

Report 04: Changes in children and young people's emotional and behavioural difficulties through lockdown

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**Report Authors: Samantha Pearcey, Adrienne
Shum, Polly Waite, Praveetha Patalay & Cathy
Creswell**

NIHR | Applied Research Collaboration
Oxford and Thames Valley

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Research Centre



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For further information or to request specific analyses, please visit www.cospaceoxford.org/ or contact the research team at co-space@psy.ox.ac.uk

The Co-SPACE Study

Background

COVID-19 has caused major disruptions to families' lives, through social distancing, school closures and lock-down. This is also a rapidly changing situation where different pressures will arise for children, young people and their families over time. While research has provided valuable information about how parents can support their children's mental health in general, we know little about what is most effective in the current, changing context.

The Co-SPACE project is tracking the mental health of school-aged children and young people aged 4-16 years throughout the COVID-19 crisis. An online survey is sent out and completed on a monthly basis by parents/carers and young people (if aged 11-16 years) throughout the pandemic. The study has full ethical and data protection approval (ethical approval ref: R69060) and is fully GDPR compliant.

The findings will help identify what protects children and young people from deteriorating mental health over time, and at particular stress points. Findings will be shared directly with health and education services to inform the development and provision of effective support for children and families.

Recruitment & Sample

The study sample has been recruited through a variety of means, including social media, distribution through partner organisations, networks and charities, the media and targeted online advertising. The self-selecting nature of recruitment means that *this will not be a nationally representative sample*. In the current report, 90.7% of all participants who completed the questionnaire at baseline were female, presumably mothers. Furthermore, the majority of the baseline sample was employed, either part-time (34.9%) or full-time (37.7%), had an average income of >£30,000 (72.4%), and were white British (91%).

For the long-term, we are aiming to have good representation across a wide range of socio-demographic and health factors (e.g., income, ethnicity, pre-existing mental/physical health difficulties) to investigate the experiences for different groups that may be particularly vulnerable during and after the pandemic.

We are keen to recruit as many families as possible to the study. Parents/carers can sign up and take part at any point: <https://cospaceoxford.com/survey>

Funding

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Focus of this report

Participants

To date, over 10,000 parents/carers and 1,000 adolescents have taken part in the Co-SPACE survey at baseline. Almost 3,000 parents/carers and 600 adolescents have taken part in the first follow up survey so far and we continue to collect data at baseline and on a monthly basis.

Just under half of the participants who completed the baseline survey within the time window that we are currently looking at completed the survey again at follow up and completed all items on the measure reported here (Strengths and Difficulties Questionnaire; SDQ).

Parents/carers who completed the measure at follow up were more likely than those who did not to be female, working part time (as opposed to full time, self-employed or not working), have a higher than average household income, and be a parent of a primary school aged child, a child with a pre-existing mental health difficulties or a child without special educational needs (SEN). In addition, statistical analyses indicated that parents/carers who completed the follow up reported that their child had significantly more difficulties at baseline (as measured by the SDQ) than those who did not complete the follow up survey. In particular, parents/carers who did take part in the follow up reported significantly more difficulties at baseline with behaviour and restlessness/attention than those who did not take part. Further information about participants' characteristics at baseline and follow up can be found at the end of the report.

Where parents consented, adolescents were invited to complete the SDQ about their own difficulties. Over 1,000 adolescents completed this measure at baseline and 572 of the participants who completed it within the time window that we are looking at here also completed a 1-month follow up survey when invited to do so. These adolescents were aged between 11-16 years old, with a mean age of around 13-years-old, and were typically from high-income, white British households with parents who are working full- or part-time. For 17% of these adolescents their parents/carers had reported that they have SEN and/or pre-existing mental health conditions. However, adolescents who did take part in the follow up did not report significantly different levels of emotional, behavioural or restless/attention difficulties than those who did not take part.

Data analysed

This report provides longitudinal data from 2,890 parents/carers who took part in both the baseline questionnaire and the first follow up questionnaire. These participants completed¹ the baseline questionnaire between 30/03/2020 and 31/05/2020. Each participant completed the follow up questionnaire approximately one month after having completed their baseline questionnaires.

In this report, we examined changes in parent/carer and adolescent self-reported emotional, behavioural and restless/attentional difficulties over a one-month period as lockdown has progressed.

This was examined for the following specific groups:

1. The whole sample
2. Primary school aged children
3. Secondary school aged children (parent and adolescent report)
4. Children by gender
5. Children with special educational needs
6. Children with a pre-existing mental health and/or neurodevelopmental disorder²
7. High- and low-income households
8. Parent working status (working or not working)
9. Family ethnicity (White British or other ethnicities)

Measurement of difficulties

This report uses the Strengths & Difficulties Questionnaire (SDQ) to measure emotional, behavioural and restless/attentional difficulties. This is a well validated questionnaire with excellent psychometric properties and there are versions for parents/carers and young people aged 11 and above to complete themselves.

- Emotional difficulties (emotional symptoms subscale): items relate to the child being worried, afraid, unhappy, clingy and having physical symptoms of anxiety (e.g. whether the child is “Often unhappy, down-hearted or tearful”, or has “many worries, often seems worried”).
- Behavioural difficulties (conduct problems subscale): items relate to the child doing what they are asked, having tantrums, fighting, lying or stealing things (e.g. whether the child “often lies, or cheats”, or is “generally obedient, usually does what adults request”).

¹ ‘Completion’ of the baseline survey is based on participants having completed items up to and including the pre-defined main outcome measure (the Strengths and Difficulties Questionnaire – parent reporting on child).

² The parents/carers are asked to report whether the child has a diagnosis of Attention-Deficit Disorder (ADD)/Attention-Deficit Hyperactivity Disorder (ADHD) or Autism Spectrum Disorder (ASD). To reflect the diagnostic criteria in this question, we use an umbrella term of neurodevelopmental disorders in line with DSM-5.

- Restless/attentional difficulties (hyperactivity/inattention subscale): items relate to the child being restless, fidgety, distractible, impulsive and having a good attention span (e.g. whether the child “sees tasks through to the end, good attention span”, or is “restless, overactive, cannot stay still for long”).

