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Descriptive profile of mothers by their experience of out-of-home care in childhood: evidence from the UK Millennium Cohort Study

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Abstract

It is well documented that care-experience can lead to more problematic post-16 transitions and poorer adult outcomes, but less is known about what works to lessen the associations. This research addresses six of the seven key areas of concern identified in the 2013 Care Leaver Strategy – education, employment, finance, health, housing and on-going support – to help inform strategies to assist agencies working with care-leavers and families who are struggling across domains. We find that mothers who had out-of-home care experience in their childhood have poorer socio-economic and psycho-social resources available to them in adulthood, but when their age, ethnicity and qualification levels are taken in to account, any negative pregnancy, childbirth and parenting experiences are fully attenuated. However, care leavers who became parents continue to obtain less education, and experience poorer financial and housing circumstances. Of particular concern are the high levels of general and mental health problems observed across a range of measures together with low levels of life satisfaction in general. The wellbeing of one of the most disadvantaged group of women in our society clearly needs to be better addressed if we are to avoid the intergenerational transmission of disadvantage associated with care experience being passed on to their children.

Keywords: out-of-home care; mothers; disadvantage; intergeneration transmission.

JEL Codes: I14 I24 I31 J12 J13

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Background

The key objective of this research is to expand what we know about the social and economic resources available to mothers who had care-experience as children or adolescents and to assess how much they differ from other mothers. Based on previous research (e.g. Botchway, Quigley and Gray, 2014) we would expect care-experienced mothers to have fewer socio-economic resources than non-care experienced mothers, but there is less evidence on their level of psychosocial resources.

This research is part of a two-year project that will provide insight into the factors that limit intergenerational transmission of disadvantage associated with care experience and promote positive adaptation. By addressing six of the seven key areas of concern identified in the 2013 Care Leaver Strategy (HM Government, 2013) – education, employment, finance, health, housing, justice system and on-going support – our findings can inform strategies for integrated service delivery to assist agencies working with care-leavers and families who are struggling across domains. In this initial work we do not examine the interaction mothers have had with the justice system, but by using multipurpose longitudinal data we are able to address all other areas in comprehensive detail going far beyond information that is available when relying on administrative data only.

Literature Review

It is well documented that care-experience is associated with more problematic post-16 transitions and poorer adult outcomes. In 2013 the UK Government published the Care Leaver Strategy identifying key areas where care-leavers needed better, more joined up and on-going support: education, employment, finance, health, housing, and access to the justice system. Although there are several interventions and agencies³ whose aim is to improve the early transitions and life chances of those with care-experience, today's care-leavers continue to achieve lower grades in public examinations at age 16 and are less likely to participate in post-compulsory education (Brännström et al., 2020; Sebba et al., 2015). In 2019, among care-leavers aged 19-21, administrative data showed that 39% were

³ For example: pause.org.uk, becomecharty.org.uk, careleaversfoundation.org, careleavers.com

not in education, employment, or training (NEET) compared to around 12% of all other young people (DfE, 2019a) and only 6% were in higher education (DfE, 2019c). To put this into perspective, 43.8% of all other 17-20 year-olds participated in higher education in 2017/18 (DfE, 2019b). Additionally, children in care and care-experienced young adults are consistently over-represented in the criminal justice system (Berman and Dar, 2013; Kennedy, 2013; McMahon & Fields, 2015; Crawford et al., 2018; Yoon et al., 2018), are vulnerable to exploitation (Hallett, 2016), have a higher incidence of substance misuse, physical, behavioural and mental health problems (Tarren-Sweeney and Vetere, 2013; DfE, 2019a) and higher rates of homelessness and poor-quality housing (Hobcraft, 1998; Cox et al., 2018).

There is, however, little robust empirical evidence about longer-term outcomes for care-experienced adults beyond age 21. Notable exceptions include longitudinal research based on the UK 1958 and 1970 birth cohorts showing time in care is associated with poor adult outcomes into their 30s (e.g. Cameron et al., 2018; Dregan and Gulliford, 2012; Dregan et al., 2011; Power et al., 2002; Buchanan et al., 2000), and recent Nuffield funded research using longitudinal administrative data to examine a range of outcomes for care-experienced adults in mid-life (e.g., Sacker et al., 2021; Murray et al., 2018).

An enduring idea in UK government policy is that there are a minority of 'problem' families for whom disadvantage persists across generations, with care-experience being one such problem. However, although relatively high proportions of parents with care experience have their own children removed to care (Foster et al., 2015), the majority do not (Centre for Social Justice, 2015; Roberts et al., 2019). Unpublished author research based on the 1970 British Cohort Study (BCS70), found that although more likely than children of mothers who had no care experience, most children with a mother who had experienced care do not end up in care themselves: 11.3% compared to 2.9%.

However, this is not to say that these families are not one of the most disadvantaged in our society, as many negative outcomes associated with care experience also are related to the reasons of being placed into care (DfE 2019a). One of the most vulnerable times for women after leaving care is when they themselves enter motherhood, as they have (by

definition) experienced disrupted parental attachments, have (probably) less family support to draw on, and may also face difficulties in resolving issues from their own childhood as they now see it through the lens of having their own child (Dregan and Gulliford, 2012; Maxwell et al., 2011; Pryce and Samuels, 2010).

Despite research showing that girls who have been in care have sexual relations at an earlier age and have a greater risk of teenage pregnancy and teenage motherhood compared to girls who had not spent any time in the care system (Roberts et al., 2017; Svoboda, et al., 2012; Knight, et al., 2006), there remains a big gap in research examining outcomes beyond pregnancy and early motherhood for young women who have experienced out-of-home care during childhood or adolescence. A welcome exception is research by Botchway, Quigley and Gray (2014), which showed that mothers in the Millennium Cohort Study (MCS) who had spent time in out-of-home care experienced greater economic and social disadvantages compared to other mothers during their child's first year. This research also exposed how mothers with out-of-home care experience were more likely to engage in negative maternal behaviour – e.g., smoking during pregnancy, never breastfeeding – that are, in turn, associated with poorer outcomes in their children.

Research aim: profiling mothers across different domains

Here, we will build on the evidence supplied by Botchway et al. (2014) and others to provide a more detailed profile of mothers who had been in care compared to those who did not. Comparing outcomes across a wide range of domains we aim to gain a more comprehensive understanding of the different characteristics and resources available to care-experienced mothers. We will profile her **demographic characteristics and family status** at the birth of the cohort child (e.g., age at birth of cohort child, ethnicity, education and qualifications, marital status, wider family support), experiences during **pregnancy and childbirth outcomes** (e.g., antenatal care, gestation and birthweight), socio-economic status indicators split into **employment and financial situation** (e.g., own employment status, workless household, receipt of state benefits and poverty status), **housing conditions, home and local environment** (e.g., rented housing, overcrowding, damp in the home, satisfaction with home and local area), **parenting style and early indicators of the mother-child relationship** (e.g.,

family rules, regular bed- and meal-times, use of child-care, home learning environment and maternal attachment), and **health, health behaviours and general wellbeing** (e.g., general health, longstanding illnesses, smoking behaviour, use of alcohol and recreational drugs, self-esteem, locus of control and general satisfaction with life).

Data and Methods

Millennium Cohort Study

The Millennium Cohort Study (MCS) is a multi-purpose ongoing longitudinal study of approximately 19,000 babies born to families living in the UK between September 2000 and January 2002 (Plewis, 2007; Connelly and Platt, 2014; Joshi and Fitzsimons, 2016). Data has been collected when the children were aged around 9 months, 3, 5, 7, 11, 14 and 17 when approximately 10,700 study members participated. Here we draw on information collected from personal interviews and self-completion questionnaires administered to parents of the cohort children at child age 9 months and 3 years (University of London, 2002-2003; 2003-2005). Information collected includes a wide range of robust socio-economic, employment and qualification details, together with information on family transitions, health, health-behaviour, wellbeing and parenting behaviour.

Analytic sample

Of the 18,552 families who first took part in sweep 1 or the 692 new families introduced at sweep 2, our analytic sample comprises of 18,810 families. The sample was restricted to families where the natural mother was the main respondent, had provided information on their experience of out-of-home care and their ethnicity. For the families who took part at sweep 1 *and* sweep 2, these were further restricted to the main respondent being the natural mother at both time-points. Of the 18,810 natural mothers in the analytic sample, 305 (1.6%) had experienced out-of-home care before they were 17.

