Parental involvement in home schooling and developmental play during lockdown

Initial findings from the COVID-19 Survey in Five National Longitudinal Studies

By Aase Villadsen, Gabriella Conti, and Emla Fitzsimons
Access the survey data

The COVID-19 survey data analysed in this briefing have been de-identified and are available for researchers. To download the data (SN: 8658), visit the UK Data Service website (ukdataservice.ac.uk).

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About the survey

This briefing is based on data from a web survey of over 18,000 people, collected between 2 and 31 May 2020. The survey participants and their families are members of five nationally representative cohort studies that have been collecting data since childhood. These were:

- The **Millennium Cohort Study** (MCS), born in 2000-2002, part of ‘Generation Z’. They have been followed since birth and are now aged 19;

- **Next Steps**, who were born in 1989-1990, so-called ‘Millennials’. They have been followed since adolescence and are now aged 30;

- **1970 British Cohort Study** (BCS70) who were born in 1970, part of ‘Generation X’. They have been followed since birth and are now age 50;

- **National Child Development Study** (NCDS) who were born in 1958, into the later part of the ‘baby boomers’ generation. They have been followed since birth and are now age 62;

- **National Study of Health and Development Study** (NSHD) who were born in 1946, at the start of the ‘baby boomers’ generation. They have been followed since birth and are now age 74.

The survey was designed to help researchers understand the economic, health and social consequences of the coronavirus outbreak, to give a unique insight into how people’s experiences during the pandemic vary depending on their earlier lives, and to be able to track the impact into the future.

A number of further research briefings, using the data from the first wave of the COVID-19 survey, are under preparation, and can be found on the CLS website.
Introduction

One of the responses to COVID-19 was the closure of educational settings, including nurseries and schools, for all but keyworkers and vulnerable children, at the end of March through May 2020, followed by a partial re-opening in early June. With children largely staying home over the lockdown period, and major restrictions placed on provision of informal care from outside the household, for example, from grandparents, parents - often working from home - have had to spend more time caring for them.

Whilst home schooling became a feature of daily life for many parents and children, the form it took varied greatly across families. Concerns have been raised over the consequences of children missing out on formal education, especially for children from disadvantaged backgrounds. This briefing looks at the time parents spent on home schooling and doing other interactive activities with their children during the nationwide lockdown, in May 2020. We examine differences between parental involvement based on gender, socioeconomic background, and other characteristics and circumstances.
Parents in the survey

The analysis presented in this briefing uses information provided by the parents taking part in this survey who had dependent children, aged 16 or under, at home. Parents in our survey were predominantly participants in their mid-adult years, namely those aged 50 (members of the BCS70 cohort) and 30 (members of Next Steps), where 37% and 32% of the cohort members respectively reported having a dependent child. None of the respondents aged 74 (NSHD) had dependent children, whilst only around 3% amongst those aged 62 (NCDS), and just 1% of those aged 19 (MCS) had dependent children under 16. Analyses are therefore limited to the two cohorts, BCS70 and Next Steps, where a more substantial proportion have dependent children.

Parents of pre-school children (aged 0-4 years old) in our survey were predominantly those age 30 at the time of interview, from the Next Steps study (N=438), and parents of school-aged children (aged 5-16 years) in our survey were predominantly members of the BCS70 study (N=1,580), age 50 at the time of interview. So our analysis of preschoolers is based on Next Steps, and of school-aged children on BCS70.
Parents’ activities with their children during lockdown

This is the first study carried out during the lockdown, to our knowledge, to have captured parents’ time on both home schooling and other developmental activities with children.

Parents were asked how many hours they spent on a typical weekday in the past two weeks on home schooling, and how many hours they spent on other interactive activities with their children (including reading to them, playing games with them, painting/drawing with them, doing puzzles together).

Together, these two measures aimed to capture the main developmental and educational activities parents were engaging in directly with their children during the lockdown.

Home schooling during lockdown

Among parents with school-aged children, 58% of parents reported doing some home schooling on a typical weekday during lockdown (Table 1). This figure was higher for mothers (64%) than for fathers (49%), and for those with relatively higher levels of education - 63% for those with a degree or more, compared to 49% for those with lower levels of education.