Each subscale consists of 5 items, are summed to compute a total score, with a maximum of 10 indicating the most severe difficulties.

Key findings

Over a one-month period in lockdown:

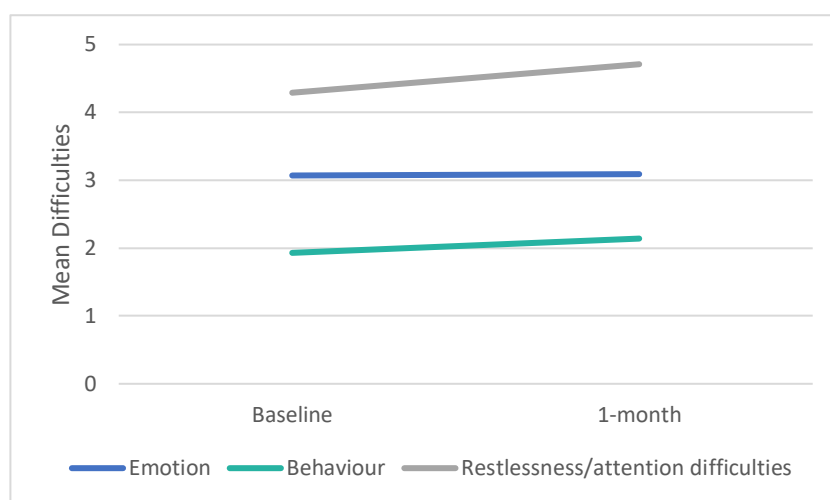
- Parents/carers of primary school age children report an *increase* in their child’s emotional, behavioural, and restless/attentional difficulties.
- Parents/carers of secondary school age children report a *reduction* in their child’s emotional difficulties, but an increase in restless/attentional behaviours.
- Adolescents report *no change* in their own emotional or behavioural, and restless/attentional difficulties.
- Parents/carers of children with SEN and those with a pre-existing mental health problem report a *reduction* in their child’s emotional difficulties and no change in behavioural or restless/attentional difficulties.
- Parents/carers of high-income households report an *increase* in their child’s behavioural difficulties.

Findings

1. The Whole Sample (ages 4-16 years)

Reminder: This sample is not nationally representative. Parents/carers and their children were typically from high-income, white British households, and parents/carers were typically working full- or part-time. Further demographic information about participants can be found at the end of the report.

Figure 1. Mean parent/carer reported SDQ emotion, behaviour and restlessness/attention scores at baseline and 1-month follow up



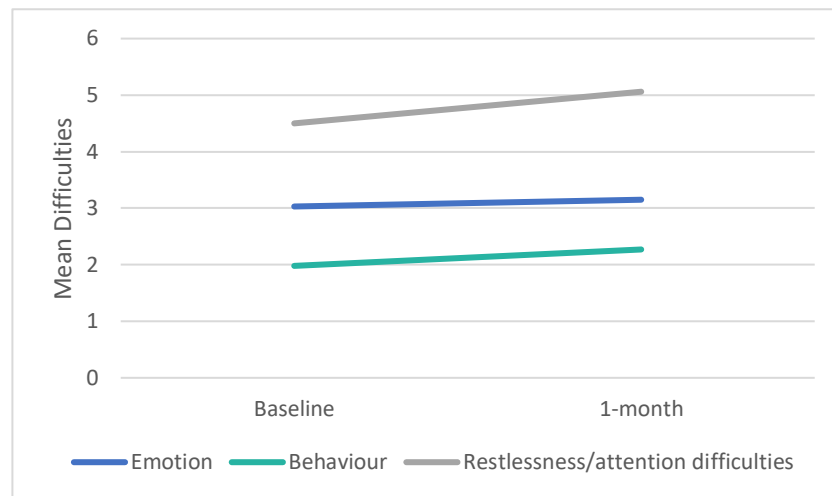
Parents/carers reports of children’s emotional difficulties did not change (to a statistically significant extent) over a one-month period as lockdown progressed.

However, parents/carers did report a statistically significant increase in their child’s behavioural and restless/attentional difficulties over a one-month period in lockdown. In other words, these increases are unlikely to have happened by chance.

2. Primary school aged children

Approximately 63% of parents/carers who completed the baseline survey and 67% of those who completed the follow up survey were parents of a primary school aged child (aged between 4- and 10-years-old).

Figure 2. Mean parent/carer reported SDQ emotion, behaviour and restlessness/attention score for primary school age children at baseline and 1-month follow up



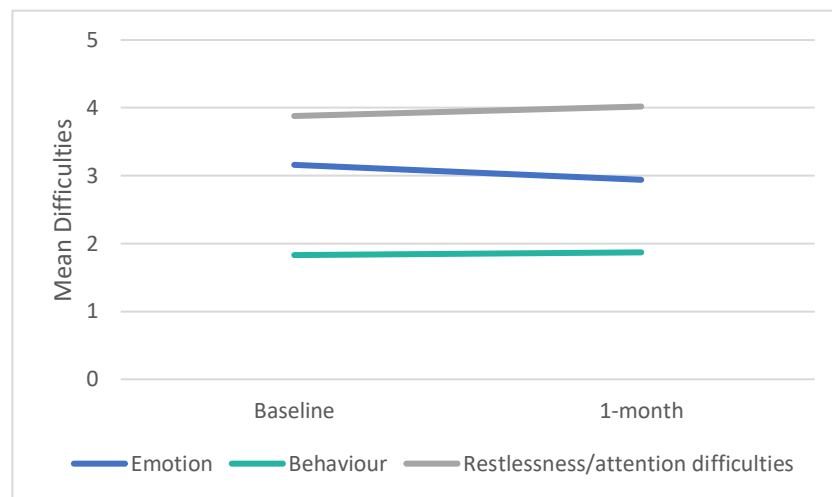
Parents/carers of primary school aged children reported statistically significant increases in their child's emotional and behavioural difficulties and their child's restless/attention difficulties as lockdown progressed over a one-month period. In other words, these increases are unlikely to have happened by chance.

