

# COVID-19

Early Years Resilience and  
Impact Survey (CEYRIS)

## How did COVID-19 affect children in Scotland?

Report **1** Key behaviours

Parents and carers told us that ...

Amount of sleep



Around **6 in 10**  
children **slept through  
the night**

Around **4 in 10**  
children had **difficulty  
sleeping most  
or every night**

Quality of sleep



Around **1 in 10**  
children **slept better**

and around **3 in 10**  
children **slept worse**



## Parents and carers told us that ...

### Behaviour



Around **1 in 10**  
children had  
**better behaviour**

and around **5 in 10**  
children had  
**worse behaviour**

### Mood



Around **1 in 10**  
children had a  
**better mood**

and around **5 in 10**  
children had a  
**worse mood**

### Physical activity



Around **2 in 10**  
children did  
**more physical activity**

and **5 in 10**  
did **less**  
**physical activity**

### Concentration



Around **1 in 10**  
children had  
**better concentration**

and **4 in 10**  
children had **worse**  
**concentration**

### Eating



Around **1 in 10**  
children **ate better**

and around **3 in 10**  
children **ate worse**



# Mental health and wellbeing\*

Around 6 in 10 children had recently met up with other children at the time of the survey. Of these:

Children aged 2–3



Around **5 in 10** children had the behaviour and emotions expected **for their age**

Around **5 in 10** children had **some or a lot of difficulty** with their behaviour and emotions

Children aged 4–7



Around **6 in 10** children had the behaviour and emotions expected **for their age**

Around **4 in 10** children had **some or a lot of difficulty** with their behaviour and emotions

\* The Strengths and Difficulties Questionnaire (SDQ) is a tool used to assess children's mental health and wellbeing. It uses a set of questions to give a 'total difficulties score'. These questions cover a child's behaviour, emotions, attention and interactions with others. Higher scores show that children are having more difficulties than expected for their age. As it measures child-to-child relations, we only asked the SDQ questions of children who had recently met up with other children.



# COVID-19 Early Years Resilience and Impact Survey (CEYRIS)

Report 1 – Key behaviours in  
children in Scotland aged 2–7  
years during COVID-19

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# Introduction

The COVID-19 Early Years Resilience and Impact Survey (CEYRIS) is an online survey launched by Public Health Scotland for parents and carers of 2–7-year-olds in Scotland. The first round of the survey was run between 22 June and 6 July 2020, and was completed by the parents and carers of over 11,000 children in Scotland.

This report is the first in a series presenting the findings from the first round of the survey. It focuses on describing the key behaviours in 2–7-year-old children during COVID-19 in Scotland. It covers:

- parent and carer perceptions of changes since lockdown began to their child's:
  - sleep
  - behaviour
  - mood
  - ability to concentrate
  - eating behaviours.
- children's mental health and wellbeing as reported by parents and carers.

There are important methodological caveats that must be considered when using these findings. Our sample is not nationally representative as we did not reach all the groups in our community equally. Our results, therefore, only represent the views of the parents and carers who answered our survey. In particular, underrepresentation of lower-income families may influence some findings. More information on the background, context and methods of the survey, including an overview of the demographic characteristics of the participants, is provided in the [Background Report](#).

## Results

In total, we had 11,228 valid responses to our survey.<sup>1</sup> In this section, we report our findings under relevant questions from the survey. Throughout, we combine the proportions of respondents saying that things were worse or much worse and refer to this as 'worse', and we combine better and much better and refer to this as 'better'.

### Sleep

#### **Over the last two weeks, how often has your child slept right through the night without waking or needing to be comforted?**