Multiple Imputation

We used Multiple Imputation (MI) to deal with attrition and item non-response to restore sample representativeness, adopting a chained equations approach (White, Royston and

Wood, 2011) under the assumption of ‘missing at random’ (MAR), which assumes that the most important predictors of missing data are included in our models. To maximise the plausibility of the MAR assumption the most important predictors of missing data are included in our models to further reduce bias and retain power (see Mostafa and Wiggins, 2015; Mostafa et al., 2020; Silverwood et al., 2020). All reported analyses are averaged across 20 replicated data sets based upon Rubin’s Rule for the efficiency of estimation under a reported degree of missingness across the whole data of around 0.20 (Little and Rubin, 2014). Missingness in the variables ranged from less than 1% in many of the sweep 1 measures to a high of 33.3% for a scale assessing parent-child closeness (PIANTA) at Sweep 2. (See Appendix Table A1 for the level of missingness in all variables included in our analyses.)

The analyses were additionally weighted to adjust for the survey’s stratified clustered sampling design (Plewis, 2007).

Key Measure: experience of out-of-home care

Experience of home care was identified with two questions included in the parent interview at child age nine months and child age three years (for new respondents: **‘Before the age of 17, did you spend any time living away from both of your parents?’** If ‘yes’, a follow-on question asked, **‘Where did you mainly live during this time?’** The list of available options is included below. Parents who had spent time in a children’s home or with foster parents, run by either a local authority or voluntary society, were coded as having been in out-of-home care.

Response options to the question ‘Where did you mainly live during this time?’

- **Local authority children's home**
- **Voluntary society children's home**
- **Children's home - not sure which type**
- **Local authority foster parents**
- **Voluntary society foster parents**
- **Foster parents - not sure which type**
- Boarding school
- Living with relatives
- Prison/Young Offenders Institute/Borstal
- Some other place

The 305 (1.6%) mothers with care-experience in MCS had an age range of 15-45 years, being born between 1955 and 1985 and experiencing care systems and policies covering the 1950s-2000.

Analytic strategy

We first describe the relationship between maternal out-of-home care experience and a range of measures within each of the six outcome domains. We then regress each measure on care experience, adjusting for the mother's ethnicity, age at the birth of the cohort child, and highest achieved qualification. We run logit models for the majority binary outcomes and OLS models for continuous outcomes. For ease of interpretation (Mood, 2010; Breen et al., 2018), we report predicted probabilities from the logit models adjusted for the three confounders: age, ethnicity, and highest level of attained qualification. Given the large number of outcomes covered, we present the probabilities graphically for outcomes where a statistically significant effect of care experience is maintained, to optimise readability.

Results

Mothers' demographic characteristics and family status

Compared to mothers with no care experience, the same proportion of mothers with care experience described themselves as White ethnicity (88%). Among non-white mothers, more of those with care experience were either Black or Mixed ethnicity, while more of those with no care experience were of Indian, Pakistani or Bangladeshi heritage. A higher proportion of mothers with care experience were in a household where only English was spoken, and far more had no formal qualifications (38% to 13%) with a higher proportion also reporting difficulties with basic skills – such as reading aloud from a storybook (11% to 6%), reading forms (17% to 6%) and counting change when in a shop (7% to 3%).

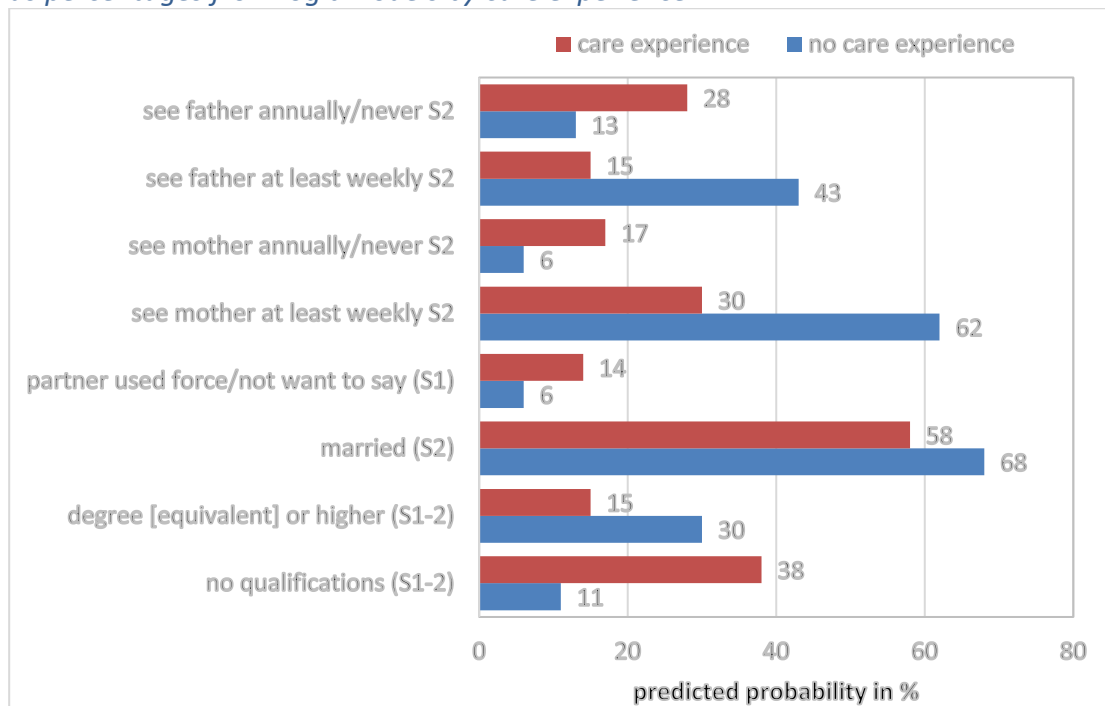
Mothers with care experience were twice as likely to be a single mother and half as likely to be married at either interview (e.g., 32% to 15% single; 32% to 60% married at child age nine months) with nearly one in three having experienced a change in their marital status during the first three years of the child's life, compared to one in six of mothers with no

care experience (29% to 16%). Amongst those with a partner (married or cohabiting), mothers with care experience were more likely than mothers with no care experience to report that their partner had used force on them at both interviews (8% to 4%; 12% to 8%) or that they did not want to answer (8% to 2%; 6% to 3%).

In terms of having access to wider family support, perhaps unsurprisingly, fewer mothers with care-experience had regular (at least weekly) contact with their mother (38% to 61%) or father (19% to 43%) with more never or only annually seeing their mother (20% to 8%) or father (33% to 13%). Slightly more mothers with care-experience reported that their own mother (11% to 8%) or father (27% to 18%) had died. On a scale measuring an individual's perceived available support network, mothers with care-experience scored lower than mothers without care-experience (10.75 to 12.37). See Appendix Table A2.1.

The associations between care experience and lower levels of qualifications remained after adjusting for age and ethnicity, and many other demographic and family differences remained significant after additionally adjusting for the mother's highest qualification level in the multivariate models with relatively little attenuation. Figure 1 shows that mothers with care experience were significantly less likely to be married at child age three, and for those with a partner, more had experienced force being used against them. They were also less likely to have regular contact with either their mother or father and more likely to perceive lower levels of support in general (mean scores: 11.12 – 12.37). See Appendix Table A2.2.

Figure 1: Demographic characteristics and Family Status: predicted probabilities expressed as percentages from logit models by care experience.



Note: differences by care experience significant at $p < .05$

Pregnancy and childbirth

Mothers with out-of-home care experience were, on average, younger than mothers with no care experience at the time of the cohort child’s birth (25.4 to 28.8 years) and were more than twice as likely to be a teenage mother at this time (19% to 8%). They were also more likely to already have one or more children, with the cohort child being the first born for one in three (34%) mothers with care experience and one in four (42%) mothers with no care experience. Mothers with care experience were also more likely to live with children who were not full natural biological siblings to the cohort child, e.g., half-siblings, step-siblings or adopted-siblings with the overwhelming majority of these children being half-siblings.

The pregnancy leading to the birth of the cohort child had more likely been unplanned among mothers with care experience, with around 1 in 5 (19%) being unhappy when they found out they were pregnant compared to 1 in 10 of mothers without care experience.

