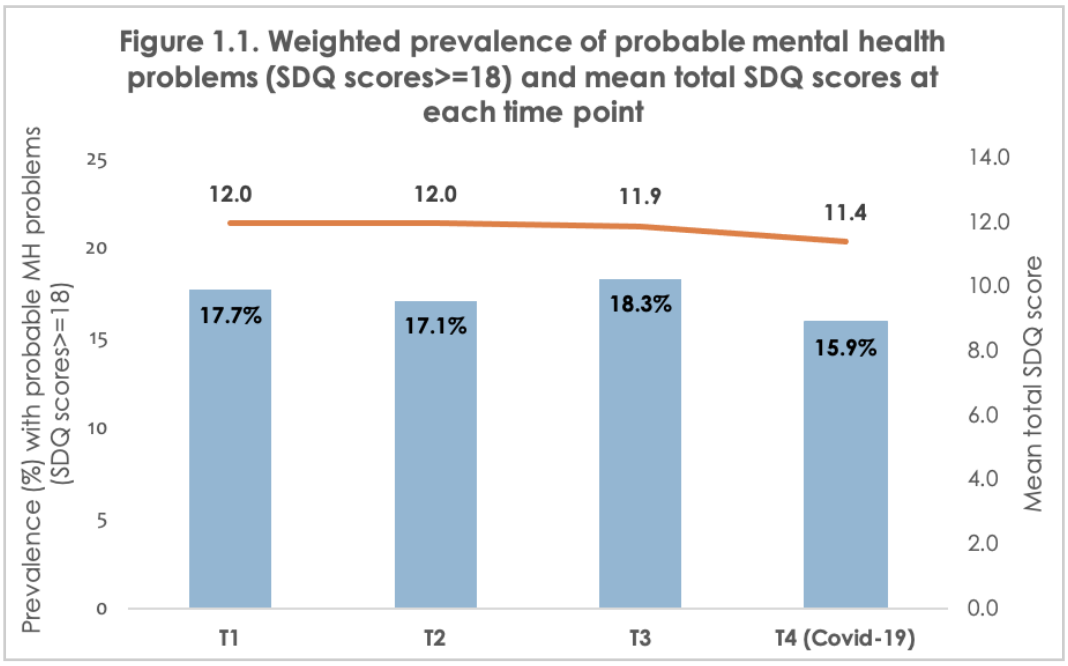
There were some variations in response at T4 by demographic group and prior mental health. Those who completed the T4 questionnaire (vs. those who did not) were more likely to be girls (i.e., 67.5% vs. 46.2%), more likely to be in the British white ethnic group (i.e., 21.4% vs. 13.1%), and less likely to be in the Black Caribbean ethnic group (9.5% vs. 18.2%). Among boys, but not girls, those with a probable mental health problem (i.e., measured using the Strengths and Difficulties Questionnaire with a score >=18 being indicative of an individual having a probable mental health problem) at prior time points, particularly at T2 and T3, were more likely to participate at T4 than those without.

To account for non-response bias, we calculated inverse probability weights (see Appendix: Measures & Sample Characteristics for further details). This allowed us to broadly restore the representativeness of the sample on core demographic variables and prior mental health problems, ensuring the results are broadly generalisable to adolescents and young people in Southwark and Lambeth, south London.

Did mental health problems increase during the first lockdown?

Did mental health problems increase during the first lockdown?

Figure 1.1. presents the percentage of young people who met the threshold of having a probable mental health problem (SDQ scores >=18) (shown in the blue columns), and the average (mean) total difficulties score (shown by the orange line), at each wave of data collection.



Key Findings

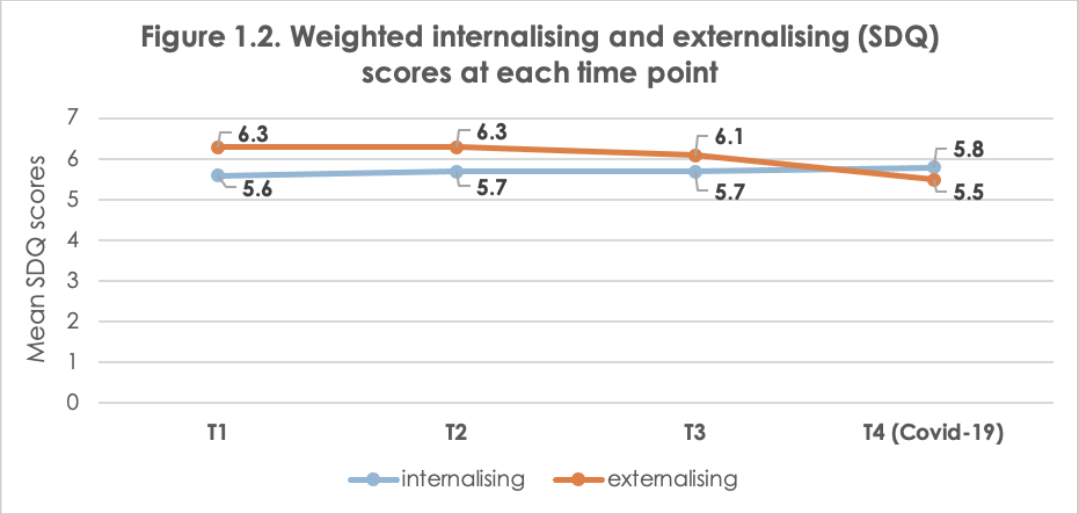
- Against a background of high pre-pandemic levels of mental distress (i.e., 17-18% with probable mental health problems, total mean difficulties score of around 12.0), there was no evidence of an overall increase in the prevalence of mental health problems – or in mean SDQ scores – pre- to mid-pandemic (see Figure 1.1); during the first lockdown period (T4), 16% of the sample were classified as having a probable mental health problem (total mean difficulties score of 11.4).

