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Government
Equalities Office

Shared care, father's involvement in care and family well-being outcomes

A Literature Review

Research report prepared by Heejung Chung

Jan 2021

This research was commissioned under the previous government and before the covid-19 pandemic. As a result the content may not reflect current government policy, and the reports do not relate to forthcoming policy announcements. The views expressed in this report are the authors' and do not necessarily reflect those of the government.

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Executive summary



Executive Summary

In recent years, researchers, and policy makers have become increasingly interested in how men and women share caring responsibilities in light of efforts to tackle the persistent gender pay gaps present in most societies. Research over the last two decades has begun to uncover the benefits of fathers' increased involvement with their children on various outcomes such as, children's emotional, psychological and educational development, their future careers and future division of housework. Research has also discovered the positive outcomes on family relationships such as a reduction in separation and divorce. This report aims to provide an literature review of what we know thus far about the positive outcomes of father's involvement in childcare and the negative outcomes when fathers are not involved. It also aims to unravel both the positive and potentially negative outcomes of mothers' employment, as well as the positive outcomes of shared care between parents, particularly the positive impact shown for parental wellbeing. Below are some of our key findings.

- **Father's involvement in childcare improves children's emotional well-being, cognitive development and academic achievement, and is good for fathers themselves**

A large amount of evidence was found to suggest that father's involvement in childcare can help reduce a number of negative outcomes for children in terms of emotional and behavioural problems. Ample amounts of evidence has also shown that it can also help improve children's cognitive development, improving their academic achievements. Father's involvement in care has also been linked to positive emotional and well-being outcomes in children. However, studies note that **rather than the absolute amount of time spent, the quality of the time spent with fathers matter**. More specifically, the time fathers spend taking part in **educational and enrichment activities (such as playing)** with their children seems to matter most. In addition, studies found that the **level of confidence fathers felt in their parenting roles, the psychological/emotional perception** of themselves as fathers, had a significant impact on the outcomes for their children. We also found that mother's involvement in childcare also improved child outcomes, yet simultaneously, we find evidence that mother's employment seems to lead to positive child well-being outcomes. Father's involvement in childcare is also good for fathers, and studies have linked it to **increased well-being of the fathers** themselves.

- **Father's involvement in childcare and mother's employment can help produce a more gender equal society for the future generation**

We found evidence that father's involvement in childcare helps produce a more **egalitarian division of labour and more progressive gender roles in their children** when they get to adulthood. This is because sons of fathers who were involved in housework and childcare are more likely to be involved in housework and care themselves. Similarly, a mother's employment help shape both their daughter's and their son's female partner's employment outcomes when they reach adulthood. **Daughters of working mothers were more likely to be in the labour market, likely to work longer hours, have higher income, and likely to hold supervisory roles.**

- **Equal division of childcare and housework amongst couples helps reduce parental stress, especially for mothers, increases relationship satisfaction, and thus decreases the likelihood of divorce/relationship dissolution.**

There are a wealth of studies that show that when couples do not share childcare and housework this can lead to increased stress and negative mental outcomes, especially for mothers. This is why unequal distribution of housework and childcare can lead to a decrease in relationship satisfaction, and can lead to an increase in the likelihood of marital/relationship dissolution. We also find that it is not only the actual distribution of childcare and housework between couples, but the **perceived unfairness of the situation**, the gap between the ideal and the reality in the division of labour, and the **under appreciation of additional work carried out by the female partner, that matters** for relationship satisfaction and stability. Evidence shows that the mental well-being of parents, and their relationship quality/parental conflict influence a wide range of child outcomes. Thus in light of this, parent's division of housework and childcare may have an indirect impact on children's well-being/outcomes via influencing parental well-being/relationship outcomes.

In summary, we conclude that equal division of housework and childcare matters not only for children's outcomes but also for parental well-being outcomes, which come full circle to influence children's outcomes. Recent surveys of couples conducted in the UK show that fathers want to be more involved in childcare, especially after their experience of spending more time with children during the COVID-19 lockdowns (Chung et al., 2020). What is more, both men and women say that they would like a more equal division of childcare between them, but are not able to achieve them (Working Families, 2017). As this literature review shows, when fathers are better able to take a larger role in the household, both families and society as a whole benefits. The need to share care between parents has become more evident during the COVID-19 pandemic due to the increased childcare demands put on parents during this time. We see that an unequal division of housework and childcare among couples can lead to an exodus of women out of the labour force (Collins et al., 2020; Petts et al., 2020). If we are to ensure that the pandemic does not undo the decades of progress made in gender equality, we need to ensure that both mothers and fathers are able to take active part in care giving of children.



Background

Background

Introduction

In recent years, policymakers and researchers have shown a renewed interest in improving the division of care roles between men and women. One important reason for this is the persistence across societies of a gender wage gap that over the past decade has remained stubbornly stagnant. Based on the Annual Survey of Hours and Earnings (ASHE) data of 2019, the hourly pay differences between men and women in the UK was at 17.3% for all workers, and at 8.9% when comparing full-time working men and women's hourly pay. There are many reasons as to why such a gender wage gap exists (see for example, Costa Dias et al., 2018), but a leading cause of this is the unequal division of caring roles and responsibilities between men and women. Women are unable to compete with men in the labour market due to their 'second shift', or more specifically because they still carry out and are expected to carry out the majority of household tasks and care roles within their families (Hochschild and Machung, 1989). As a result, many women end up working part-time or leave the labour market altogether (Chung and Van der Horst, 2018). Moving into part-time roles in many cases results in a move towards lower-skilled, lower-paid occupations (Connolly and Gregory, 2008) and pay and career penalties (Chung, 2020). Even when mothers work full-time, they are less able to work long overtime hours due to care and household commitments. Long hours in the office are still perceived as signs of commitment leading to greater chances of promotion and higher pay levels (Pannenberg, 2005; Francesconi, 2001). Therefore, men's ability to work longer hours remains one of the most important factors explaining the past decade's lack of progress in gender wage gap reduction (Cha and Weeden, 2014; Goldin, 2014). This unequal division of care roles between men and women is especially problematic given its role in shaping employer (and co-worker) perceptions regarding the productivity and commitment to work of mothers compared to fathers (Budig and England, 2001; Hodges and Budig, 2010; Lewis and Humbert, 2010). In other words, even when mothers work longer (overtime) hours they are not rewarded to the same degree as men (Lott and Chung, 2016) due to societal expectations that mothers will prioritise household and care responsibilities over their workplace obligations.

The division of care between mothers and fathers not only pertains to maternal employment needs but of tackling gender inequalities in the labour market. An increasing number of UK fathers are taking a larger part in childcare roles than previous generations (Craig et al., 2014; Gracia and Esping-Andersen, 2015), with the recent COVID-19 pandemic increasing this trend even further (Chung et al., 2020). For example, examining data across 11 countries, Dotti Sani and Treas (2016) demonstrate that paternal time spent with children has increased almost four-fold: from a mere 16 minutes daily in 1965 to a full hour by 2012. This increase was especially strong amongst higher educated fathers, progressing from 18 minutes to a full 74 minutes daily, 24 minutes more per day than their lower educated counterparts. What is more, we see that fathers have taken on an even more active role in childcare during the COVID-19 pandemic, due to closures of schools and other childcare facilities (Carlson et al., 2020; Chung et al., 2020; Craig and Churchill, 2020).

Studies show that fathers, especially amongst the younger generation or millennial fathers¹, seek an even greater role, looking to be more involved (Chung et al., 2020), even to the point of sacrificing potential additional income (Working Families, 2017). However, many still feel unable to do so for fear of negatively impacting their career prospects (Women and Equalities Select Committee, 2018; Chung, 2020), alongside societal expectations requiring fathers to be breadwinners and mothers caregivers (Scott and Clery, 2013; Taylor and Scott, 2018). Taking into consideration the widespread stigma towards flexible workers, especially those reducing their working hours (Chung, 2020; Williams et al., 2013; Coltrane et al., 2013), occasioning further engagement for fathers in childcare is somewhat limited without a comparable reduction in their working hours.

At the same time, mothers' decisions about engaging in paid work are heavily influenced by societal-level gender norms, especially concerning the impact of maternal full-time work on children and family wellbeing. In 2012, research most recently conducted by the British Social Attitudes Survey into public opinion on wellbeing and family caring arrangements in the UK, highlighted that in more than a quarter of the population it was believed that a pre-school child was likely to suffer if their mother worked, and that family life suffers when a woman has a full time job (Scott and Clery, 2013). Additionally, even as of 2017, three-quarters of the population believe that mothers of children under school age should stay home or work part-time, although this is an improvement compared to 1989 figures suggesting a consensus of 90% (Taylor and Scott, 2018). This belief persists despite extensive evidence indicating that once all factors are accounted for, that mothers' (full-time) employment has negligible impact on children's development once other factors are taken into account, or that in reality, employed mothers spend more quality time with their children resulting in better child outcomes (Zick et al., 2001). Furthermore, recent studies demonstrate the long-term positive influence of working mothers on the outcomes of their adult children. For example, daughters of working mothers are more likely to be employed, have supervisory roles, and earn higher incomes (McGinn et al., 2019).

Potentially, the way to change public perception on who *should* take care of children – in conjunction with how much responsibility mothers and fathers should have for childcare – is to change societal beliefs surrounding paternal participation in care roles and their outcomes.

This literature review aims to summarise key empirical findings relating to paternal and maternal care, the division of care, any subsequent effects on child and parent wellbeing, and parental relationship stability and satisfaction. It reviews literature from across the world, with a focus on UK based studies, for the purpose of better informing the public about existing evidence. Before we move on, we first need to define what we mean by care, share of care, and its different definitions, and what we mean by father's involvement in care.

What is care? – Definitions and categories

In this section, we examine the different definitions of care outlined in the literature. Here we argue that it is crucial to distinguish between distinct types of care, especially when examining the amount and share that fathers contribute within heterosexual couple families. Childcare can be

¹ Here millennial fathers entail men, with children, who were born between early 1980s and mid-1990s.

characterized in a number of different ways (Craig, 2006; Craig and Mullan, 2011; Craig and Powell, 2011; Craig and Powell, 2012). Firstly, we can distinguish between the type of care provided: routine or physical care can be defined as the type regularly performed, entailing the more physical aspects of caring for children, such as feeding, cleaning, regular bedtime activities, or taking children to school. Non-routine or enrichment/educational care involves that related to talking and play-centred activities, such as reading to children or telling stories. These are considered non-routine in that these activities are not restricted to a regular schedule, unlike, for example, bathing and feeding children. They are considered enrichment/educational care because they augment a child's experiences for educational purposes. Secondly, care can be distinguished by how it is provided: as the main or sole activity, vs., as a secondary or multi-tasked activity, for example, caring alongside performing other activities like housework or paid work. Finally, and importantly for the purposes of this study, we can classify care depending on with whom care is provided – solo care, as opposed to caring alongside other parents/people.