While the vast majority of all mothers received antenatal care during their pregnancy, many did not attend antenatal classes: two-thirds (64%) of mothers with no care

experience and three-quarters of mothers with care experience (74%). The gestation period of the cohort child did not vary by care experience, but the babies of care-experienced mothers had a lower average birth weight: 3.21 to 3.36 kilograms, with 1 in 8 (12%) having a low birthweight baby (<2.5kg) compared to 1 in 14 (7%) among mothers with no care experience. More care-experienced mothers had not breastfed their child (41% to 29%), and if they did, they were less likely to have breastfed for more than three months (18% to 34%). See Appendix Table A3.1.

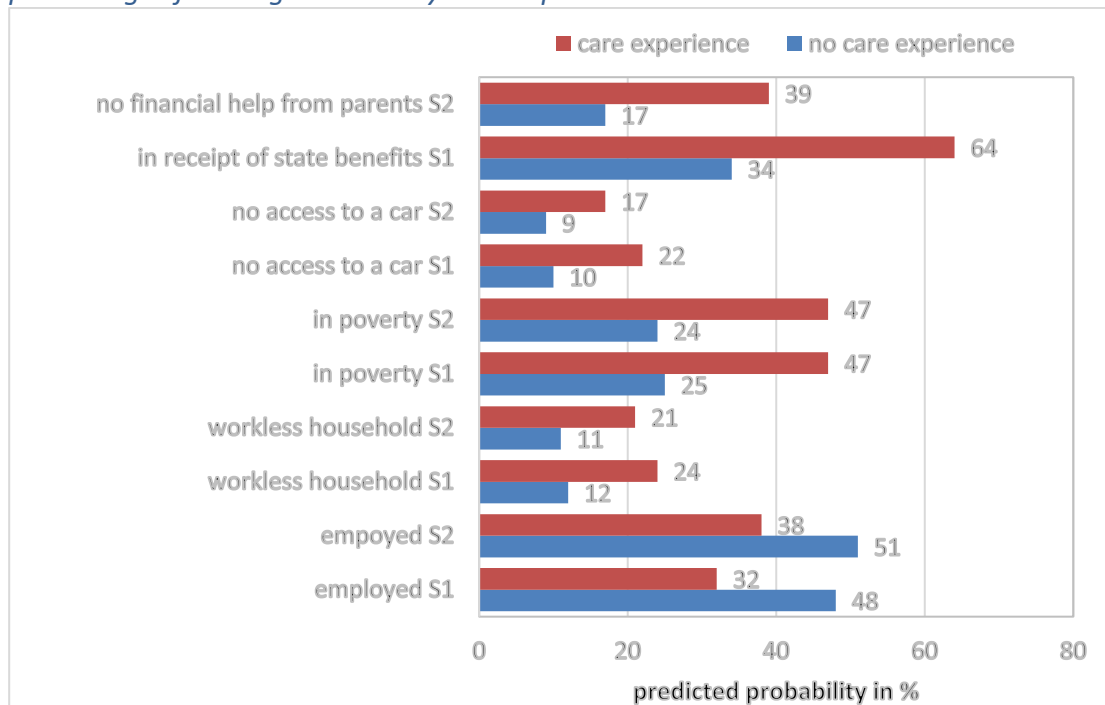
Once differences in age, ethnicity and qualification levels were controlled for, the association between care experience and being a younger or teenage mother, to have had an unplanned pregnancy that the mother was unhappy about, to be less likely to attend antenatal classes, to have a low birthweight baby and to never breastfeed or to not breastfeed for longer than three months were completely attenuated in the models. The only relationships that remained were that the cohort child was less likely to be an only child at nine months (29% to 41%) or three years (17% to 23%) and more of them lived with other children who were their half siblings at both ages (22% to 10%; 22% to 11%). See Appendix Table A3.2.

Employment and financial circumstances

At interview at child age nine months, fewer mothers with care-experience were employed (23% to 49%) and many more were part of a workless household (50% to 18%) compared to mothers with no care experience. The picture was similar when interviewed at child age three years. At the first interview nearly half (47%) of mothers with care experience had no access to a car compared to 15% of mothers without care experience, far more were in receipt of state benefits (78% to 37%) and had a household income that placed them at the poverty line (68% to 30%). Similar proportions were in poverty at the second interview at child age three (67% to 29%) and were therefore less able to make regular savings (37% to 47%). Care-experienced mothers were also far more likely to have not received any financial help from their own parents (40% to 18%). See Appendix Table A4.1.

Unlike for many of the measures related to pregnancy and childbirth, Figure 2 shows that differences in age, ethnicity and qualifications did not attenuate the negative association between care experience, employment status and finances. At both age points, mothers with care experience remain less likely to be employed, more likely to be part of a workless household, to be in poverty and have no access to a car. More were in receipt of state benefits and did not receive any financial help from parents. The ability to make regular savings was the only association to be attenuated by the mother’s demographic profile. See Appendix Table A4.2.

Figure 2: Employment and Financial Circumstances: predicted probabilities expressed as percentages from logit models by care experience.



Note: differences by care experience significant at $p < .05$

Housing conditions, home and local environment

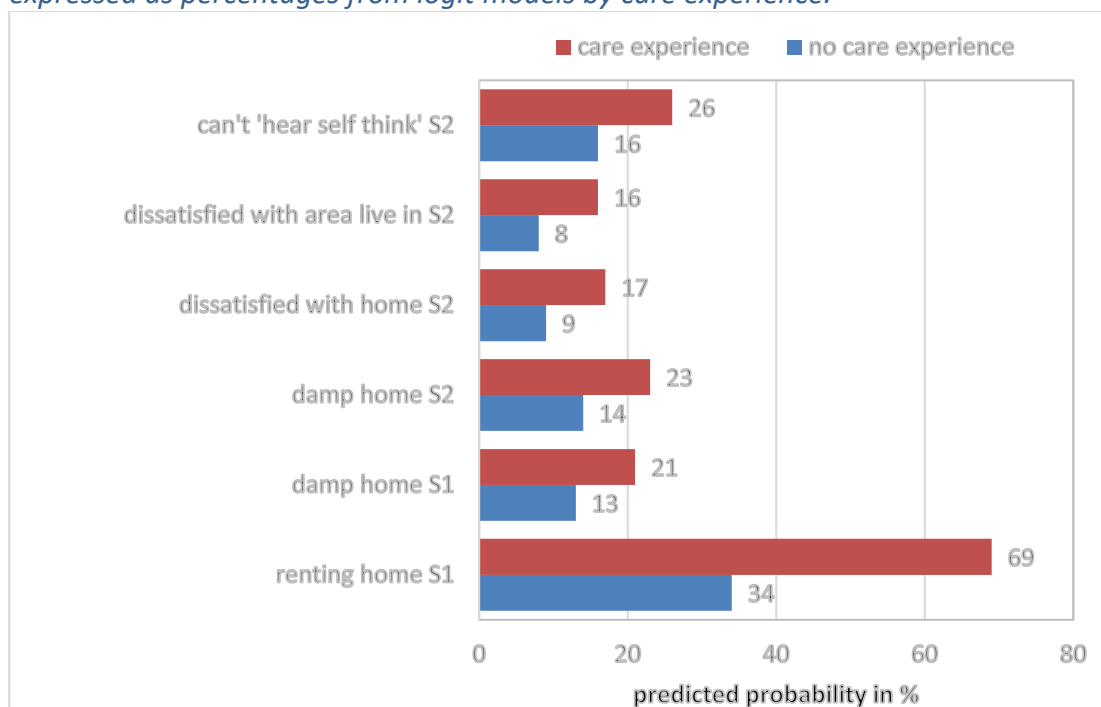
At child age nine months, more than eight in 10 (82%) care-experienced mothers lived in rented accommodation compared to less than four in 10 (38%) non-care experienced mothers; their home was also more likely to be overcrowded (40% to 25%) and have problems with damp (28% to 13%). A similarly high proportion reported problems with damp at child age three years (29% to 14%), with one in four care-experienced mothers being dissatisfied with the home and the area they lived in compared to one in 10 of non care-experienced mothers. At child age nine months, half (51%) of care-experienced

mothers reported that there were no places for children to play safely in the area where they live compared to a third (35%) of mothers with no out-of-home care experience, and they perceived their area to be of poor quality (indicated by a higher average score on a poor quality area scale [15.67 to 13.94]).