- There were no marked changes in the prevalence of probable mental health problems and mean total difficulties score mid-pandemic compared with pre-pandemic by gender (Appendix 1, Figure S1.1.).

- There was a comparatively greater drop in the prevalence of probable mental health problems and mean total SDQ score from pre-pandemic time points to the mid-pandemic timepoint among (a) those in receipt of free school meals compared with those not (Appendix 2, Figure S2.1.) and (b) among young people who in the 'mixed' compared with all the other ethnic groups (Appendix 3, Figures S3.1 and S3.2.).

- There was no evidence that change in overall distress varied notably by level of other pre-Covid-19 risks (e.g., bullying, parental discord).

Figure 1.2. presents the average (mean) internalising scores (shown by the blue line) and average (mean) externalising scores (shown by the orange line), at each wave of data collection.



Key findings

- Scores on the internalising and externalising subscales of the SDQ remained stable across timepoints with no strong evidence of an increase mid-pandemic (mean internalising score 5.8; mean externalising score 5.5) compared with pre-pandemic (range of internalising scores 5.6 to 5.7; range of internalising scores 6.1 to 6.3) (see Figure 1.2).

- There were no marked differences between girls and boys in changes to internalising scores and externalising scores from pre-pandemic to mid-pandemic (Appendix 1, Figure S1.2.).

- Compared with all other ethnic groups, mean internalising scores increased to a greater extent among those who identified as black Caribbean (Appendix 3, Figure S3.3a.).

- Mean externalising scores decreased to a greater extent among those in receipt of free schools compared with those not (Appendix 2, Figure S2.2b.).

- Mean externalising scores remained stable at the mid -pandemic timepoint compared with the pre-pandemic timepoints in young people in the British white group and the non-British white group, where for all other ethnic groups, mean externalising scores decreased (Appendix 3, Figure S3.3b.).

Figure 1.3. presents the pre-to-mid-pandemic within-person change in SDQ scores (i.e., overall change between T1-T3 and T4). Positive coefficients indicate worsening – and negative coefficients improving – within-person mental health between T1-T3 and T4, accounting for pre-pandemic trends in mental health.

Figure 1.3. Change in within-person SDQ total difficulties scores, and internalising and externalising scores

Key findings

When modelled longitudinally, there was no evidence of an increase or

decrease in within-person change in overall levels of distress (i.e. total difficulties score) – nor in internalising scores – pre- to mid-pandemic. There was some suggestive evidence of a slight improvement in externalising scores pre- to mid-pandemic (externalising scores -0.27 [95% Confidence Interval -0.63, 0.10].

- There was a modest difference by gender, with a small increase in mean total SDQ scores among girls, and a small decrease among boys (Appendix 4, Figure S4.1.).

- Internalising scores increased slightly from pre-pandemic levels to mid-pandemic levels among black Caribbean adolescents and, to a lesser extent, among girls (Appendix 4, Figure S4.2a.).

- Externalising scores decreased slightly from pre-pandemic levels to mid-pandemic levels among boys, among those in receipt of free school meals, and among those in the black Caribbean group, the black African group, and the mixed ethnic group (Appendix 4, Figure S4.2b.).