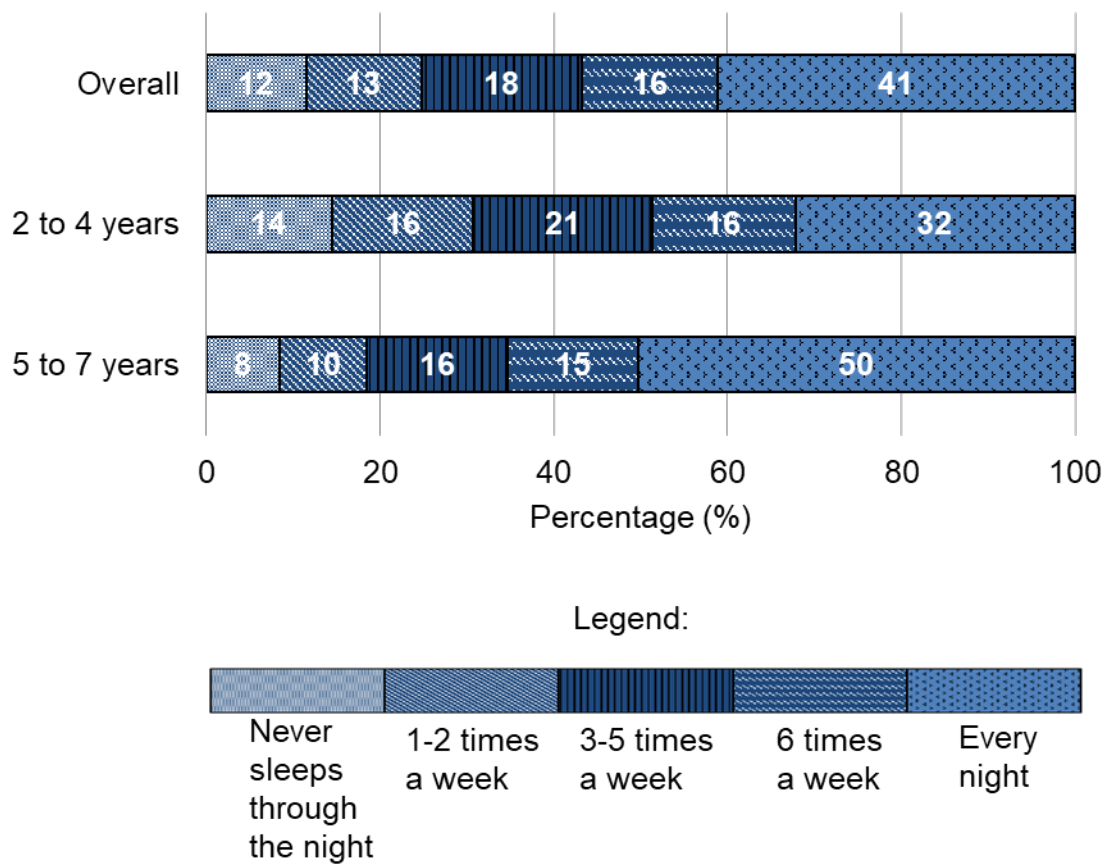
Overall, in the last two weeks, 41% of the children were sleeping right through the night every night without waking or needing to be comforted. This figure was about a third (32%) in younger children (aged 2 to 4 years) and a half (50%) in older children (aged 5 to 7 years). If we compare these figures to the [Scottish Study of Early Learning and Childcare \(SSELC\)](#) which conducted its research in 2019, we find that the figures were slightly higher with 38% of 3-year-olds sleeping through the night every night and 60% of 4- and 5-year-olds sleeping through the night every night. The SSELC is a nationally representative study of children so the difference in these figures may be due to the fact that parents answering the CEYRIS study had more concerns about how their children were doing in lockdown, or because other parents did not have access to the survey, or because children are finding it more difficult to sleep just now.

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<sup>1</sup> Parents and carers could complete the survey once for every child they cared for within the age range. Therefore, the number of responses relates to individual children, not individual families.



**Figure 1: Sleeping through the night\***

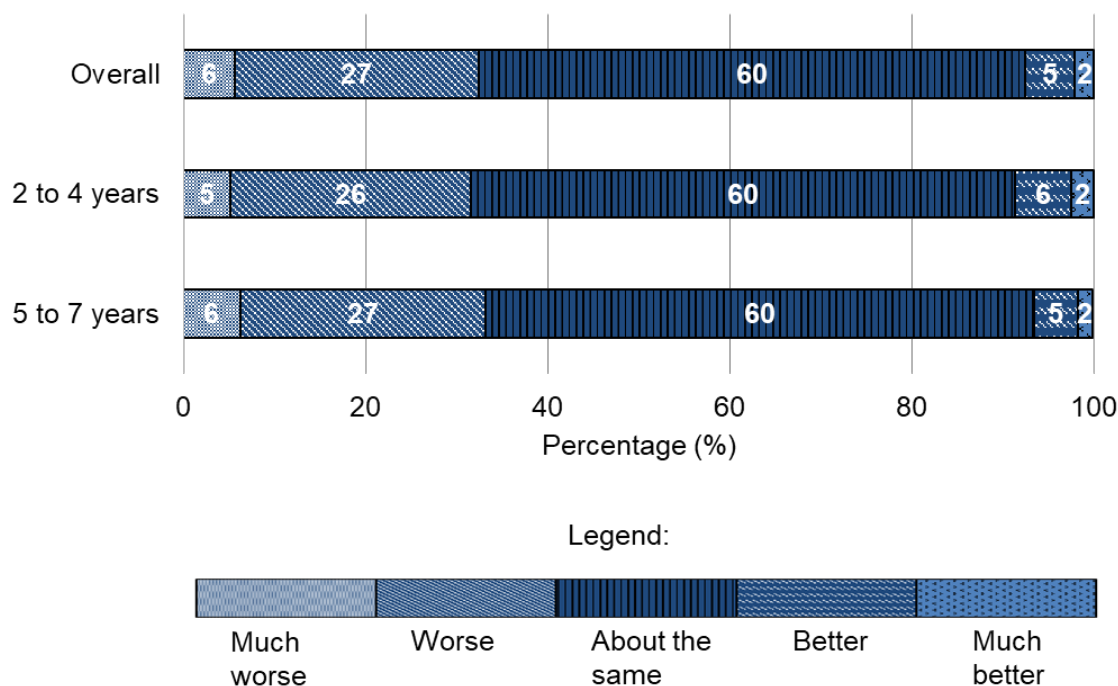


\* Excludes refused (prefer not to say) and missing answers. Base for overall: 10,387. Base for 2–4 years: 5,287. Base for 5–7 years: 5,055.