The home environment when the child was age three was more likely described as disorganised by care-experienced mothers than non-care experienced mothers (22% to 13%), the atmosphere as ‘not calm’ (18% to 12%) and they were twice as likely to report they ‘can’t hear themselves think’ (35% to 17%). See Appendix Table A5.1.

For housing conditions, Figure 3 shows that differences in age, ethnicity and qualification levels accounted for significant associations between care experience and overcrowding, disorganisation in the home and an atmosphere described as ‘not calm’. However, associations between care experience and living in rented, damp accommodation in a poor-quality area that the mothers were dissatisfied with, and mothers not being able to find peace and quiet in their home (‘can’t hear self think’). See Appendix Table A5.2.

Figure 3: Housing Conditions, home and local environment: predicted probabilities expressed as percentages from logit models by care experience.



Note: differences by care experience significant at $p < .05$

Parenting styles and early indicators of the relationship between mother and child

At child age nine months, twice as many care-experienced mothers as non-care-experienced mothers reported that their baby's crying was a problem (15% to 7%) and on a parenting competence scale more reported that they 'had trouble' with parenting (6% to 3%). Fewer felt that their parenting competence was 'good' or 'better than average' (41% to 59%). They also had a slightly lower average 'parenting beliefs' score (21.24 to 21.60) on a scale that incorporated their feelings about how important it is to have regular feeding and mealtimes, to pick the baby up when it cries, to stimulate their baby for its development and the importance of talking or cuddling their child.

At child age three years, having 'lots' or 'not many' family rules and how strictly the family rules were enforced did not vary by care-experience. A similar proportion of care- and non-care experienced families had a regular mealtime for their child, although more care-experienced mothers never or only sometimes put their child to bed at a regular time (30% to 20%).

A high proportion of all mothers at child age nine months had not heard of Sure Start (67% care experience, 73% non-care experience) or Early Steps (94% care experience, 95% non-care experience), and fewer care-experienced mothers had made use of any child-care options (34% to 59%) although this gap had narrowed at child age three (68% to 78%). See Appendix Table A6.1.

After controlling for age, ethnicity and qualifications, mothers with care experience remained less likely to view themselves as being a 'good' or 'better' parent than average (44% to 59%) and more likely to find their baby's crying a problem (13% to 6%). They also remained less likely to have made use of any childcare by child age nine months (41% to 60%), but not by the time their child was age three. See Appendix Table A6.2.

Health, health behaviours and general wellbeing

More than twice as many mothers with care-experience reported having only 'fair' or 'poor' general health at both interviews (36% to 16%; 38% to 18%) and more also reported

a longstanding illness (33% to 21%; 36% to 21%) which at child age nine months was twice as likely to be 'limiting' (18% to 9%).

A staggeringly low proportion of mothers with care-experience had never smoked compared to mothers with no care experience (17% to 52%), with 70% smoking at child age nine months compared to 29% of mothers with no care experience. Care experienced mothers were more than twice as likely to report having used recreational drugs (11% to 5%) although they were more likely to never drink alcohol (28% to 19%) and fewer drank alcohol on three or more days per week (8% to 17%).

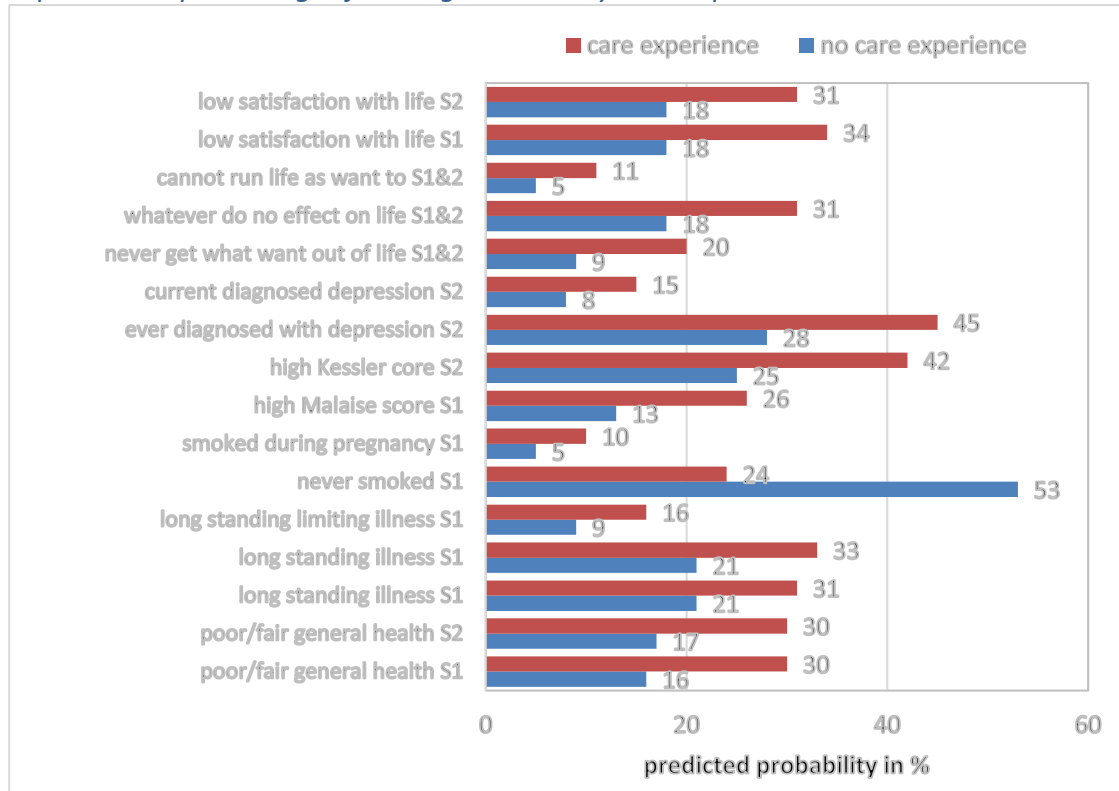
In terms of mental wellbeing, more than twice as many mothers with care experience suffered with symptoms of depression as measured by the Malaise scale (Rutter, 1970; Rodgers et al., 1999) at child age nine months (31% to 14%) or Kessler K6 scale (Kessler et al., 2003) at child age three years (48% to 26%). More than half (53%) of care-experienced mothers had been formally diagnosed with depression compared with less than a third (29%) of mothers with no care experience. As many as 1 in 5 (20%) care-experienced mothers had a current diagnosis of depression compared to 1 in 12 (8%) mothers without out-of-home care experience.

Care-experienced mothers scored, on average, lower on the Rosenberg scale of self-esteem than mothers with no care experience (10.55 to 11.60) and more care experienced mothers reported that they 'never get what they want out of life' (29% to 10%), 'whatever I do it has no effect on how my life turns out' (23% to 9%) and that they 'have problems running their own life' (17% to 6%). Overall, far more mothers with care-experience reported low levels of satisfaction with how their life had turned out at child age nine months (43% to 19%) or child age three years (39% to 19%). See Appendix Table A7.1.

For this set of characteristics, age, ethnicity, and qualification levels fully explained the associations between care experience and recreational drug use and frequency of drinking alcohol. Figure 4 shows how the associations between all other measures and care experience were not attenuated by the three controls included in the models. Mothers with care experience had increased levels of poor general health and longstanding illnesses

and struggled with their mental wellbeing and depression, together with more reporting a lower 'locus of control' over their life and feeling dissatisfaction with their life in general. See Appendix Table A7.2.

Figure 4: Health, Health Behaviours and general wellbeing: predicted probabilities expressed as percentages from logit models by care experience.