Craig and Mullan (2011) argue that merely calculating the total time spent caring is insufficient for understanding the gender dynamics of care. Crucially, understanding the relationship between care and gender equality requires recognition of the impact of gender differences in the type of care provided by each parent. Mothers are more likely to provide care, but also more likely to be responsible for the routine/physical care of children, while fathers are more likely to take part in non-routine types of care (Craig, 2006; Craig and Mullan, 2011; Craig and Powell, 2011). Craig and Mullan (2011) argue that only when fathers share the more rigid routine care activities, can mothers be relieved of some of the pressures that they face in managing care with work demands. This is particularly the case when considering that these types of care are most likely to directly conflict with work schedules. For example, school drop off and pick up times and dinner times are generally fixed, and so resultantly, a rigid schedule of family demands combined with the inflexibility of a work schedule will limit women's ability to take a larger part in paid work (Chung and Van der Horst, 2018). In contrast, play and reading to children can be fitted around a parent's schedule, and may not pose as much of a barrier towards a parent's paid work. However, when considering child outcomes, it may be the more enrichment care that is important. Studies have shown that differing types of paternal involvement influence child outcomes in distinct ways, with more enrichment-focused care resulting in a more positive impact on child and adolescent outcomes (e.g., Cano et al., 2018; Offer, 2013; Twamley et al., 2013 ; Baxter and Smart, 2010), which we will examine later.

Similarly, Craig (2006) argues that there are three reasons for the importance of measuring care solely provided by the father, as distinguished from that provided alongside the mother. Firstly, mothers and fathers jointly caring for children invariably implies the mother taking primary responsibility with the father maintaining a supporting role. Additionally, she argues that in this case, the mental load of planning and managing childcare would disproportionately fall on the mother (see also, Walzer, 1996; Daminger, 2019). In addition, when parents care together, father's care time does not substitute for mother's time, and will not help with relieving mother's time for other pursuits. When mothers are also co-present, this may influence the quality of the time and interaction between the father and the children, which has been noted as positively shaping child and adolescent outcomes. Finally, there are some studies suggesting that the impact of parental time on children may differ depending on whether it is spent with either one parent or with both parents together (Milkie et al., 2015).

Distinguishing between care provision as a sole activity, as opposed to multitasking beside another activity and/or providing care as a secondary activity, has implications as to potential outcomes for children and parents themselves. Studies have shown that multitasking unpaid work leads to an increased feeling of time pressure and feeling rushed (Craig and Brown, 2017), potentially leading to poor health and lower wellbeing outcomes (Ruppanner et al., 2019). In light of the rise in flexible working performed by parents, particularly by mothers to address childcare demands, we can expect to see an increase in “contaminated” care time wherein childcare is combined with other tasks (Sullivan and Smithson, 2007; Chung and Van der Lippe, 2020).

In addition to examining the time fathers and mothers spend providing care, many of the studies examined in the section below examine *fathers’ involvement in care*. As the following literature review suggests, there is a wealth of literature examining fathers’ role in childcare, especially in relation to separated families considering contact with fathers. Others, especially the studies examining child outcomes, examine father’s involvement in particular activities depending on the age of the child. As we will show later, these mainly rely on Cohort Studies – that is, a longitudinal survey which follows a cohort of children born in a specific time period, and to a large extent their parents. For example, early-stage activities can include involvement in feeding, changing nappies, or bedtime routines, with later-stage involvement including playing with or reading to children (Kroll et al., 2016; Twamley et al., 2013; Huerta et al., 2013). In the following section, we will attempt to distinguish between different types of involvement and care provided by fathers as described by the existing relevant literature, to determine what type of involvement and care provision is critical when thinking of various positive outcomes for child and parental wellbeing.

Aim of this report

In this report, we aim to outline some of the key findings from the literature about parents’ involvement in care, as well as the outcomes of shared care on child and parental wellbeing. More specifically, we aim to examine how fathers’ involvement in the care of children influences children’s educational/academic attainment, children’s health outcomes, and their emotional/social development, alongside their attitude to gender roles. Additionally, we examine how maternal (full-time) employment influences children’s educational and academic attainment, their careers/employment patterns in later life, emotional/social development, as well as gender role attitudes, and later division of housework as adults. Finally, we focus on how the division of care and household tasks influence a couple’s wellbeing. This includes its influence on a couple’s relationship satisfaction and potential relationship dissolution, individual stress/mental health, and satisfaction regarding leisure time and social life. Here, we are unable to conduct a systematic meta-analysis of all existing studies due to the breadth we aim to cover. Therefore, to gain a more general perspective of the existing links between fathers’ involvement in childcare and its effects, we will focus on summarising the findings of existing meta-analysis and meta-synthesis studies. We will also aim to provide a more detailed summary of some of the more recent longitudinal studies using UK data, specifically the Millennium Cohort Study – one of the most widely used data sets enabling researchers to examine father’s involvement alongside key child and parental outcomes. Also, we examine recent studies based on similar Australian data called Growing up in Australia, which due to its quality enables better examination of issues around parental time spent on childcare, and outcomes for parents and children (further details can be found in the annex).

The background is a solid blue color with several overlapping, semi-transparent circles of varying shades of blue, creating a layered effect. The text is centered within the largest, most prominent circle.

Outcomes of father's involvement in care/shared care on children



Outcomes of father's involvement in care/shared care on children

Emotional and behavioural problems

In the early phase of research on the role of fathers within the family, the dominant focus was on the outcomes of divorce and single motherhood, for example, the absence of a father figure. These studies showed how the lack of fathers' involvement, especially from non-residential fathers, might result in negative behaviours, such as substance abuse, delinquency, and anti-social behaviour (see for a review, Allen and Daly, 2007; Amato, 2001). For example, in a meta-analysis of 63 studies focusing on the impact of non-resident fathers' involvement on child wellbeing outcomes, Amato (1999) examines three key areas. Firstly, *academic achievement*, incorporating standardized achievement test scores, grades, teachers' ratings, graduation from high school, and years of education completed. Secondly, *externalizing problems*, including misbehaviour at home or school, aggression, and delinquency. And thirdly, *internalizing problems*, including depression, anxiety, and low self-esteem. He demonstrates how greater contact with the non-resident father and a feeling of closeness between father and child led to increased academic achievement and fewer internalised and externalised problems for the child.

Using a range of families, Amato and Rivera (1999) examine paternal involvement, defined according to the amount of time fathers spent with their children eating breakfast, eating dinner, engaging in activities away from home, playing together, having private talks, and helping with homework. Response options ranged from 1 (never or rarely) to 6 (almost every day), with the mean response serving as the scale score ($\alpha = 0.62$). The authors examined how these related to *behavioural problems* of children in school, namely, poor school attendance prior to graduation, repeating grades, suspension or expulsion from school, and exhibiting a problem requiring a parent to meet with a teacher or principal. This was compared with problems at home, such as running away from home, trouble with the police, seeing a doctor for emotional or behavioural problems, or perception by a parent as "especially difficult to raise". They found that fathers' involvement significantly reduced children's behavioural problems. Similarly, Allen and Daly (2007) summarise a wealth of research mostly from the US, showing that a father's involvement in childcare and a positive father-child relationship reduced the likelihood of delinquent behaviour, drug use, and other behavioural problems such as anti-social behaviour, and consequently, the probability of imprisonment in later life. This might be due to having another parent available to catch children exhibiting problematic behaviour, or because of the associated socio-economic factors of these families. However, beyond these explanations, an involved father appears to create a generally positive impact (Allen and Daly, 2007; Flouri and Buchanan, 2003). Likewise, the research highlights the importance of a father's involvement in the early stages of a child's life, with the attachment formed between father and child leaving a long-lasting impact on the child's life chances, lasting well into adulthood.

Similarly, many other more recent studies (Milkie et al., 2015; Offer, 2013; Profe and Wild, 2017; Kroll et al., 2016; Baxter and Smart, 2010; Flouri and Malmberg, 2012; Flouri et al., 2016; McMunn et al., 2017; Opondo et al., 2016) examine the relationship between a resident father's involvement in childcare with a reduction in negative child behaviour outcomes in intact families.

Many studies (Flouri and Malmberg, 2012; Flouri et al., 2016; Kroll et al., 2016; McMunn et al., 2017; Huerta et al., 2013) use the UK Millennium Cohort Study data to examine how a father's involvement in different stages of a child's life can influence child behaviour outcomes (see also, Twamley et al., 2013). These studies measure child behavioural and emotional adjustment using a strength and difficulties questionnaire, a widely used psychometrically valid measure of child socio-economic difficulties. Items include emotional symptoms (e.g., nervous or clingy in new situations, easily loses confidence), conduct problems (e.g., often has temper tantrums or hot tempers), hyperactivity-inattention (e.g., constantly fidgeting or squirming), and peer problems (e.g., picked on or bullied by other children). Paternal involvement is measured at 9 months, 3 years, and 5 years via different activities corresponding to each respective stage, e.g. shared care/feeding at 9 months, bedtime/supervision at 3 years, and positive beliefs and active/creative play at 5 years.