Appendices

Appendix 1: Results by Gender

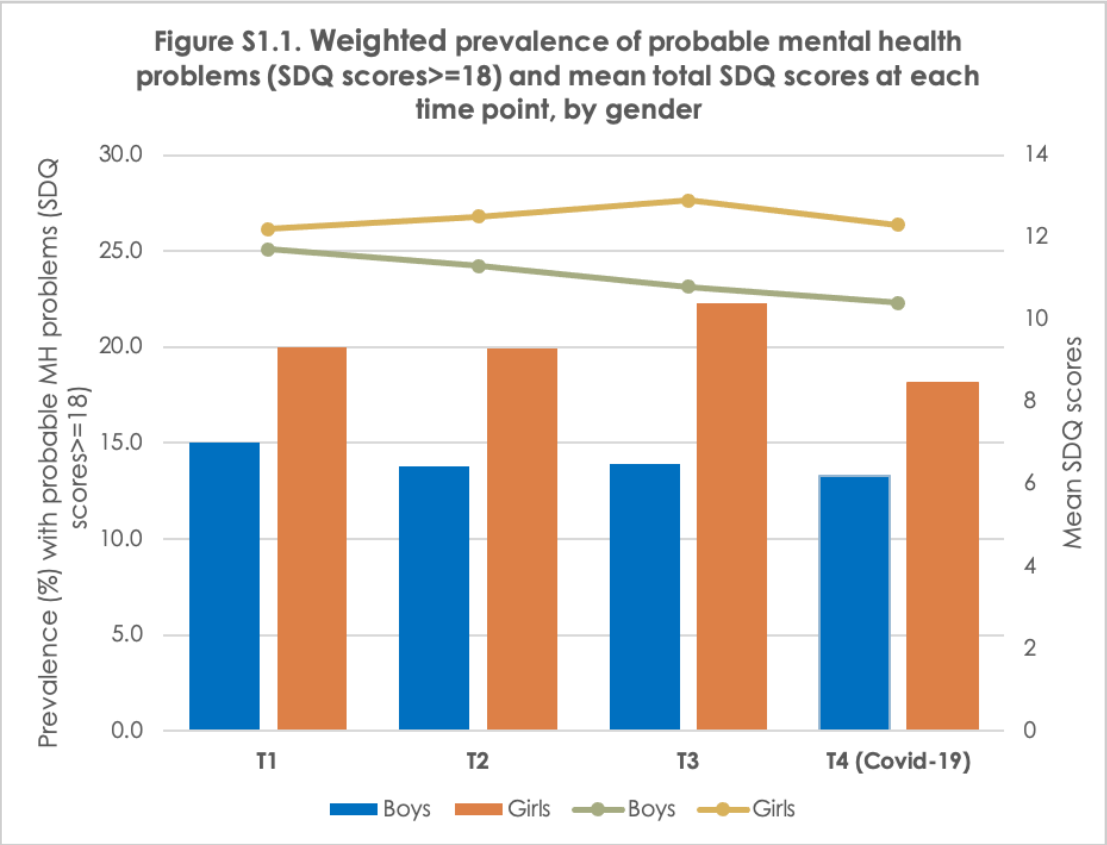
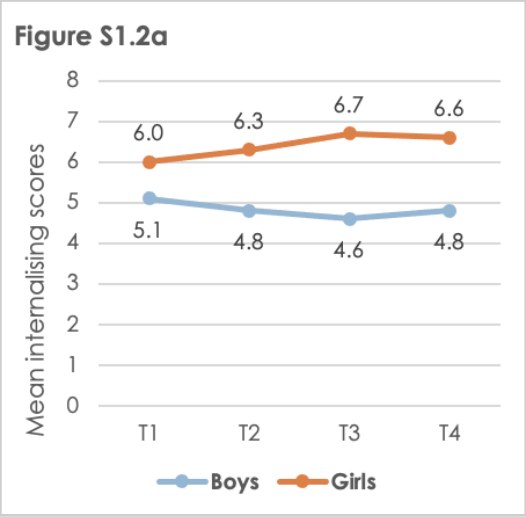
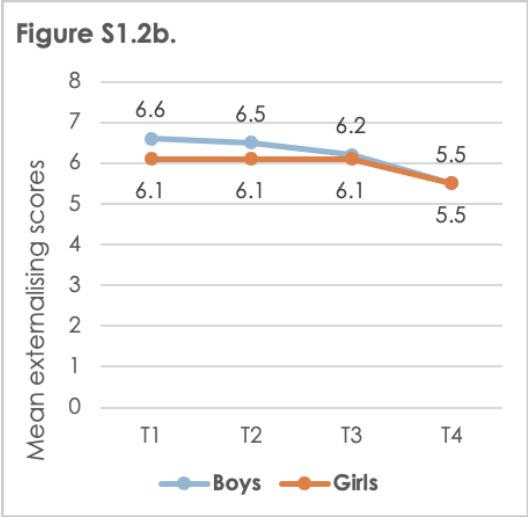


Figure S1.2. Weighted mean internalising scores (S1.2a) and externalising scores (S1.2b) at each time point, by gender