Note: differences by care experience significant at $p < .05$

Discussion

A central aim of any social care system is to provide effective support structures for the most vulnerable in our society, to reduce the intergenerational transmission of disadvantage and to hopefully improve a child's future development. However, existing research has shown that for many care leavers, there is a long shadow of disadvantage associated with the experience of out-of-home care during childhood that continues into adult life (Buchanan et al., 2000; Cameron et al., 2018; Dregan and Gulliford, 2012; Dregan et al., 2011; Murray et al., 2018; Power et al., 2002; Sacker et al., 2021) and the second generation (Botchway et al., 2014; Parsons and Schoon, under review). This largely descriptive profile adds to previous evidence and confirms that female care-leavers who

become mothers experience disadvantage in a myriad of ways during their child's earliest years. These disadvantages are highly likely to negatively impact the future development of mothers who had been care leavers and that of their children, thereby perpetuating the intergenerational transmission of disadvantage associated with out-of-home care. For example, care-experienced mothers are more likely to practice negative health behaviours, such as smoking during pregnancy, which is associated with low birthweight, which is in turn associated with poorer behaviour (Reijneveld et al., 2006; Currie and Hyson, 1999), cognitive development (Taylor et al., 2013) and educational attainment (Case, Fertig and Paxson, 2005).

The profiling also revealed that care leavers were less likely to have family support or their own parent's knowledge to draw on when they enter motherhood. This is an area that policy strategies can address. Pregnancy is one of the few times when all women – regardless of their health status – come into regular contact with healthcare services and it could be highly beneficial to widen the routine information collected during prenatal visits to include whether the mother has a history of care experience to help better address both mothers' and children's needs. This has been previously suggested in research by Mensah and Kiernan (2010) and Botchway et al. (2014), but never implemented. Moreover, the findings suggest that despite there being no differences in parenting behaviour (e.g., regular meal and bedtimes) between mothers who had been care leavers and those who were not, mothers with previous care experience still think they are less competent parents. This finding points to the need of offering support to mothers to help reassure them they are doing all the right things to support their children, particularly as many care leavers who become mothers have no support from their own mothers at this time, and by default, have a had a fractured relationship with their own parents the past.

One key finding from this current research profile is that many mothers with out-of-home care experience, who grew up under the guardianship of the state, have not completed their basic education and left school with low levels of qualifications. This finding highlights the need to provide better educational support and guidance to adolescents with care experience, supporting their cognitive and intellectual development from an early age (Brännström et al., 2020; Sebba et al., 2015), facilitating their educational participation and

attainment of relevant qualifications (Sacker and Schoon, 2007; Schoon, 2015), and ensuring that they have opportunities to take up child-care options for their own children. In addition, there should be support for life-long education, enabling young people with care experience, and young mothers who had left school early due to their traumatic experiences at home, to return to education, to acquire appropriate qualification, and facilitate their efforts for up- and reskilling.

Another key issue is the poor housing and local environments experienced by many mothers with care-experience. Living in rented, often damp or overcrowded housing in areas with limited resources for children to safely play outdoors will negatively impact on the health and wellbeing of both themselves and their children (Platt et al., 1989). Affordable social or private housing that is comfortable and part of a sustainable community is an increasingly scarce resource in the UK and elsewhere (Wetzstein, 2017), but something that should be available to all as it offers social and economic stability to families. Moreover, providing adequate housing to young mothers who grew up under the guardianship of the state is a vital support structure that must be put into place.

The wider stresses associated with socio-economic disadvantage and poor housing conditions are apparent for these care-experienced mothers, who are more likely to live in a noisy, wrought, disorganised home where abuse (characterised here by use of force by a partner) is more likely to be reported. Add this toxic mix to the damp, overcrowded living conditions, and prior experience of the care system, it is not surprising that poor physical and mental health and high levels of diagnosed depression exist among care-experienced mothers.

Mental health provision notoriously falls short of demand (BMA, 2019) but poor maternal mental health has lasting consequences for children's psychosocial (Mensah and Kiernan, 2010; Parsons et al., 2021a) and cognitive development (Kiernan and Huerta, 2008; Parsons et al., 2021b). The current pandemic has seen this imbalance between demand and provision increase dramatically, with estimates placing 1.6 million people on waiting lists for mental health services (NHS Confederation, 2021; Newlove-Delgado, 2021). Current research by Parsons and Schoon (under review) based on the 1970 British Cohort Study at

age 50 has shown that those with direct out-of-home care experience some 30-40+ years earlier, are at a greater risk of reporting poor general and mental health and higher levels of depression during the pandemic compared to those with no out-of-home care experience. Of particular concern is that the children of mothers who had out-of-home care experience, were also more than twice as likely to report poor mental health problems compared to those whose mothers had no public care experience, although poor mental health problems did not increase during the pandemic. The evaluation of the government initiative to better assess the mental health needs of children in care is welcomed, although the report highlighted the need for assessments to be consistently implemented and properly resourced if the wellbeing of the children is to be improved (DfE, 2021).

Although the multivariate modelling, which controlled for age, ethnicity and qualification differences between care-experienced mothers and other mothers, attenuated many of the pregnancy, childbirth and parenting related behaviour and outcomes associated with care experience, many associations remained. This included the inferior financial and housing circumstances, poorer general, mental health and wellbeing indicators together with a lack of parental support, or a support network in general and the heightened experience of being subjected to force from partners, all of which remained significantly associated with care experience after taking into account the control variables. These findings point to the interlinkages of reduced physical living circumstances and limited psycho-social resources available to mothers with care experience when they have children and highlights the accumulation of disadvantages across multiple domains.

In future research we will assess whether the disadvantaged circumstances we have examined here endure over the lives of care experienced mothers, and whether the continued experience exacerbates differences in health and wellbeing outcomes compared to mothers who did not spend time in out-of-home care during their childhood. Perhaps more importantly, it will be important to examine developmental outcomes of children of care-experienced mothers to identify if there is any evidence of intergenerational transmission of the disadvantage associated with care experience and if so, what helps to stop or minimise the risk of transfer.

Strengths and limitations

A key strength of this research lies in its use of the Millennium Cohort Study, a large population-based and representative prospective longitudinal study with a design that ensured adequate representation of disadvantaged groups and families from minority ethnic backgrounds. The study included a retrospective question on parents' experience of out-of-home care during their own childhood, which has provided a rare opportunity to examine the adult lives and the early lives of their children of a (relatively) large sample of care-experienced individuals who became parents. As such, we have been able to draw attention to the ways in which many aspects of the lives of mothers are more limited for those who experienced out-of-home care during childhood.

However, we must also acknowledge that we do not know how many people with care-experience did not agree to take part in the study and therefore our sample of care-leaver mothers may already be relatively well adjusted and functional compared to all those with care experience. However, learning about what works among this highly vulnerable group of mothers will provide crucial insights into the design of effective support structures. However, given the data are derived from an observational longitudinal study, bias due to unmeasured confounding cannot be ruled out. As in any longitudinal survey, missing data due to attrition are unavoidable, although this is minimised in this research by only using information from the first two waves of data collection. Nonetheless, we employed multiple imputation and included the most important predictors of missing data in our models to maximise the plausibility of the missing at random assumption and restore sample representativeness. However, bias due to a non-ignorable missing data generating mechanism cannot be ruled out.

Conclusion

This descriptive report has identified the lack of education, appropriate housing and financial support for mothers with care experience, who cannot rely on their parents for help and guidance. Mothers with care experience report poorer general and mental health than other mothers and encounter a lack of parental support or general support networks, as well as a higher likelihood of being subjected to force from partners. The findings

illustrate the combination of lack of education, reduced physical living circumstances and limited psycho-social resources available to mothers with care experience when they have children, emphasising the need for an integrated service delivery for this most vulnerable group of mothers, particular during the early years of motherhood.