The Millennium Cohort Study (MCS), previously known as 'Child of the New Century' to cohort members and their families, follows the lives of around 19,000 young people born in 2000-01 across England, Scotland, Wales, and Northern Ireland. The study began with an original sample of 18,818 cohort members. The MCS provides multiple measures for the cohort children's physical, socio-emotional, cognitive, and behavioural development over time, as well as detailed information on their daily life, behaviour, and experiences. Additionally, rich information on economic circumstances, parenting, relationships, and family life is recorded from both resident parents. For more about the data see: <https://cls.ucl.ac.uk/cls-studies/millennium-cohort-study/>

Growing Up in Australia: The Longitudinal Study of Australian Children (LSAC) is a major study following the development of 10,000 Australian young people and their families. The study begins in 2003 with a representative sample of children - now in their teens or young adults - from urban and rural areas across all Australian states and territories. Data was collected from two cohort groups every two years. The first cohort of 5,000 children were aged 0-1 years old in 2003-04, and the second cohort of 5,000 children were aged 4-5 years old in 2003-04. Study informants include the young person, their parents (both resident and non-resident), carers, and teachers. The survey examines a broad range of items, including issues around development and wellbeing over the life course, in relation to topics such as parenting, family, peers, education, childcare, and health. The study intends to continue following participants into adulthood. It is one of the few large scale representative longitudinal cohort studies existing in the world that includes a time use diary component for a larger group of respondents, allowing us to better investigate the association between parenting time and a number of family wellbeing outcomes. For more information about the data please see: <https://growingupinaustralia.gov.au/about-study>

The results of these studies are more complex than those found in the earlier synthesis reviews (Allen and Daly, 2007; Amato and Gilbreth, 1999). Some studies (e.g., Profe and Wild, 2017) present evidence of the impact of paternal involvement on reducing children's internalising and externalising problems and substance use. Others show no significant relationship between a father's involvement in the very early stages of a child's life and later behavioural problems exhibited by the child (Flouri et al., 2016; Huerta et al., 2013), or that although a relationship exists, its impact is marginal (McMunn et al., 2017). In fact, Flouri (2016) notes that the

relationship may be reversed, because behavioural problems arising in children require a need for fathers to be more involved, and so accordingly, behaviour problems in children increase paternal involvement in childcare.

Another result found in studies was that rather than active participation in performing certain childcare tasks, it is the emotional and psychological involvement of fathers that has been found to be of importance. This is the result of a study using the Avon Longitudinal Study of Parents and Children (ALSPAC), studying a cohort of children and their parents recruited in the former county of Avon in the southwest of England (Opondo et al., 2016). Once again using the Strengths and Difficulties Questionnaire, the authors examine a variety of themes related to children's behavioural outcomes: how a father emotionally responds to a child, a father's feeling of security in their role as father and partner, and finally, the frequency of involvement in childcare and domestic activities. The results demonstrate that psychological and emotional paternal involvement, particularly how new fathers see themselves as parents and adjust to their new roles, is associated with positive behavioural outcomes in children, as opposed to a father's actual involvement in childcare and household activities.

The lack of an association - or at most, a weak association - found between paternal involvement in childcare activities and positive behavioural outcomes in children may be due to the fact that many studies do not distinguish between different types of involvement, particularly when examining paternal involvement in the infancy of a child's life. When examining paternal engagement in the later stages, for example, of children 2 to 3 years old, evidence suggests an involvement in active play and educational activities may produce a potential reduction in child behavioural and emotional problems at the later stage of age 5 (Kroll et al., 2016; Flouri et al., 2016; Huerta et al., 2013). Furthermore, there is evidence suggesting that father's involvement in childcare has an even greater influence on children from lower socio-economic classes and disadvantaged families (Flouri and Malmberg, 2012; Sarkadi et al., 2008). The impact of enriched childcare on child outcomes is likewise reflected in greater maternal involvement, echoing earlier studies that have found enrichment/non-routine parental activities specifically to be crucial for child development and socialisation (Leiferman et al. 2005; Zick et al. 2001). These studies highlight the importance of distinguishing between total time/or any involvement with the more enrichment activities.

The problem with the presented analyses is their failure to measure the actual time fathers spent performing childcare. Rather, the studies rely on the father self-reporting or the mother recording the father's involvement in particular activities. This solidifies the importance of examining the Australian studies utilising more sophisticated data, namely via the Growing Up in Australia study (Huerta et al., 2013; Baxter and Smart, 2010). Following children of two age groups across a period of time, this data includes a time use component in its cohort study, enabling a better examination of the relationship between paternal involvement and child outcomes. For example, Baxter and Smart (2010) examine how time spent by fathers with children influenced children's socio-emotional behavioural outcomes, including the Strengths and Difficulties Questionnaire at age 5+, Short Temperament Scale for Infants, and Brief Infant Toddler Social and Emotional Assessment for younger children. They conclude that rather than the total time spent with fathers, better child outcomes result from such factors as fathers' parenting style (e.g. warm style), fathers' self-efficacy (feeling confident about parenting), mothers' perceived level of support from a father in child rearing, and less parental conflict concerning parenting. However, the authors note that this does not imply that the amount of time fathers spend with their children is unimportant,

suggesting any possible further conclusions necessitate an examination of the quality of that time. Finally, the impact of a father's involvement may vary according to the gender of the child, with studies indicating that for boys a father's involvement may hold more importance than for girls (Allen and Daly, 2007). Others argue that paternal involvement may lead to different outcomes depending on the gender of the child, for example, a father's involvement is associated with decreased frequency of behavioural problems in boys, while it is associated with decreased psychological problems in girls (Sarkadi et al., 2008).

Cognitive development and positive affect

More recently, there is increasing evidence that sheds light on the positive influence of paternal caregiving on children's outcomes. For example, many studies suggest fathers involvement in caregiving helps improve children's cognitive, emotional and social development, and possibly even physical health (for a review, Allen and Daly, 2007). Here we will focus on two specific outcomes – namely cognitive development and positive affect/emotional development.

Cognitive development

There is an abundance of studies showing the importance of both a mother's and father's involvement for a child's cognitive development, especially in the early stages of a child's life (e.g. for synthesis, Sarkadi et al., 2008; Allen and Daly, 2007; Wilder, 2014). The amount of interaction fathers have in care and play activities with children has been shown to be associated with higher levels of cognitive development of infants, with the impact appearing to continue as children grow into toddlers (Petersen and Morgan, 1995; Ricks, 1985).

There are several reasons why the involvement of both mothers and fathers in childcare leads to increased development of cognitive function in children (Allen and Daly, 2007; Cano et al., 2018). Firstly, having two involved parents generates more variety and heterogeneity in the stimuli provided to children, helping the development of better cognitive outcomes from exposure to different values, behaviours, vocabulary, and parenting styles. Secondly, cognitive development may occur due to a child's exposure to a greater quantity of enrichment activities. Studies suggest that when both parents are involved in care, fathers tend to engage in a larger share of play and enrichment activities (Craig and Mullan, 2011), which consequently, characterize a greater proportion of the total amount of time children spend with parents. As previously mentioned, such enrichment childcare activities help develop child cognitive function. Other studies show fathers enable risk-taking in children or produce more positive attitudes towards school resulting in the attainment of better grades (Allen and Daly, 2007)

Huerta et al. (2013) through a synthesis of existing research from across OECD countries, show an association between a father's involvement in the first year of a child's life and higher cognitive scores in later stages (2-3 years old and 4-5 years old). This remained consistent even after controlling for a wide range of factors in the UK and US, albeit producing a less than sizeable impact. Similarly, they observe in countries like the UK, Australia, and the US, paternal involvement at toddler age (2-3 years) positively impacted a child's cognitive development. However, for the US, this relationship was less stable, most likely due to differences in the definition of involvement. Using Australian cohort data, Baxter and Smart (2010) using Australian data detail how children's cognitive development patterns can be explained by time spent with

both parents, as well as parenting style, parental conflict, and self-efficacy. They find no significant influence resulting from a father's time spent with children, in contrast to specific parenting factors that significantly explain child cognitive outcomes, such as a warm parenting style, less parental conflict, and parents' self-evaluation of efficacy. Interestingly, the same model suggests maternal time spent with children may be negatively associated with their resultant cognitive outcomes. However, it is again important to note that the outcome of their study may be influenced by how the total time mothers and fathers spend with children is measured. In other words, the data does not distinguish between different types of activities, nor between time spent with both parents together, or alone with one parent, all of which may influence the outcomes.

A more recent study by Cano et al. (2018) aims to overcome some of these limitations by using the Growing Up in Australia cohort data to examine how father's solo care time, without the mother, relates to a child's cognitive development, measured through the Peabody Picture Vocabulary Test. In their study, they classify the type of care provided, i.e. the total amount of time spent with father, as opposed to time spent on educational/enrichment activities. Unlike the previous study (Baxter and Smart, 2010), time children spent with their fathers was significantly associated with their cognitive development outcomes, whilst the amount of time children spent with mothers, and with mothers and fathers jointly, made little meaningful difference. Distinguishing between both care activities and quality of time spent, they find educational time spent with fathers to be what really made a significant difference in children's cognitive development outcomes. Five additional weekly hours of father-child time in educational activities increased cognitive development scores by 9% of a standard deviation. Additionally, they find that educational time spent with mothers and fathers together was important but to a lesser extent compared to that of father's time spent with children.

Positive affect/emotions

Although, as the previous study (Cano et al., 2018) has shown, joint parental time did not result in any significant increase in child cognitive outcomes, there is evidence to show that it may help increase the more positive affect – that is positive emotional outcomes - in older children. Flouri and Buchanan (2003) examine UK adolescents aged between 14-18 years old to see how parental involvement influenced feelings of happiness amongst children, measured according to how often they reported feeling happy or confident about themselves. Here parental involvement is not measured by time spent with children, but the existence of a father/mother figure performing different parental roles. Children were asked whether their father/father figure (mother/mother figure) spent time with them, talked through worries with them, took an interest in their schoolwork, and helped them plan for the future. They found that both a mother and father's (or mother/father figure's) involvement with a child increased happiness in adolescents, but paternal involvement had significantly larger impact on both boys and girls.

Offer (2013) examines US data from 1999/2000 to see how the time spent with family by adolescents (11-18-year olds), from married and college educated professional parents, impacted their wellbeing, investigating both positive and negative outcomes. This is quite a unique study in that the children were asked to fill in time diaries, while simultaneously being beeped throughout the course of the day/week to evaluate their activities, and their emotions while doing said activity. Family time was divided into mother-only, father-only, and both parent time, and distinguished into (a) productive time, e.g. homework, attending school events, travelling to school, and other

school-related time; (b) maintenance time (mainly housework) e.g. helping with cooking and cleaning, supervising younger siblings, and getting ready for bed; (c) mealtime, and; (d) leisure time, (free time doing discretionary activities) e.g. playing games, talking to parents, visiting friends, engaging in athletics and outdoor activities, and watching television. Primarily, the study found that children spent most of their time with their mothers alone, followed by joint time involving both mother and father, and lastly, spending the least amount of time with just their fathers. Additionally, they showed that there are differences in the amount of time spent with fathers and mothers depending on the gender of the child (boys spent more leisure time with fathers and less housework time with mothers), and across weekday and weekends –for example, the majority of the non-meal times being at the weekends. The impact parental time had on children was varied. Mealtimes spent with both parents, as well as fathers alone, appear to be positively associated with positive wellbeing outcomes, and negatively associated with negative affect and stress in adolescent children. One reason why a father’s time and involvement may have a more positive impact on children is that it is perceived as special (Milkie et al., 2015). Parental time in leisure is positively associated with engagement outcomes in children. Children were less likely to express positive affect when doing productive activities with parents, like homework. An important finding by this study is that meals or leisure time with both parents together was positively associated with feeling happy, cheerful, or good.