Appendix 2: Results by Free School Meal status

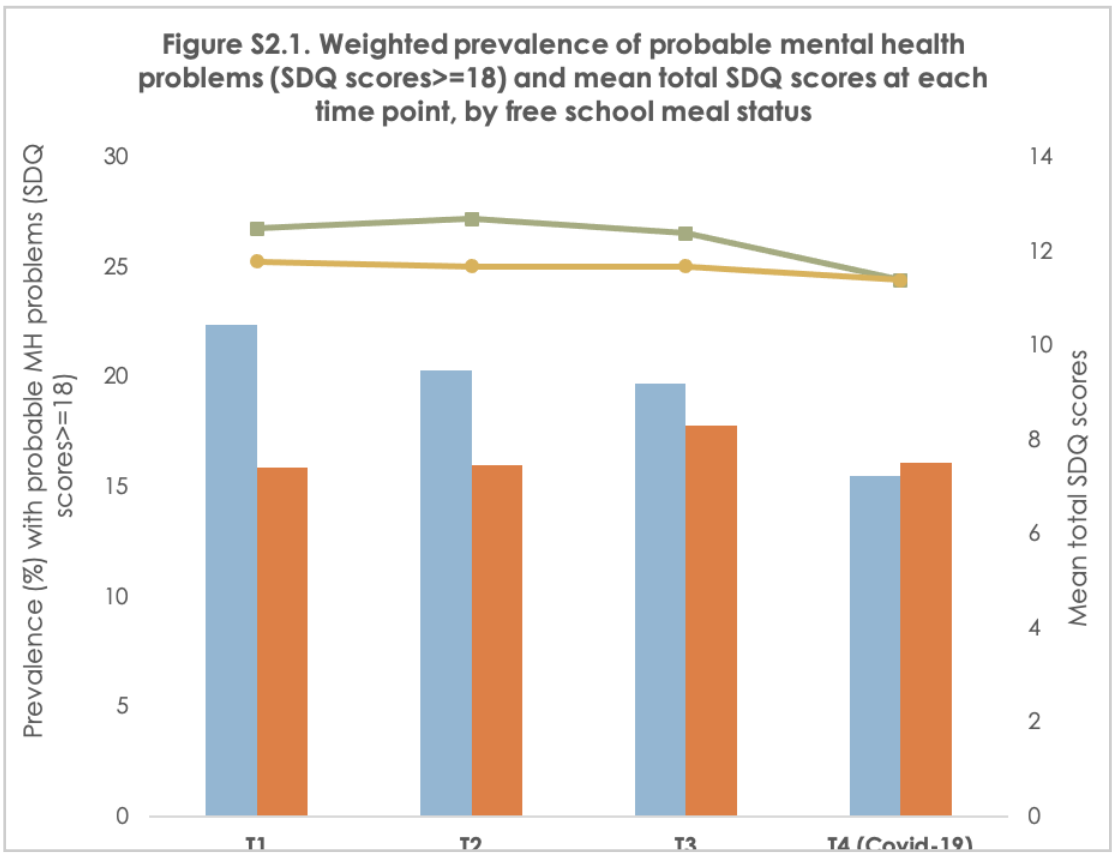
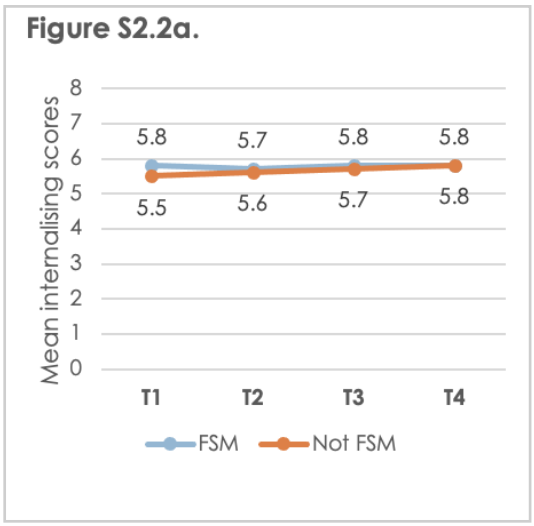
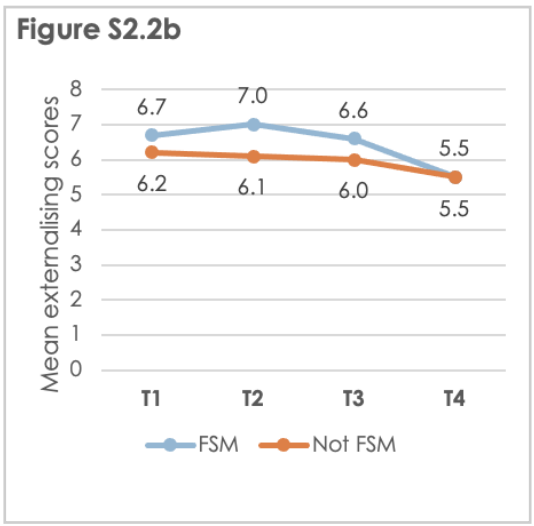
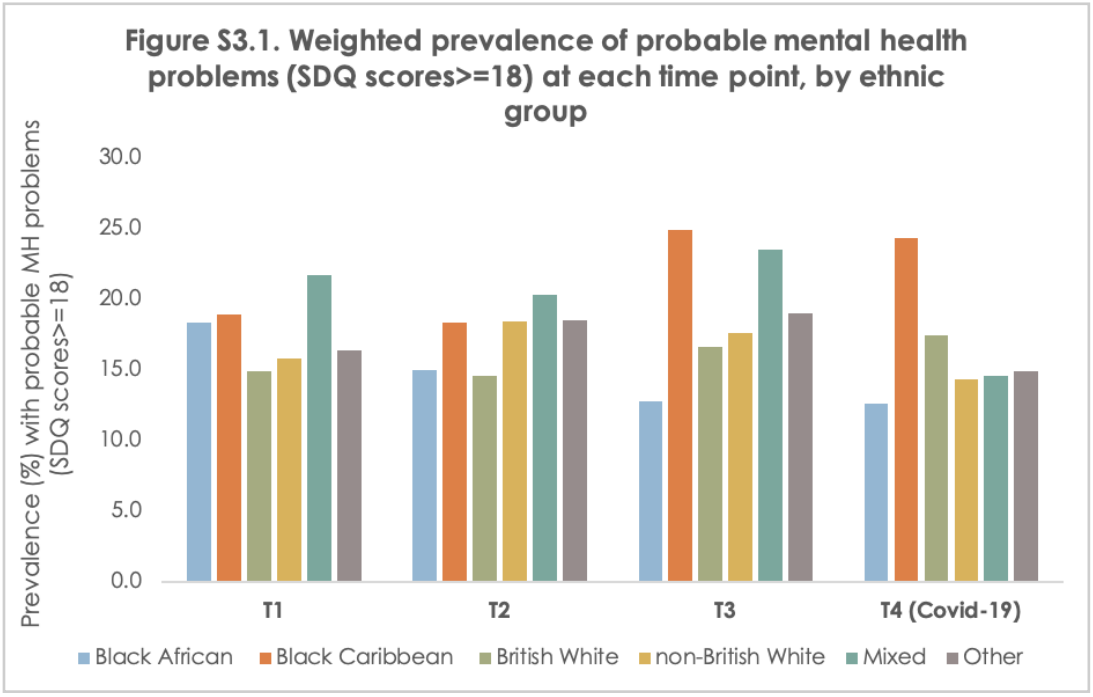