3. Secondary school aged children

Approximately 37% of parents/carers who completed the baseline survey and 33% of those who completed the follow up survey were parents of a secondary school aged child (aged between 11-16 years).

a. Parent report

Figure 3. Mean parent/carer reported SDQ emotion, behaviour and restlessness/attention score for children and adolescents at baseline and 1-month follow up

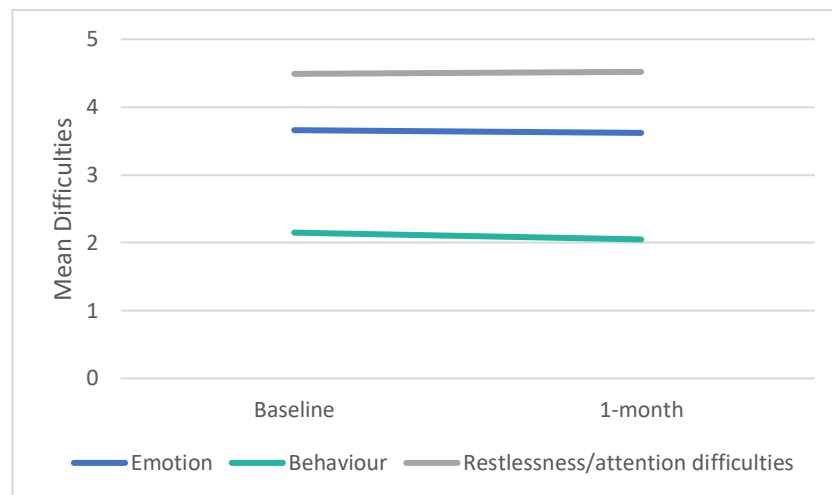


Parents/carers of secondary school aged children reported a statistically significant reduction in their child’s emotional difficulties and a statistically significant increase in their restless/attention difficulties as lockdown progressed over a one-month period. In other words, these changes are unlikely to have happened by chance.

However, parents/carers of secondary school aged did not report a statistically significant change in their child’s behaviour difficulties as lockdown progressed.

b. Adolescent self-report

Figure 4. Mean self-reported SDQ emotion, behaviour and restlessness/attention score for adolescents at baseline and 1-month follow up

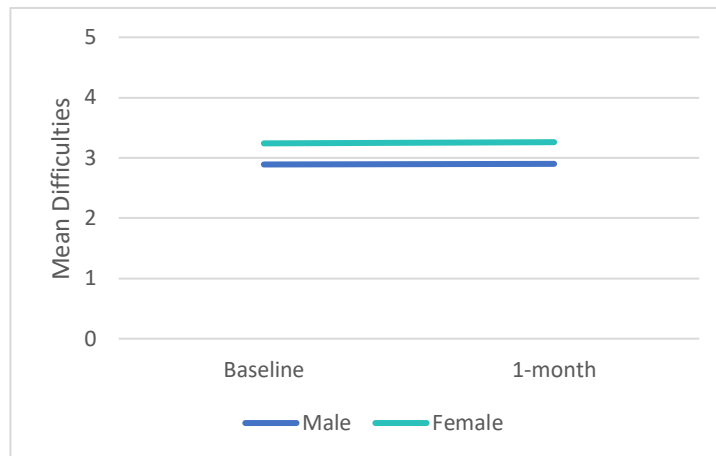


Adolescents themselves reported no statistically significant changes in emotional, behavioural or restless/attentional difficulties over a one-month period as lockdown has progressed.

3. Children by gender

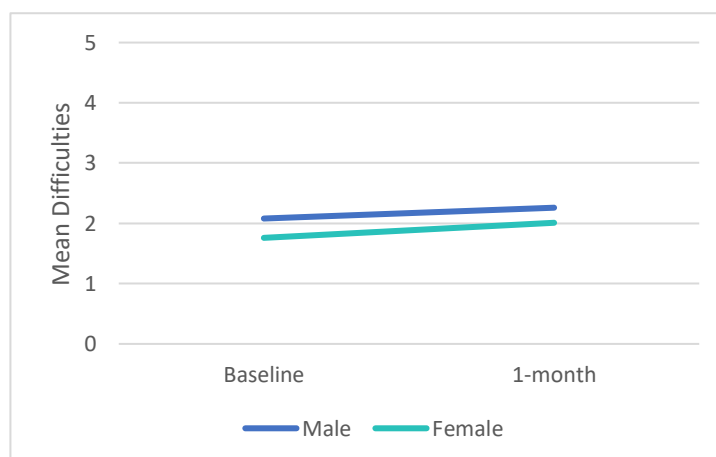
Approximately half the children and young people in the sample were identified as male and half as female. Patterns appeared to be consistent across gender.

Figure 5. Mean parent/carer reported SDQ emotion score for male and female children at baseline and 1-month follow up



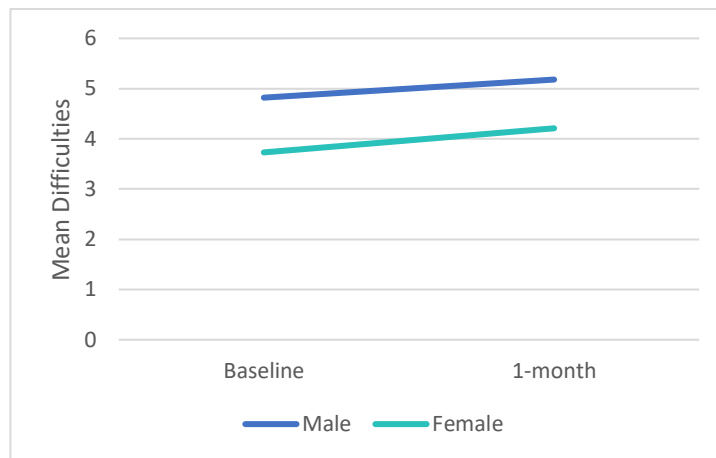
Neither parents/carers of girls nor boys reported a statistically significant change in emotion difficulties over a one-month period as lockdown progressed.

Figure 6. Mean parent/carer reported SDQ behaviour score for male and female children at baseline and 1-month follow up



Parents/carers of girls and boys reported a similar increase in their child's behavioural difficulties over a one-month period as lockdown progressed.

