

# What a difference a dad makes

## Paternal Involvement and its Effects on Children's Education (PIECE)

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## Executive summary

PIECE is a major study funded by the Economic and Social Research Council (ESRC) (2021-23) that explores whether and how fathers' involvement in childcare engagement activities - such as reading, playing and doing arts and crafts - affects their children's cognitive development and educational attainment through primary school in England.



The PIECE study analysed nationally representative household data from the Millennium Cohort Survey (MCS) linked to the official educational records of children from the Early Years Foundation Stage Profile at age five, and the National Pupil Database at age seven. The aim was to find out whether there was a relationship between fathers' childcare involvement and children's educational outcomes as they progressed through primary school.

### Why is this important?

Understanding what underlies variations in primary school attainment is important. Evidence shows that parental engagement within the home learning environment is critical for a child's education and development, but this conclusion is based on research conducted with mothers, or with 'parents' whose gender has not been considered in the analysis. We know less about whether and how fathers affect their children's education.

### What did PIECE find out?

The PIECE analysis shows that fathers' childcare involvement has a unique and important effect on the educational outcomes of children that is over and above the effect of the mothers' involvement. Specifically, the analysis finds that:

- Greater father involvement in structured, educational activities (like reading and playing) provides an educational advantage to children in the first year of primary school.
- Fathers' involvement operates differently from mothers' involvement because it helps to increase children's educational attainment, whereas mothers' involvement enhances children's cognitive behaviour. Specifically, mothers' involvement helps to reduce hyperactivity in children and enhance their peer socialisation skills, as well as their emotional, conduct, and pro-social behaviour.
- Fathers' involvement has lasting effects on children. Fathers' pre-school involvement (at

age three) helps to increase a child's educational attainment at age five; and a fathers' involvement at age five helps to increase a child's educational attainment in their Key Stage Assessments at age seven.

- The earlier a father gets involved in the child's life, the more likely he is to be involved later when the child is older. In other words, once early paternal involvement is established, it sets up a pattern of involved caregiving that is likely to continue as the child gets older - which has benefits for a child's educational progression.

### Why might fathers have an important effect?

We suggest two possible reasons why fathers have an important impact:

- 1) *Two heads are better than one* - Having two involved parents rather than one exposes a child to more varied stimuli, which will foster better cognitive outcomes because of the exposure to different behaviours, vocabulary, and parenting styles.
- 2) *Fathers bring something different* - Fathers' input to their child's learning and development may bring particular and unique benefits, as highlighted by previous research that shows fathers tend to engage with their children in different ways to mothers.

### The PIECE study recommendations

Supporting fathers and mothers to be involved in their children's education and learning is important because of the complementary benefits each parent can bring to a child's cognitive and educational development. Fathers' involvement (in addition to mothers' involvement) is critical - and support from early years settings and schools, employers and the Government can help to enable this.

### Specific recommendations include:

#### For Fathers:

- Carve out time to spend on regular engagement activities with your child – just 10 minutes a day could have beneficial impacts.
- Collaborate with the child's other parent as a 'learning supporter'. This includes sharing routine care as equally as possible so that all parents have time to spend on the more fun, childcare engagement activities that are shown to be important for a child's development.
- Build a relationship with your child's school or early years setting. Start by ensuring the setting has your contact details on file and you are included in all communications.

#### For Early Years Childcare Providers and Schools:

- Collect and use fathers' contact details.
- Develop and implement a clear strategy for parent-focused communication – by allowing communications to be sent to more than one parent per child, rather than to a single point of contact (which is usually the mother).
- Refer explicitly to 'fathers' in communication (as opposed to just 'parents').
- Provide resources and activities specific to fathers that encourage their engagement.
- Recognise fathers' (and mothers') work-life challenges, which prevent some parents from engaging in school-based activities.
- Ensure support is given to diverse groups of fathers (e.g., from different cultural or religious backgrounds), who may face barriers to their involvement in home-learning or school-based activities.

#### For Employers:

- Offer more generous paternity and parental leave for fathers (which may also help to increase employee commitment and productivity).
- Explicitly promote flexible working opportunities to fathers.
- Tackle the 'long-hours' working culture by, for example, promoting flexibility and standard (rather than long) full-time hours to fathers.

#### For Government:

- Strengthen expectations around education providers' parental engagement by, for example, including references to 'engaging fathers' within Ofsted inspection frameworks.
- Redesign the UK parental leave system to include a portion of leave that is reserved specifically for the father, with an earnings replacement rate of at least 90%.
- Introduce flexible working-by-default for all employee jobs, where employers advertise and offer flexible working so that fathers are encouraged to take this up.
- Provide parental leave and pay ('Paternity Allowance') to self-employed fathers who currently have no access to paternity or parental leave.
- Step up measures to close the gender pay gap by, for example, requiring large employers to publish 'care gap' and 'pay gap' information, including take-up of maternity, paternity and shared parental leave, and flexible working requests/ approvals by gender.



# 1. Introduction

Fathers spend more time on childcare than ever before but the implications of this on children are unclear. Fathers' childcare involvement should have a positive effect on children's cognitive and educational outcomes but so far there is little evidence to support this.



PIECE is a major project funded by the Economic and Social Research Council (ESRC) (2021-23) that explores whether and how fathers' involvement in childcare engagement activities - such as reading, playing and doing arts and crafts - affects their children's cognitive development and educational attainment through primary school in England. It analyses nationally representative household data from the Millennium Cohort Survey (MCS) that has been linked to the official educational records of children from the Early Years Foundation Stage Profile at age five, and the National Pupil Database at age seven. It finds that fathers' childcare involvement has a unique and important effect on the educational outcomes of children that is over and above the effect of the mothers' involvement, which influences the child in different ways.

## 1.1. Why is this important?

Primary education is a pivotal stage of child development because it is the point at which children first make the transition from the home environment to school. Achievements at this early stage can shape educational pathways, and therefore future prospects and opportunities in higher education and employment. The Department for Education (2018) reports that over a quarter of children in England are not primary 'school-ready' because they fall below the expected level for communication and literacy – a situation made worse following the Covid-19 pandemic. For example, Kindred2 (2022) reported that on average, almost half (46 per cent) of children in reception classes are now not developmentally 'school ready' according to their teachers<sup>1</sup>. UNICEF (2018) rank the UK in the bottom third of 41 of the world's richest countries for inequalities in primary school education. Understanding what underlies variations in school attainment is therefore important as this has implications that go beyond the educational outcomes themselves. We know little about the

potential impact from fathers' involvement because they are often under-researched or sidelined in studies about parenting.

## 1.2. What did we already know about the impact of parental involvement?

Evidence shows that parental engagement within the home learning environment is critical for a child's education and development but this conclusion is based on research conducted with mothers or 'parents' whose gender has not been considered in the analysis (e.g. Hsin and Felfe 2014; Del Bono et al 2016; Fomby and Musick, 2018; Hsin and Felfe, 2014; Fiorini and Keane, 2014). Such studies show that parental engagement in educational or structured types of activities with the child (like reading and playing) enhances primary school grades and cognitive skills. Yet we do not know if fathers have a different influence on their children's educational attainment. It might be that fathers help children to progress in particular academic subjects or areas, or it might be that paternal engagement in certain childcare activities is important for children's progression. More broadly, it might be that fathers help to mitigate some of the negative effects from poverty and disadvantage, which we already know has detrimental impacts on children's education. For example, the Education Policy Institute (2020) reported that by the end of primary school, poorer children are about nine months behind their more affluent peers.

## 1.3. What did we already know about how fathers influence their children?

Studies from outside the UK have looked at the influence of fathers' involvement on aspects of the child's development, but they are limited and produce inconsistent findings. For example, Cano et al.'s (2019) study used mothers' reports of fathers' time-use to look at the influence of different paternal-childcare activities on children's

<sup>1</sup> Based on a YouGov survey of 1,000 teachers



language acquisition at the ages 4, 6 and 8 years old in Australia. They found that children's language acquisition improved when fathers spent time with them doing educational activities. Yet from this, we do not know if fathers' involvement affects a child's educational attainment more broadly, and in a different (UK) context, or whether fathers help in other academic areas such as science and maths where gender gaps in attainment are salient.

The majority of other studies that explore how fathers affect child outcomes tend to use small samples, cross-sectional data (measured at a single time point) or they focus solely on children's psychological traits such as child emotional or cognitive behaviour (e.g., McBride et al. 2009; Kroll et al. 2016; McMunn et al. 2017; Bronte-Tinkew et al. 2008; Cabrera et al. 2007; also see Jeynes 2014). Older, North American research focuses on the effect of a father's involvement in the child's schooling rather than on his engagement within the home environment (e.g., Feinstein and Symons 1999; Georgiou 1999; Keith et al. 1998; Epstein 1991). Other studies use very simplistic binary measures of father involvement or single proxy measures that capture, for example, paternal interest in a child's education (e.g., Flouri and Buchanan 2004; Mullen-Harris et al 1998; McMunn et al. 2017; Hango 2007). This does not capture a father's involvement in the range of educational, structured activities that we know are likely to be important.

This means that there are shortfalls in what we know about the relationship between fathers' and child educational outcomes. The PIECE study aims to address these gaps.

#### 1.4. What did the PIECE study explore?

The PIECE study explored whether, how and at what stage fathers' childcare involvement influences their children's cognitive development and educational

attainment through primary school in England. We analysed household data from the Millennium Cohort Survey (MCS) that had been linked to the official educational records of children from the Early Years Foundation Stage Profile and the National Pupil Database in England to answer the following research questions:

- Does paternal engagement increase children's primary school attainment at ages five and seven?
- Does paternal engagement enhance other aspects of the child's cognitive development - such as their emotional, conduct and pro-social behaviour?
- Does pre-school engagement with the child (at age three) affect later educational attainment at primary school?
- Does father engagement have a stronger effect on a child's educational attainment in particular academic subjects – such as Maths or English?
- Which particular father-engagement activities are most important?
- Does father engagement help to reduce the well-known negative effects of poverty on educational attainment?
- Is father engagement particularly important for boys, girls or does gender not matter?
- What other factors have an important influence on a child's educational attainment in primary school?

## 2. What did we do?

The main method was the analysis of a representative, longitudinal sample of 4,966 two-parent (mother-father) households in England from the Millennium Cohort Study (MCS) (2000-08).