Figure S2.2. Weighted mean internalising scores (Figure S2.2a) and externalising scores (Figure S2.2b) at each time point, by free school meal status





Appendix 3: Results by Ethnic Group



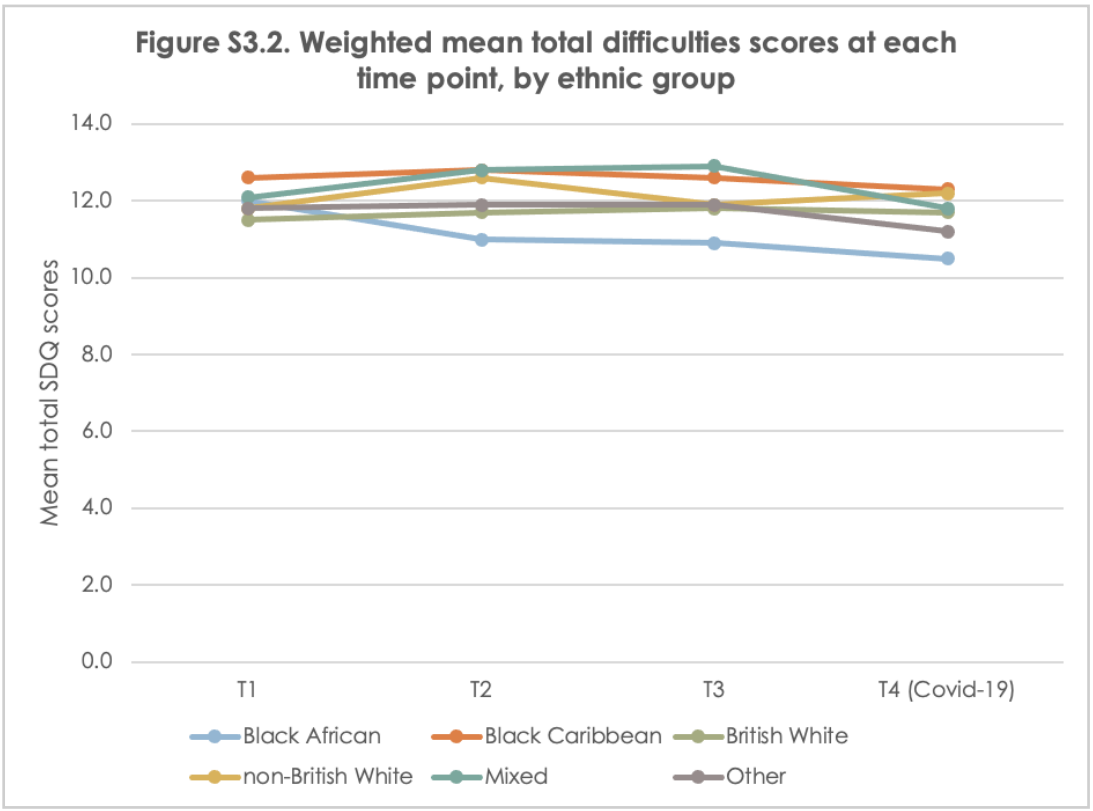


Figure S3.3a. Weighted mean internalising scores at each time point, by ethnic group