Ultimately, the evidence strongly suggests that joint parenting time appears to have a positive effect on children’s emotional wellbeing. There are several reasons as to why this may be so. Folbre et al. (2005) focus on care density, namely that a higher ratio of parents to children creates a reduction in the intensity of demand on adults, therefore increasing the potential for shared interaction or leisure time with children. Others argue that time spent with parents (and also siblings) can help develop feelings of “us” as a group, increasing its positive emotions in children (Crouter et al., 2004). Using US-based data, Milkie et al. (2015) examine how parental time is associated with a wide range of outcomes in children. They found that adolescents (12-18-year olds) engaging in time with both parents together displayed reduced externalising problems, substance abuse, and delinquent behaviours, all the while increasing maths scores. Externalising problems were assessed via a summative outcome of 15 questions recorded by the mother, ranging from whether the child had ever cheated or told lies, argued too much, had difficulty concentrating, bullied or was cruel or mean to others, or was restless or overly active. Even accessible time with both parents together, as opposed to active time, helped reduce substance use behaviour among US adolescents, despite making no significant impact in younger children. Again, this study indicates that joint parental time matters especially for older children.

Father’s involvement and role/gender role modelling

Paternal involvement in childcare can also help shape children’s gender role attitudes. According to role model theory, “individuals influence role aspirants’ achievements, motivation, and goals by acting as behavioural models, representations of the possible, and/or inspirations” (Morgenroth et al., 2015: 4). Therefore, an involved father can act both as a role model for children as to reinforcing, adopting, and pursuing goals, and as an observation point for learning problem-solving behaviours. This may be especially important for girls to role model counter gender motivations and roles which can help them not only in terms of subject and career choices, but also in tackling other harmful gender stereotypes which can lead to a number of negative

outcomes (Culhane and Bazeley, 2019). Furthermore, studies suggest boys absorb and mirror more gender egalitarian behaviours through the transmission of gender roles when their fathers are more involved in household tasks and care roles (Cunningham, 2001a; Cunningham, 2001b; Evertsson, 2006). For example, Cunningham (2001b) explores a 31-year panel study of white mothers and children in the US, examining parental predictors or the behaviour of parents when children were aged 1-15, to explain the child's division of household labour in the adult stages of their lives, at ages 23-31. He found that a more equal division of parental household labour when the sons were very young positively influences the child's later participation in routine housework. This association was not found for daughters. For daughters, the more important predictor of housework allocation in their adulthood was their mother's employment patterns during the child's earlier years. This study's most astonishing finding is that parental influence is found not only in the transmission of gender role attitudes from parent to child but through the enduring direct effect of parental behaviour patterns on children, again specifically between men and their sons.

Mother's employment outcomes on children

Next, we briefly examine the impact of a mother's employment on their children's outcomes. This section provides a brief outline of how sharing of paid work among heterosexual parents may influence child and parental outcomes., supplemental to this literature review and project's primary focus of highlighting the importance of fathers' involvement in childcare and shared care between parents.

In parallel to the previous section detailing how paternal involvement in care and household tasks influence children's division of labour in their later adult life, particularly amongst boys, mothers' employment patterns are shown to be of importance in shaping children's gendered division of labour. For example, examining three decades of data in the US, Fernández et al. (2004) show how women married to men born to working mothers are themselves significantly more likely to work. McGinn et al. (2019) further examine this issue using different international cross-sectional surveys, namely the International Social Survey Programme of 2002 and 2012, and the 2002-2013 Gender and Generations Surveys. They look at how maternal employment patterns during a child's early years influences their employment and domestic behaviours in the later stages of their lives. They found that the adult daughters of working mothers are more likely to be employed, and moreover, in comparison to the daughters of non-working mothers, when employed were more likely to hold supervisory roles, work longer hours, and earn higher incomes. Conversely, this positive effect was not found for sons. Additionally, the employment of mothers influenced the household labour practices of children. Sons raised by working mothers spent more time caring for family members, and the daughters of working mothers tended to spend less time on housework.

Moving on to maternal employment patterns in relation to child socio-emotional and cognitive outcomes, a number of studies have shown a negative association with a mother's working hours and their child's cognitive and academic results (Cano et al., 2018; Milkie et al., 2015). Using the British Household Panel Survey, Ermisch and Francesconi (2000) demonstrate that a mother's full-time employment during the preschool years may reduce a child's academic achievement, measured here in terms of attaining A levels, increase the risk of unemployment or inactivity for a child in later life, and increase psychological problems. However, the effect was reduced for

mothers in higher paid jobs. In addition, children of mothers in full-time employment were less likely to experience teenage pregnancies.

The relationship becomes a bit more complex when a mother's employment is measured not through hours worked, but instead considering job quality, categorizing between employed and unemployed, and part-time and full-time employment. Salimiha et al. (2018) examine Australian Longitudinal data to assess the effects of maternal employment on children's socio-emotional outcomes, including both internalised and externalised problems. Children of employed mothers are significantly less likely to experience problems, especially internalising problems, compared to children of non-employed mothers. Strazdin et al's analysis (2010) of how the working patterns of parents influence a child's wellbeing suggests that rather than working hours or working in itself, the quality of the job parents hold matter in explaining the extent to which children suffer from behaviour and emotional issues.

Using the Growing up in Australia data, Baxter and Smart (2010) assess a number of child socio-emotional and cognitive outcomes. They find better outcomes for children with employed mothers, compared to those whose mothers were not employed. When comparing outcomes for the children of full-time and part-time working mothers, it was the latter which yielded more positive outcomes, with no discernible differences found between the children of non-employed compared to the children of full-time working mothers. However, it is worth noting that they controlled for parent's involvement in their study. Previous studies indicate that a mother's employment and working hours influence the extent of paternal involvement (Norman et al., 2014; Baxter and Smart, 2010), namely, that when women work longer hours fathers are more likely to be involved. Additionally, we know that higher educated mothers may work longer hours yet will not reduce their parenting time accordingly (Dotti Sani and Treas, 2016), especially enrichment care time (Craig, 2006). Once again, the literature suggests that the relationship becomes more complex when we take these issues into account.

Using a meta-analysis of 68 papers mostly comprised of US data, Goldberg et al. (2008) examine the impact of maternal employment on four children's academic achievement scores, specifically, (a) formal tests of achievement; (b) academic grades; (c) formal intelligence tests; and (d) teacher ratings of cognitive abilities. Their results show that there is a small positive impact resulting from a mother's employment on their child's overall academic achievement. However, when they examine each achievement item separately, they find no significant differences. They find some positive impact on children's academic outcomes resulting from mothers working part-time compared to those with full-time working mothers, yet this difference was largely contextual, depending heavily on why mothers worked part-time. We need to understand the findings on maternal employment on child outcomes in light of the larger context in which these relationships play out. This includes the unequal division of housework and childcare and the cultural expectations towards mothers as explained earlier in this report, which makes full-time employment difficult for many mothers (see also, Chung and van der Horst, 2018; Chandola et al., 2019). In other words, rather than the fact that mothers are working longer hours, the lack of societal support for mothers to carry out both care and paid work (Ruppanner et al., 2018b; Ruppanner et al., 2018c), may be the root cause of some of the evidence found in the negative outcomes of full-time employment of mothers.

Finally, paternal employment was considered generally unimportant due to its limited impact on child outcomes, as indicated in previous studies (Ermisch and Francesconi, 2000). However, more

recent studies have shown that when fathers work long hours, children generate negative views of their father's job and of the time spent together (Strazdins et al., 2017). Furthermore, there is now evidence to show that long hours worked by fathers are detrimental for children's – especially son's - socio-emotional wellbeing (Johnson et al., 2013; Li et al., 2019).

Outcomes of father's involvement in/shared care on parents

Outcomes of father's involvement in/shared care on parents

Shared care and stress and well-being outcomes for mothers

Firstly, it is important to note that mothers, especially working mothers, rather than fathers, more commonly experience increased levels of stress resulting from parenthood due to the double shift of work and household/care work that most women still perform (Hochschild and Machung, 1989). Despite many great benefits from having children such as greater social integration (Nomaguchi and Milkie, 2003), parenthood can negatively impact one's wellbeing. One of the greatest negative outcomes of parenthood is the increased time pressure parents experience due to children requiring an enormous amount of time, attention, and energy (Pollmann-Schult, 2014). Additionally, children increase the amount of housework that needs to be done (Bianchi et al., 2000; Nomaguchi and Milkie, 2003), contributing to already present time pressures and escalating parental stress levels accordingly (Ruppanner et al., 2019). As previously established, because the responsibility for childcare and household labour generally lies with the mother (Taylor and Scott, 2018), it is mothers, and especially working mothers, who are more likely to experience negative wellbeing outcomes due to their childcare and work duties (Pollmann-Schult, 2014; Deater-Deckard and Scarr, 1996). For example, a recent study using the UK longitudinal household panel survey Understanding Society suggests mothers experience generally more stress than women without children. Their study utilises more objective measures of stress according to 11 different types of biomarkers, rather than an individual's personal perception of stress. Using this method, they find that full-time working mothers with two children were approximately 40% more stressed than women working full-time without children (Chandola et al., 2019). Using Australian data, Ruppanner et al. (2019) demonstrate how parents experience time pressure following the birth of children, with mothers experiencing more pressure than fathers. Although mental health outcomes improve over time for both parents with one child, mothers experience a longer lasting impact from the birth of a second child, leading to the deterioration of their mental health. However, they note that the amount of household and childcare responsibility moderated the amount of negative impact. In other words, mothers who do more in the household and are the primary caregiver of children feel even greater time pressure after childbirth - especially a second birth - compared to those who contribute less housework and are equal or secondary care givers. This contributes evidence to the theory that a more equal distribution of household labour may reduce the negative wellbeing outcomes women experience during parenthood.