The MCS was linked to the official educational records of children from the Early Years Foundation Stage Profile at age five (2005/6), and the National Pupil Database at age seven (which captures Key Stage 1 assessments) (2007/8). We explored the relationships between fathers' and mothers' childcare 'involvement', their children's 'cognitive behaviour' and 'educational attainment' at the start and in the middle of primary school. We define these concepts in sections 2.1, 2.2 and 2.3.

We used robust statistical methods - structural equation modelling and path analysis – to measure all the relationships between the different variables (involvement, behaviour and educational attainment) whilst accounting for other variables that were likely to affect the child's cognitive behaviour and educational attainment. In other words, our models accounted (or controlled) for the effect of the child's gender, ethnicity, age in the school year, socio-economic status (measured as family income, the quality of the local area, the father's education level, parents' employment hours and housing tenure), the number of other children (siblings) in the household, whether the child had attended pre-school formal childcare provided by a nursery or registered childminder, and the father's age.

### 2.1. Measuring 'Involvement'

Fathers' and mothers' 'involvement' were measured in the same way when children were aged five and seven using data from the MCS. In the MCS, both parents were asked how often they engaged in the following activities with the child:

- Reading
- Telling stories (not from a book)
- Playing/listening to music, singing or doing other musical activities
- Drawing, painting or making things
- Playing with toys or games indoors
- Playing sports or physically active games outdoors or indoors
- Taking the child to the park or outdoor playground



Fathers and mothers could respond to each activity by saying that they did this: (1) not at all, (2) less often than once a month, (3) once or twice a month, (4) once or twice a week, (5) several times a week or (6) every day. In simple terms, our statistical model summed all these activities together to make one overarching measure that we called ‘involvement’<sup>2</sup>. We also explored the relationships that the individual childcare activities had with children’s educational attainment.

We note there are many other ways in which parents can engage with their children, not captured by the involvement measure used but we are limited to what data is available in the MCS (we elaborate on this in section 4.4). However, the variables that are used still capture some of the core educational or ‘structured’ types of parenting activities that are most conducive to supporting child development at these ages.

## 2.2. Measuring ‘Educational Attainment’

Educational attainment was measured at two time points – age five and age seven.

At age five, we derived a robust composite measure<sup>3</sup> of a child’s attainment across 13 subjects that make up the Early Years Foundation Stage Profile (EYFSP). The EYFSP is the standard assessment for all children at the start of primary education in England. Each child is graded up to 9 points for each subject by their teacher. This means that a child’s total attainment score is

“  
**We also explored the relationships that the individual childcare activities had with children’s educational attainment.**

measured on a scale of 0 to 117 points. The 13 subjects are: (i) disposition and attitudes; (ii) social development; (iii) emotional development; (iv) language for communication and thinking; (v) linking sounds and letters; (vi) reading; (vii) writing; (viii) numbers for labels and for counting; (ix) calculating; (x) space, shape and measures; (xi) knowledge and understanding about the world; (xii) physical development and (xiii) creative development. Educational attainment at age five therefore captures a child’s overall EYFSP score across all 13 subjects, but we also explore attainment in the individual subjects too.

At age seven, we derived another composite measure of a child’s attainment across five Key Stage Assessment subjects<sup>4</sup>: reading, writing, speaking and listening, maths and science. Each

child was graded by their teacher and in our sample, the grades are coded to range from 1 to 5 points (for reading, writing and maths) or 1 to 3 points (for speaking and listening and science)<sup>5</sup>.

## 2.3. Measuring ‘Cognitive Behaviour’

Cognitive behaviour was measured by questions from the Strengths and Difficulties Questionnaire (SDQ) within the MCS when the child was aged five. The SDQ is a widely used measure in psychological research for children’s emotional and behavioural problems (Goodman 2001). We measured five domains of a child’s cognitive behaviour, which are comprised of five individual items (or 25 individual items in total) that are summed<sup>6</sup>: (i) emotional symptoms (e.g. child has many fears, is easily scared); (ii) conduct problems (e.g. often lies or cheats); (iii) hyperactivity/inattention (e.g. restless, overactive);

(iv) peer problems (e.g. gets on better with adults than other children); and (v) prosocial behaviour (e.g. shares readily with other children). For each item, 0 is given if the response is not true, 1 if somewhat true and 2 if certainly true. This means that for domains i-iv, a high score indicates more problematic behaviour but the reverse is true for the fourth, pro-social behaviour domain where a low score indicates more problematic behaviour.

These measures were used in statistical models<sup>7</sup> to explore the relationships between fathers’ and mothers’ involvement, children’s educational attainment and cognitive behaviour. The aim was to establish whether and how fathers’ involvement affected children’s educational attainment, and how this compared to the effects from the mothers’ involvement.



<sup>2</sup> The statistical model is called ‘Confirmatory Factor Analysis’ (CFA), which is a robust statistical technique that reduces a mass of data into a smaller number of (composite) measures. In this case, our analysis created one measure for mothers and one measure for fathers. We carried out many statistical ‘measurement invariance’ tests to ensure that the paternal and maternal involvement measures were measuring the same thing and were therefore comparable. This CFA method is a more accurate technique for creating composite measures like this as opposed to simply adding variables together. This is because CFA isolates any measurement error in the variables, which gives the model (of involvement) more predictive power. CFA works by finding hidden patterns amongst the seven engagement variables, showing how those patterns overlap and from that, generating a hidden variable from all the observed variables because it is not directly measured. In our case, the hidden variable is ‘involvement’.

<sup>3</sup> Also generated by CFA – see footnote 1.

<sup>4</sup> Also generated by CFA – see footnote 1.

<sup>5</sup> Dataset for the linked MCS-NPD: University College London, UCL Institute of Education, Centre for Longitudinal Studies, Department for Education. (2021). Millennium Cohort Study: Linked Education Administrative Datasets (National Pupil Database), England: Secure Access. [data collection]. 2nd Edition. UK Data Service. SN: 8481, <http://doi.org/10.5255/UKDA-SN-8481-2>

<sup>6</sup> We did not use CFA on this measure because the five domains capturing a child’s behaviour were measuring different things, so were not correlated with each other. For example, the ‘pro-social’ domain completely differs from the other behavioural domains, which capture psychological difficulties.

<sup>7</sup> Structural Equation Models and path analysis

## 2.4. A note on the numbers!<sup>8</sup>

In this report, most of the variables (things we measured) in our analysis of the MCS are standardized so that they are measured on the same scale and are therefore comparable. Standardization is important when variables (such as involvement, attainment, and behaviour) are measured on different scales because in their raw (unstandardized) format, they will not give an equal contribution to the analysis.

To give an example: the effect of ‘father involvement’ on, say, a child’s ‘emotional behaviour’ is difficult to assess using the original measurement scales for those two variables. There are two reasons for this. First, the scales differ: the ‘father involvement’ measure uses a scale from 6 to 36 points (if you add up all the individual involvement measures in section 2.1), whilst the child emotional behaviour measure uses a scale from 0 to 10 points (if you add up the five individual measures that make up emotional behaviour – see section 2.3). Second, the units of measurement for involvement and behaviour are not very intuitive (compared to, say, metres, kilograms, or degrees).

When we standardise, we rescale all our variables (in our example here – ‘father involvement’ and ‘emotional behaviour’) so that that they have an equal mean (both

means are set to 0) and an equal variance<sup>9</sup> (both variances are set to 1). This means that standardised variables range from -1 to 1 where 0 is the mean (or average). So, a large effect is represented by a number being closer to 1 or -1 (i.e., furthest away from 0) and a smaller effect is represented by a number that is closer to 0. This enables us to compare ‘like with like’. That is, we can compare a standard change in one variable (e.g., father involvement) against a standard change in another variable (e.g., emotional behaviour). So, it essentially gives us a standard way of knowing what is a large or a small change for the variables in the study, regardless of their initial measurement scale.

We measure these standard changes as ‘standard deviations’ (i.e., in ‘standard deviation (SD) units’ - ranging from -1 to 1)<sup>10</sup>. This means we are able to establish the mean change in a variable (such as ‘children’s emotional behaviour’) when fathers’ involvement increases by 1 standard deviation (SD) unit. In simple terms: we can establish whether children’s emotional behaviour gets better or worse if fathers increase the frequency of their involvement, and we can establish if this change is big or small depending on where it sits on the scale of -1 to 1 (e.g., a ‘big change’ would be a number closer to -1 or 1 and a ‘small change’ would be a number closer to 0).

## 2.5. Fathers and Children’s Learning survey

In addition to the statistical analysis of the MCS, we designed our own Fathers and Children’s Learning (FCL) survey. Between January and April 2022, the FCL survey was distributed via the Fatherhood Institute as well as other parenting and fathering networks, and Leeds University Business School, on social media. The survey generated 248 responses from UK fathers (with at least one child under the age of 12). Most fathers who responded to the survey lived with their children full time (84%), worked full-time hours (42.6% worked over 41 hours per week) and were white (81.5%). Although this was not a representative sample of fathers across the UK, the survey did provide some interesting data about some of the experiences and challenges facing fathers’ engagement in their child’s education and learning today. We reflect on some of the survey findings in section 3.2.

## 2.6. Consultations

We held two consultation forums in May 2022. The first was with a group of seven fathers who responded to a call for participants advertised via our FCL survey, as well as the PIECE study and Fatherhood Institute websites. The second forum was with a group of eight representatives from educator organisations and groups that specialise in supporting parental engagement and the parent-school relationship. These were *Parentkind*, the *Parental Engagement Network*, *School Home Support*, *Home Start*, *Professional Association for Childcare and Early Years (PACEY)*, *KidsCoachApp* and the *Parents and Children Together (PACT)* programme led by the University of Manchester.

We ran a third forum in January 2023, hosted by *Learning with Parents (LWP)*, to discuss the PIECE study findings with other stakeholders such as *Peeples*, *Fair Education Alliance*, *Square Peg*, the *Edge Foundation*, *Babbu*, the *Career and Enterprise Company* and *LWP*.



<sup>8</sup>With thanks to Dr Darya Vanchugova for her assistance in writing this section.

<sup>9</sup>The variance tells you how spread out a set of numbers is from the average value (i.e., the mean).

<sup>10</sup>The standard deviation is the square root of the variance. It is basically the same as the variance but just a simpler way of interpreting it (!).



### 3. Findings – Does fathers' involvement matter?

Findings from our data analysis of the Millennium Cohort Study show that fathers' involvement has an important and unique effect on their child's development, which operates in a different way to the effect from the mothers' involvement.