Figure 7. Mean parent/carer reported SDQ restlessness/attention score for male and female children at baseline and 1-month follow up

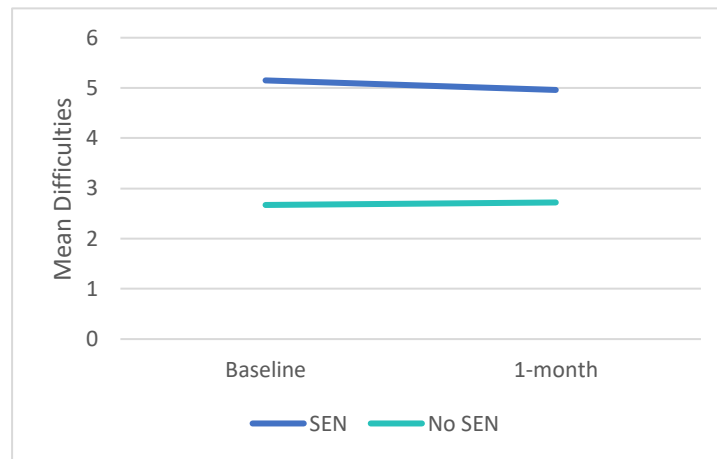


Parents/carers of girls and boys reported a similar increase in their child's restless/attention difficulties over a one-month period as lockdown progressed.

4. Children with special educational needs (SEN)

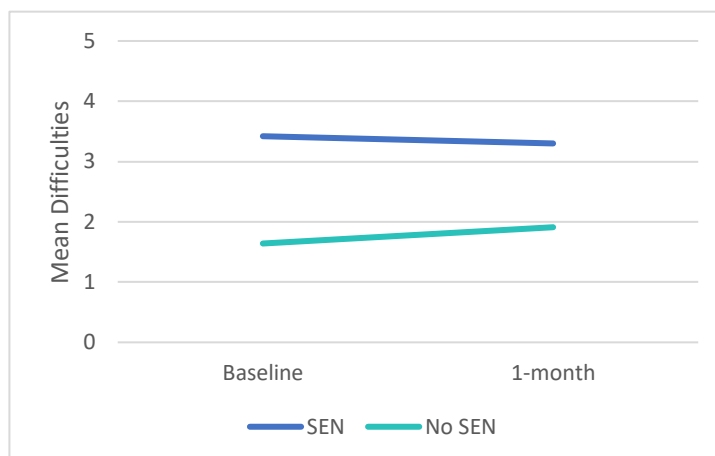
Approximately 17% of parents/carers who completed the baseline survey and 16% of parents/carers who completed the follow up survey reported that their child had a special educational need (SEN). These included social and emotional, communication and interaction, cognitive and learning and sensory or physical SEN.

Figure 8. Mean parent/carer reported SDQ emotion score for children with and without a SEN at baseline and 1-month follow up



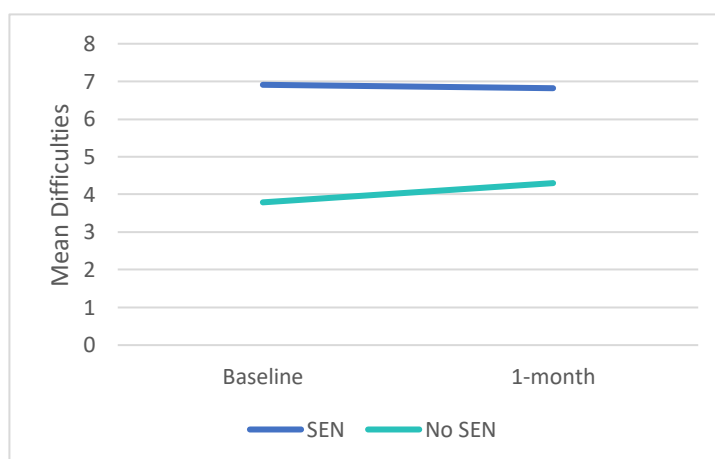
Parents/carers of children with SEN reported a statistically significant reduction in their child's emotional difficulties over a one-month period as lockdown progressed. In other words, this reduction is unlikely to have happened by chance. However, parents/carers of children without SEN did not report a statistically significant change in their child's emotional difficulties.

Figure 9. Mean parent/carer reported SDQ behaviour score for children with and without a SEN at baseline and 1-month follow up



Parents/carers of children with SEN did not report a statistically significant change in their child’s behavioural difficulties. However, parents/carers of children without SEN reported a statistically significant increase in their child’s behaviour difficulties. In other words, this increase is unlikely to have happened by chance.

Figure 10. Mean parent/carer reported SDQ restlessness/attention score for children with and without a SEN at baseline and 1-month follow up

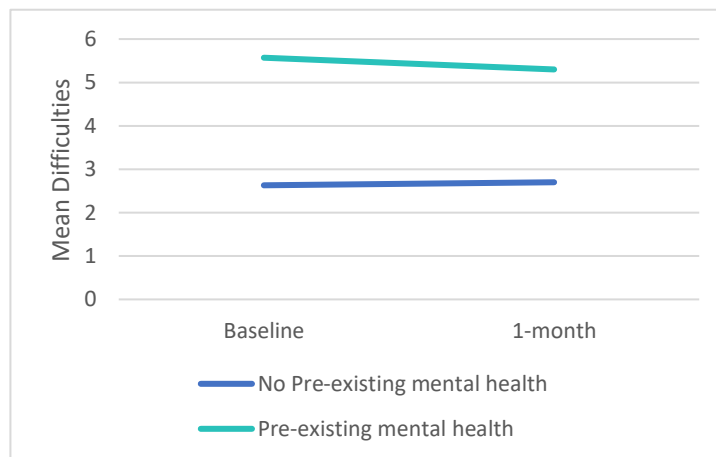


Parents/carers of children with SEN did not report a statistically significant change in their child’s restless/attention difficulties. However, parents/carers of children without SEN reported a statistically significant increase in their child’s restless/attention difficulties over a one-month period as lockdown progressed. In other words, this increase is unlikely to have happened by chance.