We can find similar outcomes at the national level, with studies suggesting that relieving parental care burdens result in improved wellbeing levels for parents. For example, Glass et al. (2016) examine data from across 22 OECD countries to see how parenthood relates to happiness levels. They show that although parenthood was linked to lower levels of happiness, this is not a universal experience. In countries that are more supportive towards working parents with generous leave and public childcare, parents did not suffer from a fall in happiness levels. Similarly, Schober and Stahl (2016) show how the expansion of full-time childcare in Germany resulted in mothers experiencing greater satisfaction with family life, and with life overall. This provides further evidence as to how relieving parents of care duties may improve their wellbeing

levels. More specifically pertaining to this report, we can also expect that shared care, with fathers providing greater support for mothers in terms of relieving some of the burden of housework and childcare, may help improve maternal wellbeing levels and reduce their stress levels.

Studies likewise demonstrate that parents show increased levels of stress when ideal scenarios of a division of care and household tasks are not met (Milkie et al., 2002), resulting in a negative impact on their wellbeing levels. Milkie et al. (2002) use US data from 234 heterosexual married couples to examine their ideal childcare scenarios compared to their real division of care, and how the discrepancy between the two influences parental stress levels. The researchers measured perceived ideal childcare via a series of questions covering areas such as disciplining children, financial support, play, routine care, emotional activities, and monitoring children's activities. Additionally, parents recorded who actually conducted these tasks. Surprisingly enough, most parents expressed a preference towards an egalitarian division of caregiving. More than 90% of men and women agreed that both parents should perform disciplining, playing, providing emotional support, and monitoring of the child. On the other hand, more than a quarter of men and women believed that mothers should be responsible for the routine care of children, and more than a third of both men and women believed that fathers should be responsible for the financial support of children. However, we should bear in mind that the data was gathered in 1999 and we expect these ideal types to have changed in these intervening periods (Brenan, 2020). When examining actual practices of care the division was less equal than presented by the ideal types, especially with mothers who were more likely to say that they carried out the majority of the care listed. Moreover, when fathers were less involved than mothers would like, especially in terms of play and disciplinary roles, mothers were more likely to feel stressed. Conversely, when fathers felt more involved than their ideals, in terms of playing with children, their own stress levels significantly reduced. Again, the results show that an unequal division of labour, especially in certain areas of childcare, can increase maternal stress levels, especially where parents wish for a more equal distribution; a situation desired by most parents, according to this paper. A limitation of this study is that the perception of the actual division of care is based on self-reported items – with fathers and mothers largely disagreeing as to the extent to which different tasks are shared or not. More importantly, for the purposes of this study, the data does not allow for distinctions in the frequency of activities, nor the type of activities performed by fathers.

Using US-based panel data, Nomaguchi et al. (2017) somewhat overcome this limitation by distinguishing between different types of involvement by fathers. The data provides information from several types of families, examining the extent to which a father's involvement in care helped reduce maternal stress. Stress is measured here by the extent to which mothers agreed with the following statements: (a) "Being a parent is harder than I thought it would be"; (b) "I feel trapped by my responsibilities as a parent"; (c) "I find that taking care of my child(ren) is much more work than pleasure"; and (d) "I often feel tired, worn out, exhausted from raising a family". Paternal involvement is distinguished into father's engagement – namely measured through the extent to which fathers engage in enrichment activities such as playing, reading and telling stories, singing songs to the child – responses ranging from 0 to 7 days a week; fathers sharing child-related chores, capturing the more routine care, for example, how often a father looked after their child when they needed to do things, run errands for them (for example, picking things up from the store), or taking the child places they needed to go (for example, day care or the doctor), measured categorically from never, rarely, sometimes, and often; and finally, a father's cooperative co-parenting, measuring the extent to which their partner felt they could rely on the father for various issues, including items such as (a) "When (father) is with (child), he acts like the

father you want for your child”; (b) “You can trust (father) to take good care of (child)”; (c) “He respects the schedules and rules you make for (child)”; (d) “He supports you in the way you want to raise (child)”; (e) “You and (father) talk about problems that come up with raising (child)”; and (f) “You can count on (father) for help when you need someone to look after (child) for a few hours”. The authors discover that paternal engagement and performance of child-related chores significantly reduced the mother’s stress level, especially amongst cohabitating couples. The evidence was slightly weaker in the case of cooperative co-parenting perceptions affecting maternal stress levels.

Shared care and well-being outcomes for fathers

There is also evidence to show that sharing of care may also improve fathers’ well-being outcomes as well. As mentioned earlier, an increasing number of fathers in the UK want to be more involved in caregiving (Working Families, 2017; Chung et al., 2020). Such changes in the meaning and value placed in childcare has also shifted identities for fathers (Brandth and Kvande, 1998) so that caring plays an important role. Previous studies have also shown how given this context, fathers who are involved in childcare experience greater job satisfaction, work-family enrichment, and less work-family conflict (Ladge et al., 2015). There may be a distinction between the types of care men provide that may lead to their well-being levels. Studies have shown how when fathers are involved, they are more involved in the enrichment type activities than routine care (Craig and Mullan, 2011) and value such types of care more as a part of the care masculinity identity (Brandth and Kvande, 1998). In other words, we can expect that when fathers do not share the more “feminine” routine care work, this may not influence or increase their well-being levels. On the other hand, being more involved in and increasing their share in non-routine enrichment care may be associated with an increase in well-being levels of fathers (see also the 2nd part of this report). However, given that for mothers it may be that sharing of care in itself is also important, sharing of non-routine/enrichment care may also result in positive outcomes as well.

Outcomes on relationship quality/relationship dissolution

Another finding of the aforementioned study is that unsurprisingly when care ideals and realities did not match up, men and women believed that things were unfair to them specifically. Milkie et al. (2002) found that the women who felt that their co-parent was actually doing less nurturing parenting than they thought ideal, believed that the division was unfair to them. This perception of unfairness, coupled with the added stress felt by mothers, have been shown to impact a couple’s perceived relationship satisfaction and relationship stability, increasing the likelihood of relationship dissolution or divorce.

A number of studies demonstrate that an unequal distribution of housework leads to lower marital satisfaction and a higher likelihood of divorce among heterosexual couples, especially amongst women and those with more egalitarian gender role attitudes (Frisco and Williams, 2003; Ruppner et al., 2018a; Schober, 2013). For example, using British Household Panel data Schober (2013) examines how the share of household work by women increases the likelihood of marriage dissolution, showing that among childless couples an increase in a woman’s housework

share significantly increased their likelihood of divorce. Ruppanner et al. (2018a) examine Swedish couple data to see how a couple's division of housework relates to reported relationship satisfaction and stability. Similar to that found by Schober, they find that women who reported performing more housework were less likely to be satisfied with their relationship and more likely to consider breaking up; in fact, these unions were more likely to dissolve. Furthermore, in their study, they also found that when partners discredited a woman's housework contribution or reported her performing less than she reported, correspondingly, women reported lower relationship satisfaction and were more likely to consider breaking up, with their relationships more often resulting in dissolution. In other words, an unequal division of housework, especially when male partners underappreciated an unequal distribution or amount of work performed by women, could lead to negative outcomes for a relationship.

Additionally, studies have examined how the division of childcare between couples influences relationship satisfaction and marital dissolution. For example, the take-up frequency of paternity leave amongst fathers, and the greater involvement of fathers in childcare subsequently implied, has been shown to reduce divorce rates among heterosexual couples (Petts and Knoester, 2019). Similar evidence has been found across several countries such as the US, the Netherlands, Australia, (Kalmijn, 1999; Galovan et al., 2014; Schieman et al., 2018; Carlson et al., 2016; Kalil and Rege, 2015) and the UK (Schober, 2013; Norman et al., 2018; Schober, 2012), where a more egalitarian division of childcare has been positively associated with relationship satisfaction and a lower likelihood of marital dissolution.

For example, using the British Household Panel study data spanning 1992 to 2005, Schober (2013) examines how an unequal division of childcare between couples can increase the possibility of marriage dissolution. When mothers are primarily responsible for childcare the risk of relationship breakdown increases by 46%, compared to couples where partners hold equal childcare responsibilities. Focusing on dual-earner couples, she finds being jointly responsible for childcare reduces separation risks by up to 92%, compared to when mothers are largely responsible. Norman et al. (2018) further examine this question, looking at how different forms of involvement relating to paternal childcare during the first year of parenthood associated with the stability of the parental relationship. Using data from the Millennial Cohort Study, they focus on the period between the first wave (when the child is nine months old) and the fourth wave (when the child is seven years old), and by distinguishing between a number of different involvement activities: paternal involvement, measured via the frequency of the father's solo care; getting up at night; feeding; changing nappies; and the father's share of housework (categorised into "mother does most", "father does most", and "shared equally"), namely cooking, cleaning, and laundry. They found that a father's solo care, alongside involvement in changing nappies during the first nine months of a child's life, significantly reduced the likelihood of the parental relationship breaking down. Additionally, this was especially the case when mothers were in full-time employment.

Share of childcare has been shown to significantly influence relationship satisfaction levels. Schober (2012) examines the Millennial Cohort Study to see how the quality of the parental relationship was influenced by a father's childcare share and frequency— as done by Norman et al. (2018) – using reports from both fathers and mothers. She shows that a father's share in childcare significantly influenced how a mother perceived their relationship quality. For fathers, their childcare frequency increased their own perceived relationship quality and happiness within a relationship, all of which can influence the likelihood of relationship breakdown in the later stages

of a child's life. Furthermore, a mother's perceived relationship quality might help shape a father's childcare behaviours, or more specifically, that fathers in happier relationships may be those who are more involved in childcare.

Importantly, although relationship dissolution is itself critical for parental wellbeing outcomes, it is likewise an important factor to think about regarding its impact on a child (Amato, 2001). It is also important to note that parent's conflict, relationship quality, and the support mother's feel from fathers, and mother's mental health are all important factors in explaining child outcomes, above and sometimes beyond the actual time or involvement of fathers and mothers (Baxter and Smart, 2010; Flouri et al., 2016; Flouri and Buchanan, 2003; Salimiha et al., 2018). In other words, mother's wellbeing and parental relationship quality matters when we consider child outcomes.