**How would you rate the sleep of your child now compared to how it was before the lockdown?**

Parents or carers said that 60% of the children were sleeping about the same as they did before the lockdown. About a third (33%) of the children were sleeping worse or much worse, while only 7% were sleeping better or much better. The figures for younger and older children were similar.

**Figure 2: Child's sleep now compared to that before lockdown\***



\* Excludes refused (prefer not to say) and missing answers. Base for overall: 9,610. Base for 2–4 years: 4,850. Base for 5–7 years: 4,719.

## **Child's life: Behaviour, mood, amount of physical activity, ability to concentrate and eating behaviour**

### **How would you rate the following areas of your child's life now compared to how it was before the lockdown?**

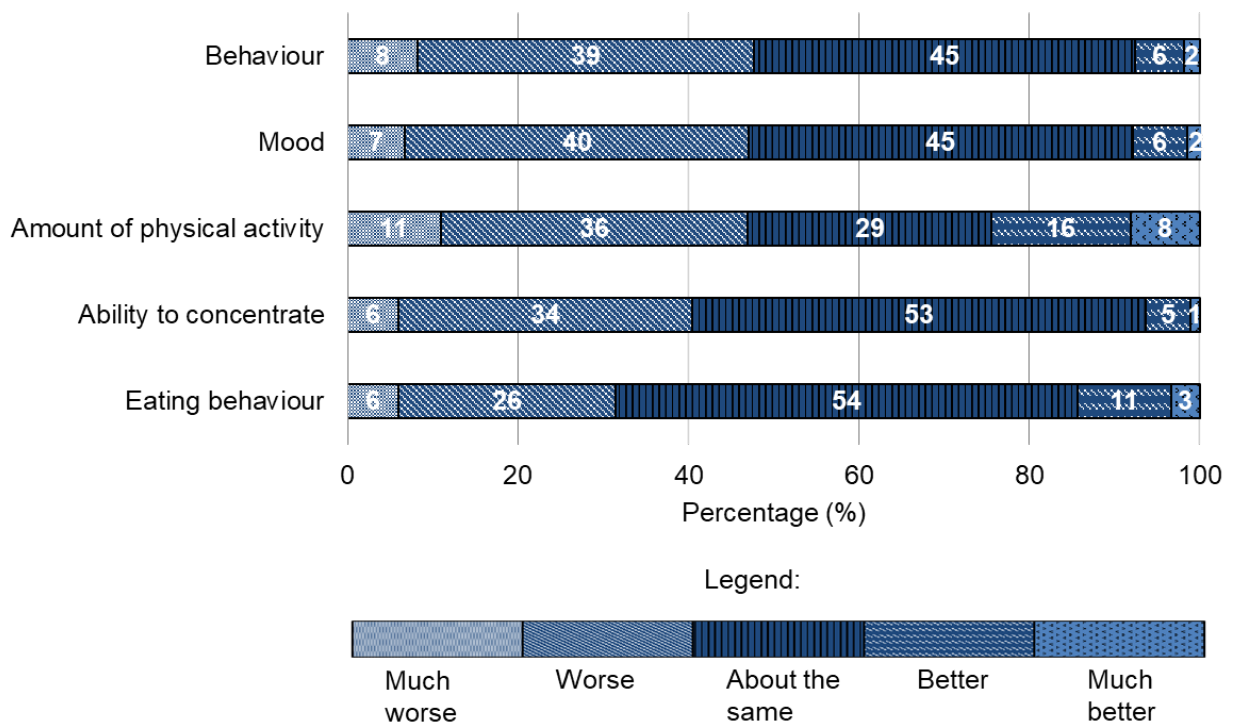
For 45% of the children, parents and carers rated their behaviour as similar to that before lockdown, while for 8% it was rated as better. However, for almost half of the children (47%), their behaviour was rated as worse than that before lockdown. There was a similar pattern for mood, with the mood of 45% of children rated the same, that of 8% rated better, while for almost half (47%) mood was rated as worse.

Changes to the amount of physical activity were more varied. For 29% of the children, parents and carers rated their child's amount of physical activity as similar to that before lockdown, with almost a quarter (24%) rating it as better. Again, for

almost half of children (47%), parents and carers rated amount of physical activity as worse than before lockdown.

For more than half the children, eating behaviour and ability to concentrate were similar to what they were before lockdown (54% and 53%, respectively). For 6% of children, parents and carers rated their child’s ability to concentrate as better, while for 40% of children, it was rated as worse than before lockdown. Eating behaviour was rated as better for 14% of children and worse for 32%, compared to that before lockdown.