5. Children with a pre-existing mental health problem/neurodevelopmental disorder

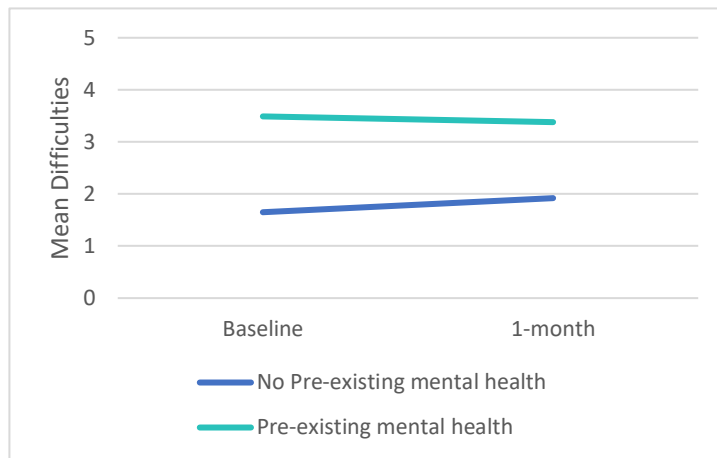
Almost 13% of parents who took part in the baseline survey and 15% of the parents/carers who took part in the follow up survey reported that their child had a clinical diagnosis of depression, and/or anxiety, and/or other mental health problem, and/or that that their child had a neurodevelopmental disorder (attention deficit hyperactivity disorder, ADHD; autism spectrum disorder, ASD) prior to the COVID-19 pandemic.

Figure 11. Mean parent/carer reported SDQ emotion score for children with and without a pre-existing mental health difficulty at baseline and 1-month follow up



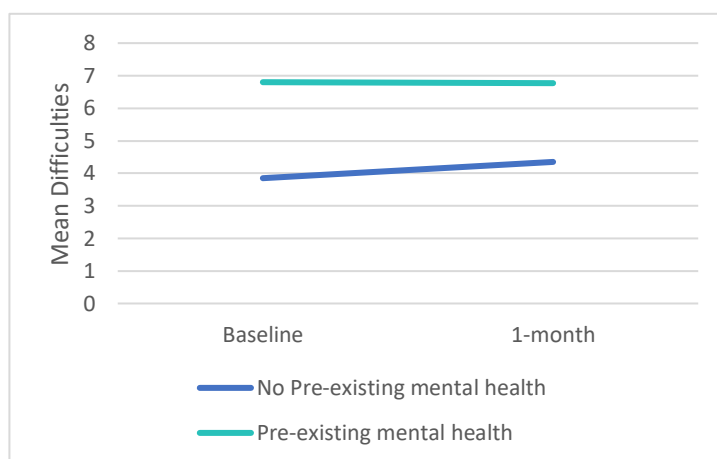
Parents/carers of children with a pre-existing mental health problem or neurodevelopmental disorder reported a statistically significant reduction in their child's emotional difficulties over a 1-month period as lockdown progressed. In other words, this reduction was unlikely to be due to chance. However, parents/carers of children with no pre-existing mental health problem or neurodevelopmental disorder did not report a statistically significant change in their child's emotional difficulties over a 1-month period as lockdown progressed.

Figure 12. Mean parent/carer reported SDQ behaviour score for children with and without a pre-existing mental health problem at baseline and 1-month follow up



Parents/carers of children with a pre-existing mental health problem or neurodevelopmental disorder did not report a statistically significant change in their child’s behaviour difficulties. However, parents/carers of children with no pre-existing mental health problem or neurodevelopmental disorder reported a statistically significant increase in their child’s behaviour difficulties over a one-month period as lockdown progressed. In other words, this increase is unlikely to have happened by chance.

Figure 13. Mean parent/carer reported SDQ restlessness/attention score for children with and without a pre-existing mental health problem at baseline and 1-month follow up



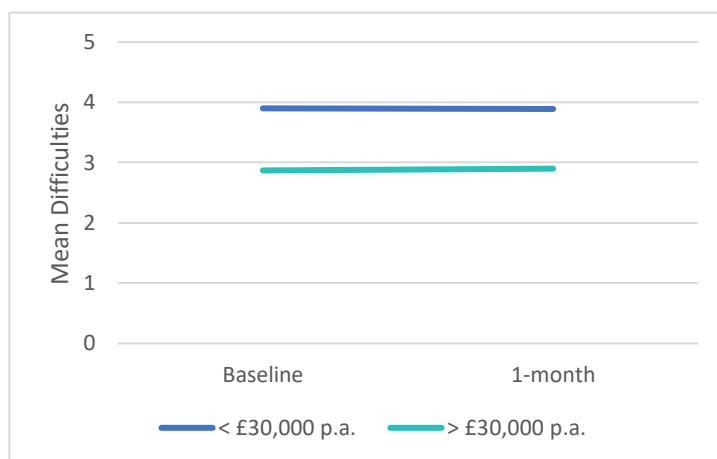
Parents/carers of children with a pre-existing mental health problem or neurodevelopmental disorder reported no statistically significant change in their child’s restless/attention difficulties over a one-month period as lockdown progressed. However, parents/carers of children with no pre-existing mental health problem or neurodevelopmental disorder reported a statistically significant increase in their child’s

restless/attention difficulties. In other words, this increase is unlikely to have happened by chance.

6. Higher and lower income households

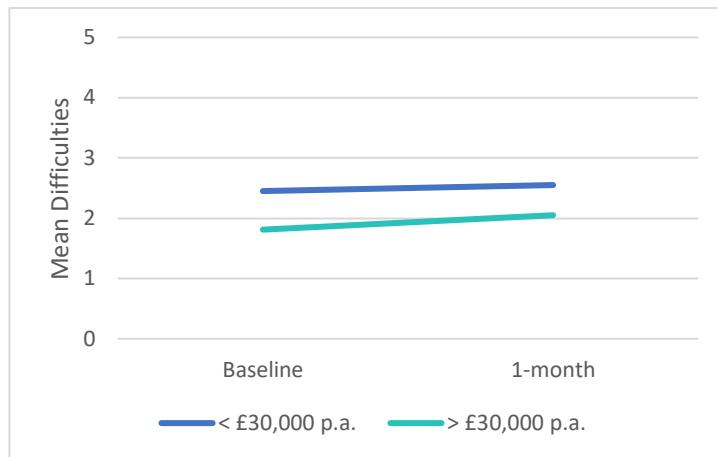
Approximately 20% of parents/carers who completed the baseline questionnaire and 17% of those who completed the follow up questionnaire reported that they have a household income below the national average of £30,000 per annum.