Conclusions

Conclusion

As this literature review suggests, paternal involvement in childcare, in addition to a more equitable distribution of childcare, has a significant impact on a wide range of outcomes for children and parents. In summary, we find evidence showing that paternal involvement in childcare results in a positive effect, reducing negative outcomes such as behavioural or emotional issues, and increasing positive outcomes such as cognitive development and academic achievement. However, the majority of studies analysed note that rather than the absolute time that fathers spent with children, it was the quality of the time that mattered more, namely paternal involvement, in their child's educational and enrichment activities. In addition, a father's psychological/emotional perception was significant, such as the extent to which they felt confident about their parenting roles, possibly holding greater importance than the absolute time they spent with their children.

Furthermore, we find that there is evidence showing that a father's involvement in childcare alongside a mother's employment may help produce a more gender egalitarian division of labour and more progressive gender roles in children later in their adult lives. Finally, there is a wealth of studies suggesting that a more equal distribution of childcare and housework leads to stress reduction, especially in the case of mothers, alongside increasing relationship satisfaction and decreasing the likelihood of marital/relationship dissolution. Here, we also find it is not just the division itself that matters but the perceived fairness of the situation, the gap between ideal types and reality of the labour share, as well as where additional work performed by women remains unappreciated by their partners.

Lastly, we can conclude that the equal division of housework and childcare matter not just for child outcomes but for parental wellbeing. In some of the examined studies, and in other more recent UK-based opinion surveys (Working Families, 2017; Chung et al., 2020), many couples, both men and women, desire a more equal division of childcare but are unable to achieve it. In light of the COVID-19 pandemic, we see that the unequal division of childcare can also lead to a significant negative impact on women's capacity to take part in the labour market, especially in times of high care demands (Collins et al., 2020; Petts et al., 2020). This can result have severe consequences for gender equality undoing the decades of progress made prior to the pandemic.

As this literature review shows, when fathers are better able to take a larger role in the household, both families and society as a whole benefits.



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.
- Amato, PR. (2001) Children of divorce in the 1990s: an update of the Amato and Keith (1991) meta-analysis. *Journal of family psychology* 15(3): 355.
- Amato, PR and Gilbreth, JG. (1999) Nonresident fathers and children's well-being: A meta-analysis. *Journal of Marriage and the Family* 61(3): 557-573.
- Amato, PR and Rivera, F. (1999) Paternal involvement and children's behavior problems. *Journal of Marriage and the Family* 61(2): 375-384.
- Baxter, J and Smart, D. (2010) Fathering in Australia among couple families with young children. *Australian Department of Families, Housing, Community Services and Indigenous Affairs, Occasional Paper* (37).
- Bianchi, SM, Milkie, MA, Sayer, LC and Robinson, JP. (2000) Is anyone doing the housework? Trends in the gender division of household labor. *Social Forces* 79(1): 191-228.
- Brandth, B and Kvande, E. (1998) Masculinity and child care: The reconstruction of fathering. *The Sociological Review* 46(2): 293-313.
- Brenan, M. (2020) Women still handle main household tasks in U.S. Gallup. Retrieved from: <https://news.gallup.com/poll/283979/women-handle-main-household-tasks.aspx> (accessed 11th January 2021).
- Budig, MJ and England, P. (2001) The wage penalty for motherhood. *American Sociological Review* 66(2): 204-225.
- Cano, T, Perales, F and Baxter, J. (2018) A Matter of Time: Father Involvement and Child Cognitive Outcomes. *Journal of Marriage and Family*.
- Carlson, DL, Hanson, S and Fitzroy, A. (2016) The division of child care, sexual intimacy, and relationship quality in couples. *Gender & Society* 30(3): 442-466.
- Carlson, D. L., Petts, R., & Pepin, J. (2020). US Couples' Divisions of Housework and Childcare During COVID-19 Pandemic. SocArXiv <https://doi.org/10.31235/osf.io/jy8fn>.
- Cha, Y and Weeden, KA. (2014) Overwork and the slow convergence in the gender gap in wages. *American Sociological Review* 79(3): 457-484.
- Chandola, T, Booker, C, Kumari, M and Benzeval, M. (2019) Are Flexible Work Arrangements Associated with Lower Levels of Chronic Stress-Related Biomarkers? A Study of 6025 Employees in the UK Household Longitudinal Study. *Sociology*. 53(4): 779-799.
- Chung, H. (2020) Gender, flexibility stigma, and the perceived negative consequences of flexible working in the UK. *Social Indicators Research*. 151(2):521-545. DOI: 10.1007/s11205-018-2036-7.
- Chung, H and Van der Horst, M. (2018) Women's employment patterns after childbirth and the perceived access to and use of flexitime and teleworking. *Human Relations* 71(1): 47-72.

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- Chung, H and Van der Lippe, T. (2020) Flexible working work life balance and gender equality: Introduction. *Social Indicators Research*. 151(2):365-381. DOI: 10.1007/s11205-018-2025-x.
- Chung, H., Seo, H., Forbes, S., & Birkett, H. (2020). *Working from home during the COVID-19 lockdown: Changing preferences and the future of work*. Report for the project Work Autonomy, Flexibility and Work-life balance. Retrieved from Canterbury, UK: <http://wafproject.org/covidwfh/> (accessed 11th Jan 2020)
- Collins, C., Landivar, L. C., Ruppner, L., & Scarborough, W. J. (2020). COVID-19 and the gender gap in work hours. *Gender, Work & Organization*, Online first. DOI: <https://doi.org/10.1111/gwao.12506>
- Coltrane, S, Miller, EC, DeHaan, T and Stewart, L. (2013) Fathers and the flexibility stigma. *Journal of Social Issues* 69(2): 279-302.
- Connolly, S and Gregory, M. (2008) Moving Down: Women's Part-Time Work and Occupational Change in Britain 1991–2001*. *The Economic Journal* 118(526): F52-F76.
- Costa Dias, M, Robert, J and Parodi, F. (2018) Wage progression and the gender wage gap: the causal impact of hours of work. London: Institute for Fiscal Studies.
- Craig, L. (2006) Does father care mean fathers share? A comparison of how mothers and fathers in intact families spend time with children. *Gender & Society* 20(2): 259-281.
- Craig, L and Brown, JE. (2017) Feeling rushed: Gendered time quality, work hours, nonstandard work schedules, and spousal crossover. *Journal of Marriage and Family* 79(1): 225-242.
- Craig, L., & Churchill, B. (2020). Dual-earner parent couples' work and care during COVID-19. *Gender, Work & Organization*.online first. DOI: <https://doi.org/10.1111/gwao.12497>
- Craig, L and Mullan, K. (2011) How Mothers and Fathers Share Childcare A Cross-National Time-Use Comparison. *American Sociological Review* 76(6): 834-861.
- Craig, L and Powell, A. (2011) Non-standard work schedules, work-family balance and the gendered division of childcare. *Work, Employment & Society* 25(2): 274-291.
- Craig, L and Powell, A. (2012) Dual-earner parents' work-family time: the effects of atypical work patterns and non-parental childcare. *Journal of Population Research* 29(3): 229-247.
- Craig, L, Powell, A and Smyth, C. (2014) Towards intensive parenting? Changes in the composition and determinants of mothers' and fathers' time with children 1992–2006. *The British journal of sociology* 65(3): 555-579.
- Crouter, AC, Head, MR, McHale, SM and Tucker, CJ. (2004) Family time and the psychosocial adjustment of adolescent siblings and their parents. *Journal of Marriage and Family* 66(1): 147-162.
- Culhane, L and Bazeley, A. (2019) Gender stereotypes in early childhood: a literature review. London: Fawcett Society.
- Cunningham, M. (2001a) The influence of parental attitudes and behaviors on children's attitudes toward gender and household labor in early adulthood. *Journal of Marriage and Family* 63(1): 111-122.
- Cunningham, M. (2001b) Parental influences on the gendered division of housework. *American Sociological Review* 66(2): 184-203.

- Daminger, A. (2019) The Cognitive Dimension of Household Labor. *American Sociological Review* 84(4): 609-633.
- Deater-Deckard, K and Scarr, S. (1996) Parenting stress among dual-earner mothers and fathers: Are there gender differences? *Journal of family psychology* 10(1): 45.
- Dotti Sani, GM and Treas, J. (2016) Educational Gradients in Parents' Child-Care Time Across Countries, 1965–2012. *Journal of Marriage and Family* 78(4): 1083-1096.
- Ermisch, J and Francesconi, M. (2000) The effect of parents' employment on children's educational attainment. IZA Discussion paper series.
- Evertsson, M. (2006) The reproduction of gender: housework and attitudes towards gender equality in the home among Swedish boys and girls 1. *The British journal of sociology* 57(3): 415-436.
- Fernández, R, Fogli, A and Olivetti, C. (2004) Mothers and sons: Preference formation and female labor force dynamics. *The Quarterly Journal of Economics* 119(4): 1249-1299.
- Flouri, E and Buchanan, A. (2003) The role of father involvement and mother involvement in adolescents' psychological well-being. *British Journal of Social Work* 33(3): 399-406.
- Flouri, E and Malmberg, L-E. (2012) Father involvement, family poverty and adversity, and young children's behaviour in intact two-parent families. *Longitudinal and Life Course Studies* 3(2): 254-267.
- Flouri, E, Midouhas, E and Narayanan, MK. (2016) The relationship between father involvement and child problem behaviour in intact families: A 7-year cross-lagged study. *Journal of abnormal child psychology* 44(5): 1011-1021.
- Folbre, N, Yoon, J, Finnoff, K and Fuligni, AS. (2005) By what measure? Family time devoted to children in the United States. *Demography* 42(2): 373-390.
- Francesconi, M. (2001) Determinants and consequences of promotions in Britain. *Oxford Bulletin of Economics and statistics* 63(3): 279-310.
- Frisco, ML and Williams, K. (2003) Perceived housework equity, marital happiness, and divorce in dual-earner households. *Journal of Family Issues* 24(1): 51-73.
- Galovan, AM, Holmes, EK, Schramm, DG and Lee, TR. (2014) Father involvement, father-child relationship quality, and satisfaction with family work: Actor and partner influences on marital quality. *Journal of Family Issues* 35(13): 1846-1867.
- Glass, J, Simon, RW and Andersson, MA. (2016) Parenthood and Happiness: Effects of Work-Family Reconciliation Policies in 22 OECD Countries 1. *American Journal of Sociology* 122(3): 886-929.
- Goldberg, WA, Prause, J, Lucas-Thompson, R and Himsel, A. (2008) Maternal employment and children's achievement in context: A meta-analysis of four decades of research. *Psychological Bulletin* 134(1): 77.
- Goldin, C. (2014) A grand gender convergence: Its last chapter. *The American Economic Review* 104(4): 1091-1119.
- Gracia, P and Esping-Andersen, G. (2015) Fathers' child care time and mothers' paid work: A cross-national study of Denmark, Spain, and the United Kingdom. *Family Science* 6(1): 270-281.
- Hochschild, A and Machung, A. (1989) *The second shift: Working parents and the revolution at home*, New York: Viking.