**Figure 3:** Child’s life now compared to how it was before lockdown\*

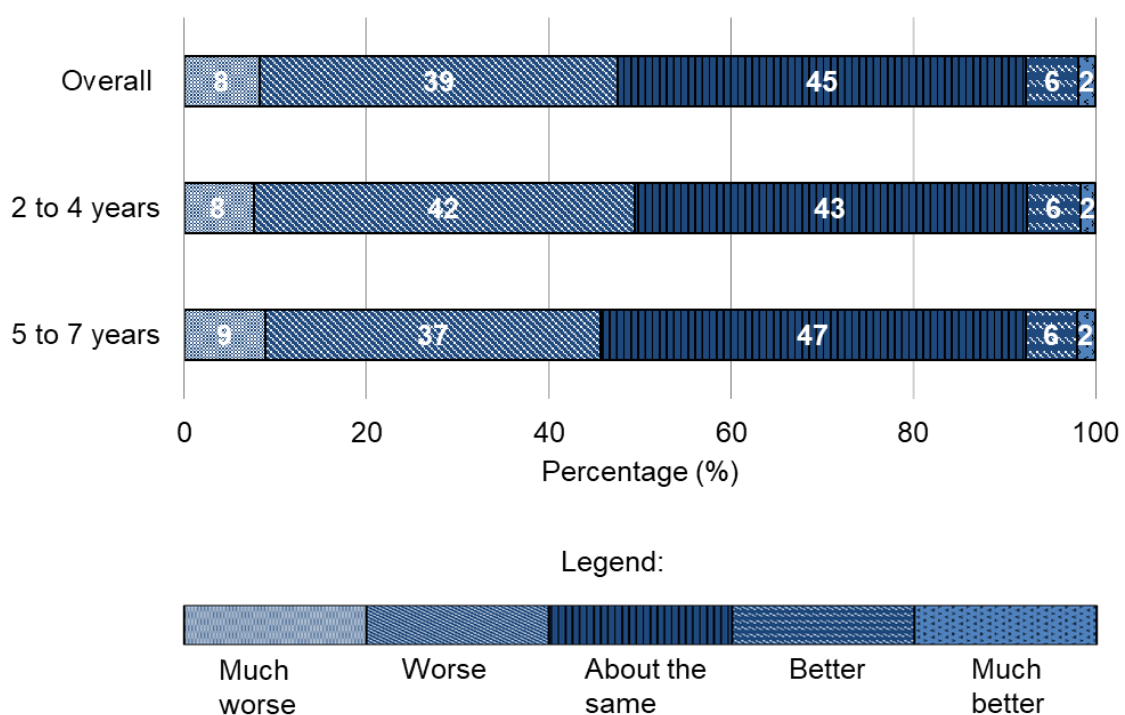


\* Excludes refused (prefer not to say) and missing answers. Base for behaviour: 9,621; mood: 9,608; amount of physical activity: 9,622; ability to concentrate: 9,609; eating behaviour: 9,617.

## Breakdown of 'child's life' findings by age group

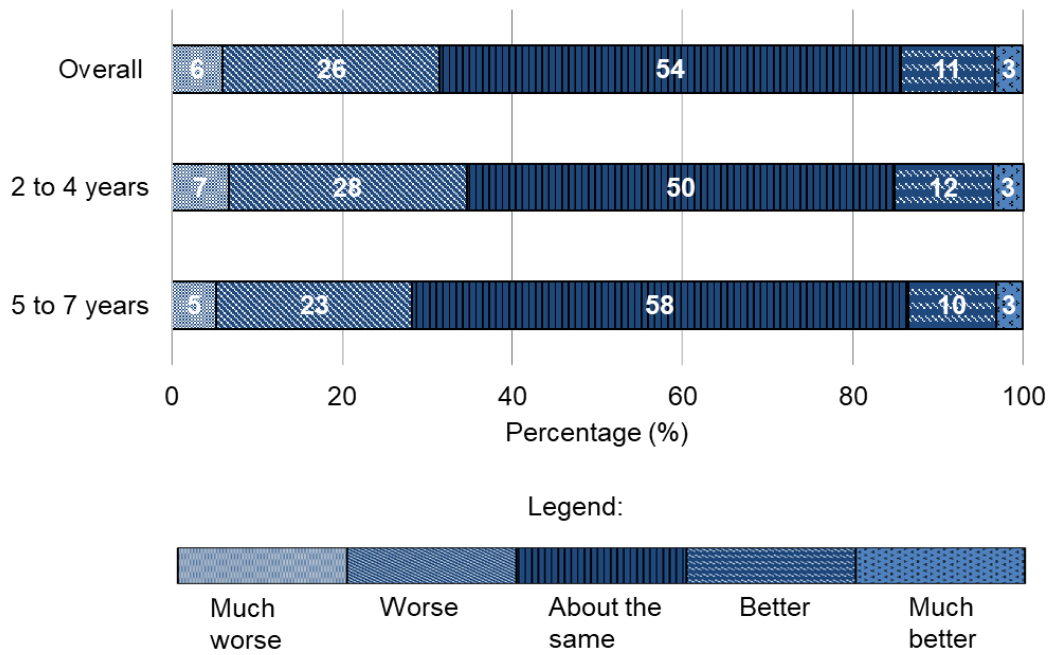
Changes in behaviour and eating behaviour did not differ greatly by child's age. However, a higher number of older children (5–7-year-olds) were rated as worse than before lockdown for mood (52% compared to 42% in 2–4-year-olds), amount of physical activity (50% compared to 44% in 2–4-year-olds) and ability to concentrate (51% compared to 31% in 2–4-year-olds).