Figure 14. Mean parent/carer reported SDQ emotion score for children from higher- and lower-income households at baseline and 1-month follow up



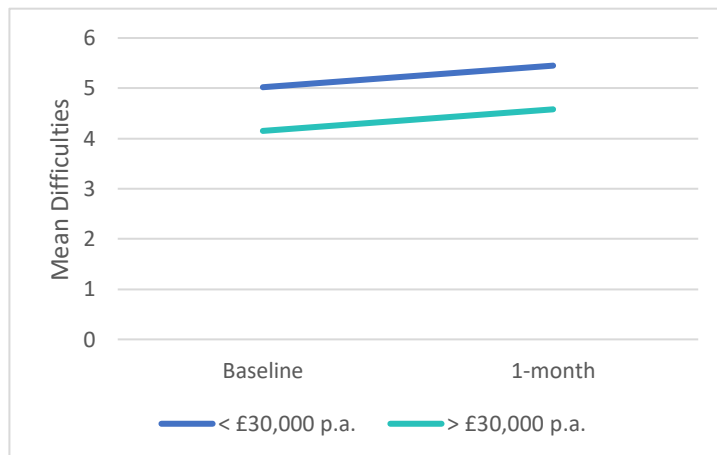
Parents/carers of children from both higher- and lower-income households reported no statistically significant change in their child's emotion difficulties over a one-month period as lockdown progressed.

Figure 15. Mean parent/carer reported SDQ behaviour score for children from high- and low-income households at baseline and 1-month follow up



Parents/carers from lower-income households did not report a statistically significant change in their child’s behaviour difficulties. However, parents/carers from high-income households reported a statistically significant increase in their child’s behaviour problems. In other words, this change is unlikely to have happened by chance.

Figure 16. Mean parent/carer reported SDQ restlessness/attention score for children from high- and low-income households at baseline and 1-month follow up

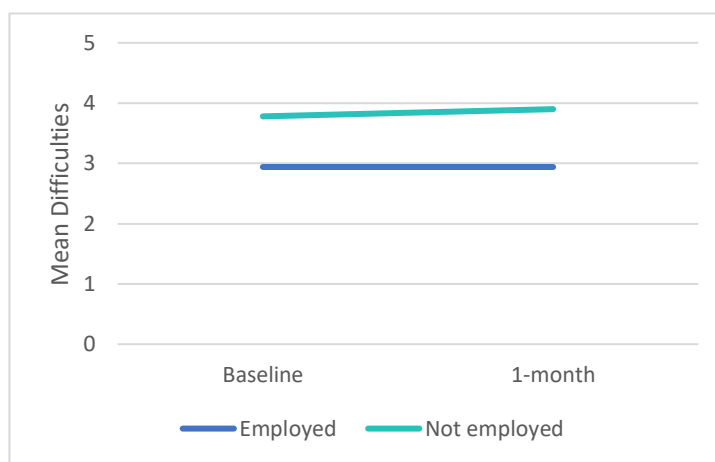


Parents/carers from both high- and low-income households reported a similar increase in their child’s restless/attention difficulties over a one-month period as lockdown has progressed.

7. Parent working status (working or not working)

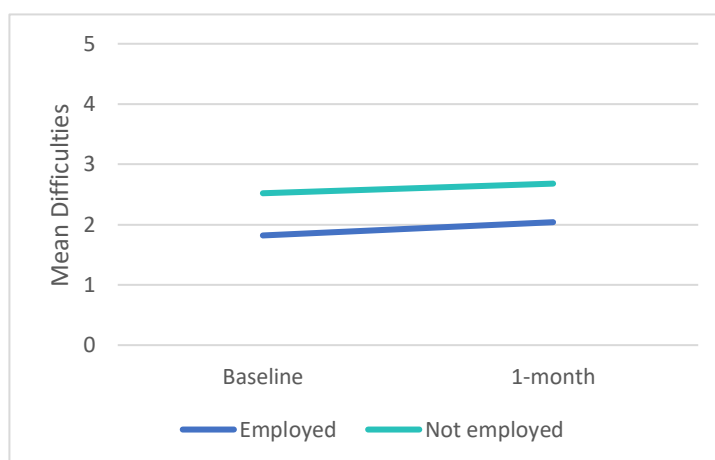
Approximately 84% of parents/carers who completed the baseline and follow up surveys were working either full- or part-time, or were self-employed. Patterns appeared to be consistent across parent working status.

Figure 17. Mean parent/carer reported SDQ emotion score for children of working and non-working parents at baseline and 1-month follow up



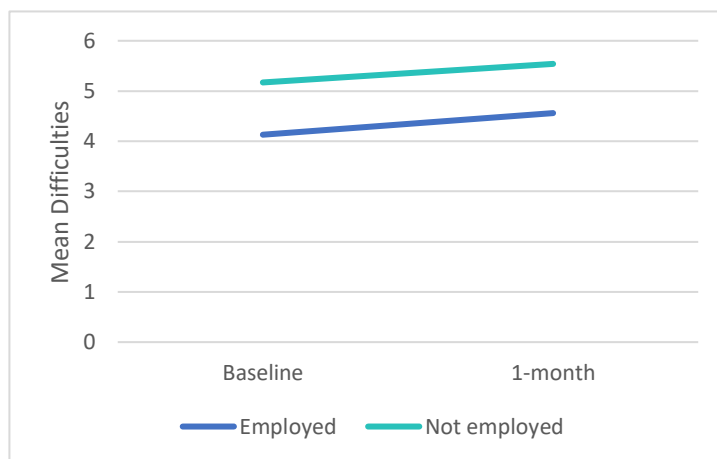
Neither parents/carers who are both employed or not employed reported a statistically significant change in their child's emotion difficulties over a one-month period as lockdown progressed.