We found that:

#### (1) Fathers' pre-school involvement helps to increase a child's educational attainment in the first year of primary school

Fathers' pre-school involvement<sup>11</sup> (when the child is aged three) helped to increase a child's educational attainment at the start of school, when they are aged five. Specifically a 1 standard deviation (SD) increase in father involvement, when the child was aged three, resulted in a 0.1 SD increase in attainment in the EYFSP at age five – a small albeit non-trivial and significant effect. This suggests that early paternal engagement, prior to the start of school, is important because of the longer-term benefits this has on a child's educational attainment at school. The positive effect from fathers' pre-school involvement occurs even when we account for other variables that might also affect a child's attainment such as the child's gender, ethnicity, age in the school year, whether or not they attended pre-school formal childcare and household income.

There are other important benefits from fathers' pre-school involvement. If fathers are involved when their child is aged three, they are more likely to remain involved at age five. Specifically, a 1 SD increase in father involvement when the child is aged three resulted in a 0.4 SD unit increase in fathers' involvement when the child is aged five. Furthermore, if fathers are involved at age five, they are much more likely to be involved at age seven – and this effect seems to grow. Here a 1 SD increase in father involvement at age five resulted in a 0.9 SD unit increase in involvement at age seven. This suggests that early paternal involvement sets up a pattern of involved caregiving that is likely to continue, as the child gets older, all of which has benefits for a child's educational progression as the next point (2) shows.

#### (2) Fathers' involvement during the first year of primary school also helps to increase their child's educational attainment at that time

When the child is aged five, fathers' childcare involvement has a small albeit positive effect on the child's educational attainment at this time, which is over and above the effect from the mothers' childcare involvement. Specifically, for every 1 SD unit increase in fathers' involvement, a child's attainment increases by 0.03 SD units. Although this is small, it is nevertheless a significant effect. This is the case even when we account for the same variables that might affect educational attainment such as gender, ethnicity, age in the school year and household income. This underlines the importance of supporting fathers to be involved in their child's care in the first year of school because this enhances a child's educational outcomes. However, given the effect from fathers' pre-school involvement is larger (see finding 1), it is important that fathers are involved from an early pre-school age.

#### (3) Mothers' involvement helps to enhance a child's cognitive behaviour at age 5

Mothers' involvement affected the child in different ways to the father – by helping to reduce problems with peer socialisation, as well as emotional, conduct and hyperactive behaviour. Mothers' involvement also helped to enhance pro-social behaviour at age five. All these behavioural traits have a positive relationship with educational attainment at school.

Mothers' involvement had a particularly strong association with reduced conduct problems in children as well as better pro-social behaviour (e.g., good social skills and the ability to share easily). For example, a 1 SD unit increase in mothers' involvement reduced conduct problems by -0.2

<sup>11</sup>At age three, there are a reduced number of variables in the MCS that make up the paternal 'involvement' measure. The variables that comprise 'pre-school engagement' are how often the father (i) reads, (ii) plays, (iii) looks after the child alone without the mother and (iv) gets the child ready for bedtime.

SD units and increased pro-social behaviour by 0.3 SD units. The effect of mothers’ involvement on children’s cognitive behaviour was slightly stronger than the effect of fathers’ involvement on children’s educational attainment. This underlines the fact that both parents have important, complementary roles to play in supporting their children’s development.

**(4) Fathers’ involvement has a slightly stronger effect on a child’s attainment in Maths**

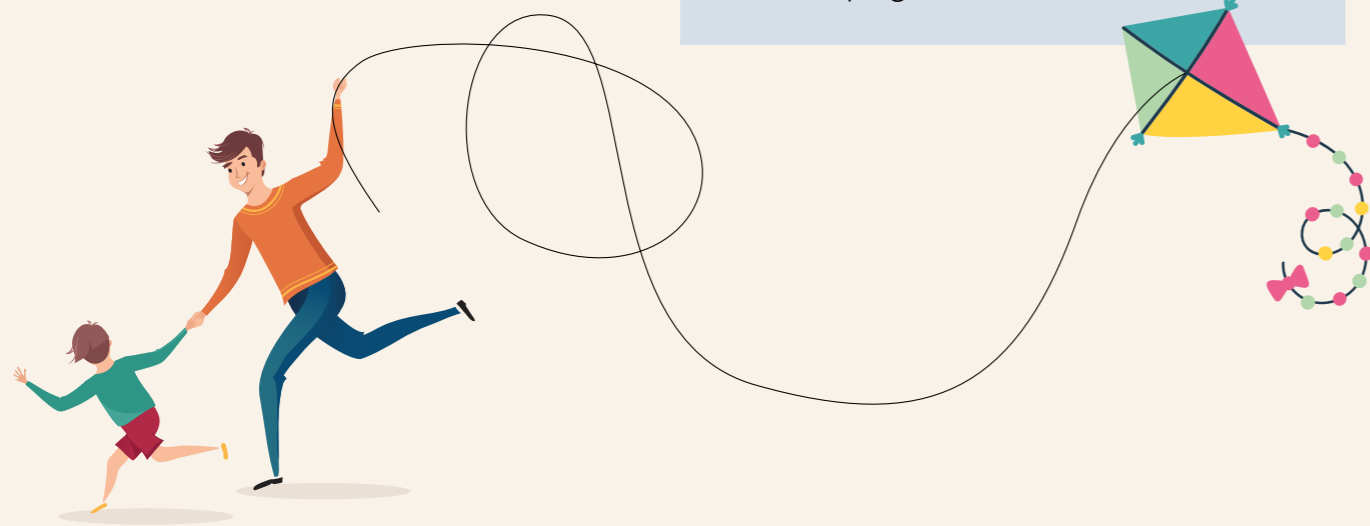
We explored the relationship between fathers’ and mothers’ involvement and children’s educational attainment in the individual subject areas of the EYFSP at age five. Broadly, paternal involvement had a similar effect on attainment in all the individual EYFSP subjects apart from in Disposition and Attitudes, Writing, Knowledge and Understanding about the World and Physical Development where it had no significant impact. Out of all the individual EYFSP subjects, fathers’ involvement had a slightly stronger effect on a child’s mathematical development – where a 1 SD increase in father involvement resulted in a 0.05 unit increase in this subject. In the other EYFSP subjects where father involvement had an effect, the increase in attainment was about 0.03 to 0.04 SD.

**BOX 1: The importance of reading**

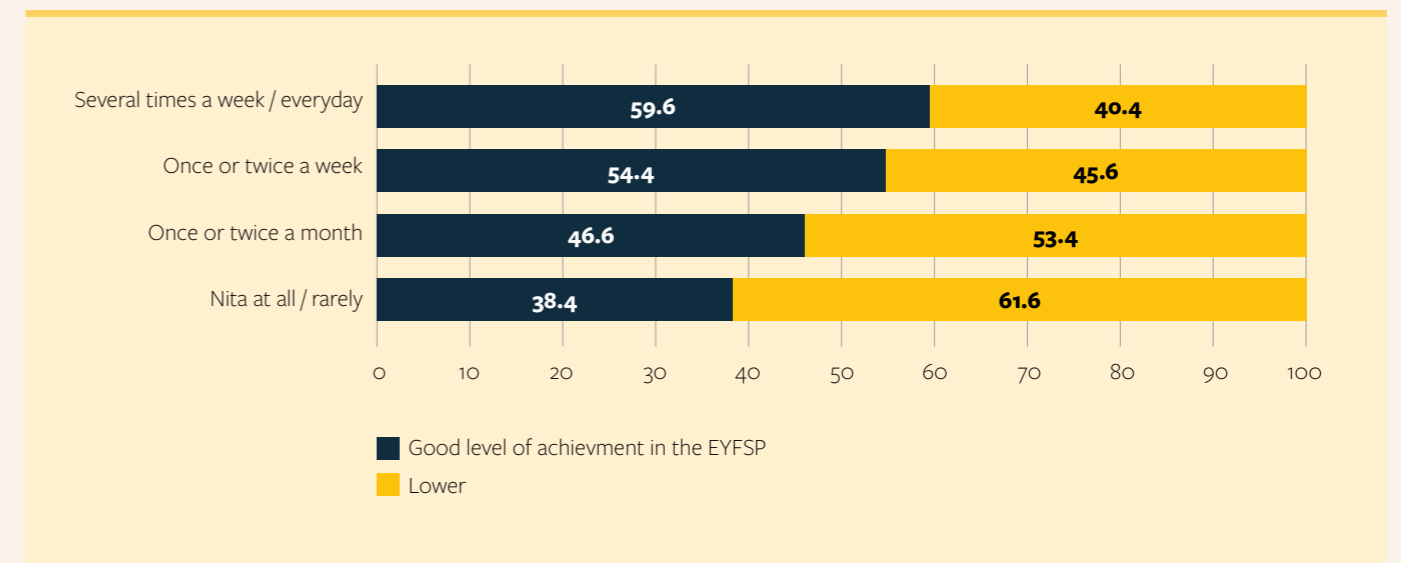
Reading with children is one activity that appears to have an important, positive effect on a child’s educational attainment at school. Children are more likely to have a ‘good’<sup>12</sup> level of attainment in the EYFSP at age five if either parent reads to their children regularly although the effect appears to be slightly stronger for fathers.

Three-fifths (60%) of children whose dads read to them regularly (i.e. several times a week or more) reached a good level of overall achievement in the EYFSP, compared to just two-fifths (38%) of children whose dads rarely did this. Figure 1 clearly shows that the proportion of children reaching a good level of EYFSP achievement falls as the frequency of fathers’ reading with them reduces. The pattern is similar for mothers, although the proportion of children reaching a good level of EYFSP achievement if the mother reads to them regularly is slightly lower (57%).