**Figure 4: Behaviour \***



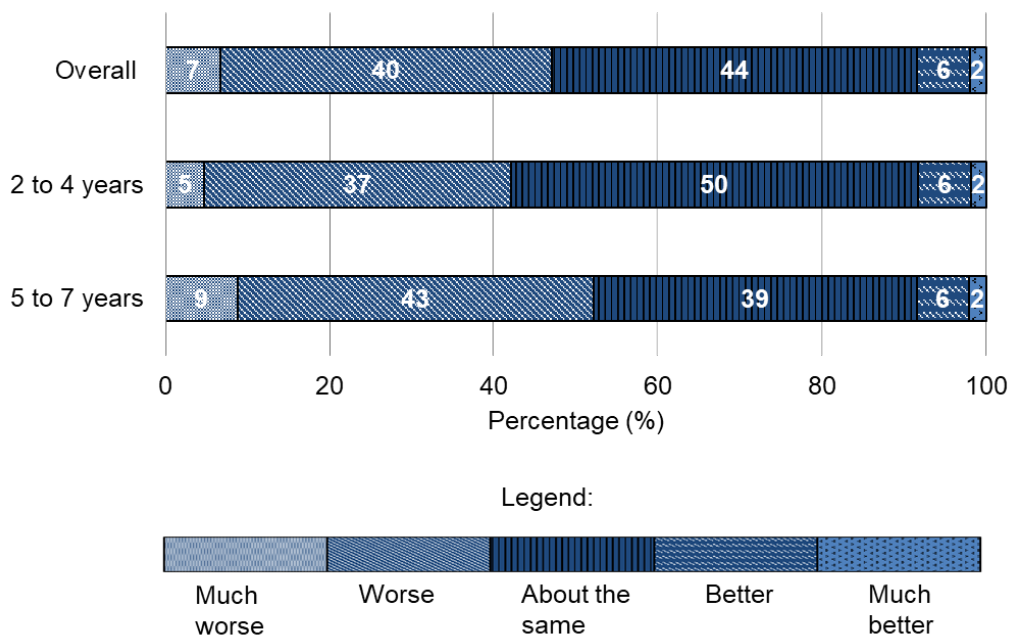
\* Excludes refused (prefer not to say) and missing answers. Base for overall: 9,621; 2–4 years: 4,729; 5–7 years: 4,851.

**Figure 5: Eating behaviour\***



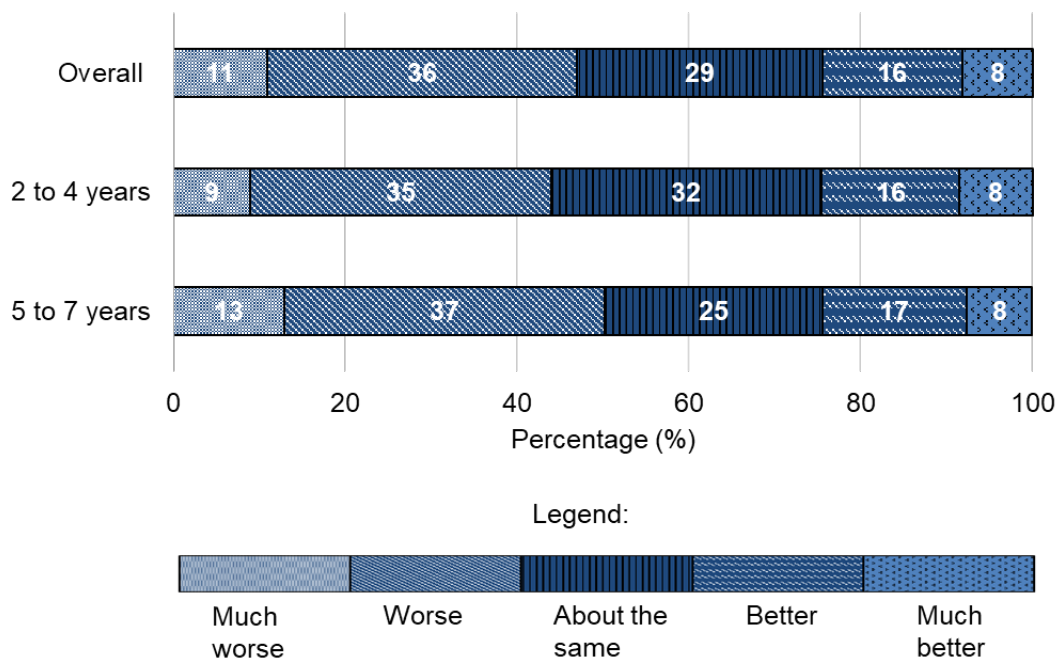
\* Excludes refused (prefer not to say) and missing answers. Base for overall: 9,617; 2–4 years: 4,849; 5–7 years: 4,728.