Figure 18. Mean parent/carer reported SDQ behaviour score for children of working and non-working parents at baseline and 1-month follow up



Parents/carers who are employed and not employed reported a similar increase in their child's behaviour difficulties over a one-month period as lockdown has progressed.

Figure 19. Mean parent/carer reported SDQ restlessness/attention score for children of working and non-working parents at baseline and 1-month follow up

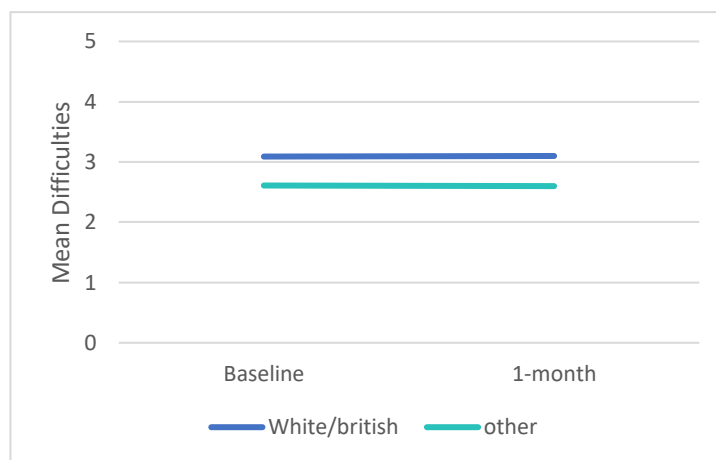


Parents/carers who are employed and not employed reported a similar increase in their child's restless/attention difficulties over a one-month period as lockdown has progressed.

8. Family ethnicity

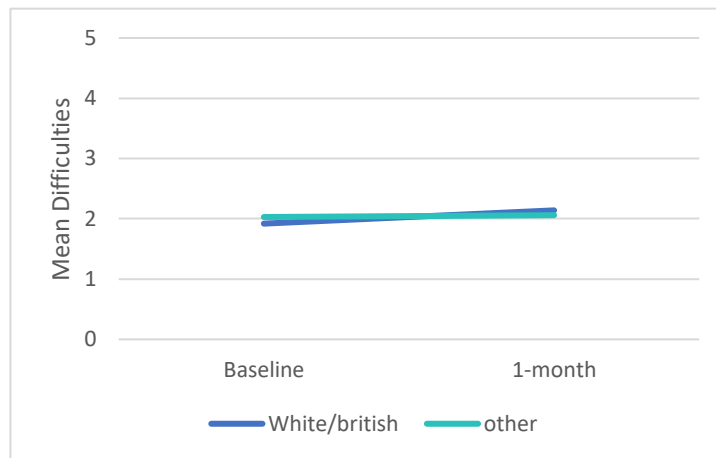
Approximately 91% of parents/carers who completed the baseline survey and 96% of those who completed the follow up indicated that their ethnicity is White British. Patterns appeared to be consistent across family ethnicity. However, given the relatively small proportion of families from ethnic minority backgrounds, this finding must be interpreted with caution.

Figure 20. Mean parent/carer reported SDQ emotion score for children of white British parents and parents of other ethnicities at baseline and 1-month follow up



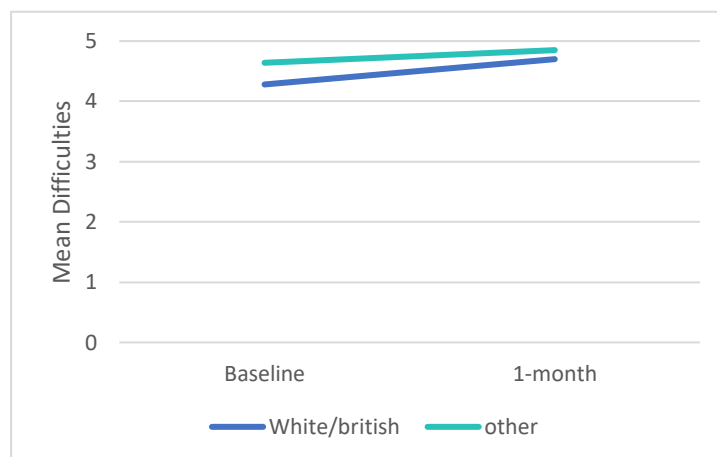
Neither White British parents/carers nor parents/carers of other ethnicities reported statistically significant change in their child's emotion difficulties over a one-month period as lockdown progressed.

Figure 21. Mean parent/carer reported SDQ behaviour score for children of white British parents and parents of other ethnicities at baseline and 1-month follow up



White British parents/carers and parents/carers of other ethnicities reported a similar increase in their child’s behaviour difficulties over a one-month period as lockdown has progressed.

Figure 22. Mean parent/carer reported SDQ restlessness/attention score for children of white British parents and parents of other ethnicities at baseline and 1-month follow up



White British parents/carers and parents/carers of other ethnicities reported a similar increase in their child’s restless/attention difficulties over a one-month period as lockdown has progressed.

Appendix A

Participants' demographics (Whole sample)

		Baseline		Follow up 1 (took part)		Follow up 1 (did not take part)		National Figures (%)*
		n	%	n	%	n	%	
Parent Gender	Female	6744	90.7	2734	93.9	3888	88.9	51
	Male	627	8.4	168	5.8	436	10	49
	Other/Prefer not to say	64	0.9	11	0.4	50	1.1	-
Employment status								
	Not working	1163	16.5	443	15.3	695	17.6	3.8
	Working full time	2651	37.7	1021	35.1	1574	39.5	50.7
	Working part time	2458	34.9	1146	39.4	1272	31.9	16.9
	Self employed	763	10.8	296	10.2	443	11.1	8.5
Household income								
	< £30,000	1420	20.2	504	17.3	886	22.2	58
	> £30,000	5090	72.4	2191	75.4	2797	70.2	42
	Prefer not to say	525	7.5	211	7.3	301	7.6	-
Child Gender								
	Female	3575	48.1	1392	47.8	2112	48.3	52
	Male	3786	50.9	1501	51.5	2210	50.5	48
	Prefer not to say	74	1	20	0.7	52	1.2	-