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Appendix

Table A1: proportion of missing data in each variable included in the analyses and average level of missingness in dataset

Variable	Observations	% missing
Mother care experience	18,810	0
English language spoken only	18,810	0
Mother ethnicity	18,810	0
Formal childcare S1	18,810	0
Non-parental childcare S1	18,810	0
Any childcare S1	18,810	0
Age Mother at cohort child birth	18,806	0.000
Mother highest qualification	18,780	0.002
Mother problems reading from child storybook	18,779	0.002
Mother problems counting correct change in shop	18,778	0.002
Mother problems filling out a form	18,777	0.002
Marital status S1	18,189	0.033
Cohort child has siblings S1	18,189	0.033
Workless household S1	18,189	0.033
Mother smokes S1	18,189	0.033
Mother heard of Sure Start	18,186	0.033
Mother heard of Early Start	18,186	0.033
Homeless since had cohort child	18,186	0.033
General health S1	18,182	0.033
Long standing illness s1	18,180	0.033
Breastfeeding S1	18,167	0.034
Received antenatal care S1	18,161	0.035
Overcrowded home S1	18,160	0.035
Access to a car S1	18,159	0.035
Birthweight S1	18,157	0.035
In work S1	18,156	0.035
Disorganised home S1	18,149	0.035
Housing Tenure S1	18,149	0.035
Dissatisfied with area live in S1	18,148	0.035
Receives state benefits S1	18,147	0.035
Problems with damp in home S1	18,145	0.035
Pregnancy was planned S1	18,141	0.036
In Poverty S1	18,132	0.036
Unhappy when found out pregnant S1	18,109	0.037
Never get what want out of life S1&S2	18,050	0.040
Control over what happens in life S1&S2	18,048	0.041
Can run own life S1&S2	18,048	0.041

Variable	Observations	% missing
Gestation period S1	17,983	0.044
Places where children can play safely S1	17,917	0.047
Baby crying is a problem s1	17,913	0.048
Satisfaction with life S1	17,561	0.066
Malaise score S1	17,493	0.070
Attended antenatal classes S1	17,481	0.071
Self-belief in parenting ability S1	17,056	0.093
Has family/friends to offer support S1	16,591	0.118
Dissatisfied with area live in S1	16,040	0.147
Rosenberg Self Esteem Scale S2	15,276	0.188
Marital status S2	15,174	0.193
Cohort child has siblings S2	15,174	0.193
Formal childcare S2	15,174	0.193
Non-parental childcare S2	15,174	0.193
Any childcare S2	15,174	0.193
Problems with damp in home S1	15,173	0.193
Regular use of or access to a car or van S2	15,173	0.193
Dissatisfied with home S2	15,173	0.193
Dissatisfied with area S2	15,173	0.193
No safe place for children to play S2	15,173	0.193
General health S2	15,173	0.193
Dr diagnosed depression/anxiety S2	15,173	0.193
Longstanding illness S2	15,173	0.193
Housing tenure S2	15,173	0.193
How often drink alcohol S2	15,173	0.193
Child has regular mealtime S2	15,173	0.193
Child has regular bedtime S2	15,173	0.193
In work S2	15,172	0.193
Family has/not many rules S2	15,172	0.193
Rules are enforced S2	15,172	0.193
Disorganised home S2	15,172	0.193
Cannot hear self think at home S2	15,172	0.193
Not a calm atmosphere at home S2	15,172	0.193
Home learning environment S2	15,172	0.193
Save on a regular basis S2	15,171	0.193
In poverty S2	15,155	0.194
Sees mother / mother alive S2	15,146	0.195
Workless household S2	15,144	0.195
Area live in average/poor to bring up a child in S2	15,125	0.196
Sees father / father alive S2	14,914	0.207
Mother receives help from parents S2	14,581	0.225

Variable	Observations	% missing
Parent-Child Relationship scale (CPRS) S2	13,423	0.286
Straus's Conflict Tactics Scale S2	13,415	0.287
Used recreational drugs S2	13,414	0.287
Kessler score s2	13,386	0.288
Satisfaction with life S2	13,310	0.292
Parenting belief scale S2	13,273	0.294
PIANTA Closeness score S2	12,737	0.323
Average amount of missing data in variables		0.117

Table A2.1: Demographic characteristics and family status: unadjusted proportions

	No Care Experience		Care Experience	
	Proportion / 95% CIs		Proportion / 95% CIs	
S12 White	0.88	0.86-0.90	0.88	0.83-0.94
S12 Mixed	0.01	0.01-0.01	0.05	0.02-0.08
S12 Indian	0.02	0.01-0.03	0.00	0.00-0.01
S12 Pakistani/Bangladeshi	0.04	0.03-0.06	0.01	0.00-0.02
S12 Black / Black British	0.03	0.02-0.04	0.05	0.01-0.09
S12 Only English spoken	0.89	0.88-0.91	0.96	0.93-0.99
S12 No quals	0.13	0.11-0.14	0.38	0.32-0.44
S12 NVQ1	0.11	0.10-0.11	0.16	0.11-0.21
S12 NVQ2	0.30	0.28-0.31	0.25	0.20-0.31
S12 NVQ3	0.14	0.14-0.15	0.08	0.04-0.12
S12 NVQ4+	0.33	0.30-0.35	0.13	0.07-0.18
S12 Probs read storybook	0.06	0.05-0.08	0.11	0.07-0.16
S12 Probs reading forms	0.06	0.05-0.07	0.17	0.12-0.22
S12 Probs counting change	0.03	0.02-0.04	0.07	0.04-0.10
S1 Single	0.15	0.14-0.16	0.32	0.26-0.39
S1 Cohab	0.25	0.24-0.26	0.36	0.29-0.43
S1 Married	0.60	0.59-0.62	0.32	0.25-0.38
S2 Single	0.16	0.15-0.17	0.30	0.24-0.37
S2 Cohab	0.19	0.18-0.20	0.33	0.26-0.40
S2 Married	0.65	0.64-0.67	0.36	0.30-0.43
S1-S2: Change in marital status	0.16	0.16-0.17	0.29	0.22-0.37
S1 Partner used force	0.04	0.03-0.04	0.08	0.03-0.12
S1 Don't want to answer	0.02	0.02-0.03	0.08	0.04-0.13
S1 Partner used force/not answer	0.06	0.06-0.07	0.16	0.10-0.22
S2 Partner used force	0.04	0.04-0.05	0.12	0.059-0.20
S2 Don't want to answer	0.03	0.02-0.03	0.06	0.01-0.10
S2 Partner used force/not answer	0.07	0.07-0.08	0.18	0.10-0.27
S2 Mum: every day	0.20	0.19-0.21	0.09	0.05-0.13
S2 Mum: every week	0.41	0.39-0.43	0.29	0.22-0.36
S2 Mum: every day/week	0.61	0.59-0.63	0.38	0.30-0.46
S2 Mum: every/few months	0.23	0.21-0.24	0.30	0.23-0.37
S2 Mum: year/never	0.08	0.07-0.09	0.20	0.15-0.26

	No Care Experience		Care Experience	
	Proportion / 95% CIs		Proportion / 95% CIs	
S2 Mum: dead	0.08	0.08-0.09	0.11	0.06-0.16
S2 Dad: every day	0.11	0.10-0.11	0.04	0.01-0.07
S2 Dad: every week	0.33	0.31-0.34	0.15	0.10-0.21
S2 Dad: every day/week	0.43	0.42-0.45	0.19	0.13-0.25
S2 Dad: every/few months	0.25	0.24-0.26	0.22	0.15-0.28
S2 Dad: year/never	0.13	0.13-0.14	0.33	0.26-0.40
S2 Dad: dead	0.18	0.17-0.19	0.27	0.19-0.34
S1 Support network (mean)	12.38	12.32-12.43	10.75	10.32-11.18

Note: shading indicates proportions significantly different by care experience at $p < .05$

Table A2.2: Demographic characteristics and family status: predicted probabilities from regression analyses

	No Care Experience		Care Experience	
	Proportion / 95% CIs		Proportion / 95% CIs	
S12 No quals	0.11	0.11-0.12	0.33	0.27-0.39
S12 NVQ4+	0.30	0.29-0.32	0.15	0.09-0.21
S1 Single	0.10	0.10-0.11	0.13	0.09-0.17
S1 Married	0.63	0.62-0.64	0.53	0.44-0.63
S2 Single	0.13	0.12-0.14	0.14	0.10-0.18
S2 Married	0.68	0.67-0.70	0.58	0.49-0.66
S1-S2: Change in marital status	0.15	0.14-0.16	0.20	0.14-0.26
S1 Partner used force/not answer	0.06	0.05-0.06	0.13	0.08-0.18
S2 Partner used force/not answer	0.07	0.06-0.07	0.14	0.07-0.21
S1 Support network (mean)	12.37	12.33-12.42	11.12	10.71-11.53
S2 Mum: every day/weekly	0.62	0.61-0.64	0.30	0.23-0.37
S2 Mum: year/never	0.08	0.07-0.09	0.20	0.15-0.26
S2 Dad: every day/weekly	0.43	0.41-0.44	0.15	0.10-0.21
S2 Dad: year/never	0.13	0.12-0.13	0.28	0.22-0.35

Note: shading indicates proportions significantly different by care experience at $p < .05$