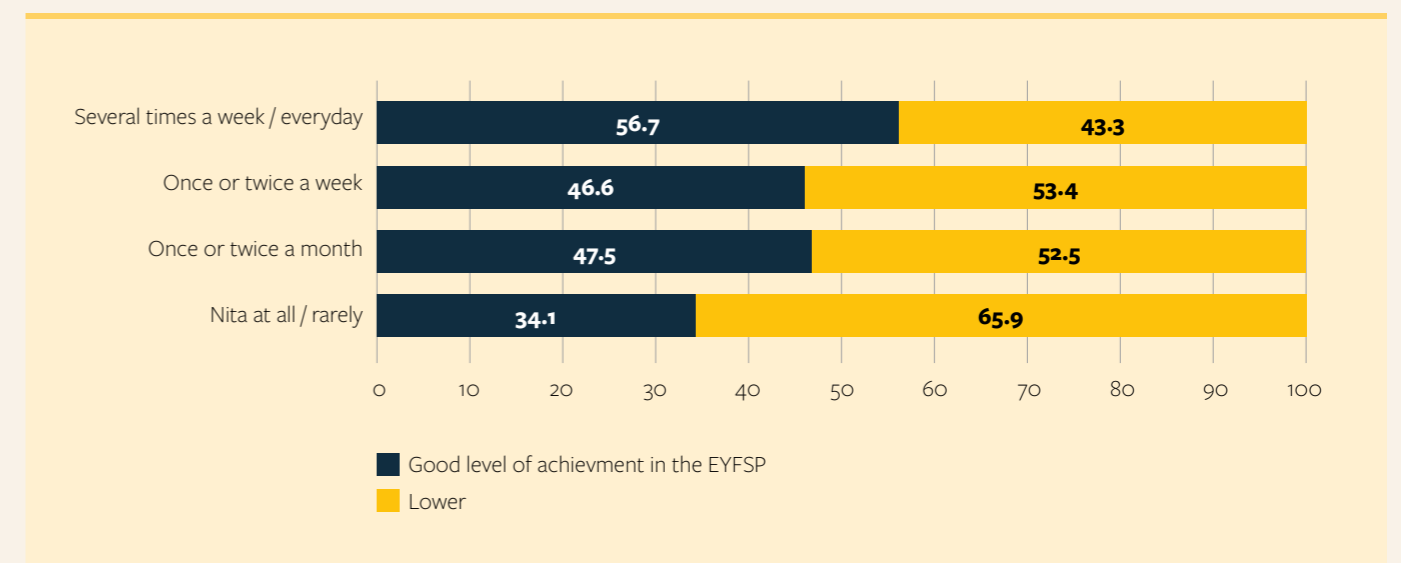
This suggests that both parents’ involvement in reading is important for enhancing children’s progression in school.



**Figure 1: The proportion of children who achieved a good level of achievement in the EYFSP or lower according to how often fathers read to them at home**



**Figure 2: The proportion of children who achieved a good level of achievement in the EYFSP or lower according to how often mothers read to them at home**



Note: This analysis is published on the PIECE project website: Norman, Davies and Smith (2022) <https://piecestudy.org/blog/what-difference-does-time-with-dad-make-to-childrens-learning/>

<sup>12</sup> The Department for Education defines a Good Level of Achievement as a score of ≥78 points in the total EYFSP score (which ranges from 0-117) but this must include a score of ≥6 in each individual scale under Personal, social and emotional development and Communication, language and literacy

### **(6) Paternal engagement in the first year of school (at age 5) helps to increase a child's later attainment in their Key Stage Assessments at age 7**

Paternal engagement at age five has positive longer-term effects because it increases the probability that a child will get better grades at age seven – even when we account for gender, age in the school year, ethnicity and household income. A 1 SD unit increase in fathers' involvement at age five results in a 0.15 SD unit increase in educational attainment at age seven. Again, this provides further evidence for why supporting early paternal involvement (i.e., pre-school and at the start of school) is important because of the longer-term benefits for children's educational attainment as they progress through primary school.

#### **3.1. Other influences on children's educational attainment**

Of course, there are many other influences on a child's attainment at ages five and seven in addition to the fathers and mothers' childcare involvement. Some of these influences were explored in our statistical models. We found:

### **(7) Pre-school formal childcare helps to increase a child's educational attainment in the first year of primary school**

Pre-school formal childcare provided by a nursery or registered childminder at any point before the start of school helps to increase a child's educational attainment at age five. Attending pre-school formal childcare before the start of primary school is associated with a 0.09 SD increase in primary school attainment at age five. Pre-school childcare attendance also reduces the likelihood of a child having emotional symptoms at age five by 0.08 SD units. All this aligns with previous research that highlights the benefits of formal pre-school care

for enhancing children's cognitive and educational development (e.g. see Davies et al. 2021; Hanson and Hawkes 2009).

### **(8) Girls excel in their educational attainment and cognitive behaviour**

Significant gender inequalities in educational attainment remain at both ages five and seven, and neither the fathers' nor the mothers' involvement had any effect on this. Girls are significantly more likely to get better grades at school compared to boys, and they are less likely to have conduct, hyperactivity and peer socialisation problems, as well as better pro-social behaviour. The only behavioural domain where boys do better is the emotional one where girls are 0.07 SD and 0.03 SD units more likely to have problematic emotional behaviour compared to boys at the age of five and seven respectively.

### **(9) The detrimental impact of poverty**

Living in poverty continues to have a detrimental effect on educational attainment at school, and a scarring effect on a child's educational attainment if this is experienced at a very young age. We defined poverty as living in a household whose equivalised income was 60% below the UK median before housing costs<sup>13</sup>. Children's educational attainment at age five reduces by 0.08 SD units if households have equivalised income that is below the poverty breadline. Even if the household has moved over the poverty breadline by age five but a child has experienced poverty at any point during the first three years of their life, they are still less likely to do well at school compared to their more affluent peers. For example, experiencing a period of poverty since the age of one but moving over the poverty breadline by the age of five is still associated with a 0.12 SD unit decrease in educational attainment by the age of five.



<sup>13</sup> Adjusted for the number and ages of people in the family household using the equivalence scales produced by the Organisation for Economic Cooperation (OECD) – see [www.oecd.org/els/soc/OECD-Note-EquivalenceScales.pdf](http://www.oecd.org/els/soc/OECD-Note-EquivalenceScales.pdf) for more information.



Poverty also has detrimental impacts on cognitive behaviour. For example, living in persistent poverty since the age of nine months old has an association with a child's emotional symptoms as well as with conduct, hyperactivity and peer socialisation problems by age five – increasing problematic behaviour in these four domains by 0.15, 0.18, 0.15 and 0.17 SD units respectively. Although fathers' involvement had a positive effect on a child's educational attainment, regardless of poverty status, it made little difference to the impact of poverty.

In contrast, mothers' involvement had some impact on the negative effect of poverty. Although mothers' involvement did not moderate the relationship between poverty and educational attainment, it did help to reduce problematic emotional behaviour for children living in poorer households (below the poverty headline) at age five. Specifically, a 1 SD unit increase in a mother's involvement resulted in a 0.24 SD unit decrease in a child's emotional problems.

We already know that children in poverty are more susceptible to wellbeing and emotional problems, and these problems tend to increase as children get older (e.g., see Treanor and Troncoso 2022). However, our findings show that mothers' involvement may help to alleviate some of this for children (in two-parent households), which aligns with earlier research that shows children's social-emotional development critically depends on early interactions with parents – particularly mothers (e.g., Nandy, Nixon and Quigley 2020). However, it is important to note that it is not always possible for mothers (and fathers) to be highly involved due to time, resource and other constraints associated with poverty (e.g., see Tarrant 2021). Mothers (and fathers) who live in poverty are also more susceptible to poorer health, mental health and wellbeing (e.g., see

Ridley et al. 2020; Cooper and Stewart 2021), which may affect motivations and capabilities to be highly engaged with their children.

In addition to low income, other socio-economic factors are important – such as the quality of local area in which the child lives. Living in an area rated as poor (by the parents) increases the probability of a child having conduct and peer socialisation problems, and it is more likely to reduce pro-social behaviour. Another important factor is the father's educational level whereby children's educational attainment at age five increased by 0.3 SD units if the father was highly educated (to at least degree level). Problematic conduct, hyperactivity and peer socialisation behaviour was also less likely for children whose fathers were highly educated. This may be due to greater exposure to a richer vocabulary and achievement-oriented attitudes as well as encouragement of academic success that is typical amongst more highly educated parents (e.g., see Ludeke et al. 2018; Dubow et al. 2009).

### (10) Other socio-demographic influences

We found that older fathers tended to have children that did slightly better at school, even when we accounted for socio-economic status (measured as level of education, employment and poverty status, and the quality of local area in which the family lived). The relationship between fathers' age and their children's educational attainment might be connected to other aspects of socio-economic status not accounted for in our models. For example, older fathers are more likely to have established careers and higher earnings, which may help to enrich environments for children (e.g., see Janecka et al. 2017). However, we would need to do further tests to establish this in our data.

Not surprisingly, older children (in the school year), tended to get higher grades at age five and

seven. Children who did not have siblings living in the household were also more likely to do better at school at age five, although the presence of siblings had no significant effect on attainment at age seven. However, having siblings had other advantages for the child at age five because this helped to reduce problematic emotional, hyperactive and peer socialisation behaviour.

### BOX 2: What influences fathers' involvement at school?

Although parental involvement in structured childcare in or around the home has the most important impact on a child's educational attainment, parental participation at the child's school – such as helping out in the classroom, fundraising or being a school governor for example - can have some benefits because this demonstrates the value and importance of education to the child, which can have a positive influence on learning, behaviour and attendance (Campbell 2011). School involvement can also be an important first step that can lead to or enhance parental engagement at home (Goodall and Montgomery 2014). However, across all the school-involvement activities measured by the Millennium Cohort Study (MCS) when the child was aged 7, just under a third (32%) of fathers said they participated in their child's school in some way, compared to more than three-fifths (61%) of mothers. The gender gap is even more marked for certain school-involvement activities: mothers are about four times more likely to help in the school library or classroom, or be a member of a parent association, committee or group for example. In some school involvement activities - such as being a member of a parenting association, committee or management board - less than 5% of fathers contribute.

Interestingly, we did not find any variation in educational attainment according to the child's ethnicity in our analysis although we know from other research that educational inequalities according to race and ethnicity are stark (e.g., see Stevens and Dworkin 2019).

### Which fathers do participate?

We looked at fathers participating in one or more school-based activities when their children were aged 7 and we found that dads were more likely to be involved at school:

- If they were frequently involved in childcare activities at home
- If their children had good grades in their Key Stage 1 Assessments
- If they were from a more affluent household (defined as having a household income that was more than 60% of the UK median, after housing costs)
- If they were in paid work; and
- If they were educated to at least degree level.

We found fathers of children from a Pakistani or Bangladeshi background were less likely to get involved with their child's school compared to fathers of children from white backgrounds.

These findings suggest that barriers to fathers' school involvement likely relate to income, time, work, educational and/or cultural background.