Child age group	Child (4-10)	4710	63.3	1937	66.5	2692	61.5	55
	Adolescent (11-16)	2725	36.7	976	33.5	1682	38.5	45
Mental health problems	Any MH	1064	12.6	432	14.8	611	11.3	12.8
	Depression	60	0.7	21	0.7	38	0.7	2.1
	Anxiety	318	3.8	130	4.4	181	3.4	7.2
	Other	134	1.6	48	1.6	82	1.5	-
	ASD	657	7.8	275	9.4	370	6.9	1.6
	ADHD	337	4	132	4.5	198	3.7	3-5
SEN	Any SEN	1272	17.3	467	16	779	18.2	14.7
	Social/emotional	831	9.8	324	11.1	491	9.1	2.1
	Communication/interaction	624	7.4	245	8.4	371	6.9	2,7
	Cognitive/learning	617	7.3	225	7.7	382	7.1	4.4
	Sensory/physical	575	6.8	217	7.4	353	6.5	0.6
Ethnicity	Asian/Asian British - Indian, Pakistani, Bangladeshi, other	208	2.8	28	1	176	4	6.8
	Black/Black British - Caribbean, African, other	57	0.8	8	0.3	46	1.1	3.3
	Chinese/Chinese British	24	0.3	2	0.1	19	0.4	0.7

	Middle Eastern/Middle Eastern British - Arab, Turkish, other	36	0.5	6	0.2	29	0.7	0.4
	Mixed race - other	122	1.6	33	1.1	85	1.9	11
	Mixed race - White and Black/Black British	57	0.8	12	0.4	42	1	1
	Other ethnic group	49	0.7	14	0.5	34	0.8	0.5
	Prefer not to say	116	1.6	15	0.5	94	2.1	-
	White - British, Irish, other	6766	91	2795	95.9	3849	88	86
SDQ Score	Total	11.65 (7.09)		11.39 (7.03)		11.89 (7.13)		-
	Emotions	3.07 (2.59)		3.07 (2.58)		3.09 (2.6)		-
	Behaviours	2.0 (1.88)		1.93 (1.81)		2.06 (1.93)		-
	Restlessness/attention	4.37 (2.78)		4.29 (2.8)		4.46 (2.77)		-

*This data was extracted from the following sources on 12/05/2020:

<https://digital.nhs.uk/data-and-information/publications/statistical/mental-health-of-children-and-young-people-in-england/2017/2017>

<https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationprojections/datasets/z1zippedpopulationprojectionsdatafilesuk>

<https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/bulletins/employmentintheuk/september2019#:~:text=Main%20points%20for%20May%20to%20July%202019,and%20unchanged%20on%20the%20quarter.>

<https://www.ons.gov.uk/peoplepopulationandcommunity/personalandhouseholdfinances/incomeandwealth/bulletins/householddisposableincomeandinequality/yearending2018>

<https://www.gov.uk/government/collections/statistics-special-educational-needs-sen>

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/814244/SEN_2019_Text.docx.pdf

<https://www.ethnicity-facts-figures.service.gov.uk/uk-population-by-ethnicity/demographics/age-groups/latest#data-sources>

Appendix B

Participants' demographics (Adolescent self-report sample)

		Baseline		Follow up 1 (took part)		Follow up 1 (did not take part)	
		n	%	n	%	n	%
Total sample		1053	100	572	56	450	44
Child Age; Mean(sd)		13.32(1.67)		13.35(1.66)		13.32(1.69)	
Parent employment status	Not working	166	15.8	88	15.6	74	16.4
	Working full time	422	40.1	210	36.8	198	44
	Working part time	331	31.5	204	35.7	120	26.7
	Self employed	133	12.6	69	12.1	58	12.9
Household income	< £30,000	220	20.9	105	18.4	111	24.7
	> £30,000	743	70.6	418	73.2	305	67.8
	Prefer not to say	89	8.5	48	8.4	34	7.6
Child Gender	Female	513	48.7	277	48.4	221	49.1
	Male	526	50	290	50.7	221	49.1
	Prefer not to say	14	1.3	5	0.9	8	1.8

Mental health problems	Any MH	182	17.3	96	16.8	82	18.2
	Depression	19	1.8	9	1.6	10	2.2
	Anxiety	72	6.8	39	6.8	30	6.7
	Other	28	2.7	15	2.6	12	2.7
	ASD	109	10.4	60	10.5	48	10.7
	ADHD	50	4.7	21	3.7	29	6.4
SEN							
SEN	Any SEN	188	17.9	98	17.1	86	19.1
	Social/emotional	116	11	59	10.3	54	12
	Communication/interaction	86	8.2	46	8	39	8.7
	Cognitive/learning	92	8.7	49	8.6	43	9.6
	Sensory/physical	64	6.1	33	5.8	31	6.9
Ethnicity							
Ethnicity	Asian/Asian British - Indian, Pakistani, Bangladeshi, other	16	1.5	7	1.2	9	2
	Black/Black British - Caribbean, African, other	7	0.7	3	0.5	4	0.9
	Chinese/Chinese British	2	0.2	0	0	2	0.4
	Middle Eastern/Middle Eastern British - Arab, Turkish, other	1	0.1	1	0.2	0	0
	Mixed race - other	16	1.5	5	0.9	10	2.2
	Mixed race - White and Black/Black British	4	0.4	1	0.2	3	0.7

	Other ethnic group	5	0.5	1	0.2	4	0.9
	Prefer not to say	13	1.2	1	0.2	6	1.3
	White - British, Irish, other	989	93.9	553	96.7	412	91.6
SDQ Scores	Total	13.11 (6.4)		13.13 (6.31)		13.09 (6.54)	
	Emotions	3.62 (2.56)		3.73 (2.63)		3.49 (2.47)	
	Behaviours	2.28 (1.88)		2.26 (1.83)		2.31 (1.96)	
	Restlessness/attention	4.61 (2.55)		4.62 (2.52)		4.6 (2.5)	