Table 1: Home schooling prevalence

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Prevalence</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>All</td>
<td>1,580</td>
<td>57.7</td>
<td>56.6, 58.8</td>
</tr>
<tr>
<td>Mothers</td>
<td>933</td>
<td>63.9</td>
<td>62.5, 65.2</td>
</tr>
<tr>
<td>Fathers</td>
<td>647</td>
<td>48.7</td>
<td>47.0, 50.3</td>
</tr>
<tr>
<td>Educational qualification less than degree</td>
<td>666</td>
<td>49.4</td>
<td>44.4, 54.3</td>
</tr>
<tr>
<td>Educational qualification degree or above</td>
<td>834</td>
<td>62.8</td>
<td>59.0, 66.6</td>
</tr>
</tbody>
</table>
Looking at time spent on this activity, we find that the average time spent daily on home schooling was 2.2 hours (CI: 1.9-2.4). However, several factors were associated with more or less time, as shown in the linear regression model in Table 2, which shows the average number of hours associated with each of the characteristics included in the model, after controlling for all the others. On average, after adjusting for other characteristics, mothers spent 1.5 hours more than fathers on home schooling; parents who were working during lockdown spent on average 1.3 hours less on home schooling than those not working; and parents with a child of primary school age in the household typically spent nearly 2 hours more on this activity than those whose children were of secondary school age. Being a keyworker, being a lone parent, or having more than one child, were not significantly related with time spent on home schooling, once other factors such as employment during the lockdown were taken into account. Although we showed in Table 1 that more educated parents were more likely to home school their school aged children, Table 2 shows that the average time spent on home schooling did not vary by parental education, after other factors were controlled for.

Further illustration of differences in home schooling between mothers and fathers, by age group of children, is shown in Figure 1 (which shows the average number of hours spent, according to different characteristics). The main findings to emerge are:

- mothers of primary school children spent an average of 5 hours per day on home schooling, over two and a half times more than fathers who spent just under 2 hours on it.
- parents spent considerably less time on home schooling with secondary school children, though again mothers appeared to be taking on more of the burden, on average just under 2 hours per day versus just under 1 hour for fathers.
Table 2: Hours spent daily on home schooling

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<thead>
<tr>
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<th>Coef</th>
<th>S.E.</th>
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<tbody>
<tr>
<td>Mothers (ref: fathers)</td>
<td>1.54***</td>
<td>(0.28)</td>
</tr>
<tr>
<td>Degree or above (ref: less than degree)</td>
<td>-0.07</td>
<td>(0.24)</td>
</tr>
<tr>
<td>Lone parent (ref: married or cohabiting parent)</td>
<td>0.10</td>
<td>(0.51)</td>
</tr>
<tr>
<td>Employed during lockdown (ref: not employed)</td>
<td>-1.27***</td>
<td>(0.34)</td>
</tr>
<tr>
<td>Keyworker (ref: not keyworker)</td>
<td>-0.07</td>
<td>(0.25)</td>
</tr>
<tr>
<td>Two or more children (ref: one child)</td>
<td>-0.03</td>
<td>(0.25)</td>
</tr>
<tr>
<td>Child aged 5-11 in household (ref: child aged 12-16 in household)</td>
<td>2.01***</td>
<td>(0.26)</td>
</tr>
<tr>
<td>Observations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R-squared</td>
<td></td>
<td>1.580</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.152</td>
</tr>
</tbody>
</table>

*** p<0.001, ** p<0.01, * p<0.05, + p<0.10

Note: Estimates are from a multivariate linear regression model with hours in home schooling the dependent variable, and controls are as shown in table. Reference categories shown in parentheses. The sample used is parents in the BCS70 cohort with school aged children.

Other developmental activities during lockdown

A unique and novel aspect of the survey is that it measured time spent by parents in other interactive, developmental activities with their children, over and above time on home schooling. Such play activities are a particularly important part of development in the early years, and our findings highlight that they represent a significant part of parental time with children during lockdown.

Figure 1 illustrates this separately for mothers and fathers, and by child age group. Mothers of pre-school children spent on average 6.2 hours daily on interactive activities with children, compared to an average of 3 hours among fathers.

Mothers of primary school aged children also spent more time on interactive activities with their children (3.4 hours) compared to fathers (1.8 hours). Interestingly, the figure also shows that such developmental activities represented an important part of parental time on all educational activities with their children, about 40% in the case of mothers with primary school children, with home schooling representing the other 60% of the time.
Differences by parental gender in time spent on interactive activities are no longer as stark among parents of secondary school aged children, with mothers reporting an average of 1.9 hours compared to 1.3 hours among fathers, not a statistically significant difference.

**Figure 1: Hours spent daily on home schooling and other interactive activities**
Conclusion

Our analyses show the extent of home schooling and other developmental activities during the COVID-19 lockdown period, highlighting large differences between mothers and fathers in time spent on these activities. The stark differences by parental gender are particularly pronounced for parents of younger children - pre-schoolers and those of primary school age - who generally require more parental time.