This analysis (Norman, Smith and Davies) is published on the PIECE website here: <https://piecestudy.org/blog/supporting-fathers-to-get-more-involved-at-school/>



**3.2. Other barriers to fathers' involvement: Evidence from the Fathers and children's learning survey, consultations and our previous research**

There are multiple barriers to fathers' (and mothers') childcare involvement, which prevent some parents from being as involved as they might like to be. Fathers tend to manage their work-care arrangements around work demands, as well as the work-family reconciliation measures that are available to them. In the UK, work-family reconciliation measures tend to channel mothers into part-time work and there are fewer measures to support fathers' childcare involvement.

For example, earlier analysis of the MCS found that working long hours had a detrimental impact on fathers' capabilities to be involved with their children (e.g., see Norman 2020; Norman et al. 2014; Fagan and Norman 2016). The schedule of work hours may also be important as research shows that fathers who worked night shifts were more likely to be involved (Norman et al. 2014). This might suggest that such fathers have greater availability to do childcare during the day. Similarly, fathers who work evenings and weekends may have more capacity to be involved during the weekday (e.g., see Miller 2011). However, work hours and shifts that enable greater father involvement may present other barriers that prevent school-based involvement. For example, inflexible

“  
Fathers who work evenings and weekends may have more capacity to be involved during the weekday



work schedules are likely to reduce fathers' capabilities to get involved in school-based activities that take place during the day.

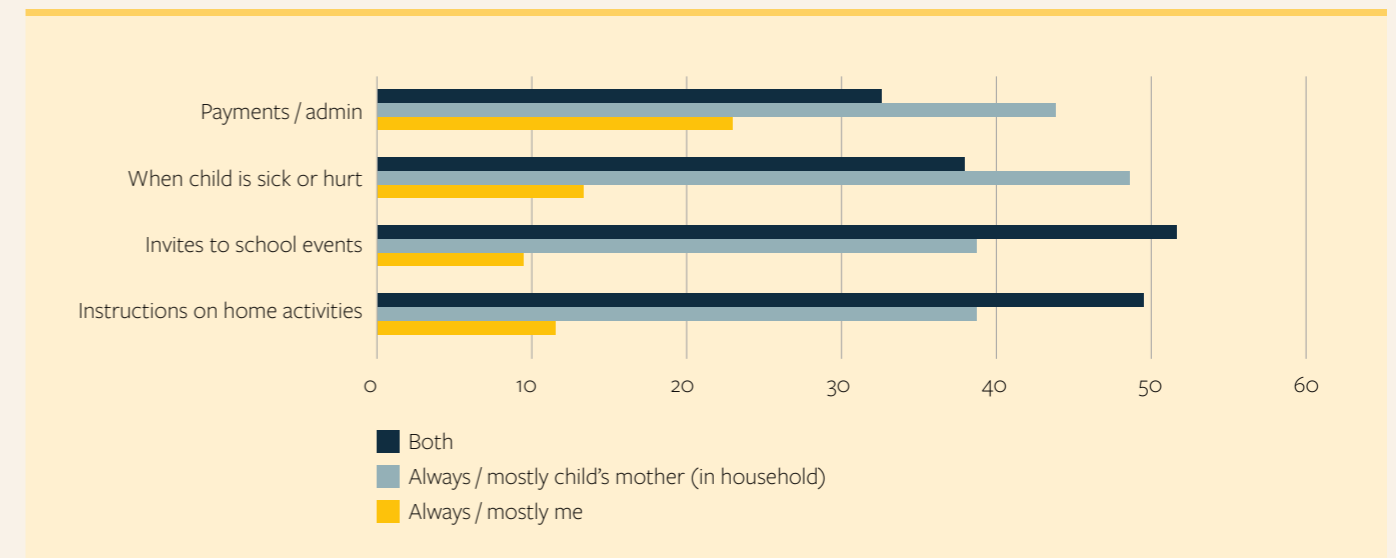
The societal expectation that mothers should take the main responsibility for children's care and education continues to dominate despite some shifts in social attitudes that support more egalitarian gender roles (e.g., see Attar Taylor and Scott 2018; Norman 2017). However, the traditional ideal that mothers take 'primary responsibility' for the care of their children is perpetuated by many schools and childcare providers, who often position the mother as the first point of contact in communications about the child – as shown by the data from our Fathers and Children's Learning Survey (FCL) (see Figure 1).

Figure 1 shows that half (49%) of fathers in the FCL survey said that the school or nursery always or mostly contacted the mother when the child

was sick or hurt, and two-fifths (39%) said their school or nursery always/mostly contacted the mother about instructions for activities to do at home. Although two-fifths of fathers (42%) said they or their partner had instructed their school about which parent to contact, 16% said the school had made this decision.

This assumption of the mother as the main caregiver who is primarily responsible for managing and coordinating children's care and education is held by many educational settings as well as parents themselves (also see Brooks and Hodkinson 2022). This often acts as a further barrier to fathers' participation in school-involvement activities - also reported by fathers in our consultation forums - which helps to ensure that, on average, fathers do less.

**Figure 1: Who does the school, nursery, pre-school contact most frequently about...**



Number of responses to each question = 178 to 182

## 4. Summary and discussion of the findings

The PIECE findings suggest that in two-parent families:

- **Greater father involvement in structured, educational activities (like reading and playing) provides an educational advantage to children in the early stages of primary school.** Fathers' involvement operates differently from mothers' involvement – it helps to increase children's educational attainment, while mothers' involvement helps to enhance cognitive behaviour, which then helps to foster higher attainment at school.
- **Fathers' involvement throughout their child's early and primary education can impact positively on their children's educational attainment.** We found that a father's pre-school involvement (at age three) helps to increase a child's educational attainment at age five; and a fathers' involvement at age five helps to increase a child's educational attainment in their Key Stage Assessments at age seven.
- **The earlier a father gets involved in the child's life, the more likely he is to be involved later when the child is older.** In other words, once early paternal involvement is established, it sets up a pattern of involved caregiving that is likely to continue as the child gets older - which has benefits for a child's educational progression.



### 4.1. Why is fathers' involvement so important?

We suggest two possible reasons why fathers have an important and unique impact:

#### **Reason 1: Two heads are better than one.**

The positive impact of a father's involvement might be explained (or partially explained) by his bringing of time, 'care work' and educational support in addition to that provided by the other parent (the mother); this 'extra input' may, in and of itself, provide an educational advantage for the child. Having two involved parents rather than one also exposes a child to more varied stimuli, which will foster better cognitive outcomes because of the exposure to different values, behaviours, vocabulary, and parenting styles (Sarkadi et al 2008; Lamb 2010). On average, in two-parent opposite sex households, mothers still tend to assume the primary carer role and therefore do the most, but if fathers actively engage in childcare too, it significantly increases the likelihood of children getting better grades in primary school. This is why encouraging and supporting fathers to share childcare with the mother, from an early stage in the child's life, is critical.

#### **Reason 2: Fathers bring something different.**

There is also a strong possibility that fathers' input to their children's learning and development brings particular and unique benefits, as highlighted by previous research that shows fathers tend to engage with their children in different ways to mothers. For example, Pancsofar & Vernon-Feagans (2006) find that fathers and mothers talk differently to their children and have different conversation topics, which fosters child development in different ways. Allen and Daly (2007) find that fathers are more likely to engage in greater physical engagement and activity with the child than is typically done by mothers, which fosters risk-taking and problem-solving behaviour in children. Fathers have been shown to also help produce more positive attitudes

towards school, which increases the probability of getting higher grades at school. Chung (2021) suggests an involved father can also act as a role model for children, which helps a child to reinforce, adopt and pursue goals, and learn problem-solving behaviours. All this evidence suggests that fathers can have a unique impact.

Indeed, this is reflected in the PIECE findings, which show that whilst fathers' involvement is particularly important for educational *attainment*, mothers' involvement is important for enhancing cognitive *behaviour* at the age of five. Thus mothers' involvement is still important for a child's educational progression given that all five behavioural traits that we measure – emotional, conduct, hyperactivity, peer socialisation and pro-social behaviour – have an association with educational attainment in the first year of primary school.

### 4.2. What other factors affect children's attainment?

It is important to recognise that educational attainment is not just down to the extent of parental involvement in structured childcare activities. Children's educational attainment and cognitive behaviour is also shaped by other socio-demographic and contextual factors, such as poverty and a father's own level of education. These can also hinder fathers' (and mothers') capabilities to be involved, as earlier research shows (e.g., Norman et al. 2014; Fagan and Norman 2016). For example, less educated fathers have less educational experience to draw upon when engaging in educational activities, and they are more likely to have lower academic aspirations for their children, which can negatively affect a child's academic performance (Spera et al. 2009). We also still see a scarring effect of poverty on a child's cognitive and educational attainment, which drastically sets children back at school even when fathers (and mothers) are involved. However, the positive effect from fathers' involvement on children's



educational attainment holds regardless of poverty status. Although our analysis shows that mothers' involvement helps to reduce problematic emotional behaviour in children who live in poorer two-parent households, there are a multitude of other influences that shape children's emotional behaviour in such contexts.

Children living in poorer households are more likely to have mental health, wellbeing and health problems (e.g., see Cooper and Stewart 2021), which has been shown to impact on their behavioural and educational development (e.g., Gutman and Vorhaus 2012; Lereya et al. 2019). Parents living in poorer households are also more likely to suffer from mental health and wellbeing issues (e.g., see Ridley et al. 2020), which is likely to hinder their ability to support their children's learning. Indeed, it is important to recognise that mothers and fathers who live in poverty may not all have the time or financial resources at their disposal to be as engaged as they might like to be (e.g., see Tarrant 2021). So, while it is important to support mothers to be involved because of the potential benefits this can bring to regulating children's emotional behaviour,

it is also necessary to address the further layers of disadvantage experienced by such children, which have damaging effects on their behaviour and educational attainment at school. It is also important to recognise the additional challenges that fathers and mothers affected by poverty are likely to face such as the reconciliation of childcare responsibilities with insecure, low paid and/or inflexible work, and/or the social security system (Tarrant 2021). In addition to this, we must recognise other barriers to parental involvement – connected to work demands (hours, schedules, flexibility) and dominant societal attitudes that position mothers and fathers as, respectively, the primary and secondary caregiver, which can be perpetuated by some educational settings as well as parents themselves.

#### 4.3. What about other types of families?

The PIECE study analysis focuses on two-parent households but our consultation discussions with fathers highlighted that other barriers exist for children living in other types of households. For example, it is more challenging for fathers to have a high level of involvement with their children if they have separated from the mother and are therefore

not resident with their children on a full-time basis. Similarly, lone mothers and lone fathers also face different sets of challenges, which may connect to time and financial resources. It would be interesting to explore whether the relationship between parental involvement and educational attainment plays out differently in same-sex parent households.