**Figure 6: Mood\***



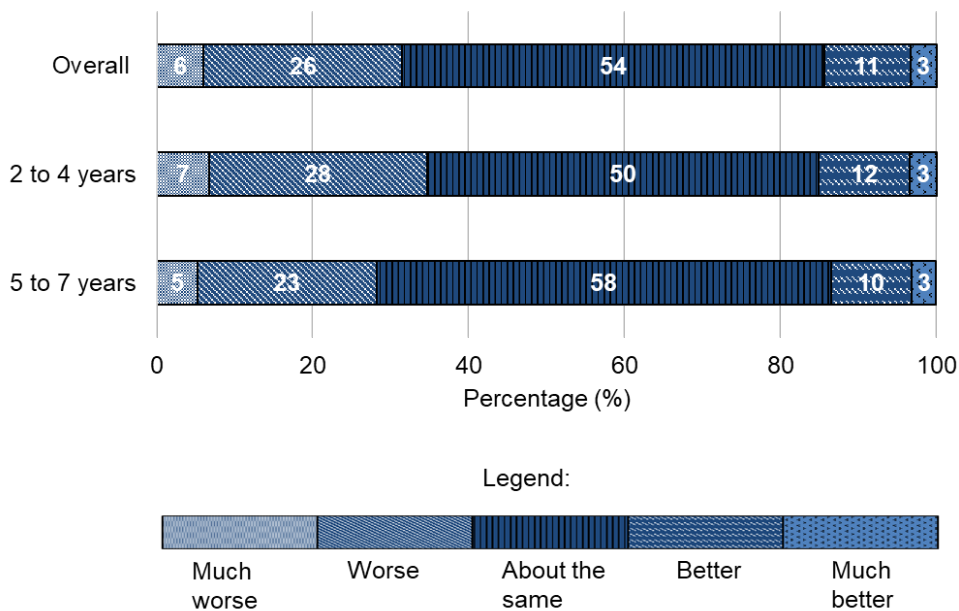
\* Excludes refused (prefer not to say) and missing answers. Base for overall: 9,608; 2–4 years: 4,845; 5–7 years: 4,722.

**Figure 7: Amount of physical activity\***



\* Excludes refused (prefer not to say) and missing answers. Base for overall: 9,622; 2–4 years: 4,850; 5–7 years: 4,731.

**Figure 8: Ability to concentrate\***



\* Excludes refused (prefer not to say) and missing answers. Base for overall: 9,609; 2–4 years: 4,845; 5–7 years: 4,723.

## Child's mental health and wellbeing

We used the Strengths and Difficulties Questionnaire (SDQ) to assess children's behaviour and emotions. Please note that the age breakdown reported in this section differs slightly from those reported previously, as we have used two different versions of SDQ according to the child's age: one for 2–3-year-olds and one for 4–7-year-olds.

This section summarises the following measured by SDQ for both age groups:

- total difficulties score
- five psychological and behavioural domains: emotional symptoms, conduct problems, hyperactivity/inattention, peer relationships problems and prosocial behaviour.

Please see Appendix 1 for details on how SDQ was used to calculate the scores reported in this section.

The SDQ questions depend on child-to-child interactions, therefore, in our survey, we asked the SDQ questions only to parents and carers whose children had met up with children from other households within the last two weeks of the date of survey completion. In total, 62% of children (n: 6,419) had met up with children from other households.<sup>2</sup> The following results detail the findings from the parents and carers of these children who were presented with the SDQ questions. We again compare the results of the SDQ with those we have for the SSELG as this is the only other Scottish study that gives us information on this before COVID-19.

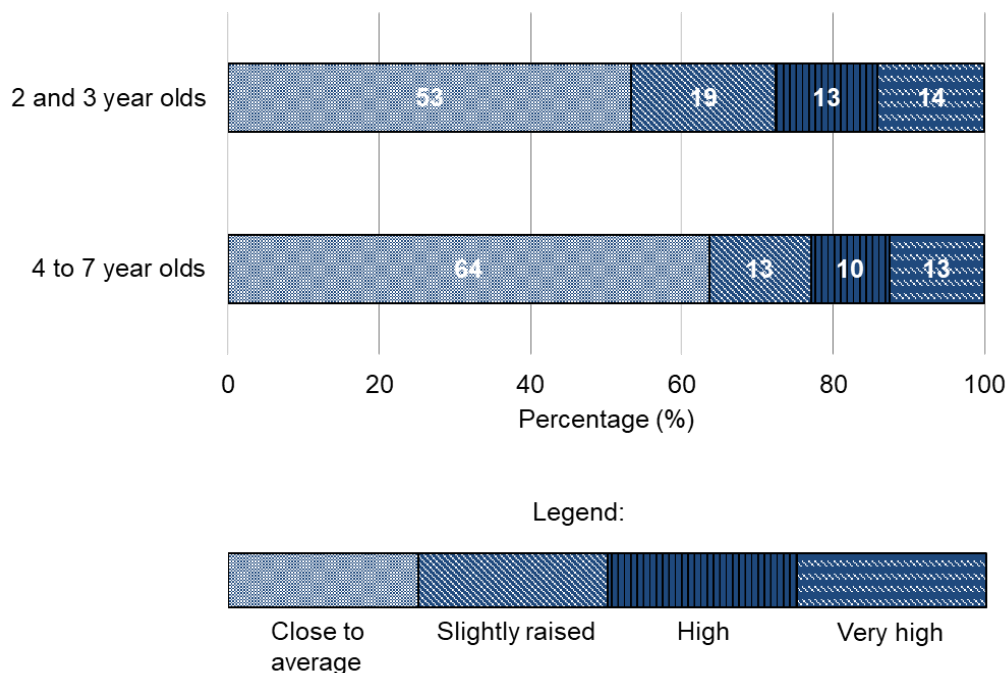
For 2- and 3-year-olds, 53% of the children who had had some interaction with other adults and children since lockdown scored close to average in their total difficulties score. This was slightly higher (64%) in 4–7-year-olds. These figures are lower than what one would expect in children of this age. For example, the SSELG study found that 66% of 3-year-olds and 85% of 4- and 5-year-olds had a total difficulties score of close to average.