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- Hodges, MJ and Budig, MJ. (2010) Who gets the daddy bonus? Organizational hegemonic masculinity and the impact of fatherhood on earnings. *Gender & Society* 24(6): 717-745.
- Huerta, MdC, Adema, W, Baxter, J, Han, W-J, Lausten, M, et al. (2013) Fathers' leave, fathers' involvement and child development: Are they related? Evidence from four OECD countries. OECD Publishing.
- Johnson, S, Li, J, Kendall, G, Strazdins, L and Jacoby, P. (2013) Mothers' and fathers' work hours, child gender, and behavior in middle childhood. *Journal of Marriage and Family* 75(1): 56-74.
- Kalil, A and Rege, M. (2015) We Are Family: Fathers' Time with Children and the Risk of Parental Relationship Dissolution. *Social Forces* 94(2): 833-862.
- Kalmijn, M. (1999) Father involvement in childrearing and the perceived stability of marriage. *Journal of Marriage and the Family* 61(May): 409-421.
- Kroll, ME, Carson, C, Redshaw, M and Quigley, MA. (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.
- Ladge, JJ, Humberd, BK, Baskerville Watkins, M and Harrington, B. (2015) Updating the organization MAN: An examination of involved fathering in the workplace. *Academy of Management Perspectives* 29(1): 152-171.
- Lewis, S and Humbert, AL. (2010) Discourse or reality? "Work-life balance", flexible working policies and the gendered organization. *Equality, Diversity and Inclusion: An International Journal* 29(3): 239-254.
- Li, J, Alaliyski, P and Strazdins, L. (2019) Father's and Mother's Work Hours and Children's Social and Emotional Wellbeing. *Community, Work and Family*. Malta.
- Lott, Y and Chung, H. (2016) Gender discrepancies in the outcomes of schedule control on overtime hours and income in Germany. *European Sociological Review* 32(6): 752-765.
- McGinn, KL, Ruiz Castro, M and Lingo, EL. (2019) Learning from mum: Cross-national evidence linking maternal employment and adult children's outcomes. *Work, employment and society*. 33(3): 374-400.
- McMunn, A, Martin, P, Kelly, Y and Sacker, A. (2017) Fathers' involvement: correlates and consequences for child socioemotional behavior in the United Kingdom. *Journal of Family Issues* 38(8): 1109-1131.
- Milkie, MA, Bianchi, SM, Mattingly, MJ and Robinson, JP. (2002) Gendered division of childrearing: Ideals, realities, and the relationship to parental well-being. *Sex Roles* 47(1-2): 21-38.
- Milkie, MA, Nomaguchi, KM and Denny, KE. (2015) Does the amount of time mothers spend with children or adolescents matter? *Journal of Marriage and Family* 77(2): 355-372.
- Morgenroth, T, Ryan, MK and Peters, K. (2015) The motivational theory of role modeling: How role models influence role aspirants' goals. *Review of General Psychology* 19(4): 465.
- Nomaguchi, K, Brown, S and Leyman, TM. (2017) Fathers' participation in parenting and maternal parenting stress: Variation by relationship status. *Journal of Family Issues* 38(8): 1132-1156.

- Nomaguchi, KM and Milkie, MA. (2003) Costs and rewards of children: The effects of becoming a parent on adults' lives. *Journal of Marriage and Family* 65(2): 356-374.
- Norman, H, Elliot, M and 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): 163-180.
- Norman, H, Elliot, M and Fagan, C. (2018) Does Fathers' Involvement in Childcare and Housework Affect Couples' Relationship Stability? *Social Science Quarterly*. 99(5): 1599-1613.
- Offer, S. (2013) Family time activities and adolescents' emotional well-being. *Journal of Marriage and Family* 75(1): 26-41.
- Opondo, C, Redshaw, M, Savage-McGlynn, E and Quigley, MA. (2016) Father involvement in early child-rearing and behavioural outcomes in their pre-adolescent children: evidence from the ALSPAC UK birth cohort. *BMJ open* 6(11): e012034.
- Pannenberg, M. (2005) Long-term effects of unpaid overtime: evidence for West Germany. *Scottish Journal of Political Economy* 52(2): 177-193.
- Petersen, T and Morgan, LA. (1995) Separate and unequal: Occupation-establishment sex segregation and the gender wage gap. *American Journal of Sociology* 101(2): 329-365.
- Petts, RJ and Knoester, C. (2019) Paternity Leave and Parental Relationships: Variations by Gender and Mothers' Work Statuses. *Journal of Marriage and Family*. 81(2): 468-486.
- Petts, R. J., Carlson, D. L., & Pepin, J. R. (2020). A Gendered Pandemic: Childcare, Homeschooling, and Parents' Employment During COVID-19. *Gender, Work & Organization*. Online first. DOI: <https://doi.org/10.1111/gwao.12614>
- Pollmann-Schult, M. (2014) Parenthood and life satisfaction: Why don't children make people happy? *Journal of Marriage and Family* 76(2): 319-336.
- Profe, W and Wild, LG. (2017) Mother, father, and grandparent involvement: Associations with adolescent mental health and substance use. *Journal of Family Issues* 38(6): 776-797.
- Ricks, SS. (1985) Father-infant interactions: A review of empirical research. *Family relations* 34(4): 505-511.
- Ruppanner, L, Brandén, M and Turunen, J. (2018a) Does unequal housework lead to divorce? Evidence from Sweden. *Sociology* 52(1): 75-94.
- Ruppanner, L, Lee, R and Huffman, M. (2018b) Do Mothers Benefit from Flexible Work? Cross-National Evidence for Work Time, Job Quality, and Satisfaction. *International Journal of Sociology* 48(2): 170-187.
- Ruppanner, L, Perales, F and Baxter, J. (2019) Harried and Unhealthy? Parenthood, Time Pressure, and Mental Health. *Journal of Marriage and Family*. 81 (2): 308-326.
- Salimiha, A, Perales, F and Baxter, J. (2018) Maternal employment and children's socio-emotional outcomes: an Australian longitudinal study. *International journal of public health* 63(9): 1089-1098.
- 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.

-
- Schieman, S, Ruppanner, L and Milkie, MA. (2018) Who Helps with Homework? Parenting Inequality and Relationship Quality Among Employed Mothers and Fathers. *Journal of Family and Economic Issues* 39(1): 49-65.
- Schober, PS. (2012) Paternal child care and relationship quality: A longitudinal analysis of reciprocal associations. *Journal of Marriage and Family* 74(2): 281-296.
- Schober, PS. (2013) Gender equality and outsourcing of domestic work, childbearing, and relationship stability among British couples. *Journal of Family Issues* 34(1): 25-52.
- Schober, PS and Stahl, JF. (2016) Expansion of full-day childcare and subjective well-being of mothers: interdependencies with culture and resources. *European Sociological Review* 32(5): 593-606.
- Scott, J and Clery, E. (2013) Gender roles: An incomplete revolution? *British Social Attitude* 30. London: NatGen.
- Strazdins, L, Baxter, JA and Li, J. (2017) Long Hours and Longings: Australian Children's Views of Fathers' Work and Family Time. *Journal of Marriage and Family* 79(4): 965-982.
- Strazdins, L, Shipley, M, Clements, M, Obrien, LV and Broom, DH. (2010) Job quality and inequality: Parents' jobs and children's emotional and behavioural difficulties. *Social Science & Medicine* 70(12): 2052-2060.
- Sullivan, C and Smithson, J. (2007) Perspectives of homeworkers and their partners on working flexibility and gender equity. *The International Journal of Human Resource Management* 18(3): 448-461.
- Taylor, EA and Scott, J. (2018) Gender: New consensus or continuing battleground? In: Phillips D, Curtice J, Phillips M, et al. (eds) *British Social Attitudes: The 35th Report*. London: The National Centre for Social Research.
- Twamley, K, Brunton, G, Sutcliffe, K, Hinds, K and Thomas, J. (2013) Fathers' involvement and the impact on family mental health: evidence from Millennium Cohort Study analyses. *Community, Work & Family* 16(2): 212-224.
- Walzer, S. (1996) Thinking about the baby: Gender and divisions of infant care. *Social problems* 43(2): 219-234.
- Wilder, S. (2014) Effects of parental involvement on academic achievement: A meta-synthesis. *Educational Review* 66(3): 377-397.
- Williams, J, Blair-Loy, M and Berdahl, JL. (2013) Cultural schemas, social class, and the flexibility stigma. *Journal of Social Issues* 69(2): 209-234.
- Women and Equalities Select Committee. (2018) Fathers and the workplace. *First Report of Session 2017-19*. London: House of Commons.
- Working Families. (2017) Modern Family Index 2017. London: Working Families.
- Zick, CD, Bryant, WK and Österbacka, E. (2001) Mothers' employment, parental involvement, and the implications for intermediate child outcomes. *Social Science Research* 30(1): 25-49.

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Annex

This report aimed to summarise key existing studies on the impact of shared care or housework/childcare and father's involvement in care, mother's employment on children and mothers' (mental) well-being. The goal of the review was to provide a review of the existing literature on these issues, we were unable to conduct a systematic meta-analysis of all existing studies due to the breadth we aim to cover. Therefore, we focused on three approaches aiming to cover a broad range of studies: Meta-analysis/meta synthesis studies, Longitudinal data studies, studies from the key journals on family. For each study, we recorded the methods being used, dependent and independent variables for the quantitative research, the definition of the variables, data being used and the outcome of research.

Meta-analysis, meta synthesis study

First we summarised the findings of existing meta-analysis and meta-synthesis studies we have searched through google scholar, using terms such as father's involvement, child well-being, and mothers' employment. We've selected relevant papers which included the following studies.