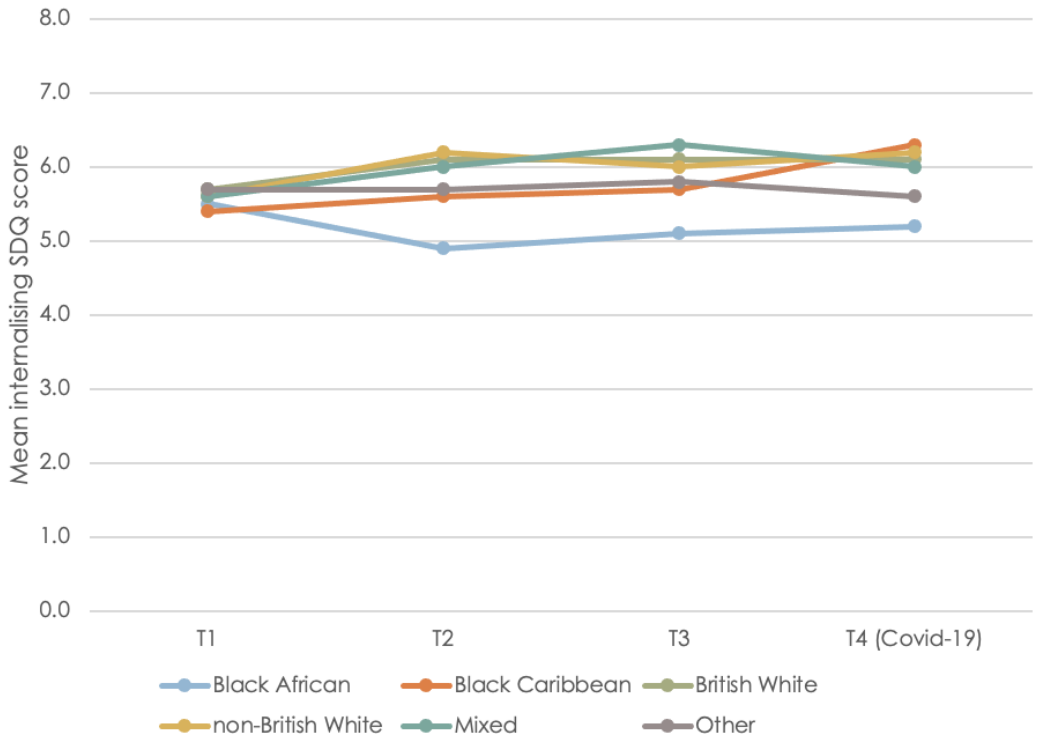
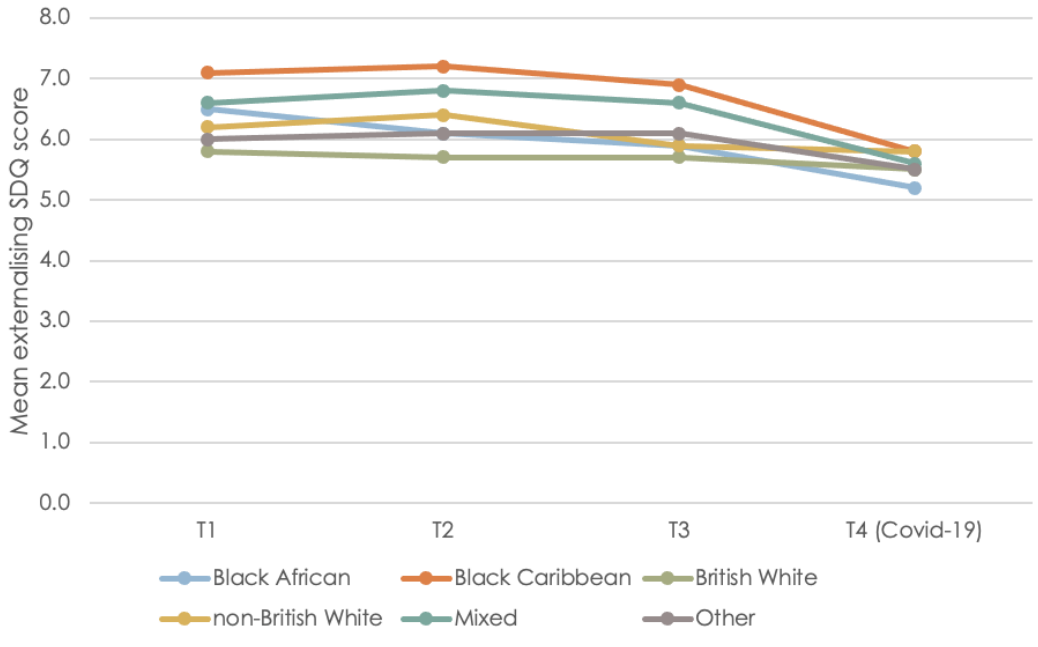