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<sup>2</sup> Scotland moved to Phase 1 on 29 May 2020. At the time of the survey, different households had been permitted to meet in outdoor settings (with varying restrictions) for over 3 weeks.

However, as our CEYRIS study sample is not nationally representative, and was self-selected, direct comparisons with nationally representative samples should be interpreted cautiously.

**Figure 9:** Total difficulties score\*



\* Base for 2 and 3 years: 1,641; 4–7 years: 4,275. Total difficulties score computed by adding up the scores from five domains: emotional symptoms, conduct problems, hyperactivity/inattention, peer relationship problems and prosocial behaviour. Base excludes those who had not answered more than two items for each domain.

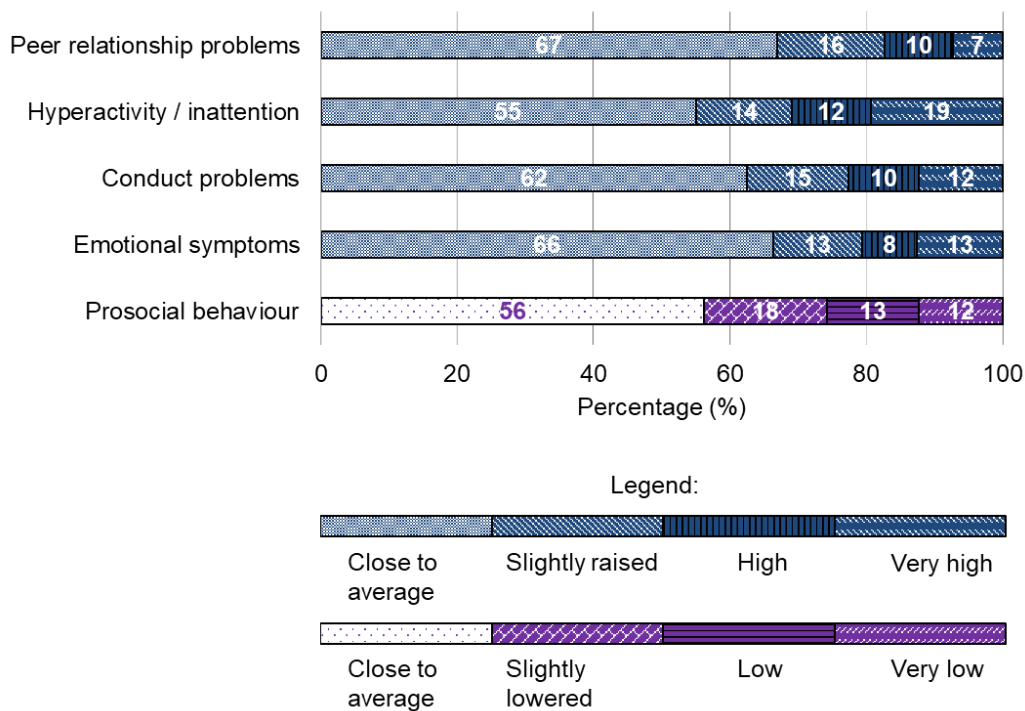
Figures 10 and 11 provide a breakdown of the five domains measured in SDQ for both age groups. For all domains other than the prosocial behaviour, higher scores indicate children are experiencing more difficulties in this area. For the prosocial behaviour domain, lower scores indicate children are experiencing more difficulties. In the figures, the prosocial behaviour scores are shown in a different colour to highlight this difference, however, generally speaking across all domains, children scoring anything other than close to average indicate that they are experiencing some amount of difficulty in this area.