- 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.
- Amato PR. (2001) Children of divorce in the 1990s: an update of the Amato and Keith (1991) meta-analysis. *Journal of family psychology* 15: 355.
- Amato PR and Gilbreth JG. (1999) Nonresident fathers and children's well-being: A meta-analysis. *Journal of Marriage and the Family* 61: 557-573.
- Amato PR and Rivera F. (1999) Paternal involvement and children's behavior problems. *Journal of Marriage and the Family* 61: 375-384.
- Huerta MdC, Adema W, Baxter J, et al. (2013) Fathers' leave, fathers' involvement and child development: Are they related? Evidence from four OECD countries. OECD Publishing.
- Reynolds T, Callender C and Edwards R. (2003) *Caring and Counting: The impact of mothers' employment on family relationships*: Policy Press.
- Sarkadi A, Kristiansson R, Oberklaid F, et al. (2008) Fathers' involvement and children's developmental outcomes: a systematic review of longitudinal studies. *Acta paediatrica* 97: 153-158.
- Twamley K, Brunton G, Sutcliffe K, et al. (2013) Fathers' involvement and the impact on family mental health: evidence from Millennium Cohort Study analyses. *Community, Work & Family* 16: 212-224.
- Wilder S. (2014) Effects of parental involvement on academic achievement: A meta-synthesis. *Educational Review* 66: 377-397.

Longitudinal data studies

Second we aimed to provide a more detailed summary of some of the more recent longitudinal studies using UK data, specifically the Millennium Cohort Study. We chose this dataset as a robust dataset which covers a wide range of indicators of children, enabling researchers to examine father's involvement alongside key child and parental outcomes. We also examined recent comparable studies which used an Australian equivalent study - *Growing up in Australia* - which due to its quality enables better examination of issues around parental time spent on childcare, and outcomes for parents and children.

We used the Bibliography² pages of the Centre for Longitudinal Studies website to identify studies that have been conducted using the Millennium Cohort Study UK data. By filtering the search by the year (2010~2019) and study (Millennium Cohort Study), we were able to refine our search to 590 studies that had been conducted using the data. We then filtered by selection criteria based on the topic applied to the title and the abstract of each study. A full text screening was then conducted among those selected from the title and abstract screening to identify relevant studies. The identified studies include

Closely related:

- Barker, B., Iles, J.E. and Ramchandani, P.G., 2017. Fathers, fathering and child psychopathology. *Current opinion in psychology*, 15, pp.87-92.
- Del Bono, E., Francesconi, M., Kelly, Y. and Sacker, A., 2013. Understanding the SES Gradient in Early Child Development: Maternal Work, Home Learning, and Child Care Decisions.
- Flouri, E. and Malmberg, L.E., 2012. Father involvement, family poverty and adversity, and young children's behaviour in intact two-parent families. *Longitudinal and Life Course Studies*, 3(2), pp.254-267.
- Flouri, E., Midouhas, E. and Narayanan, M.K., 2016. The relationship between father involvement and child problem behaviour in intact families: A 7-year cross-lagged study. *Journal of abnormal child psychology*, 44(5), pp.1011-1021.
- Hope, S., Pearce, A., Whitehead, M. and Law, C., 2014. Family employment and child socioemotional behaviour: longitudinal findings from the UK Millennium Cohort Study. *J Epidemiol Community Health*, 68(10), pp.950-957.
- Kroll, M.E., Carson, C., Redshaw, M. and 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), p.e0162339.
- Lombardi, C.M. and Coley, R.L., 2017. Early maternal employment and children's academic and behavioral skills in Australia and the United Kingdom. *Child development*, 88(1), pp.263-281.
- McMunn, A., Kelly, Y., Cable, N. and Bartley, M., 2012. Maternal employment and child socio-emotional behaviour in the UK: longitudinal evidence from the UK Millennium Cohort Study. *J Epidemiol Community Health*, 66(7), pp.e19-e19.
- Norman, H., Elliot, M. and Fagan, C., 2018. Does Fathers' Involvement in Childcare and Housework Affect Couples' Relationship Stability?. *Social Science Quarterly*, 99(5), pp.1599-1613.
- Opondo, C., Redshaw, M., Savage-McGlynn, E. and Quigley, M.A., 2016. Father involvement in early child-rearing and behavioural outcomes in their pre-adolescent children: evidence from the ALSPAC UK birth cohort. *BMJ open*, 6(11).

Somewhat related:

- Norman, H. and Elliot, M., 2015. Measuring paternal involvement in childcare and housework. *Sociological Research Online*, 20(2), pp.40-57.

We applied a similar process to our assessment of the Growing Up in Australia dataset, using the FLoSse search³ in the Australian Government: Department of Social Services Website. The search was filtered by

² <https://www.bibliography.cls.ucl.ac.uk/>

³ <http://flosse.dss.gov.au/fahcsiajspui/advanced-search>

the survey (LSAC) and the keywords, such as 'father (68 search),' 'mother (140),' 'shared (18),' 'care (116)' and 'division (1).' We screened studies from 2010 to 2019 only and found several overlaps between studies using different keywords resulting in three closely related research and one (Annual Statistical Report 2011) as a publication that is somewhat relevant to the topic. They are listed as below. One of the closely related studies is not listed below as it overlaps with the previous search (it is Huerta et al 2013).

Closely related:

- Baxter, J. and Smart, D., 2011. Fathering in Australia among couple families with young children. Australian Department of Families, Housing, Community Services and Indigenous Affairs, Occasional Paper, (37).
- Cano, T., Perales, F. and Baxter, J., 2019. A matter of time: Father involvement and child cognitive outcomes. *Journal of Marriage and Family*, 81(1), pp.164-184.

Somewhat related:

- Australian Institute of Family Studies (2011) *The Longitudinal Study of Australian Children: Annual Statistical report 2011*.

Key journals on family

Lastly, we searched for studies from several major academic journals in the field of family relations and sociology through browsing through the journal catalogue and journal databases directly, as well as using google scholar to search certain key terms relating to the topic of the report. The journals include but not limited to the *European Sociological Review*, *Journal of Marriage and Family*, *Journal of Family Issues*, *Community Work and Family*, *Social Forces*, *American Journal of Sociology* and *American Sociological Review*. The search was limited to the studies published in the years between 2013 and 2019, and those that do not overlap with the findings from above (e.g. Cano, Perales and Baxter 2019 from *Journal of Marriage of Family* and Twamley, Brunton and Sutcliffe 2013 from *Community, Work and Family*). The screening process was done for all the publications within the period. We also added some key articles including, but not limited to,

- Craig, L and Brown, JE. (2017) Feeling rushed: Gendered time quality, work hours, nonstandard work schedules, and spousal crossover. *Journal of Marriage and Family* 79(1): 225-242.
- Dotti Sani, GM and Treas, J. (2016) Educational Gradients in Parents' Child-Care Time Across Countries, 1965–2012. *Journal of Marriage and Family* 78(4): 1083-1096.
- Galovan, A.M., Holmes, E.K., Schramm, D.G. and Lee, T.R., (2014). Father involvement, father–child relationship quality, and satisfaction with family work: Actor and partner influences on marital quality. *Journal of Family Issues*, 35(13), pp.1846-1867.
- Glass, J, Simon, RW and Andersson, MA. (2016) Parenthood and Happiness: Effects of Work-Family Reconciliation Policies in 22 OECD Countries 1. *American Journal of Sociology* 122(3): 886-929.
- Johnson, S, Li, J, Kendall, G, Strazdins, L and Jacoby, P. (2013) Mothers' and fathers' work hours, child gender, and behavior in middle childhood. *Journal of Marriage and Family* 75(1): 56-74.

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- Kalil, A. and Rege, M., 2015. We are family: Fathers' time with children and the risk of parental relationship dissolution. *Social Forces*, 94(2), pp.833-862.
 - Kim, J. and Wickrama, K.A.S., 2014. Mothers' working status and infant development: Mediation processes. *Journal of Family Issues*, 35(11), pp.1473-1496.
 - McGinn, KL, Ruiz Castro, M and Lingo, EL. (2019) Learning from mum: Cross-national evidence linking maternal employment and adult children's outcomes. *Work, employment and society*. 33(3): 374-400.
 - McMunn, A., Martin, P., Kelly, Y. and Sacker, A., (2017). Fathers' involvement: Correlates and consequences for child socioemotional behavior in the United Kingdom. *Journal of Family Issues*, 38(8), pp.1109-1131.
 - Milkie, MA, Nomaguchi, KM and Denny, KE. (2015) Does the amount of time mothers spend with children or adolescents matter? *Journal of Marriage and Family* 77(2): 355-372.
 - Nomaguchi, K., Brown, S. and Leyman, T.M., (2017). Fathers' participation in parenting and maternal parenting stress: Variation by relationship status. *Journal of family issues*, 38(8), pp.1132-1156.
 - Norman, H, Elliot, M and 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): 163-180.
 - Petts, RJ and Knoester, C. (2019) Paternity Leave and Parental Relationships: Variations by Gender and Mothers' Work Statuses. *Journal of Marriage and Family* online first. 81(2): 468-486.
 - Pollmann-Schult, M. (2014) Parenthood and life satisfaction: Why don't children make people happy? *Journal of Marriage and Family* 76(2): 319-336.
 - Ruppner, L, Perales, F and Baxter, J. (2019) Harried and Unhealthy? Parenthood, Time Pressure, and Mental Health. *Journal of Marriage and Family*.81 (2): 308-326.
 - Schober, PS. (2012) Paternal child care and relationship quality: A longitudinal analysis of reciprocal associations. *Journal of Marriage and Family* 74(2): 281-296.
 - Schober, PS. (2013) Gender equality and outsourcing of domestic work, childbearing, and relationship stability among British couples. *Journal of Family Issues* 34(1): 25-52.
 - Schober, PS and Stahl, JF. (2016) Expansion of full-day childcare and subjective well-being of mothers: interdependencies with culture and resources. *European Sociological Review* 32(5): 593-606.
 - Twamley, K, Brunton, G, Sutcliffe, K, Hinds, K and Thomas, J. (2013) Fathers' involvement and the impact on family mental health: evidence from Millennium Cohort Study analyses. *Community, Work & Family* 16(2): 212-224.
 - Weinshenker, M., (2018). Shift work, father engagement, and the cognitive development of young children. *Community, Work & Family*, 21(2), pp.133-150.

There were additional studies that were added based on the reference lists of the aforementioned studies and based on existing knowledge. A full reference list can be found in the reference of this report.