In summary, there needs to be awareness and sensitivity to the different contexts in which children grow up, as this interacts and shapes fathers' and mothers' involvement. However, efforts to support both fathers' and mothers' caregiver roles are important, and much more could be done at the policy, early years setting/school and family level in order to achieve this - as set out in section 5.

#### 4.4. Some limitations to note

##### *Measuring fathers' involvement*

We note there are other ways that parents can be involved, not captured by the measures used in the PIECE analysis. Engaging with children can encompass many other activities such as emotional support, having conversations, teaching or helping with homework. Involvement could also be less direct – like simply 'being there' for the child when needed or ensuring that particular aspects of childcare are provided by anticipating, planning and arranging provision. For example, knowing when the child needs to go to the doctor, making the appointment and ensuring the child gets to it (Lamb 1986). Supporting the family financially might be another aspect of father involvement.

In summary, there are myriad possible 'involvement activities' and PIECE has focused only on a select few. This is partly driven by what MCS data is available for us to analyse. However, the activities we do capture represent some of the core educational, structured types of activities that fathers can do to engage with their children at the ages of five and seven, which previous research finds to be most conducive to fostering children's development. We were most

interested in these 'engagement' types of activities as they involve one-to-one father-child interaction time and are focused on enhancing imagination and development.

##### *Measuring education*

We also acknowledge the different ways of measuring a child's educational attainment and we have opted to use one that captures a child's official grades at school. This is only a narrow snapshot of the possible measures relating to a child's educational development. For example, a child may be performing poorly according to their educational grades, but they could be excelling in other academic or vocational areas, with different types of skills and competencies. However, we use formal grades, assessed by teachers, as an indication of the child's broad ability in the core academic areas at these key, early stages of school.

##### *Other limitations*

It is possible that other factors not captured in our statistical models will impact on children's educational attainment – such as the quality of the child's school, their teachers and class size. It is impossible to account for everything in a statistical model and our focus was on influences within and around the home environment rather than the school.

It is also important to note that the analysis is based on a cohort of school children in one school year, in 2005/6. School education systems, qualifications and other social and political contextual factors change and so the influences on a later cohort of children may be different. Despite this, the main findings from PIECE are still applicable to families today, in the context of 21st century UK parenting. Essentially, the headline is that **greater fathers' involvement appears to provide an educational advantage to children, and this effect is important and seems to operate in different ways to the effects from the mothers' involvement.**



## 5. Recommendations

Supporting fathers and mothers to be involved in their children's education and learning is important because of the complementary benefits each parent can bring to a child's cognitive and educational development.



Fathers' (and mothers') involvement is critical – and support from early years settings and schools, as well as from the Government and employers, could help to enable this. Here we set out recommendations for four key groups: (i) fathers; (ii) children's early years settings and schools; (iii) employers and (iv) the Government.

### (1) What can fathers do?

#### a) Carve out time to spend on regular structured (engagement) activities with your child

Talking and play-centred activities are most conducive to a child's education and learning. This can include spending time playing games or with toys, telling stories, reading a book, drawing pictures or doing arts and crafts, and listening to and talking about music. Engaging in multiple types of structured activities several times a week - even if just for short periods of time - helps to enrich a child's cognitive and language development. If both parents engage in such activities, it provides a significant educational advantage to a child.

Reading with children is one activity that is particularly beneficial for supporting a child's educational progression. Even short periods of regular reading can have a positive effect. In the Fatherhood Institute's 'Fathers Reading Every Day' (FRED) programme, fathers commit to reading or sharing stories with their child for 10-20 minutes per day (depending on the child's age), and this has been shown to lead to improved attainment in the EYFSP at age 5 (especially for boys) (see Forest and Lloyd 2014). If families have limited access to books, telling stories to a child (not from a book) and having conversations about the child's school day to stimulate discussion and thinking may help. If fathers have limited time during the working week, setting time aside at the weekends is important.

There are some good online resources to support parents such as Learning with Parents (LWP) (<https://learningwithparents.com>), which is a learning platform that some UK primary schools have signed up to. This sets simple, weekly learning activities and games that parents can do with their children that aim to enhance mathematical and language development at home. If your school is not signed up to LWP, there are other, freely available resources on family learning activities such as:

- *BBC Tiny Happy People*: [www.bbc.co.uk/tiny-happy-people](http://www.bbc.co.uk/tiny-happy-people)
- *BBC Bitesize 'Parental Engagement Toolkit'*: [www.bbc.co.uk/bitesize/articles/znsmyxc](http://www.bbc.co.uk/bitesize/articles/znsmyxc)
- *The National Centre for Family Learning*: <https://nationalcentreforfamilylearning.org>
- *The National Literacy Trust*: <https://wordsforlife.org.uk/activities>

#### b) Collaborate with your child's other parent(s) as a 'learning supporter'

Both parents have an important role to play in their child's learning and development, and the sharing of childcare has positive effects for both children and their families. It is important to value and make time for your own and the mother's caring roles, which means working to support each other as 'learning supporters' for your child, if this is feasible.

On average, in two-parent families, mothers tend to take responsibility for the more routine aspects of childcare, which often leaves less time for mothers to spend on the non-routine, educational types of activities that the PIECE analysis shows are important for a child's educational attainment. If this is the case in your household, play your part in everyday childcare too, especially as this is part of how we bond and stay connected with our children. This will also enable mothers to spend time on the educational-focused activities that



show up as important for fathers. This is why it is important to share out both the educational and routine types of childcare as equally as possible between parents.

### c) Build a relationship with your child's school or early years' setting

It is important that your child's educational setting communicates information to you as well as the child's mother/other parent. Ensure the school or early years' setting has (and uses) your up-to-date contact details so you are informed about updates, activities and your child's progress and learning.

If you have time, try to share out the homework/learning activities with the child's other parent as equally as possible. Participating in school-activities such as parents' evenings, PTAs and general school activities can be useful too although we recognise that parents have busy lives, which can make school-based participation difficult for some. If this is the case, focus on spending time on the home-learning activities with your child as these are more critical for a child's educational and cognitive development.

## (2) What can schools and early years settings do?

### a) Collect and use fathers' contact details

Schools and early years settings should ensure they reach out directly to fathers as well as mothers (or the child's other parent) in their communications. This involves making sure they routinely collect, update, and make use of fathers' contact information (if he is present in the child's life). Fathers and mothers should be informed about the importance of ensuring the school/setting has their updated contact details so that setting communications can be channelled to both parents.

Knowing and holding such basic information about key adults around the child is good safeguarding practice, and is the foundation on which effective, father-inclusive parental engagement practices can be built.

### b) Develop and implement a clear strategy for parent-focused communication – by allowing communications to be sent to more than one parent per child.

Schools' and settings' administrative systems should allow for communications to be sent to more than one parent per child, rather than to a single point of contact (which is usually the mother). Direct communication with more than one parent can be particularly important where children spend substantial time in different households – most commonly because their parents have divorced or separated, but also, in some cases, where children are co-parented by 'never-together' parents/parent-figures (e.g., parents that live apart, lesbian and gay co-parenting couples, or a lone mother and grandparents sharing care).

In families where parents separate, fathers often remain highly involved in their child's life but sometimes remain 'invisible' to the school/setting and untapped as a potential home-learning



resource, unless action is taken to 'double-up' on key communications - for example, updates about the child's performance, invitations to parents' evenings, school plays and so on. The child's home learning environment may be improved immeasurably by communicating directly with both parents rather than assuming messages sent to one will feed through to the other, which may not always happen if parents are busy, or relationships are strained.

Creating administrative systems that allow for more than one parent to receive communications, and/or to specify who should be contacted about specific things – can be helpful for 'couple families' too, removing the expectation for one parent (usually the mother) to take responsibility for everything and/or cascade information to the other.

When communicating virtually, for example by email or text message, none of this should add greatly to administrative costs – but it may require organisational 'buy-in', staff training and adjustment to systems. If educational setting leaders feel that such a strategy is logistically impossible – and are happy to accept the constraints a 'one-parent-only' approach may impose on successful parental engagement – they could, alternatively, require families, when they register at the school/setting, to nominate one parent to act as 'lead contact' to receive all communications. At this point the setting should explain clearly that the parent adopting this role is committing to passing information on to the other parent; should let them know the procedure for changing the nominated 'lead contact'; and should inform them of how the system would work if they were not both co-resident with the child.

Whatever strategy is adopted, schools/ settings should encourage all parents to update their contact information as and when necessary, to ensure it remains current.

### c) Refer explicitly to 'fathers' in communications

The default position in many schools and early years' settings is to address communications to 'Parents' or 'Parents/ Carers'. Many fathers, mothers, and others (including school staff) will read this – consciously or unconsciously – as 'Mothers'.

It is easy to explicitly challenge this assumption, by changing the words that we use. Addressing communications to 'Mothers, Fathers and other Carers' – with a 'footnote' explaining that these definitions include father-figures (such as stepfathers, grandfathers or uncles) and mother-figures (including stepmothers, grandmothers and aunties) is an inclusive approach that does not stigmatise lone-mother or lesbian-couple families.

This may seem like a small change, but it is an important step towards disrupting the 'mother-default' that underpins our individual and collective thinking around looking after children and supporting their learning.

### d) Encourage fathers' engagement through father-targeted events and activities

Schools and early years settings could set school or home-learning activities that specifically encourage and support fathers' involvement and participation through, for example, father-targeted events and activities.

As outlined above, we recognise there needs to be some sensitivity around this: hence the inclusive wording we recommend under (c) above. For example, the Fatherhood Institute's Fathers Reading Every Day (FRED) programme asks children to invite a 'father or father-figure' to participate in a reading activity with them, and explains that this could be a grandfather, uncle, or older brother, or 'someone who is like a father (which could be your mum!)'.

There are many ways you can help fathers do the best job they can of supporting their child's development and learning. This could include running an online survey to find out about barriers to father involvement, and areas where they would value additional help. Other ways include providing information to help fathers understand child development milestones, and to help improve their own knowledge and skills as 'learning supporters'; recommending activities and resources to use with their child; inviting them into the school/setting to get to know them, familiarise them with staff and pedagogical approaches, answer any questions, and show that you value their involvement, and inviting them to contribute in other ways (e.g. as volunteer readers). Such activities do not need to be 'single-sex', but targeting fathers can be helpful because it makes clear to all involved that fathers' involvement is necessary and important, and it explicitly challenges the traditional 'mother-as-primary-caregiver' default.