Table A3.1: Pregnancy and Childbirth: unadjusted proportions

	No Care Experience		Care Experience	
	Proportion / 95% CIs		Proportion / 95% CIs	
S12 Age at CM birth (mean)	28.81	28.57-29.04	25.39	24.56-26.22
S12 Teenage mother	0.08	0.07-0.08	0.19	0.15-0.24
S1 No sibling(s)	0.42	0.41-0.43	0.34	0.28-0.41
S1 Natural sibling(s)	0.45	0.44-0.46	0.36	0.29-0.42
S1 Other sibling(s)	0.13	0.12-0.13	0.30	0.24-0.36
S2 No sibling(s)	0.25	0.24-0.26	0.21	0.15-0.27
S2 Natural sibling(s)	0.62	0.61-0.63	0.48	0.41-0.56
S2 Other sibling(s)	0.13	0.12-0.14	0.31	0.25-0.37
S1 Unplanned pregnancy	0.43	0.41-0.44	0.62	0.55-0.69
S1 Unhappy when pregnant	0.10	0.09-0.11	0.19	0.13-0.24
S1 Not receive antenatal care	0.03	0.03-0.04	0.04	0.01-0.06
S1 Not attend antenatal classes	0.63	0.62-0.65	0.74	0.68-0.80
S12 Birthweight [kg] (mean)	3.36	3.35-3.37	3.21	3.15-3.28
S12 low birthweight [<2.5kg]	0.07	0.06-0.07	0.12	0.08-0.17
S12 Gestation [days] (mean)	275.60	275.30-275.90	274.21	272.36-276.06
S12 Never breastfed	0.29	0.27-0.31	0.41	0.34-0.48
S12 Breastfed 1 month	0.23	0.22-0.24	0.27	0.22-0.33
S12 Breastfed 2-3 months	0.14	0.13-0.15	0.13	0.09-0.17
S12 Breastfed >3 months	0.34	0.32-0.36	0.18	0.13-0.24

Note: shading indicates proportions significantly different by care experience at $p < .05$

Table A3.2: Pregnancy and Childbirth: predicted probabilities from regression analyses

	No Care Experience		Care Experience	
	Proportion / 95% CIs		Proportion / 95% CIs	
S12 Teenage mother	0.04	0.04-0.05	0.07	0.05-0.09
S1 No sibling(s)	0.41	0.39-0.42	0.29	0.22-0.35
S1 Natural sibling(s)	0.45	0.44-0.46	0.41	0.33-0.49
S1 Other sibling(s)	0.10	0.10-0.11	0.22	0.17-0.27
S2 No sibling(s)	0.23	0.23-0.24	0.17	0.12-0.22
S2 Natural sibling(s)	0.62	0.61-0.63	0.56	0.48-0.63
S2 Other sibling(s)	0.11	0.11-0.12	0.22	0.17-0.28
S1 Unplanned pregnancy	0.42	0.41-0.43	0.48	0.40-0.57
S1 Unhappy when pregnant	0.09	0.09-0.10	0.12	0.08-0.16
S1 Not attend antenatal classes	0.65	0.64-0.66	0.69	0.61-0.76
S12 Low birthweight [<2.5kg]	0.07	0.06-0.07	0.10	0.06-0.14
S12 Never breastfed	0.26	0.24-0.27	0.24	0.18-0.30
S12 Breastfed >3 months	0.31	0.29-0.32	0.25	0.18-0.33

Note: shading indicates proportions significantly different by care experience at $p < .05$

Table A4.1: Employment and Financial Situation: unadjusted proportions

	No Care Experience		Care Experience	
	Proportion / 95% CIs		Proportion / 95% CIs	
S1 Employed	0.49	0.48-0.51	0.23	0.17-0.29
S1 Workless household	0.18	0.17-0.19	0.50	0.43-0.58
S1 No access to a car	0.15	0.14-0.16	0.47	0.40-0.55
S1 Receiving state benefits	0.37	0.35-0.39	0.78	0.72-0.85
S1 In poverty	0.30	0.29-0.32	0.68	0.61-0.75
S2 Employed	0.52	0.51-0.54	0.28	0.21-0.34
S2 Workless household	0.16	0.15-0.18	0.46	0.39-0.53
S2 In poverty	0.29	0.27-0.31	0.67	0.60-0.75
S2 Make regular savings	0.47	0.46-0.49	0.37	0.30-0.44
S2 No financial help parents	0.18	0.17-0.19	0.40	0.32-0.47

Note: shading indicates proportions significantly different by care experience at $p < .05$

Table A4.2: Employment and Financial Situation: predicted probabilities from regression analyses

	No Care Experience		Care Experience	
	Proportion / 95% CIs		Proportion / 95% CIs	
S1 Employed	0.48	0.46-0.49	0.32	0.25-0.39
S1 Workless household	0.12	0.11-0.13	0.24	0.17-0.30
S1 No access to a car	0.10	0.09-0.11	0.22	0.17-0.28
S1 Receiving state benefits	0.34	0.32-0.36	0.64	0.55-0.73
S1 In poverty	0.25	0.24-0.27	0.47	0.39-0.56
S2 Employed	0.51	0.50-0.53	0.38	0.30-0.45
S2 Workless household	0.11	0.11-0.12	0.21	0.15-0.27
S2 No access to a car	0.09	0.08-0.10	0.17	0.12-0.22
S2 In poverty	0.24	0.22-0.25	0.47	0.38-0.57
S2 Make regular savings	0.47	0.46-0.48	0.47	0.39-0.56
S2 No financial help parents	0.17	0.16-0.18	0.39	0.31-0.47

Note: shading indicates proportions significantly different by care experience at $p < .05$

Table A5.1: Housing conditions, home and local environment: unadjusted proportions

	No Care Experience		Care Experience	
	Proportion / 95% CIs		Proportion / 95% CIs	
S1 Rent home	0.38	0.36-0.39	0.82	0.76-0.88
S1 Overcrowded home (1+)	0.25	0.23-0.26	0.40	0.33-0.47
S1 Home damp	0.13	0.12-0.14	0.28	0.22-0.34
S1 Homeless since had child	0.01	0.01-0.01	0.04	0.01-0.06
S1 Poor quality area scale	13.94	13.81-14.08	15.67	15.15-16.20
S1 No places children play safely	0.35	0.33-0.38	0.51	0.43-0.58
S2 Home damp	0.14	0.13-0.15	0.29	0.23-0.36
S2 Dissatisfied home	0.10	0.09-0.11	0.25	0.19-0.32
S2 Dissatisfied area	0.09	0.09-0.10	0.26	0.19-0.32
S2 Disorganised home	0.13	0.12-0.14	0.22	0.16-0.28
S2 Can't hear self think at home	0.17	0.16-0.18	0.35	0.27-0.42
S2 Not calm atmosphere at home	0.12	0.11-0.12	0.18	0.12-0.24

Note: shading indicates proportions significantly different by care experience at $p < .05$

Table A5.2: Housing conditions, home and local environment: predicted probabilities from regression analyses

	No Care Experience		Care Experience	
	Proportion / 95% CIs		Proportion / 95% CIs	
S1 Rent home	0.34	0.32-0.36	0.69	0.60-0.78
S1 Overcrowded home (1+)	0.23	0.21-0.24	0.30	0.23-0.36
S1 Home damp	0.13	0.12-0.14	0.21	0.16-0.27
S1 Poor quality area scale	13.95	13.83-14.08	14.97	14.48-15.46
S1 No places children play safely	0.35	0.33-0.37	0.41	0.34-0.48
S2 Home damp	0.14	0.13-0.15	0.23	0.17-0.29
S2 Dissatisfied home	0.09	0.08-0.10	0.17	0.11-0.22
S2 Dissatisfied area	0.08	0.08-0.09	0.16	0.12-0.21
S2 Disorganised home	0.13	0.12-0.13	0.17	0.12-0.22
S2 Can't hear self think at home	0.16	0.15-0.17	0.26	0.19-0.32
S2 Not calm atmosphere at home	0.11	0.11-0.12	0.16	0.10-0.21

Note: shading indicates proportions significantly different by care experience at $p < .05$

Table A6.1: Parenting style and early indicators of the mother-child relationship: unadjusted proportions