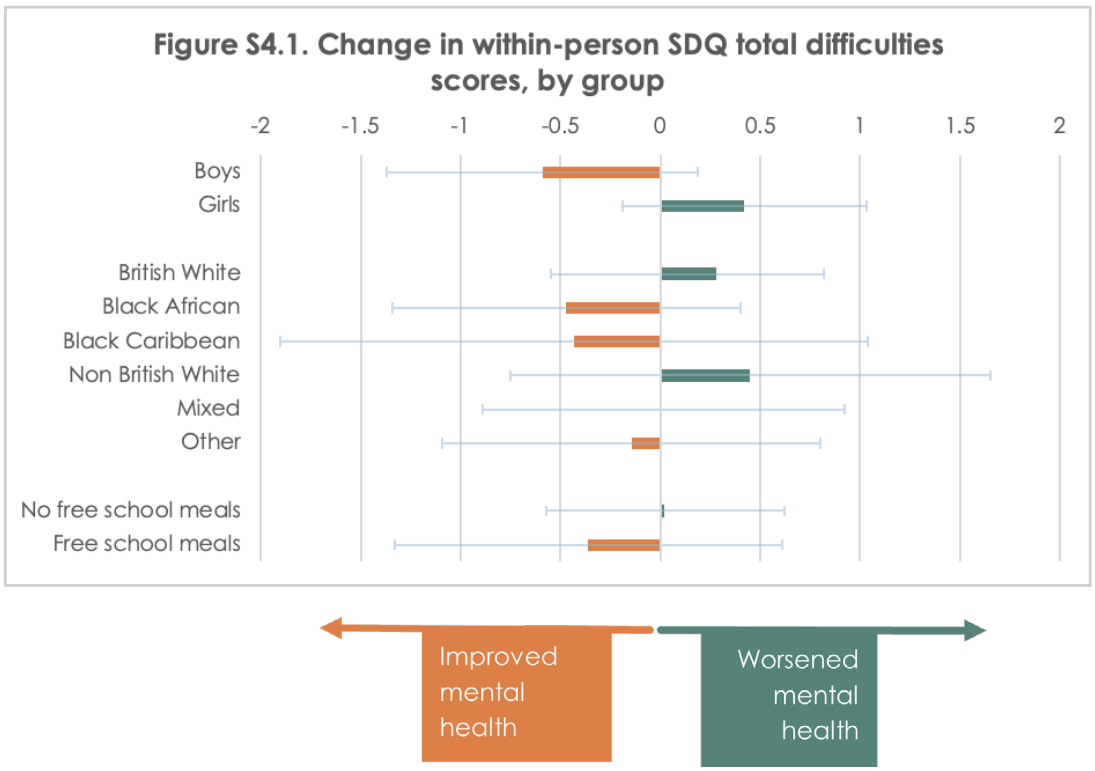