#### **e) Recognise fathers' (and mothers') work-life challenges, which prevent some parents from engaging in school-based activities**

Designing engagement activities that can be done from home and do not eat up time and money (and do not necessarily involve journeys to and from school, which may be expensive) might be preferable for working fathers (and mothers) as this would allow them to engage at different times to fit around their work schedules. This approach may be especially effective for parents on lower incomes and those who work longer hours. Communicating with fathers (and mothers) via apps, text message and email rather than only sheets of paper in their child's book bag can enable parents with different needs and resources to access and save key information, including dates of upcoming events, in their own time; and in ways that help them 'sync' their working and child-focused commitments.

“  
**There are many ways you can help fathers do the best job they can...**

#### **f) Ensure support is given to diverse groups of fathers who may face barriers to their involvement in home-learning or school-based activities.**

Schools should also implement inclusive strategies to engage fathers from different cultures, some of whom may seem 'invisible' but could be accessed via community networks (for example by developing partnerships with local imams or other community leaders). Fathers with low literacy levels, fathers who use English as an additional language, and fathers of children with special educational needs are some of the key groups likely to benefit from additional input (for example signposting to relevant classes and networks) aimed at enabling them to provide appropriate support to their children.

Parentkind's *Blueprint for Family-Friendly Schools* has some useful information about wider community engagement and the benefits of this for schools (see [www.parentkind.org.uk/assets/resources/Blueprint-for-Parent-Friendly-Schools.pdf](http://www.parentkind.org.uk/assets/resources/Blueprint-for-Parent-Friendly-Schools.pdf)).

#### **(3) What can employers do?**

In line with the recommendations for Government - see (4) -, employers should seek to support the fathers they employ, by building more open cultures and normalising men taking up parental leave and flexible working. Not only does this benefit employees, it can also help to increase employee loyalty, commitment and productivity (e.g. see Churchill 2020). If feasible, employers should therefore:

- Offer more generous paternity and parental leave entitlements for fathers and encourage take up. For example, some employers allow fathers' additional paid leave in order to extend their statutory paternity leave entitlement.
- Explicitly promote flexible working opportunities to fathers – as this can make a huge difference to fathers' availability to participate in looking after and supporting their children's education.
- Tackle the 'long-hours' working culture - given long work hours have a negative effect on fathers' capabilities to engage with their children at home (e.g., see Norman et al. 2014). UK fathers work some of the longest hours in Europe. The UK is renowned for its 'long hours working culture' and it is often men that feel greater pressure to adhere to this 'ideal' (e.g., see Chung 2022). It is important for employers to create a workplace culture that does not promote long hours as the ideal but instead allows employees to work in the best way that suits their personal lives to enable a better work-life balance. This will also have benefits for the employer as flexibility in work hours can improve job satisfaction, wellbeing, commitment and productivity (e.g., see Chung 2022; Churchill 2020).

#### **(4) What can the Government do?**

##### **Education policy**

The Government sets the tone for schools' and early years' settings' approach to engagement with parents, via the Ofsted inspection regime. It should:

##### **a) Strengthen expectations around education providers' parental engagement.**

The current Ofsted inspection frameworks include assessments relating to parental engagement, but these are not explicitly inclusive of fathers/ father-figures. This means that individual schools and settings can achieve good or outstanding assessments without taking any steps (such as those we have described above) to ensure that fathers/ father-figures are effectively engaged in efforts to create supportive home learning environments and parent-school collaboration.

Small changes in the wording of these frameworks could help sharpen schools' and settings' focus on father-inclusion. For example, grade descriptors within Early Years and School Inspection Handbooks that refer to 'parents' could explicitly stipulate that this refers to 'mothers, fathers and/ or mother/father figures'. Clarifying that effective parental engagement is inclusive of fathers is important given many settings, practitioners, teachers, and families still consider the father's caregiver role as secondary to the mothers, which puts the father at risk of being sidelined or even ignored when gender neutral terms such as 'parent' are used. For example, the current note on 'Terminology' in the Schools Inspection Handbook states that "any reference to parents includes registered parents or carers". Here the inclusion of fathers could be made more explicit by stipulating that this includes 'mothers, fathers and mother/ father-figures'.



## Social and employment policy

The Government has a significant part to play in creating the conditions that allow fathers to engage, and feel that they have the time to engage, with their children. Many fathers face barriers to their involvement connected to the demands of paid work and access to work-family reconciliation measures.

Most couples revert to a traditional ‘gendered division of labour’ when they have children where mothers take most responsibility for household work and care, and fathers take most responsibility for providing an income. This is because having children increases the domestic workload and household income pressures, so it makes more financial sense for the lower earner (usually the woman) to reduce her work hours (or even drop out of the labour market) whilst the higher earner (usually the man) continues to work full-time. This gendered pattern of earning and caregiving, which is perpetuated by the gender pay gap, also shapes fathers’ and mothers’ attitudes, as well as broader societal beliefs about who should take primary responsibility for care and a child’s learning. Indeed, there is still a significant proportion of the population (about a third) that believes mothers of pre-school children should stay at home rather than go to work (Attar Taylor and Scott 2018). These embedded traditional gender attitudes and beliefs can start to be challenged by implementing changes to social and employment policy. Hence, the Government should:

### **b) Redesign the UK parenting leave system to be more father-inclusive by including a portion of leave reserved specifically for the father, with an earnings replacement rate of at least 90%.**

Fathers’ childcare involvement could be better enabled through access to parental leave that is

targeted as an individual ‘father’s right’ and well remunerated at 90% of earnings – as is currently the case for the first six weeks of maternity leave<sup>14</sup>.

Such reforms to parental leave would incentivise fathers to take a longer period off work to spend time at home with their young children, which may help to build stronger attachments, create more space to become confident, competent caregivers and ‘learning supporters’ for their children – as well as potentially taking the pressure off mothers to assume main responsibility for this aspect of parenting. Enabling fathers to take time off to do more of the care work could also have broader implications by, for example, supporting more mothers to expand their paid work roles and therefore helping to reduce the gender pay gap, and creating space for fathers to take on a greater role in caregiving/learning support.

### **c) Introduce flexible working-by-default for all employee jobs**

Greater access to flexible working would allow fathers to reduce or adapt their work hours and/or schedules, enabling them to spend more time caring for and/or supporting their children’s learning. Although all employees now have a right to request flexible working from the first day of their employment, this still places the onus on individual employees to ask for such arrangements. It remains the case that men are less likely to take up flexible working and are more likely to be rejected by their employers when they do so (e.g., see Tipping et al. 2012). Moving the onus to the employer to advertise flexible working opportunities and explain any exemptions, would help remove stigma around flexible working (Chung 2022), and enable more fathers to agree arrangements that could support their greater involvement in child learning support.



### **d) Provide parental leave and pay (‘Paternity Allowance’) to self-employed fathers.**

Further support is needed for increasing the number of fathers (and mothers) who are self-employed (or work in the ‘gig economy’) and lack the right to statutory maternity and paternity leave and pay. Only self-employed mothers are entitled to Maternity Allowance<sup>15</sup> but this places the responsibility of childcare solely on the mother and provides no financial support for self-employed fathers. Self-employed fathers are not eligible for paternity leave or Shared Parental Leave and Pay, which means that taking time off work to care for children may not be financially feasible. The Government should therefore consult on the introduction of a Paternity Allowance for self-employed fathers.

### **e) Step up measures to close the gender pay gap.**

It is important to reduce the gender pay gap because this increases the likelihood that the father will earn more than the mother, creating a short-term financial logic for the father to invest his time in employment, and the mother to leave employment or switch to part-time hours to care for young children. Such situations will reduce the likelihood that the father is as involved in caring for his children as the mother.

Stepping up measures to close the gender pay gap - for example, requiring employers to publish ‘care gap’ as well as ‘pay gap’ information, including take-up of maternity, paternity and shared parental leave, and of flexible working requests/approvals by gender - is therefore important, so that the mother is not pushed into adapting her paid work in order to take the most responsibility for childcare (and other unpaid, domestic work).

<sup>14</sup> Under the current system, only a tiny minority of fathers (2-8%) take up Shared Parental Leave because they cannot afford to, the policy is too complex and/or their partner is reluctant to give up part of their entitlement. Schemes which stimulate the best take up as those with a quota of leave reserved for the father underwritten by a high replacement rate for earnings (e.g. see Fagan and Norman 2013).

<sup>15</sup> £172.48 a week or 90% of your average weekly earnings (whichever is less) for 39 weeks (in 2023).

## 6. Concluding remarks

Fathers matter and the importance of their caregiver roles should be recognised and supported.

All the recommendations in this report are important. If they were met, this would not only emphasise the critical roles both parents have in supporting their children's education and learning but would also lead to better support for ALL parents and their children. The PIECE study analysis has shown that fathers matter and the importance of their caregiver roles should be recognised and supported not least because of the beneficial impacts this has on their children's early cognitive and educational development.