For 2- and 3-year-olds, the percentage of children scoring close to average for the peer problems (67%), conduct problems (62%) and emotional problems (66%)



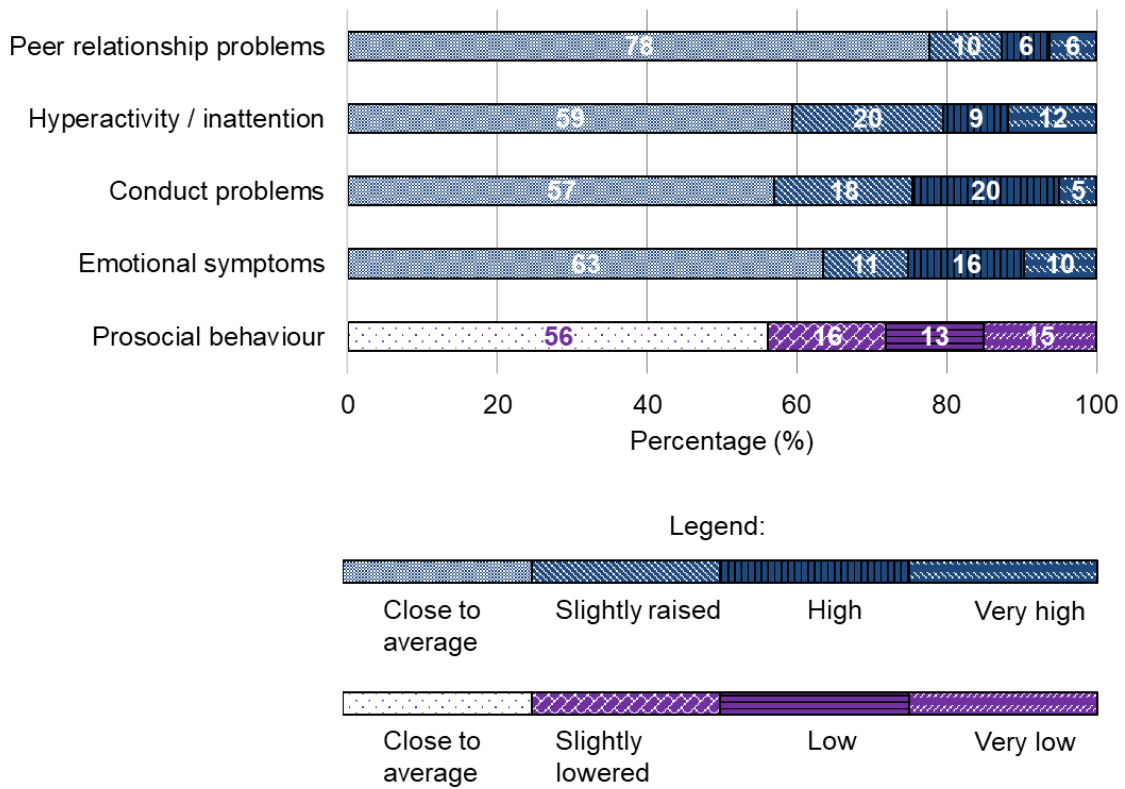
domains was higher than that for the hyperactivity (55%) and prosocial behaviour domains (56%). There was a similar pattern in the 4–7-year-olds. More 4–7-year-olds scored close to average in the peer problems (78%) and the emotional problems (63%) domains, while fewer scored close to average in the hyperactivity (59%) and prosocial behaviour domains (56%) as well as the conduct problems domain (57%).

**Figure 10:** SDQ domains for 2 and 3 year olds\*



\* Base for all domains: 1,641. Excludes those who had not answered more than two items for each domain.

**Figure 11: SDQ domains for 4–7-year-olds\***



\* Base for peer problems: 4,275. Base for hyperactivity, conduct problems and emotional problems: 4,276. Base for prosocial scale: 4,277. Bases exclude those who had not answered more than two items for each domain

# Appendix 1 – Background information

## Validated measures

SDQ is a brief emotional and behavioural screening questionnaire for children and young people and comprises 25 items. Two versions of the SDQ were completed by parents and carers of children who had had some interaction with children over the previous two weeks, one by those of children aged 2–3 years old and the other by parents and carers of children aged 4–7 years old. Responses were scored according to the methodology of Youth in Mind: [www.sdqinfo.org/py/sdqinfo/c0.py](http://www.sdqinfo.org/py/sdqinfo/c0.py)

The 25 items are categorised into five domains, each comprising five items: emotional symptoms, conduct problems, hyperactivity/inattention, peer relationship problems and prosocial behaviour. The scores of the 20 items from the emotional symptoms, conduct problems, hyperactivity/inattention and peer relationships problems domains (i.e. omitting the prosocial behaviour scale) were summed to give a total difficulties score according to the Youth in Mind methodology. Sample statistical syntax can be found here: [www.sdqinfo.org/c3.html](http://www.sdqinfo.org/c3.html)

The total difficulties score as well as the scores for the four domains that contribute to it were categorised further for reporting: ‘close to average’, ‘slightly raised’, ‘high’ and ‘very high’ with a higher score indicating more difficulties in the domain. For the prosocial subscale, the scores were categorised as ‘close to average’, ‘slightly lowered’, ‘low’ and ‘very low’ with higher scores indicating more positive behaviour.

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