Figure S3.3b. Weighted mean externalising scores at each time point, by ethnic group



Appendix 4: Changes in within-person difficulties scores (total, internalising, externalising), by demographic group



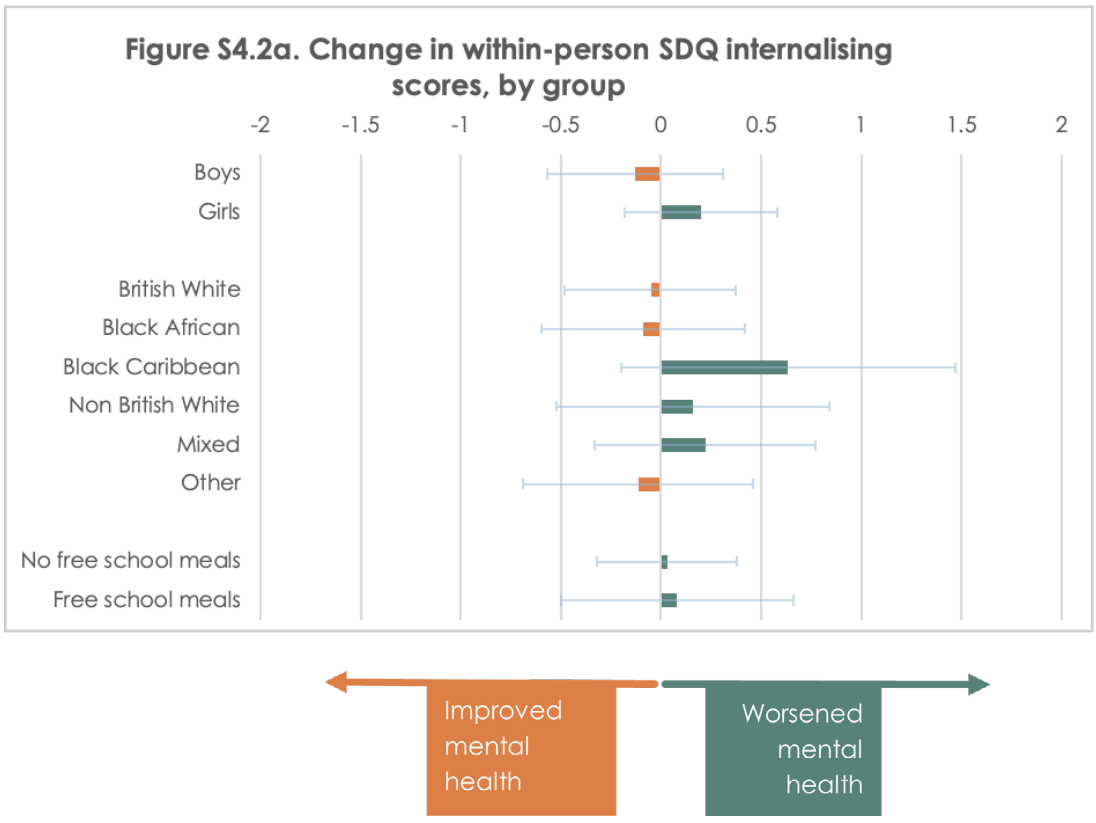
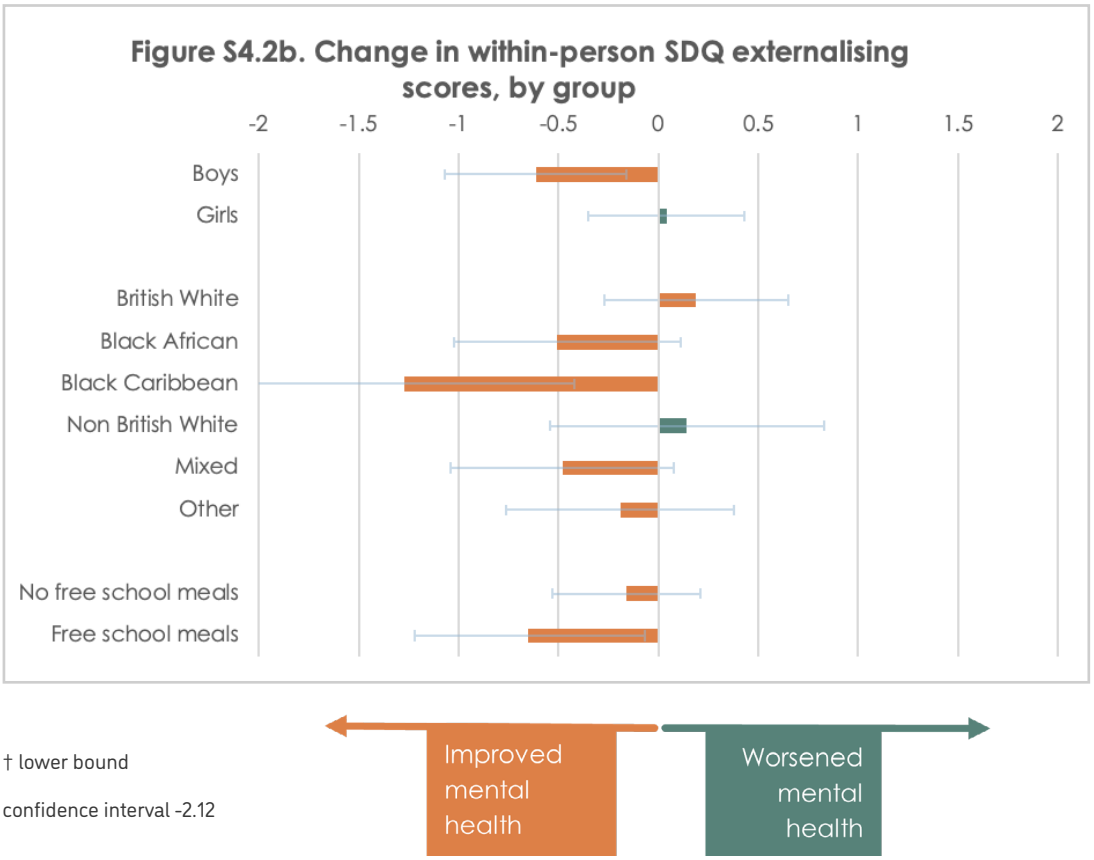


Figure S4.2b. Change in within-person SDQ externalising scores, by group



† lower bound

confidence interval -2.12

Centre for
Society and
Mental Health

ESRC Centre for Society and Mental Health

44-46 Aldwych

London

WC2B 4LL

www.kcl.ac.uk/csmh

csmh@kcl.ac.uk

@kcsamh