	No Care Experience		Care Experience	
	Proportion / 95% CIs		Proportion / 95% CIs	
S1 Baby crying a problem	0.07	0.06-0.07	0.15	0.10-0.19
S1 Parenting beliefs scale (mean)	21.60	21.55-21.64	21.24	20.95-21.52
S1 Rosenberg Self-Esteem (mean)	11.60	11.55-11.65	10.55	10.22-10.88
S2 Parent comp: have trouble	0.03	0.03-0.04	0.06	0.02-0.09
S2 Parent comp: average	0.38	0.37-0.39	0.54	0.46-0.61
S2 Parent comp: better/good	0.59	0.58-0.60	0.41	0.33-0.49
S2 Pianta - closeness scale (mean)	33.35	33.30-33.41	32.24	31.78-32.70
S2 Child-Parent Relation Scale (mean)	63.95	63.79-64.11	60.54	59.38-61.70
S2 Straus's Conflict Tactics Scale (mean)	20.40	20.28-20.52	21.55	20.72-22.38
S2 Home learning environment (mean)	25.70	25.45-25.96	24.69	23.57-25.82
S2 Never/s'times reg bedtime	0.20	0.19-0.21	0.30	0.24-0.37
S2 Never/s'times reg mealtime	0.09	0.08-0.09	0.10	0.05-0.15
S2 Family has lots of rules	0.31	0.29-0.32	0.29	0.22-0.36
S2 Family not many rules	0.42	0.41-0.44	0.48	0.41-0.55
S2 Rules amount varies	0.27	0.25-0.29	0.23	0.16-0.30
S2 Rules strictly enforced	0.48	0.47-0.49	0.50	0.43-0.58
S2 Rules not strictly enforced	0.25	0.23-0.26	0.25	0.19-0.31
S2 Rules - varies if enforced	0.27	0.26-0.29	0.25	0.17-0.32
S1 Not heard of Sure Start	0.73	0.71-0.75	0.67	0.60-0.74
S1 Heard, not used Sure Start	0.22	0.21-0.24	0.27	0.21-0.32
S1 Heard, used Sure Start	0.05	0.04-0.05	0.06	0.03-0.09
S1 Heard of Early Steps	0.05	0.04-0.05	0.06	0.03-0.09
S1 Used formal childcare	0.23	0.21-0.24	0.12	0.07-0.17
S2 Used formal childcare	0.70	0.69-0.72	0.60	0.52-0.67
S1 Used non-parental childcare	0.50	0.49-0.51	0.27	0.22-0.33
S2 Used non-parental childcare	0.76	0.75-0.77	0.64	0.58-0.71
S1 Used any childcare	0.59	0.58-0.61	0.34	0.28-0.40
S2 Used any childcare	0.78	0.77-0.80	0.68	0.61-0.74

Note: shading indicates proportions significantly different by care experience at $p < .05$

Table A6.2: Parenting style and early indicators of the mother-child relationship: predicted probabilities from regression analyses

	No Care Experience		Care Experience	
	Proportion / 95% CIs		Proportion / 95% CIs	
S1 Baby crying a problem	0.06	0.06-0.07	0.13	0.08-0.17
S1 Parenting beliefs (mean)	21.59	21.55-21.63	21.52	21.24-21.80
S1 Rosenberg Self-Esteem (mean)	11.60	11.55-11.64	10.78	10.46-11.11
S2 Parent comp: have trouble	0.03	0.03-0.03	0.04	0.01-0.07
S2 Parent comp: better/good	0.59	0.58-0.60	0.44	0.36-0.53
S2 Pianta - closeness scale (mean)	33.35	33.30-33.39	32.66	32.22-33.11
S2 Child-Parent Relation Scale (mean)	63.93	63.79-64.07	61.67	60.53-62.81
S2 Straus's Conflict Tactics Scale (mean)	20.40	20.28-20.51	21.42	20.58-22.27
S2 Never/s'times reg bedtime	0.19	0.18-0.20	0.23	0.17-0.29
S1 Used any childcare	0.60	0.58-0.61	0.41	0.34-0.48
S2 Used any childcare	0.80	0.79-0.81	0.78	0.73-0.83

Note: shading indicates proportions significantly different by care experience at $p < .05$

Table A7.1: Health, health behaviours and general wellbeing: unadjusted proportions

	No Care Experience		Care Experience	
	Proportion / 95% CIs		Proportion / 95% CIs	
S1 Never smoked	0.52	0.50-0.53	0.17	0.12-0.22
S1 Ex-smoker	0.20	0.19-0.21	0.13	0.08-0.18
S1 Smoker	0.22	0.21-0.23	0.47	0.39-0.55
S1 Smoker when pregnant	0.07	0.06-0.08	0.23	0.17-0.28
S2 Used recreational drugs	0.05	0.05-0.06	0.11	0.06-0.16
S2 Never drink alcohol	0.19	0.17-0.21	0.28	0.21-0.34
S2 Alcohol <1x month	0.19	0.18-0.20	0.23	0.17-0.30
S2 Alcohol 1-2x month	0.18	0.17-0.19	0.15	0.10-0.21
S2 Alcohol 1-2x week	0.26	0.25-0.27	0.26	0.19-0.33
S2 Alcohol 3+ days a week	0.17	0.16-0.19	0.08	0.03-0.12
S1 Poor/fair general health	0.16	0.16-0.17	0.36	0.30-0.42
S2 Poor/fair general health	0.18	0.17-0.19	0.38	0.30-0.45
S1 LSI	0.12	0.11-0.13	0.15	0.10-0.19
S1 LSI - limiting	0.09	0.09-0.10	0.18	0.13-0.23
S2 LSI	0.21	0.20-0.22	0.36	0.29-0.42
S1 High Malaise score	0.14	0.13-0.14	0.31	0.25-0.38
S2 High Kessler score	0.26	0.25-0.27	0.48	0.41-0.55
S2 Past diagnosed depression	0.21	0.20-0.22	0.33	0.26-0.39
S2 Current diagnosed depression	0.08	0.07-0.09	0.20	0.14-0.25
S12 Never get what want life	0.10	0.09-0.11	0.29	0.22-0.35
S12 Whatever do no effect life	0.09	0.09-0.10	0.23	0.18-0.27
S12 Problems running own life	0.06	0.05-0.06	0.17	0.12-0.21
S1 Low satisfaction with life	0.19	0.18-0.20	0.43	0.36-0.50
S2 Low satisfaction with life	0.19	0.18-0.20	0.39	0.31-0.47

Note: shading indicates proportions significantly different by care experience at p<.05

Table A7.2: Health, health behaviours and general wellbeing: predicted probabilities from regression analyses

	No Care Experience		Care Experience	
	Proportion / 95% CIs		Proportion / 95% CIs	
S1 Never smoked	0.53	0.52-0.54	0.24	0.17-0.31
S1 Smoker when pregnant	0.05	0.05-0.06	0.10	0.07-0.14
S2 Used recreational drugs	0.05	0.04-0.05	0.07	0.04-0.11
S2 Alcohol 3+ days a week	0.13	0.12-0.14	0.09	0.04-0.15
S1 Poor/fair general health	0.16	0.15-0.17	0.30	0.25-0.36
S2 Poor/fair general health	0.17	0.16-0.18	0.30	0.23-0.37
S1 LSI	0.21	0.20-0.22	0.31	0.25-0.38
S1 LSI - limiting	0.09	0.09-0.10	0.16	0.11-0.20
S2 LSI	0.21	0.20-0.22	0.33	0.27-0.40
S1 High Malaise score	0.13	0.13-0.14	0.26	0.21-0.32
S2 High Kessler score	0.25	0.24-0.26	0.42	0.34-0.49
S2 Ever diagnosed depression	0.28	0.27-0.29	0.45	0.37-0.52
S2 Current diagnosed depression	0.08	0.07-0.08	0.15	0.11-0.20
S12 Never get what want life	0.09	0.09-0.10	0.20	0.15-0.25
S12 Whatever do no effect life	0.08	0.08-0.09	0.14	0.10-0.17
S12 Problems running own life	0.05	0.04-0.05	0.11	0.08-0.14
S1 Low satisfaction with life	0.18	0.18-0.19	0.34	0.28-0.41
S2 Low satisfaction with life	0.18	0.17-0.19	0.31	0.24-0.38

Note: shading indicates proportions significantly different by care experience at $p < .05$