## References

- Allen, SM and Daly, KJ. (2007) The effects of father involvement: An updated research summary of the evidence: Centre for Families, Work & Well-Being, University of Guelph.
- Attar Taylor, E., Scott, J. (2018) 'Gender' in Phillips, D., Curtice, J., Phillips, M. and Perry, J. (eds.) (2018), British Social Attitudes: The 35th Report, London: The National Centre for Social Research
- Bronte-Tinkew, J., Carrano, J., Horowitz, A., Kinukawa, A. (2008) Involvement Among Resident Fathers and Links to Infant Cognitive Outcomes. *Journal of Family Issues*, Vol 29(9): 1211-124
- Brooks, R., and Hodkinson, P. (2022) The distribution of 'educational labour' in families with equal or primary carer fathers, *British Journal of Sociology of Education*, 43:7, 995-1011,
- Cabrera, N., Shannon, J., Tamis-LeMonda, C. (2007) Fathers' Influence on Their Children's Cognitive and Emotional Development: From Toddlers to Pre-K. *Applied Development Science*, Vol. 11(4): 208-213
- Campbell, C. (2011) How to involve hard-to-reach parents: encouraging meaningful parental involvement with schools, National College for School Leadership [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/340369/how-to-involve-hard-to-reach-parents-full-report.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/340369/how-to-involve-hard-to-reach-parents-full-report.pdf)
- Cano, T., Perales, F., Baxter, J. (2019) A Matter of Time: Father Involvement and Child Cognitive Outcomes, *Journal of Marriage and Family* 81 (February 2019): 164-184
- Chung, H. (2022) The Flexibility Paradox: Why flexible working leads to (self-) exploitation, Policy Press: Bristol
- Chung, H. (2021) Shared care, father's involvement in care and family well-being outcomes: A Literature Review. Report for the Government Equalities Office. London; UK Cabinet Office.
- Churchill, F. (2020) Three-quarters of men feel stigmatised about taking extended paternity leave, report finds [www.peoplemanagement.co.uk/article/1745049/three-quarters-men-feel-stigmatised-taking-extended-paternity-leave](http://www.peoplemanagement.co.uk/article/1745049/three-quarters-men-feel-stigmatised-taking-extended-paternity-leave)



- Cooper, K., Stewart, K. (2021) Does Household Income Affect Children's Outcomes? A Systematic Review of the Evidence. *Child Indicators Research*, Vol 14: 981–1005
- Davies, C., Hendry, A., Gibson, S., Gliga, T., McGillon, M., Gonzalez-Gomez, N. (2021): Early childhood education and care (ECEC) during COVID-19 boosts growth in language and executive function. *Infant Child Development*, Jul-Aug: 30(4).
- Department for Education (2018) Education Secretary sets vision for boosting social mobility [www.gov.uk/government/speeches/education-secretary-sets-vision-for-boosting-social-mobility](http://www.gov.uk/government/speeches/education-secretary-sets-vision-for-boosting-social-mobility)
- Dubow, E.F., Boxer, P., Rowell Huesmann, L. (2009) - Long-term Effects of Parents' Education on Children's Educational and Occupational Success: Mediation by Family Interactions, Child Aggression, and Teenage Aspirations. *Merrill Palmer Quarterly* (Wayne State Univ Press). 2009 Jul; 55(3): 224–249.
- Kindred2 (2022) 2022 School Readiness Survey: <https://kindredsquared.org.uk/wp-content/uploads/2023/01/Kindred-Squared-School-Readiness-Report.pdf>
- Education Policy Institute (2020) Education in England: Annual Report 2020: <https://epi.org.uk/publications-and-research/education-in-england-annual-report-2020/>
- Epstein, J. (1991) Effects on student achievement of teachers' practices of parent involvement In S. B. Silvern (ed), *Advances in reading/language research: A research annual*, Vol. 5. Literacy through family, community, and school interaction (pp. 261-276). US: Elsevier Science/JAI Press
- Fagan C, Norman H. (2016). Which Fathers Are Involved in Caring for Pre-school Age Children in the United Kingdom? A Longitudinal Analysis of the Influence of Work Hours in Employment on Shared Childcare Arrangements in Couple Households. In: Ruspini E; Crespi I (eds.) *Balancing Work and Family in a Changing Society: The Fathers' Perspective*. Global Masculinities. Palgrave Macmillan, pp. 83-98
- Fagan C, Norman H. (2013). Men and gender equality: tackling gender segregation in family roles and in social care jobs. In: Bettio F; Plantenga J; Smith M (eds.) *Gender and the European Labour Market*. Oxon: Routledge, pp. 199-233
- Feinstein and Symons (1999) Attainment in secondary school. *Oxford Economic Papers*, Vol. 51(2): 300-321
- Flouri, E., and Buchanan, A. (2004) Early father's and mother's involvement and child's later educational outcomes. *British Journal of Educational Psychology*, Vol 74(2): 141–153
- Forrest, S., and Lloyd, T. (2014) Results of an evaluation of outcomes and impact for FRED, Boys Development Project, September 2014. Fatherhood Institute: [www.fatherhoodinstitute.org/wp-content/uploads/2014/10/FRED-evaluation-report-Sep-2014.pdf](http://www.fatherhoodinstitute.org/wp-content/uploads/2014/10/FRED-evaluation-report-Sep-2014.pdf)
- Georgiou, S. (1999) Parental attributions as predictors of involvement and influences on child achievement. *British Journal of Educational Psychology*, Vol 69: 409–429
- Goodhall, J., Montgomery, C. (2014) Parental involvement to parental engagement: a continuum. *Educational Review*, 2014 Vol. 66, No. 4, 399–410
- Goodman, R., (2001) Psychometric Properties of the Strengths and Difficulties Questionnaire. *Journal of the American Academy of Child & Adolescent Psychiatry*, Volume 40(11): 1337-1345.
- Gutman, L.M., and Vorhaus, J. (2012) The Impact of Pupil Behaviour and Wellbeing on Educational Outcomes, Department for Education: <https://core.ac.uk/reader/9589460>
- Hango, D. (2007). Parental investment in childhood and educational qualifications: Can greater parental involvement mediate the effects of socioeconomic disadvantage? *Social Science Research*, 36, 1371–1390.
- Hansen, K., Hawkes, D. (2009) Early Childcare and Child Development. *Journal of Social Policy*, 38(2), 211-239.
- Hsin, A., and Felfe, C. (2014). When does time matter? Maternal employment, children's time with parents, and child development. *Demography* Vol 51: 1867–1894
- Janecka, M., Rijdsdijk, F., Rai D., Modabbernia, A., Reichenberg, A. (2017): Advantageous developmental outcomes of advancing paternal age. *Translational Psychiatry*, Vol. 7 (1156)
- Jeynes, W. (2014) A Meta-Analysis: The Relationship Between Father Involvement and Student Academic Achievement. *Urban Education* 2015, Vol. 50(4): 387 –423
- Keith, T., Keith, P., Quirk, K., Sperduto, J., Santillo, S., Killings, S. (1998) Longitudinal Effects of Parent Involvement on High School Grades: Similarities and Differences Across Gender and Ethnic Groups. *Journal of School Psychology*, Vol. 36(3): 335–363
- Kroll M.E., Carson C., Redshaw, M., Quigley M.A. (2016) Early Father Involvement and Subsequent Child Behaviour at Ages 3, 5 and 7 Years: Prospective Analysis of the UK Millennium Cohort Study. *PLoS ONE* 11(9): e0162339
- Lamb, M. (2010) How do father's influence child development? Let me count the ways in Lamb, M. (ed) *The Role of the Father in Child Development* (5th Edition) (p. 1-26), Wiley: New Jersey
- Lamb, M. (1986). *The Father's Role: Applied Perspectives*. New York, John Wiley & Sons.
- Lereya ST, Patel M, Dos Santos JPGA, Deighton J. (2019) Mental health difficulties, attainment and attendance: a cross-sectional study. *Eur Child Adolesc Psychiatry*. 28(8):1147-1152
- Ludeke, S., Gensowski, M., Junge, S., John, O., Andersen, S.C. (2018) Does parental education influence child educational outcomes? A developmental analysis in a genetically-informative full population sample and adoptee design – conference paper: [https://conference.iza.org/conference\\_files/transatlantic\\_2019/gensowski\\_m6556.pdf](https://conference.iza.org/conference_files/transatlantic_2019/gensowski_m6556.pdf)
- McBride, B. A., Dyer, W. J., Liu, Y., Brown, G. L., & Hong, S. (2009). The differential impact of early father and mother involvement on later student achievement. *Journal of Educational Psychology*, 101, 498-508
- McMunn, A., Martin, P., Kelly, Y. (2017); *Fathers' Involvement: Correlates and Consequences for Child Socioemotional Behavior in the United Kingdom*, *Journal of Family Issues*, Vol: 38(8): 1109-1131
- Miller, T. (2011) *Making Sense of Fatherhood*. Cambridge University Press: Cambridge

Mullen-Harris, K., Furstenberg, F., Marmer, J. (1998) Paternal Involvement with Adolescents in Intact Families: The Influence of Fathers over the Life Course, *Demography*, Vol. 35(2), Men in Families (May, 1998): 201-216

Nandy, A., Nixon, E., and Quigley, J. (2020): Parental toy play and toddlers' socio-emotional development: The moderating role of coparenting dynamics, *Infant Behavior and Development*, Volume 60, August 2020: <https://doi.org/10.1016/j.infbeh.2020.101465>

Norman H. (2020). Does Paternal Involvement in Childcare Influence Mothers' Employment Trajectories during the Early Stages of Parenthood in the UK?. *Sociology*. 54(2), pp. 329-345

Norman H. (2017) Paternal involvement in childcare: how can it be classified and what are the key influences?. *Families, Relationships and Societies*. 6(1), pp. 89-105

Norman H, Elliot M, Fagan C. (2014). Which fathers are the most involved in taking care of their toddlers in the UK? An investigation of the predictors of paternal involvement. *Community, Work & Family*. 17(2), pp. 163-180

Pancsofar, N., & Vernon-Feagans, L. (2006). Mother and father language input to young children: Contributions to later language development. *Journal of Applied Developmental Psychology*, 27(6), 571-587.

Ridley, M., Rao, G., Schilbach, F., Patel, V. (2020) Poverty, depression, and anxiety: Causal evidence and mechanisms, *Science*, Vol 370(6522)

Sarkadi, A, Kristiansson, R, Oberklaid, F and Bremberg, S. (2008) Fathers' involvement and children's developmental outcomes: a systematic review of longitudinal studies. *Acta paediatrica* 97(2): 153-158

Spera, C., Wentzel, K.R. & Matto, H.C. (2009) Parental Aspirations for Their Children's Educational Attainment: Relations to Ethnicity, Parental Education, Children's Academic Performance, and Parental Perceptions of School Climate. *J Youth Adolescence* 38, 1140-1152. <https://doi.org/10.1007/s10964-008-9314-7>

Stevens, P. A. J., & Dworkin, A. G. (2019). The Palgrave handbook of race and ethnic inequalities in education. In P. A. J. Stevens, A. G. Dworkin (Ed.), *The palgrave handbook of race and ethnic inequalities in education (Second)*. <https://doi.org/10.1057/9781137317803>

Tarrant, A. (2021) *Fathering and Poverty: Uncovering men's participation in low-income family life*. Policy Press: Bristol

Tipping, S., Chanfreau, J., Perry, J., & Tait, C. (2012). The fourth work-life balance employee survey, employment relations research series 122. London: Department for Business, Innovation and Skills.

Treanor, M., Troncoso, P. (2022) Poverty, parental work intensity and child emotional and conduct problems, *Social Science & Medicine*, Vol. 312, 115373.

UNICEF (2018) An unfair start: Inequality in children's education in rich countries, Innocenti Report Card 15: [www.unicef.org.uk/publications/an-unfair-start-education-report-card-15/](http://www.unicef.org.uk/publications/an-unfair-start-education-report-card-15/)

